Mapping the Global Youth Climate Movement:

Towards a Green Economic Mandate

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About this paper

As we begin 2023, young climate activists find themselves confronted by an unstable and rapidly evolving geopolitical, social and economic landscape, and must carefully choose their tactics and strategic approach in response. This paper, based on a global mapping of youth-led climate groups and interviews with local and national youth leaders, has built up a detailed picture of the current state of the youth climate movement. It seeks to explore fundamental questions: Can the movement recover the extraordinary momentum of its early days? Has its messaging been co-opted by those looking to protect the status quo? How has its vision evolved, and have its tactics adapted to the post-COVID world?

Green Economy Coalition

The Green Economy Coalition is the largest global movement for green and fair economies. Our members represent diverse constituencies but are united by our shared recognition that our economic system is no longer fit for purpose.



Climate Vanguard



Climate Vanguard is a youth-led think tank developing the radical transformations that stop Earth breakdown and build a just, habitable world.

www.climatevanguard.org

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Photo: Katie Rodriguez via Unsplash

Contents

Foreword	4
Executive Summary	5
Introduction	7
Literature Review	
Methodology	
Results	
Discussion	24
Limitations	
Conclusion	
Bibliography	

Foreword

There is no future that does not involve radical and systemic change to the structures that organise current capitalist societies. The crisis lived by the so-called Global South which had been left unseen and muted has burst, and Western-centric socioeconomic rules and political institutions will all be profoundly, irrevocably transformed in the coming decades. The historically intertwined problems of inequality and injustice cannot be hidden anymore.

If we do nothing to address these crises, they will transform our societies immeasurably for the worse: chaos, collapse, extinctions and immiseration for millions of people, territories, cultures, ecosystems and knowledge(s). But we still have a chance to transform ourselves for the better: a radical reforging of society towards a pluricultural, fair and equitable future that recognises ourselves as nature and part of a whole living system. One thing is for sure: the late capitalist status quo of corporate power, untrammelled free markets and heedless destruction of nature will not – cannot – endure. In fact, it is already falling away.

Young people know this. We were born into a world already hurtling towards its own destruction, as the individualist choices and capitalist ideologies of those older and supposedly wiser than us play out towards their obvious conclusion. Systemic, structural and collective change is the only way we will avoid the worst outcomes of the coming decades. Young people are aware of this truth, as the findings of this research show. With the support of like-minded organisations, the youth climate movement can help catalyse a profound and positive transformation of our societies – before it is too late.

- Laura Veronica Muñoz



Laura Veronica Muñoz is an ecofeminist climate activist from the Colombian Andean mountains. She believes that to achieve climate justice, we must create safe spaces where diversity is the foundation and decoloniality is the path we tread. She is part of Pacto X El Clima, Unite For Climate Action and Fridays For Future.

Executive Summary

Starting in August 2018, a global campaign of school strikes, parliamentary protests, and civic sit-ins burst into existence and re-ignited the fight for a just and habitable world. Led and organised by teenagers, school students and other young people, the youth climate movement (YCM) generated global headlines and made household names of its leaders.

Now, four years on, the global situation looks very different. COVID-19, Ukraine, and new administrations in the United States, Australia, Brazil and Germany (to name but a few) have fundamentally reshaped the social, political and economic context that young climate activists operate in. As such, the start of 2023 represents an important moment to analyse the state of the youth climate movement: its successes, failures, direction, and strategic priorities. Can the YCM recover the extraordinary momentum of its early days? Has its messaging been co-opted by those looking to protect the status quo? How has its vision evolved, and have its tactics adapted to our new post-COVID world?

This report seeks to contribute towards a better understanding of the YCM, both for those within the movement and those working in the climate and environmental policy space. Its findings are drawn from a global mapping of the contours of the YCM, created through a country-by-country digital stocktake and survey. This mapping, combined with semi-structured interviews with local and national YCM leaders from a broad swathe of countries, has built up a detailed picture of the current state of the movement. Our key findings are as follows:

1. The YCM is largely united around a radical systemic analysis of the root causes of the climate crisis. Over half of the surveyed YCM groups identified a "system that puts profit over people and planet" as the root cause of climate and ecological breakdown; 89% of this group specified the system as capitalism and (neo-)colonialism. This implies a commitment to fundamental structural / systemic change over piecemeal reform.

2. Despite this, the YCM does not currently have a shared and coherent theory of change. There is often little analysis about what

the current economic system is, how it operates, and how it reproduces itself. Consequently, a variety of visions emerge about the kind of change that YCM groups are fighting for.

3. Thanks in part to these inconsistencies, many groups within the YCM have not translated their structural understanding of root causes into a vision of structural, systemic change. Consequently, these groups often seek to reform the worst features of the current economic system, rather than directly uproot it.

4. The YCM is weakened by process defects in its shared strategic culture. Developing a theory of change is a novel rather than routine exercise for most YCM groups. This deficiency in strategic culture inhibits effective coordination and stalls progress towards material wins.

5. Elements of the YCM have become overly wedded to fixed strategic doctrines,

for example a total commitment to the FFF model of school strikes, marches, and demanding that leaders listen to the science. This strategic inertia can lead to inflexibility and diminishing returns.

6. Despite this, there is an emerging radical green economic wing in the YCM.

There are groups who are already full-fledged green economic change-agents with a coherent theory of change and culture of strategic fluency. The YCM as a whole shows flashes of an emerging green economic movement mandate.

7. The energy, creativity, and commitment of the YCM holds the power for radical transformation, but the movement needs support. The most common need is funding, whether it be operational, project-based, or core.

Other needs include organisational development, networking, vision-building, and skills training.

It is hoped that these insights, as well as the global mapping, can contribute towards a strengthened and invigorated YCM, enabling greater impact, coherent decision-making, and a deeper strategic engagement with the levers of change for those young people around the world fighting for green economic transformation.

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Introduction

The emergence of the youth climate movement (YCM) sparked mass awareness of the climate and ecological crisis. In response, leaders called crisis talks at the UN, declared climate emergencies, and published net-zero strategies. But then COVID-19 hit.

As the world ground to a halt, young people watched leaders, who just months ago issued bold proclamations of green reform, bail out the fossil fuel industry and prop up the same political-economic system at the root of social injustice and planetary destruction.¹

As the YCM emerges from the thaw of pandemic, it is important to take stock of the movement's progress and analyse its shortcomings. Successes are clear: awareness is palpable, people are talking, communities are organising. But failures are difficult to ignore. We have had few material wins.

How does the YCM build the power to pull the emergency break, stop the harm, and realise a world where people and planet can flourish? This is the key question that informs this collaborative research project between Climate Vanguard and the Green Economy Coalition.

Together, we mapped the global YCM in the interest of identifying young green economic change-agents spearheading a new direction for the YCM. Our research takes stock of the full diversity of the global YCM before honing in on young green economic change-agents through a global survey and semi-structured interviews. The study concludes with an in-depth assessment of the support that the YCM needs. This study is more than an analysis of the YCM. It is a direct intervention in the movement. Our critiques are not intended to chastise or demoralise, but to *strengthen* and *empower* a movement who catalysed the modern struggle for a just, habitable world. It is a movement to which we feel a part of. And one we hope to be in service of as we organise against the accelerating forces of catastrophe. Together, united, we will never be defeated.



Photo: Mika Baumeister via Unsplash

1 SEI, ISSD, ODI, ESG, and UNEP, *The Production Gap Report* (The Production Gap, 2021).

Literature Review

A History of the Modern Climate Movement

Malm (2021) typifies the modern climate movement by three definitive cycles.² The first cycle began in 2006 and reached its zenith in 2009, when 100,000 people marched in Copenhagen during COP15.³ The second cycle took off in 2015, when a "frustrated movement" abandoned reformism for civil disobedience, a tide characterised by organising against fossil fuel infrastructure (Keystone XL and the North Dakota Access Pipeline) and divestment from fossil fuels.⁴

The third cycle began in 2018, when 15-year old Greta Thunberg skipped school on August 20th, 2018 to protest inaction on climate change outside of the Swedish Parliament, the inauspicious beginnings of the youth-led Friday's For Future (FFF) movement.⁵ FFF, together with Extinction Rebellion, which began just a few weeks after Greta's first school strike, form the twin forces of what De Moor et al. (2020) call the "new climate movement." ⁶ In 2019, FFF mobilised 12.8 million mostly young people through a series of global school strikes.⁷ Existing studies of youth climate groups find common features that characterise the movement. In particular, Pickard et al. (2020) and Bowman (2020) find that youth climate groups adopt a much broader understanding of climate action than their non-youth counterparts.⁸ Young people often identify that they are fighting for system change rather than technocratic adjustments or incremental policy changes. They also hold climate justice and equity as guiding principles of their activism.⁹

However, the YCM is a diverse collective of groups, each subscribing to different strategies, tactics, and structures. This diversity is also explored and categorised in the existing literature.

