



We deserve to live in a thriving world:

Child-centred indicators for climate change

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YR **YOUNG & RESILIENT RESEARCH CENTRE**

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The Young and Resilient Research Centre acknowledges the Darug, Tharawal (also historically referred to as Dharawal), Gandangarra and Wiradjuri peoples as the traditional custodians of the land on which Western Sydney University carries out its work. The research team would also like to acknowledge the peoples of the Bundjalung, Darug and Wonnarua/Wanaruah nations as the traditional custodians of the lands on which these workshops were conducted, and pay our respects to Elders past, present and emerging. We recognise all First Nations peoples' continuing connection to land, water and sky, and recognise that respect for traditional knowledge and wisdom must be at the heart of responding to the ecological crisis.

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Ballina Council	Muswellbrook Aquatics and Fitness Centre
Ballina Rotary Club	Muswellbrook Council
Brave Foundation	Northlakes Youth Service
Byron Community Centre	NSW Nurses and Midwives Association
Byron Youth Service	NSW Nurses and Midwives Federation
Byron Youth Theatre	Plan C Northern Rivers
Climate Action Network Australia	PCYC Lismore
Department of Education Regional Social Support Officers	PCYC Muswellbrook
Department of Regional NSW	Royal Far West
Epic Cheer Ballina	Singleton Council Youth Venue
Fairfield City Council	Social Futures
Forum of Youth Development Officers	The Family Centre Northern Rivers
Girl Guides Ballina,	Tocal College
Girl Guides Muswellbrook	United Workers Union Climate Team
Goori Youth Program	Upper Hunter Shire Council
Headspace Lismore	Upper Hunter Youth Services
Headspace Liverpool	Wesley Mission Ballina, Youth Action
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FOREWORD



Climate change is undoubtedly the single greatest challenge facing our planet. As a young person, I understand that inaction will have dire consequences for my future, and my family's, friends' and other young people's futures. I share feelings of frustration about inaction with other young people. We feel fear, sadness and numbness about what the future might hold.

These are our future communities, our future cities, our future jobs – our hopes, everything we've dreamed about since we were little, our bucket list items, and experiences we long for. All of it is at risk. Not only this, but many young people are already feeling the disastrous effects of climate change. It is both our present and our future being destroyed.

We have the most at stake, and yet we do not have a stake. We are left out of climate action planning. We watch on while decisions about our lives are made but we do not get a seat at the table.

We are often underestimated, or thought to be disengaged, uneducated or too sensitive. But we have skills and knowledge and are eager to contribute to the urgent changes that are needed.

Many children and young people are taking to the streets, leading organisations, talking to our members of parliament, filing legal cases, working on research projects, and leading campaigns and social media actions. We stand ready to create a better world.

Being part of a community of young people advocating for climate action has taught me to have faith that both this generation and older generations have enough willpower to address climate change – together. Through my research, I have learned about the many incentives, frameworks, and innovations we can use to help this transition.

If climate change is the single greatest challenge facing our planet, it is also the single greatest opportunity. It represents a chance to not only fix our climate but also to address social inequality in our communities: from alleviating energy poverty to ensuring equity for climate-vulnerable communities, working with Indigenous peoples and their knowledge, and uplifting the voices of young people and communities on the frontline of climate change.

This is a chance to unite the world under a common vision, a chance for all of us – no matter who we are – to work towards something meaningful and ensure young people can grow up in a climate-justice-based and equal future.

This report was being written at the time of COP28 in the United Arab Emirates. This annual conference is another opportunity for nations to solve this climate crisis and comes at a critical time in determining how we will deliver on the Paris Agreement. While nations discuss important topics like the Global Stocktake, the Loss and Damage Fund, adaptation pathways, energy transitions and more, I wish for one thing...

That is for young people to be genuinely included in decision-making spaces: not to just speak at conferences or be part of advisory bodies after decisions are made, but to be active participants in the process. Bring us into the rooms where it happens and let our input contribute to decision-making. Let us be equal to other respected members. We do not know everything, but we can learn. Our input is valuable, and we are eager to help shape a better world for children and young people now, and in the future. We are calling on you to listen to us.

Yehansa Dahanayake

15 years old, Western Sydney
Youth Co-Researcher on this project

'Children's voices are a powerful global force for environmental protection, and their views add relevant perspectives and experience with respect to decision-making on environmental matters at all levels. Even from an early age, children can enhance the quality of environmental solutions... Children's views should be proactively sought and given due weight in the design and implementation of measures aimed at addressing the significant and long-term environmental challenges that are fundamentally shaping their lives.'

UNCRC General Comment No. 26 on children's rights and the environment, with a special focus on climate change, 2023, para. 26.