Theories of Change in the Youth Climate Movement

The literature broadly divides the YCM into two camps: reformist and radical.

² Andreas Malm, How to Blow Up a Pipeline (London: Verso, 2021).

³ Andreas Malm, How to Blow Up a Pipeline (London: Verso, 2021).

Sally Neas, Ann Ward, and Benjamin Bowman, "Young people's climate activism: A review of the literature," *Frontiers in Political Science* 4, no. 940876 (August 2022).

⁴ Andreas Malm, How to Blow Up a Pipeline (London: Verso, 2021).

⁵ Ibid.

⁶ Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020): 621.

⁷ Roger Soler-i-Martí, Ariadna Fernández-Planells, and Laura Pérez-Altable, "Bringing the future into the present: the notion of emergency in the youth climate movement," *Social Movement Studies* (September 2022).

⁸ Sarah Pickard, Benjamin Bowman, and Dena Arya, "We Are Radical in Our Kindness:' The Political Socialisation, Motivations, Demands and Protest Actions of Young Environmental Activists in Britain," *Youth and Globalization* 2, no. 2 (December 2020).

Benjamin Bowman, "'They don't quite understand the importance of what we're doing today:' the young people's climate strikes as subaltern activism," *Sustainable Earth* 3, no. 16 (October 2020).

⁹ Ibid.



1. Reformist

The reformist YCM identifies "passive" politicians as the defining cause of the climate and ecological crisis.¹⁰ This prognostic framing informs the central demand of the moderate flank: political leaders must "listen to the science" and act accordingly.¹¹

Greta Thunberg, a key focus area of existing literature on the YCM, encapsulates this demand in her 2019 speech to the European Social and Economic Committee, in which she presses European leaders to "talk to the scientists" and "unite behind the science."¹² De Moor et al. (2020) argue that this appeal to power is representative of a "return to the state," whereby the government is seen as the primary actor in addressing the climate and ecological crisis.¹³ The task of getting political leaders to actually listen and act on the science necessitates collective moral pressure, primarily in the form of climate strikes.¹⁴ Masses of young people peacefully swarming the gates of political power is the main reformist tactic, a strategy of "disruptive dissent" that provokes power outside of established democratic avenues.¹⁵

Mobilisation typically rests on catastrophic framing, both in the present (extreme weather) and in the future (planetary apocalypse).¹⁶ Soler-i-Martí et al. (2022) evidence how the reformist YCM uses an "emergency framing," which builds on general catastrophism with an emphasis on the urgency of the present.¹⁷

¹⁰ Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020): 623.

¹¹ Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020): 622.

¹² Sally Neas, Ann Ward, and Benjamin Bowman, "Young people's climate activism: A review of the literature," *Frontiers in Political Science* 4, no. 940876 (August 2022).

^{Darrick Evensen, "The rhetorical limitations of the #FridaysForFuture movement,"} *Nature Climate Change* 9 (May 2019): 428.
13 Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020): 622.
14 *Ibid.*

¹⁵ Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020).

Karen O'Brien, Elin Selboe, and Bronwyn M. Hayward, "Exploring youth activism on climate change: dutiful, disruptive, and dangerous dissent," *Ecology & Society* 23, no. 3 (October 2018).

¹⁶ Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020).

¹⁷ Roger Soler-i-Martí, Ariadna Fernández-Planells, and Laura Pérez-Altable, "Bringing the future into the present: the notion of emergency in the youth climate movement," *Social Movement Studies* (September 2022).

2. Radical

The radical YCM specifically pinpoints capitalism as the root cause of climate and ecological breakdown.¹⁸ This is a crucial difference from the reformist YCM, whose focus on individual leaders suggests an implicit acceptance of the system in which those leaders operate. The radical YCM views this prognosis as naive, for it is leaders themselves who are the custodians of capitalism and thus constitutionally incapable of executing the necessary action.

Capitalist analysis is supplemented with an understanding that climate and ecological breakdown is catastrophic, imminent, irreversible, and perhaps, already at a point of no return.¹⁹ In this crucible of capitalist destruction and planetary disaster, the radical YCM prefers direct action to legal protest, including blockades, occupations, and property sabotage.²⁰ It is through this strategic disruption that a "radical rebuilding of society" can be achieved.²¹

As compared to the "disruptive dissent" practised by the reformist YCM, the radical YCM engages in "dangerous dissent" that threatens business-as-usual through the cultivation of political, economic, social, and cultural alternatives (e.g. degrowth).²²

As Figure 1 shows, key differences between the moderate and radical YCM boil down to an analysis of the root cause, the severity of climate and ecological breakdown, demands, and tactics.

Theory of Change	Reformist	Radical
Root Problem	Passive politicians	Capitalist political economy
Climate and Ecological Breakdown	Catastrophic but reasons for hope	Imminently catastrophic and irreversible
Demands	Listen to the science	Radical rebuilding of society
Tactics	Legal protest	Direct action

Figure 1: Key differences between the reformist YCM and the radical YCM.

¹⁸ Maxime Gaborit, "Disobeying in Time of Disaster: Radicalism in the French Climate Mobilizations," *Youth and Globalisation* 2 (December 2020).

Arita Holmberg and Aida Alvinius, "Children's protest in relation to the climate emergency: A qualitative study on a new form of resistance promoting political and social change," *Childhood* 27, no. 1 (October 2019).

¹⁹ Maxime Gaborit, "Disobeying in Time of Disaster: Radicalism in the French Climate Mobilizations," Youth and Globalisation 2 (December 2020).

²⁰ Ibid.

²¹ Sally Neas, Ann Ward, and Benjamin Bowman, "Young people's climate activism: A review of the literature," *Frontiers in Political Science* 4, no. 940876 (August 2022): 6.

²² Karen O'Brien, Elin Selboe, and Bronwyn M. Hayward, "Exploring youth activism on climate change: dutiful, disruptive, and dangerous dissent," *Ecology & Society* 23, no. 3 (October 2018).

The Dominant Theory of Change in the Youth Climate Movement

The literature broadly finds that the reformist theory of change dominates in the YCM.²³ Marquardt (2020) proposes three reasons why, despite the existence of a radical flank in the YCM, reformist approaches dominate.²⁴

- 1. The movement itself invokes an apolitical frame to gain broad societal support. This non-partisan attitude smothers the vibrant political discussion necessary to negotiate desires and visions of radical transformation.
- 2. The movement places a strong emphasis on science-guided politics to appear objective and gain legitimacy, making political differences seem less pronounced.
- 3. When reporting on the YCM, the media often fixates on a handful of individual activists, depicting them as a representation of the entire movement. This homogenises the movement, highlights the media's bias for reformist rather than revolutionary voices, and obscures diversity within the YCM.

The Impact of Reformism

The predominance of the reformist theory of change has two significant, negative impacts on the YCM.

1. It limits the movement's ability to win the necessary change. Kenis (2021) describes how the neutral, science-based frame adopted by the reformist YCM lends itself to a market-oriented, technocratic, business-as-usual position.²⁵

As Kenis (2021) writes, "under the guise of an apolitical discourse, a political project inevitably takes shape." For example, the Sign for My Future campaign allowed hundreds of CEOs (including that of BNP Paribas, IKEA, Microsoft, Danone, Proximus, and Unilever) to masquerade as climate allies while subverting and diluting the impact of the YCM.²⁶

De Moor et al. (2020) and Neas et al. (2022) contend that the demand of listening to the science may be good for short-term mobilisation, but ultimately inadequate in eliciting the necessary change. Going forwards, there is a need for more specific political-economic demands and clearer visions of the future.²⁷

²³ Jens Marquardt, "Fridays For Future's Disruptive Potential. An Inconvenient Youth Between Moderate and Radical Ideas," *Frontiers in Communication* 5, no. 48 (July 2020).

Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," Social Movement Studies 20, no. 5 (June 2020).

Darrick Evensen, "The rhetorical limitations of the #FridaysForFuture movement," *Nature Climate Change* 9 (May 2019). Matthias Kowasch, Joana P. Cruz, Pedro Reis, Niklas Gericke, and Katharina Kicker, "Climate Youth Activism Initiatives: Motivations and Aims, and the Potential to Integrate Climate Activism into ESD and Transformative Learning," *Sustainability* 13, no. 21 (October 2021).

Anneleen Kenis, "Clashing Tactics, Clashing Generations: The Politics of the School Strikes for Climate in Belgium," *Politics and Governance* 9, no. 2 (November 2020).

²⁴ Jens Marquardt, "Fridays For Future's Disruptive Potential. An Inconvenient Youth Between Moderate and Radical Ideas," *Frontiers in Communication* 5, no. 48 (July 2020).

²⁵ Anneleen Kenis, "Clashing Tactics, Clashing Generations: The Politics of the School Strikes for Climate in Belgium," *Politics and Governance* 9, no. 2 (November 2020).

²⁶ Anneleen Kenis, "Clashing Tactics, Clashing Generations: The Politics of the School Strikes for Climate in Belgium," *Politics and Governance* 9, no. 2 (November 2020): 141.

²⁷ Sally Neas, Ann Ward, and Benjamin Bowman, "Young people's climate activism: A review of the literature," *Frontiers in Political Science* 4, no. 940876 (August 2022).

2. It siloes the YCM. By adopting the reformist theory of change, the YCM has developed limited ability to build power outside of the narrowly defined climate action field. This is evidenced by Fisher and Nasrin's (2021) study of coalition formation in the US YCM.²⁸ They find that there is little to no collaboration with groups that span movement boundaries.

There is an important distinction to be made here between a broad coalition of society and a tactical coalition of movements united around a common purpose. The former, which has been dominant in the reformist YCM, is inclusive to the extreme, where politicians and corporate leaders with little interest in meaningful action are given a free pass to instrumentalise the movement as a force of self-serving greenwash.²⁹

The focus on climate science and climate specific reforms blinds the movement to the possibility of building a powerful, intersectional, grassroots movement capable of securing a just, habitable world.

Limitations of Existing Literature

Our literature review reveals the following four limitations:

 The literature is overwhelmingly eurocentric and focused on "white activism."³⁰ Tightly linked and equally problematic is the conflation of FFF with the broader YCM. Although clearly a major player, focusing exclusively on FFF, and Greta Thunberg as a figurehead, whitewashes a movement that is much more diverse, both geographically and politically. In order to move beyond eurocentric literature, our map of the YCM is global.

2. The literature provides a snapshot of the YCM pre-pandemic, but like everything else, COVID-19 has had a significant impact on activism. Lockdown forced the YCM off the streets, required activists to explore new forms of protest, and allowed the space and time for inward reflection.

Some argue that the pandemic is an inflection point that has changed protest behaviour, others go even further by suggesting the pandemic "marks the end of the first chapter of the recent climate protest cycle."³¹ It is clear that the post-pandemic world presents a markedly different landscape for the YCM, necessitating updated study and analysis.

- 3. The division between the reformist and radical flanks of the YCM is crude and static. It does little to identify the gradual shift from one flank to another and the movement subtleties that exist between the poles. Our analysis of the YCM is also more detailed, as we map youth climate groups along a continuum marked by four group archetypes. This allows for granular results that capture the effusive nature of the movement.
- 4. Existing literature does not offer concrete recommendations or avenues for support to remedy the shortcomings of the YCM. Our research directly identifies movement needs that, if met, can accelerate the YCM into a radical force of change with the power to realise green economic transformation.

²⁸ Dana R. Fisher and Sohana Nasrin, "Shifting Coalitions within the Youth Climate Movement in the US," *Politics and Governance* 9, no. 2 (2021).

²⁹ Anneleen Kenis, "Clashing Tactics, Clashing Generations: The Politics of the School Strikes for Climate in Belgium," *Politics and Governance* 9, no. 2 (November 2020): 140.

³⁰ Sally Neas, Ann Ward, and Benjamin Bowman, "Young people's climate activism: A review of the literature," *Frontiers in Political Science* 4, no. 940876 (August 2022): 7.

³¹ Dana R. Fisher and Sohana Nasrin, "Shifting Coalitions within the Youth Climate Movement in the US," *Politics and Governance* 9, no. 2 (2021).

Joost De Moor, Michie De Vydt, Katrin Uba, and Mattias Wahlström, "New kids on the block: taking stock of the recent cycle of climate activism," *Social Movement Studies* 20, no. 5 (June 2020): 619.

Methodology

1. Theoretical Model

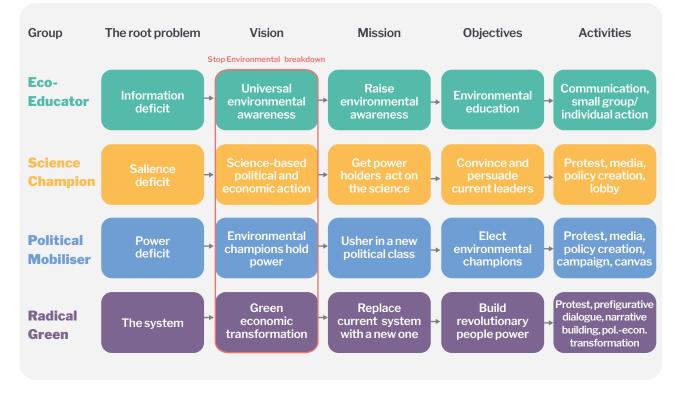


Figure 2: Theoretical model of four youth climate group archetypes.

Before engaging in the mapping process, we created a theoretical model composed of four YCM theories of change (see Figure 2). Theories of change are broken down into five parts: the root problem, vision, mission, objectives, and activities. Figure 3 provides definitions of each theory of change component.

Theory of Change Component Part	Definition
Root Problem	The main driver of the climate and ecological crisis.
Vision	The big picture goal.
Mission	How to attain the big picture goal.
Objectives	Main areas of work that support the mission.
Activities	Everyday activities in accordance with objectives.

Figure 3: Theory of change component parts.

The root problem is the most important element of any theory of change. It lies at the heart of the movement, and crucially, influences its vision, mission, objectives, and activities. In our theoretical model, the four root problems build on the three-tiered deficit model developed by Laybourn-Langton et al. (2021).³²

The first tier is "information deficit," which identifies a lack of general awareness as the main inhibitor of social change. This is expressed in the "Eco-Educator" archetype. Their vision is to raise universal environmental awareness in the hopes that a conscious civilization will prevent the ravages of Earth breakdown and learn to care for the planet.

But what happens when information is mediated through the ideology of power-holders and necessary action is stifled? This is known as a "salience deficit," when power-holders fail to recognize the seriousness of a particular issue. The "Science Champion" is the emergent archetype, which tries to elevate climate and ecological breakdown to the top of the political agenda by pointing out the stark implications of the science. Through moral pressure and discursive entrepreneurship, the belief is that power-holders will eventually understand and act.

What if they don't? Leaders might say all the right words, they may declare climate emergencies, publish net-zero targets, and yet, emissions keep swelling, temperatures keep climbing, and the impacts continue to worsen. After it has been determined that it is not for a lack of awareness, or a misunderstanding of *how bad this really is*, groups land on the "power deficit" root problem: leaders are failing us, we need to gain power. The "Political Mobiliser" archetype focuses its efforts on replacing inept politicians with a new political class of climate champions. And yet, this logic may still be fatally flawed. Electing politicians with the right climate policies could yield real change, but they also might crumble when hit with the ironclad realities of "the system" itself. This is at the heart of the "Radical Green" archetype. It's not awareness, salience, or power, but a system *engineered* to prevent the exact transformations needed to preserve a just, habitable planet.

We have identified these youth climate groups as green economic change-makers. They have a radical theory of change that goes to the political-economic origins of the climate and ecological crisis and actively develop green economic alternatives propelled forwards through revolutionary people power.

2. Internet Stocktake

With the theoretical model formed, we began the internet stocktake of the global YCM. Criteria for a "youth climate group" is based on two key pillars: groups self-identify as youth-led and their focus area is on the environment, including but not limited to climate change, conservation, and environmental justice.

Groups were found through three methods: internet search, coalition member lists, and snowball sampling with existing contacts. Internet searches were completed by typing in the relevant country and keywords, such as "youth climate," "youth climate activism," and "green youth." Coalitions such as Youth and Environment Europe, Asian Environmental Youth Network, and International Student Environmental Coalition were used to complement internet searches. Lastly, personal contacts from within the YCM were used to provide group names from specific countries. Saturation was reached once no more groups could be identified through either of the three channels.

³² Laurie Laybourn-Langton, Harry Quilter-Pinner, and Nicolas Treloar, Making Change: What Works? (London: IPPR, 2021).

Once a group was identified, we analysed their theory of change through available information on their website and/or social media(s). A classification of #1 (Eco-Educator), #2 (Science Champion), #3 (Political Mobiliser), or #4 (Radical Green) was then applied.

3. Survey

To provide greater granularity, we sent out a survey to each group identified in the internet stocktake. Survey questions built on the theoretical model and allowed for groups to identify which options were most applicable, with the option for greater written elaboration.

4. Interviews

Finally, interviews were arranged with groups who were either classified as a Radical Green or identified as a group with a potential Radical Green status in the stocktake. These one hour semi-structured interviews allowed for in-depth exploration of group theories of change, current struggles, and avenues of support.



Results

Stocktake

The internet stocktake identified 292 youth climate groups across the world. Figures 4 to 9 depict YCM distribution in each continent. The maps should not be understood as a full indication of how vibrant the YCM is in each country since it does not account for the size of each group or how active they are. However, the figures do provide some overview of how the YCM is distributed across the world.

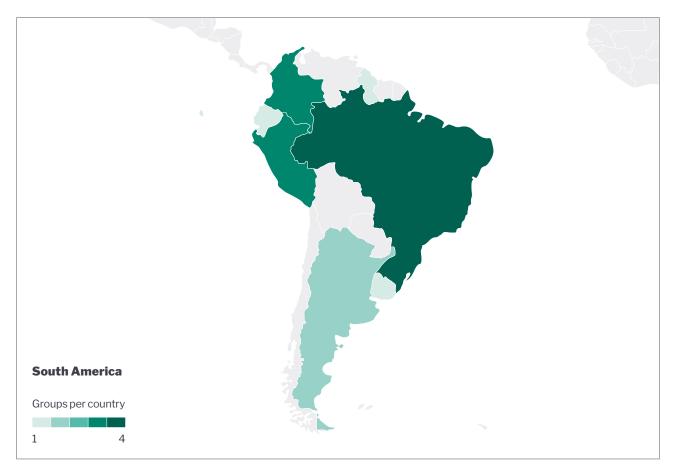


Figure 4: YCM distribution in South America measured by number of groups per country

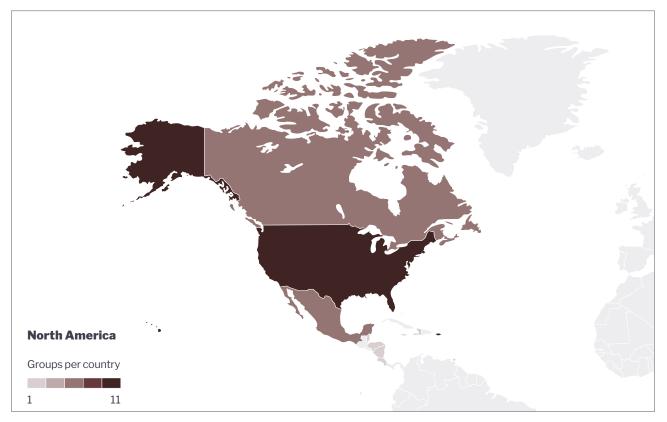


Figure 5: YCM distribution in North America measured by number of groups per country.

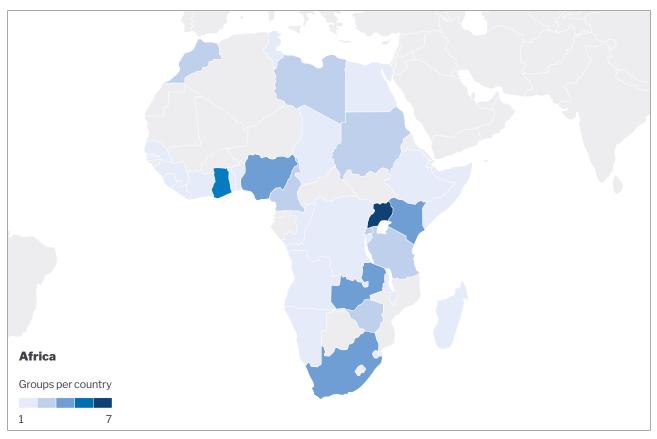


Figure 6: YCM distribution in Africa measured by number of groups per country.

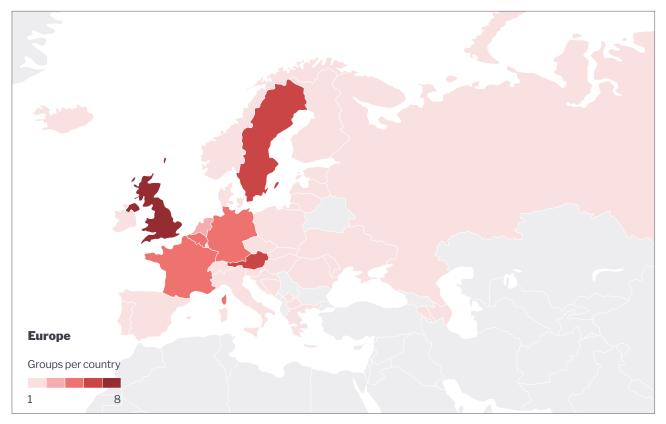


Figure 7: YCM distribution in Europe measured by number of groups per country.

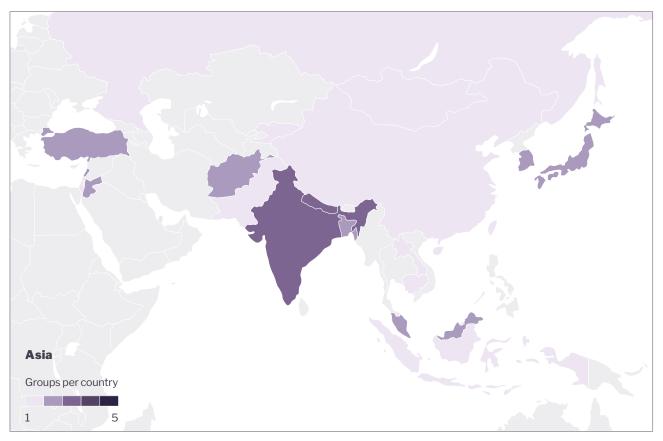


Figure 8: YCM distribution in Asia measured by number of groups per country.



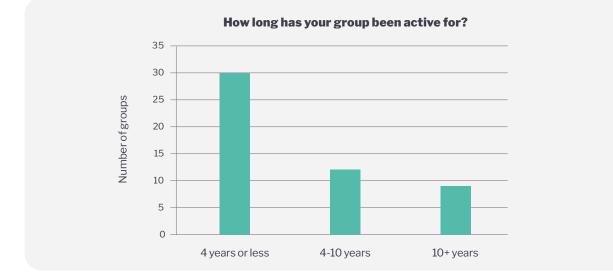
Figure 9: YCM distribution in Oceania measured by number of groups per country.

Survey

The survey was answered by 52 youth climate groups. Full analysis of survey questions is shown in Figures 10 to 17. Of the 52 respondents, 22 were from the global North, 26 from the global South, and four were international groups.

All survey responses made important contributions to our final analysis with the

exception of activities (see Figure 17). The literature review identifies activities as an important determinant of the group's strategic orientations – reformist groups tend toward legal protest while radical groups favour direct action. However, we found activities not to be a strong indicator of the group's theory of change as all groups are engaged in multiple activities that cross between archetypes.



 $\mathit{Figure\,10:\,58\%}$ of youth climate groups have been active for four years or less.

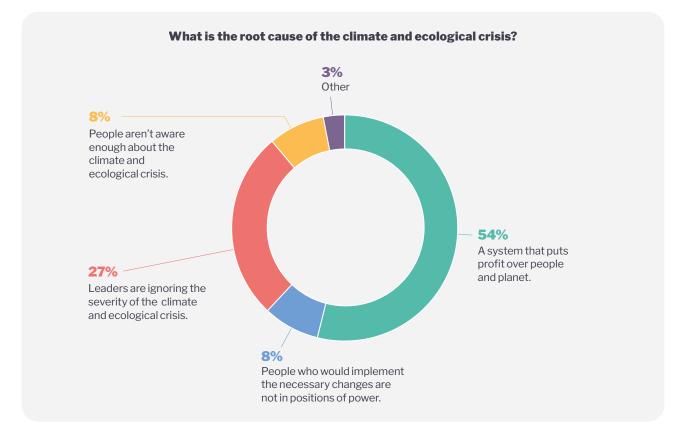


Figure 11: 54% of youth climate groups identified "a system that puts profits over people and planet" as the root cause of the climate and ecological crisis.

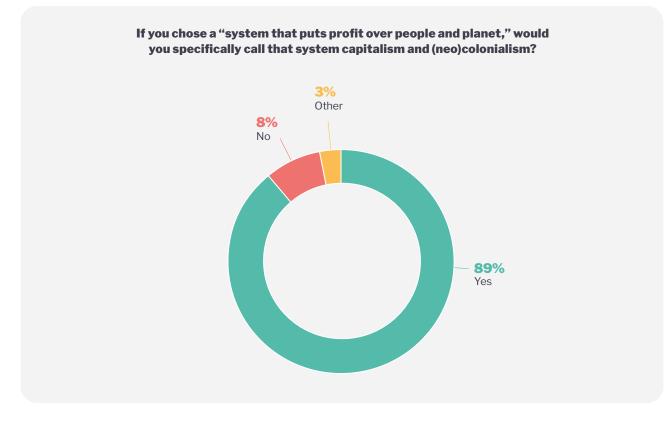


Figure 12: Of the youth climate groups who identified the system as the root cause, 89% defined it as capitalism and neo-colonialism.

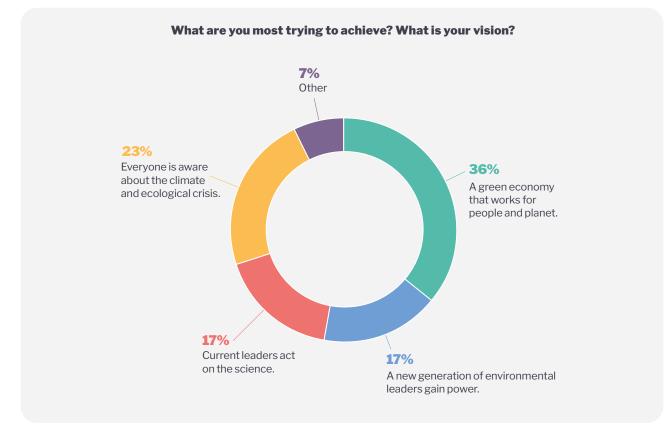


Figure 13: 36% of youth climate groups identified a "green economy that works for people and planet" as their vision.

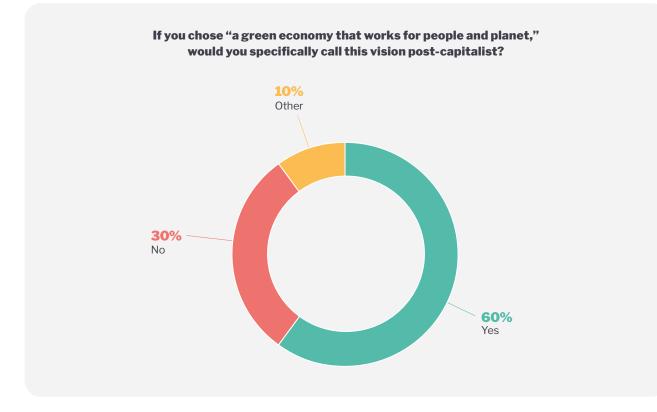


Figure 14: Of the youth climate groups who identified a green economy as their vision, 60% defined that green economy as post-capitalist.

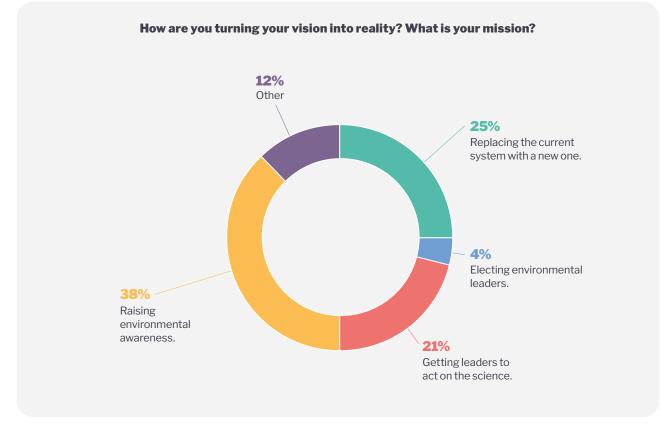
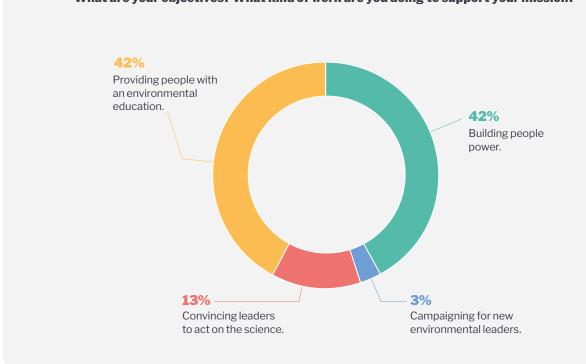


Figure 15: 38% of youth climate groups identified "raising environmental awareness" as their mission.



What are your objectives? What kind of work are you doing to support your mission?

Figure 16: A combined 84% of youth-led climate groups identified "building people power" and "providing people with an environmental education" as their primary objective.

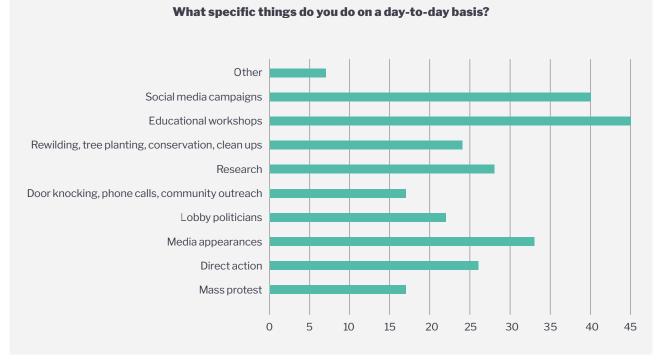


Figure 17: The three most popular activities identified by youth-led climate groups are educational workshops, social media campaigns, and media appearances.

Interviews

We conducted 19 interviews from the 292 youth climate groups identified in the stocktake. Of the interviewed groups, eight were from global South and eleven from the global North.

Discussion

Theory of Change (In-) Coherence

The YCM does not have a coherent theory of change that aligns with one of four archetypes. This is shown in Figure 18, a "heat map" of all 52 survey responses. Intense activity between different elements of the theory of change, especially the angled nodes connecting disparate archetypes, suggests that there is no strategic culture in the YCM.

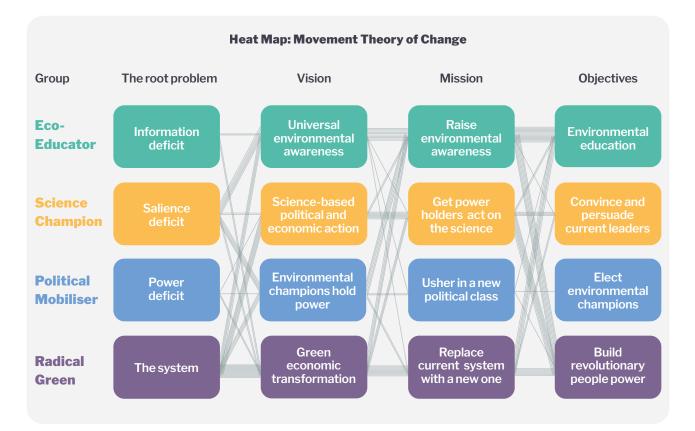


Figure 18: The route that each surveyed group took throughout the theory of change.

We define strategic culture as an exercise of habitual engagement with an explicitly identified theory of change. Wildly variable answers, sometimes in direct contradiction to one another, evidence that many youth climate groups have not yet developed a strategic culture.

For example, one group identified the system as the root cause, described a vision for new

political leadership, and stated that their mission was to change the system. It is strategically incoherent to describe that system change is a precondition for the ultimate vision of new leadership, when the system itself is identified as the root cause. This type of strategic tangle does not lend itself to the YCM coalescing around a single archetype. As Figure 19 shows, it begins with a Radical Green root analysis and vision and then migrates towards an Eco-Educator mission, before splitting evenly between an Eco-Educator and Radical Green objective. Interview analysis provides some insight on this general upward trend.

For example, one member of a West African chapter of an international climate group identified, "colonialism, racism, and patriarchy" as the root causes of climate and ecological breakdown. To achieve post-capitalist green economic transformation (their stated vision in the survey), the interviewee contended that these systemic drivers must be uprooted. However, rather than follow the logic of the Radical Green archetype, the interviewee identified the importance of raising environmental awareness (mission) and providing an environmental education (objective). But here the interviewee made clear that *the type* of education is critical. It is not general environmental awareness (e.g. the greenhouse effect) but radical environmental consciousness about the root drivers of climate and ecological breakdown. Logic follows that when outfitted with a robust radical environmental education, youth will feel empowered and equipped to challenge power.

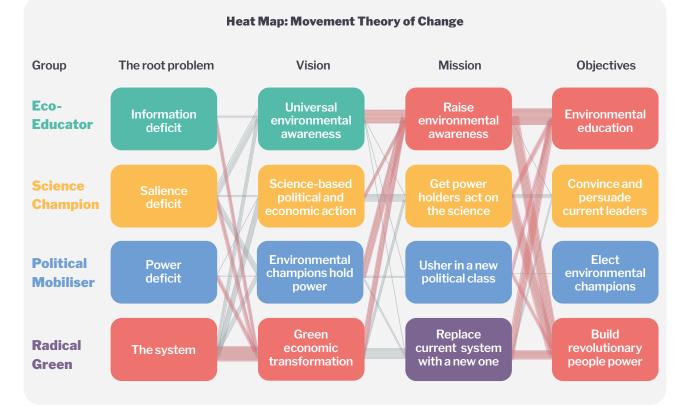


Figure 19: Heat map of surveyed groups' theories of change. Pink highlights indicate the most popular route and elements throughout the theory of change.

25

This was similarly expressed by a member of a different West African climate group. Survey answers were fully aligned with the Eco-Educator archetype. However, in conversation, the interviewee identified that "we need to tackle the root cause," which is not an information deficit (as the survey suggests), but "greed" since the Industrial Revolution and resolving the tension between "profit" and "life," the former being the main occupation of "capitalists." Life wins, the interviewee posited, when we abandon the "fossil fuel economy" for a "green economy."

This is a clear, sharp Radical Green analysis. So why is their stated theory of change tightly coupled with that of an Eco-Educator? Local context. The interviewee explained how in their country there is almost no basic climate education, including what climate change is and how it is caused. In this context, educational base-building is a prerequisite for green economic transformation.

We call this the *radical education effect*, whereby education is equipped as a *means* to attain the *ends* of green economic transformation, not a means to the ends of universal environmental awareness (the Eco-Educator trajectory). As Figure 20 shows, this stitches together the cleaved YCM theory of change – a snapshot of a theory of change in transition.

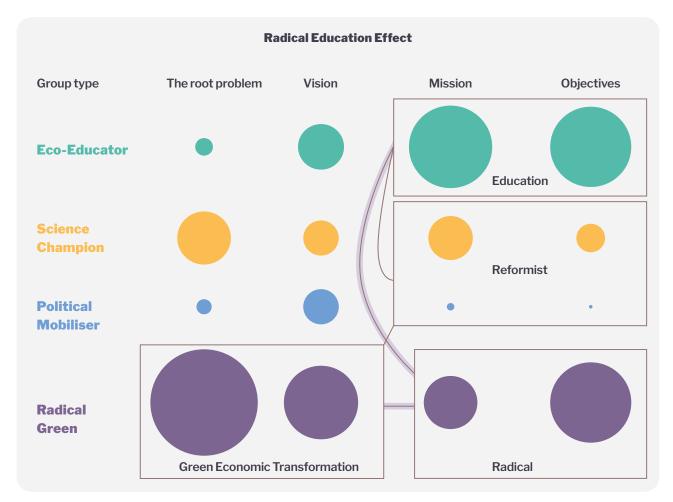


Figure 20: Education is used as a means to the ends of green economic transformation, whether it be through a reformist (pressure or elect leaders) or radical (ruptural) pathway. The size of the circle is proportional to the number of survey respondents for a specific theory of change component.

Some strategic consistency also exists among groups who identified the system as the root cause and green economic transformation as the vision – the first two elements of the Radical Green theory of change. As Figure 21 shows, 50% of respondents continued on to the mission of replacing the current system, and of that pool (groups who selected the first three elements of the Radical Green archetype), an additional 57% continued on to the objective of building revolutionary people power – completing the Radical Green archetype. Figure 22 also shows how there is measured continuity in the Radical Green archetype, as opposed to the Eco-Educator which only swells downstream.

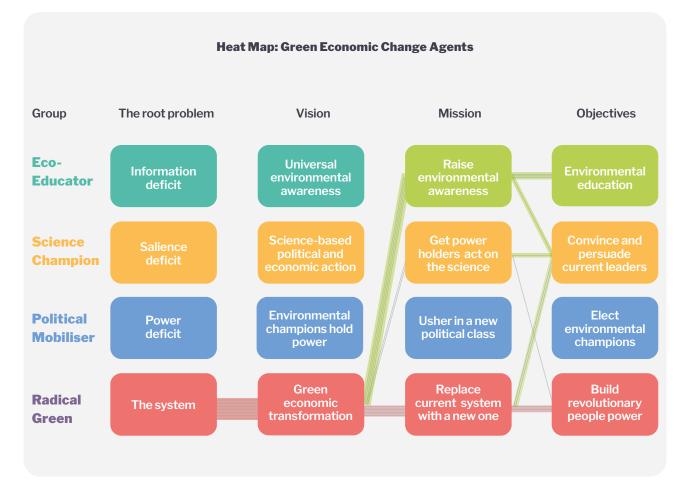


Figure 21: Purple highlights depict the most popular green economic change-agent theory of change, while green highlights depict the second most popular green economic change-agent theory of change. As Figure 20 evidences, here green economic change-agents were identified as selecting the Radical Green root and vision. This, however, excludes those green economic change-agents who practise the radical education effect.

27

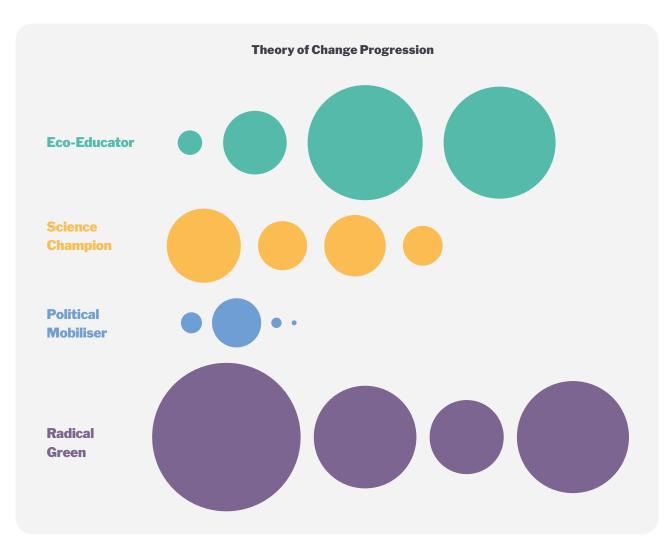


Figure 22: Theory of change progression from 'Root' [left] to 'Objective' [right] among the 52 surveyed youth climate groups. The size of the circle is proportional to the number of survey respondents for a specific theory of change component.

Interviews with groups who completed the full Radical Green archetype evidenced *strategic fluency*, a strong command of strategic culture most acutely represented in a flexible mindset to revisit and reevaluate how everyday activity is attaining or straying from a stated theory of change. For example, a member of a Southern European climate group stressed that "revolution is not an aesthetic" or a "motto," but a "concrete plan" to attain ruptural change within a coordinated movement ecology.

A member from an Eastern European climate group shared that they are working on a political program and movement strategy, the first step of which is to engage young people in fossil dependent communities who have faced hardship from an unfair low-carbon transition. From there, other members can be brought into a strategic movement coalition, such as workers and unions.³³

Other groups showed signs that they were approaching this level of strategic fluency. This *emerging radicalism* included aspects like forming a clearer analysis of root causes and establishing strategic connections with the wider movement. Most of these groups, as expressed in interviews, were finding their feet again in the post-pandemic world.

³³ Dana R. Fisher and Sohana Nasrin, "Shifting Coalitions within the Youth Climate Movement in the US," *Politics and Governance* 9, no. 2 (2021).



The System is at the Root

Despite general incoherence in the YCM theory of change, 54% of respondents identified "a system that puts profit over people and planet" (the system) as the root cause driving climate and ecological breakdown. A further 89% of these respondents specifically identified the system as capitalism and (neo)colonialism.

This finding was similarly prominent in the interviews. When asked to describe their group's analysis of the root cause, interviewees gave responses like, "a capitalist economy" and "an exploitative, extractivist economy that distances people from the earth."

Answers were often accompanied by an understanding of capitalism's intersection with other systems of oppression, with some respondents stating, "patriarchy" and "neocolonial relationships between countries" are driving the climate and ecological crisis. Our findings are supported by Pickard et al. (2020) and Bowman (2020), who identify systemic analysis of the problem as a primary characteristic of the YCM.³⁴

The common systemic analysis within the YCM demonstrates movement cohesion around the foundational aspect of a theory of change. Without agreement about the root cause, developing a common strategy is nearly impossible.

A systemic analysis enables groups to develop a broader understanding of the climate and ecological emergency, one that accounts for global justice and understands the relationship between political-economic structures and Earth breakdown. It is the foundation of the Radical Green archetype.

³⁴ Sarah Pickard, Benjamin Bowman, and Dena Arya, "We Are Radical in Our Kindness:' The Political Socialisation, Motivations, Demands and Protest Actions of Young Environmental Activists in Britain," *Youth and Globalization* 2, no. 2 (December 2020). Benjamin Bowman, "They don't quite understand the importance of what we're doing today:' the young people's climate strikes as subaltern activism," *Sustainable Earth* 3, no. 16 (October 2020).

Vision Breakdown

Despite the high level of strategic convergence around the root cause, at the vision stage, there is dramatic dispersion. Only 50% of groups that identified the system as the root cause also selected the adjacent vision of green economic transformation (see Figure 20). Overall, there is no dominant vision in the YCM (see Figure 19).

Interviews helped determine two primary reasons for the breakdown between the groups' analysis of the root cause and their vision of change.

First, and most significantly, there is often little analysis about what capitalism is, how it operates, and how it reproduces itself. Consequently, a variety of visions emerge about the world groups are fighting for.

This systemic ambivalence was apparent in many of the interviews. Multiple groups identified the system as local economic circumstances rather than a global economic, political, cultural, and social system. Others used the term "system" to express the idea that everything must change.

Equally, groups have different understandings of how to approach transforming the system. While some believed a wholesale transformation of society was in order, others thought that our current leaders could be pressured into changing the system with no recognition that politicians themselves are highly integrated into global capitalism.

Still others have a strong high-level understanding of capitalism, but believe it is too large to adopt as a theoretical frame and a potential impediment to movement growth. One interviewee stated, "sorrow and anger of wrecking the support systems on which civilization depends on can be shared by those of any political orientation," suggesting their group wanted to avoid alienating those that do not share an anti-capitalist stance.

This response bears close resemblance to the reformist YCM model identified in the literature review. Consequently, these groups adopt a different theory of change from vision onwards, one which works to mitigate the worst features of capitalism but not to directly uproot it.

The second reason for vision breakdown is strategic dogma, most apparent in some FFF groups. Despite identifying the system as the root cause, certain interviewees expressed total commitment to the FFF model of school strikes, marches, and demanding that leaders listen to the science. This strategic inertia causes them to stray from the Radical Green archetype early on in the theory of change.

Commitment to the strike model is understandable considering its familiarity and early successes, but strategic dogma ultimately comes to the detriment of an effective theory of change.

The significant vision breakdown observed is important because it greatly reduces the number of respondents that have a consistent Radical Green theory of change across root cause and vision – a pattern we identified as the minimum requirement to categorise a group according to a specific archetype.³⁵ The large amount of vision breakdown is therefore a significant finding.

³⁵ Note: The exception to this rule is when local context dictates that Radical Greens practise the radical education effect.

Split in Objectives

As we continue through the YCM theory of change, vision breakdown extends into a bipolar concentration around objectives. 84% of surveyed groups chose either environmental education or building people power as their objective, with an equal 42% split between both (see Figure 16).

The core question is why do so many groups choose environmental education, even though there is a strong concentration around the system as the root cause? As we have detailed with the radical education effect, an environmental education is not necessarily incongruent with a Radical Green theory of change.

It may well be that the concentration in the Eco-Educator pole can be explained by groups who first need to build the intellectual base for a radical YCM. However, it is also possible that groups default to an environmental education due its prominence as a bread and butter environmental tactic. For decades, raising awareness has been the raison d'être of mainstream environmentalism.³⁶

More interviews would be required to conclusively determine the strategic motivations of the Eco-Eductors.

Needs and Support

The past few years have been a remarkable testament to the transformative capacity of the YCM. When organised, youth energy, creativity, and commitment holds the power for radical transformation.

This study has also made clear that the movement needs support. While many applaud the YCM for their achievements to date, few follow through with the necessary aid and allyship. In the interest of crowding in more support for the YCM, particularly those groups already working around the Radical Green theory of change, below is a synthesis of the needs expressed by the 19 interviews.

1. Funding

The YCM needs financial support. Funding needs can be categorised according to three distinct types.

First, operational support for things like office supplies, event space, software subscriptions, communications, website development and maintenance, and travel expenses. Most groups are working on a slim budget or none at all. While the groups are incredibly effective at doing a lot with a little, funding to support basic movement maintenance would enable activists to redirect energy and attention elsewhere.

Beyond operational funding, some groups also identified the need for project funding. These projects ranged from local to international. For example, a group in Southern Europe described the desire to organise an international conference among youth climate groups who share a common theory of change to network with one another, forge common strategy, and build capacity for greater international coordination. Such a project – one that this study has shown to be of great importance – can never come to life without financial support.

Finally, a few groups described a need for core funding to pay activists' salaries. Groups often struggle with consistent engagement because they are entirely dependent on volunteer contributions. If salaries were available, young people could devote themselves entirely to the movement, rather than engaging in an extracurricular manner. It is easy to see the positive impact that funding has on the development of the YCM in view of groups like the Sunrise Movement and Green New Deal Rising.

It is worth noting that the majority of groups only expressed the need for operational funding. A minority of groups identified the need for project

³⁶ Ann Christiano and Annie Neimand, "Stop Raising Awareness Already," Stanford Social Innovation Review 15, no. 2 (Spring 2017).

funding and even fewer for core funding. Young activists are used to making the most out of the small amount of resources at their disposal, but they have a difficult time expressing specific plans for large scale projects or core funding. This is mostly because they have never seen this type of support directed at the YCM. Nonetheless, most groups had a variety of ideas about what could become possible with project or core funding, though this was usually expressed as a far off hope rather than a concrete plan.

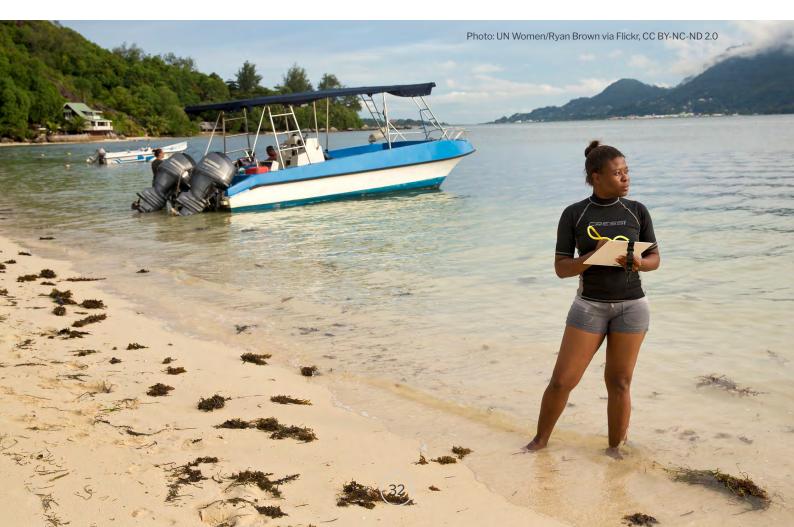
2. Organisational Development

There are three types of organisational development support that youth climate groups need.

First, organisational structure. This would make the groups more efficient and stable. Undefined structure lends itself to higher rates of activist burnout as the workload gets carried by a small number of group members when volunteer participation fluctuates. Support is needed in developing clear internal processes, conflict resolution mechanisms, and defined roles.

Second, movement strategy. Often overworked trying to simply stay afloat, many youth climate groups felt they did not have the time or capacity to develop appropriate strategies to guide their activities and objectives toward their vision. Support in developing an explicit theory of change and relevant policy research would help groups target their work more effectively.

Third, networking. Groups often understood collaboration and coordination with other NGOs and movements, both domestically and internationally, as a critical component to securing a just, habitable world. While all the groups currently engage in certain partnerships (see Figure 23), they see the need for higher levels of collaboration. Collaboration demands energy and time that the groups simply don't have. Support is required to foster necessary network building.



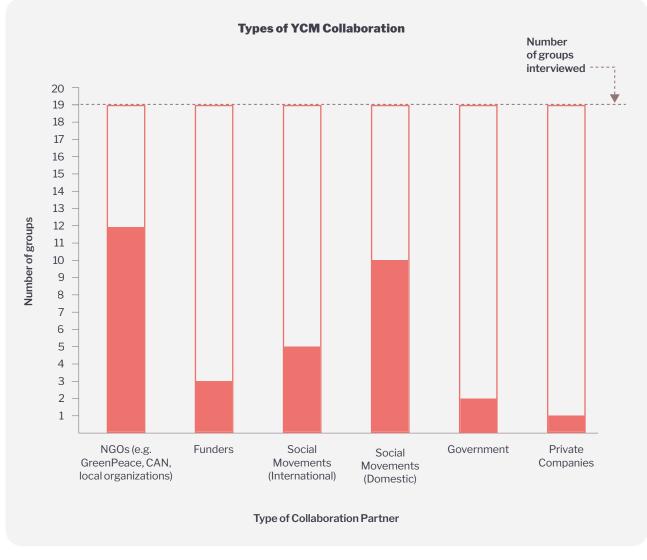


Figure 23: Typification of past collaborations between interviewed groups and other partners.

3. Vision Building

Interviewees were each asked about their vision of the world they are fighting for. While phrases like "more justice, more community" and a "better, kinder society" were common answers, there was underlying uncertainty about a more concrete vision.

Supporting vision building exercises about what a green economy looks like would provide needed strategic cohesion among groups. It would also deliver important directionality for individual activists who struggle to channel their feelings of anger, fear, and frustration about the future into a positive vision of an alternative world.

4. Skills Training

Multiple interviewees identified the need for training to develop skills in specific areas, commonly communications and stakeholder engagement. This support would logically be delivered by non-youth groups who regularly employ these skills.

Limitations

This study presented a range of limitations. First and foremost, the scope of this project – mapping the global YCM – is vast. It is inevitable that we missed groups. For example, our stocktake disproportionately relied on internet searches, immediately narrowing the pool of potential groups to those with a digital presence. Snowball sampling proved effective in increasing granularity, but was not used extensively due to temporal lag between the initial enquiry and answer.

Additionally, it was challenging to provide an initial classification of a group's theory of change from their website or social media profiles. As we progressed through the survey and interview phases of the methodology, we realised that due to limited information our classifications were not rigorous enough. More specifically, some of the groups we identified as a Radical Green in the stocktake did not provide similar answers in the survey.

This complicated our research process, as we used stocktake classifications to arrange interviews with the groups we deemed to be a Radical Green. Therefore, we did not arrange interviews with those who were characterised as a non-Radical Green in the stocktake, even though their survey responses indicated otherwise. This limited the identified group of Radical Greens. The survey also presented additional limitations. First, it did not capture the local context of each respondent. This is a critical factor of theory change development, as was expressed in the radical education effect. Moreover, the individual who fills out survey questions will never capture the full extent of the group's theory of change.

This is partially the product of a deficient strategic culture, in which the line of questioning presented in the survey was something novel rather than routine. Perhaps prompted for the first time with identifying a theory of change, paired with the personal bias of the respondent, meant that some answers were somewhat unique and potentially nonreproducible. Indeed, on multiple occasions two members from the same group incidentally filled in the survey. In these instances, answers were often highly variable.

It is also possible that survey questions were misinterpreted. The structure of the survey was set-up in a way that respondents were categorically led through our theoretical model, beginning with the root cause and finishing with activities. Although care was taken to make questions as clear as possible, lack of understanding about the meaning of a vision, mission, and objectives, combined with potential language barriers, may have led to confused results.

Conclusion

The YCM has transformed the climate action landscape through a unique ability to apply political pressure and bring the issue to the forefront of popular consciousness. However, the tangible wins we need have not materialised. Democracy is eroding, inequality is worsening, emissions are rising, and nature is dying.

Given the limitations of reformism, the YCM must move beyond its neutral, science-based approach and engage directly with the politicaleconomic systems driving climate and ecological breakdown. Such an evolution hinges on a systemic analysis of the root causes and consistency in vision, mission, and objectives, with relevant adaptations to local context.

While we did find high levels of strategic incoherence throughout the YCM, we also found patterns which indicate significant potential. First, a large majority of the YCM identifies capitalism and colonialism as the root cause. This common systemic analysis provides the foundation for engaging the YCM on issues of intersecting social crises, green structural transformation, and new economic systems. Second, there is a strategically sound Radical Green wing within the YCM.

To realise its full potential as a catalyst for radical transformation, the YCM needs support that ranges from funding to network building, strategic development and skills training. We hope that this report has not only provided an up-to-date stocktake of the global YCM but a pathway for relevant allies to engage with the YCM. With the necessary support, the YCM can develop a robust capacity to effectively engage with the political-economic roots of this crisis and build power towards a just, habitable world.

Our findings provide the basis for useful conclusions about the current state of the YCM, but they are by no means conclusive. This study should be read as a first attempt to capture the state of the YCM in the post-pandemic world. We hope that it will provide the framework for additional research to explore the movement in more depth.

In particular, gathering more survey responses and conducting more interviews from the list of groups identified in the stocktake would provide the basis for more robust analysis and conclusions. Further interviews would be especially useful for groups that we now identify as Radical Greens but who were misidentified in the stocktake either because we hadn't yet discovered the radical education effect or because we hadn't yet received their survey response at the stage of doing interview outreach.

Equally important for further study is greater regional granularity. Of the six continents covered in our research, Africa would be the best starting point for a continent-specific study. Our findings indicate that Africa has the most vibrant youth climate movement. Not only did the stocktake identify more youth climate groups in Africa than in any other continent, but African groups also had the highest rate of survey completion and were most responsive to interview requests.

Other explorations of the YCM which adopt different frames of analysis are also needed to better understand the movement, crowd in support, and develop the movement's capability to uproot the drivers of Earth breakdown and plant the seeds of an emancipated tomorrow.

Bibliography

Bowman, Benjamin. "'They don't quite understand the importance of what we're doing today:' the young people's climate strikes as subaltern activism." *Sustainable Earth* 3, no. 16 (October 2020): 1-16.

Christiano, Ann and Neimand, Annie. "Stop Raising Awareness Already." *Stanford Social Innovation Review* 15, no. 2 (Spring 2017): 34-41.

De Moor, Joost, De Vydt, Michie, Uba, Katrin, & Wahlström, Mattias. "New kids on the block: taking stock of the recent cycle of climate activism." *Social Movement Studies* 20, no. 5 (June 2020): 619-625.

Evensen, Darrick. "The rhetorical limitations of the #FridaysForFuture movement." *Nature Climate Change* 9 (May 2019): 428-430.

Fisher, Dana R. and Nasrin, Sohana. "Shifting Coalitions within the Youth Climate Movement in the US." *Politics and Governance* 9, no. 2 (2021): 112-123.

Gaborit, Maxim. "Disobeying in Time of Disaster: Radicalism in the French Climate Mobilizations." Youth and Globalisation 2 (December 2020): 232-250.

Holmberg, Arita & Alvinius, Aida. "Children's protest in relation to the climate emergency: A qualitative study on a new form of resistance promoting political and social change." *Childhood* 27, no. 1 (October 2019): 78-92.

Kenis, Anneleen. "Clashing Tactics, Clashing Generations: The Politics of the School Strikes for Climate in Belgium." *Politics and Governance* 9, no. 2 (November 2020): 135-145.

Kowasch, Matthias, Cruz, Joana P., Reis, Pedro, Gericke, Niklas, and Kicker, Katharina. "Climate Youth Activism Initiatives: Motivations and Aims, and the Potential to Integrate Climate Activism into ESD and Transformative Learning." *Sustainability* 13, no. 21 (October 2021): 1-25.

Laybourn-Langton, Laurie, Quilter-Pinner, Harry, and Treloar, Nicolas. *Making Change: What Works?* London: IPPR, 2021.

Malm, Andreas. (2021). How to Blow Up a Pipeline. London: Verso, 2021.

Marquardt, Jens. "Fridays For Future's Disruptive Potential. An Inconvenient Youth Between Moderate and Radical Ideas." *Frontiers in Communication* 5, no. 48 (July 2020): 1-18.

Neas, Sally, Ward, Ann, and Bowman, Benjamin. "Young people's climate activism: A review of the literature." *Frontiers in Political Science* 4, no. 940876 (August 2022): 1-13.

O'Brien, Karen, Selboe, Elin, and Hayward, Bronwyn M. "Exploring youth activism on climate change: dutiful, disruptive, and dangerous dissent." *Ecology & Society* 23, no. 3 (October 2018): 1-13.

Pickard, Sarah, Bowman, Benjamin, and Arya, Dena. "'We Are Radical in Our Kindness:' The Political Socialisation, Motivations, Demands and Protest Actions of Young Environmental Activists in Britain." *Youth and Globalization* 2, no. 2 (December 2020): 251-280.

SEI, ISSD, ODI, ESG, & UNEP. The Production Gap Report. The Production Gap, 2021.

Soler-i-Martí, Roger, Fernández-Planells, Ariadna, & Pérez-Altable, Laura. "Bringing the future into the present: the notion of emergency in the youth climate movement." *Social Movement Studies* (September 2022): 1-20.