FOREWORD



CLIMATE CHANGE IS CHANGING CHILDHOOD

The climate crisis is here and it is children who are least responsible, but most impacted. Every child on the planet is already affected by climate change and environmental pollution, and one in two children are at extremely high risk of the impacts of climate change. As climate change escalates and global action continues to fall short, decades of hard-won progress to protect children's rights and improve their lives will be undermined. Children are physically and psychologically more vulnerable to the impacts of climate change than adults. They are more at risk of physical and mental health issues - having a higher chance of being directly impacted by environmental hazards and are more likely to be experiencing climate anxiety compared to other Australians. Climate change also threatens not only children's health but also their education, development and even their survival. Here in Australia and around the world, it is those children experiencing poverty, vulnerability and marginalisation who are most at-risk in this climate crisis they had no role in creating.

About 4.2 billion children are expected to be born over the next 30 years and climate change will be their reality. A child born in 2020 in Australia will experience 4 times as many heatwaves, 3 times as many droughts and 1.5 times as many bushfires as those born in 1960.

In 2023, the United Nations Committee on the Rights of the Child explicitly affirmed children's rights to a clean, healthy and sustainable environment, issuing a comprehensive interpretation of Member States' obligations under the UN Convention on the Rights of the Child. General Comment No. 26 on children's rights and the environment with a special focus on climate change states that **children's views must be considered in environmental decision-making** and stresses the critical role of environmental education in preparing children to take action, advocate, and protect themselves from environmental harm. Thus, climate policies, investments and actions require child-centred methods of measurement to ensure children's and young people's unique needs, rights and aspirations are adequately addressed. This is why it is critical for us to engage children and young people in climate change research. From March to October 2023, UNICEF Australia and the Young and Resilient Research Centre (Y&R) partnered to deliver a project to develop **world-first child-centred indicators for climate change and climate action**.

There is an acute need for effective mechanisms that enable diverse children and young people to actively and meaningfully participate and contribute to decision-making on climate and environmental policies. While there are increasing efforts to engage young people on climate issues through youth advisory groups and other means, more work needs to be done to raise awareness about existing initiatives, including how children and young people can be involved, and to establish new, sustainable and inclusive platforms across public and private sectors that allow diverse young people to participate meaningfully in climate and environmental policy initiatives.

The **child-centred indicator framework** presented in this report, should be used by public and private sector decision-makers in partnership with children and young people, to design and evaluate climate impacts, policies and programs. By placing children and young people at the centre, this framework can aid efforts to ensure that children and young people are not only protected from the worst effects of climate change but can thrive in a rapidly changing world.

I encourage you to engage and collaborate with children and young people to tackle the climate crisis and to place children at the heart of climate policies, actions and investments here in Australia and around the world so that we can ensure their protection now and into the future.

Tony Stuart
Chief Executive Officer,
UNICEF Australia

FOREWORD



STANDING TOGETHER IN A CHANGING WORLD

The impacts of climate change affect us all. Here in Western Sydney, we are starting to experience firsthand the ramifications of a rapidly changing world. As the city gets hotter, and bushfires and floods more frequent, we face new risks to our health, economy and futures.

Children and young people stand to be disproportionately impacted by these risks, yet for far too long their perspectives, ideas and concerns have been at worst, overlooked, and at best, heard but not acted upon.

Western Sydney University is proud to present this research. In partnership with UNICEF Australia, the Young and Resilient Research Centre worked closely with and listened deeply to what matters most to young Australians about their climate futures. Together with young people in three communities that are struggling to deal with the changing climate, the team has co-produced a set of individual, community, political and environmental, child-centred indicators which, to our knowledge, are the first of their kind internationally.

The child-centred indicators embed young people's insights and experiences into forms of measurement organisations can use to determine the success of efforts to address climate change, now and into the future. They focus attention on evaluating the impacts of policies, products and programmatic responses to climate change using the criteria that the research has shown matter most to young people. In doing so, they seek to ensure that the actions of adults, and young people alike, address the climate crisis in ways that positively impact the rights and lived experiences of children and young people. Younger generations say that this kind of action is important because it goes beyond promises and targets. Moreover, **an approach that centres the needs, entitlements and aspirations of children and young people will be vital if the global community is to meet UN Sustainable Development Goals to combat climate change and its impacts.**

Throughout this research, young Australians have been clear about what matters. They have expressed concern, anxiety and distress about the future of the natural world, and a deep sense of disappointment about what adults have failed to achieve so far. Nonetheless, they remain hopeful, resilient and determined to solve the most complex challenge of our time.

I hope that this report inspires decision-makers to be led by the vision and willpower of younger generations, and to mobilise across all levels of government, citizen groups and businesses to work collaboratively and inclusively with diverse young people, to take urgent and impactful action to address the triple planetary crisis. I encourage governments, institutions, businesses and NGOs, as well as parents, families and educators, to take seriously what young people say in this report, and to stand together with them, united in the ambition to solve this mighty challenge.

Professor Deborah Sweeney

Deputy Vice-Chancellor and Vice-President
Research, Enterprise & International
Western Sydney University

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EXECUTIVE SUMMARY

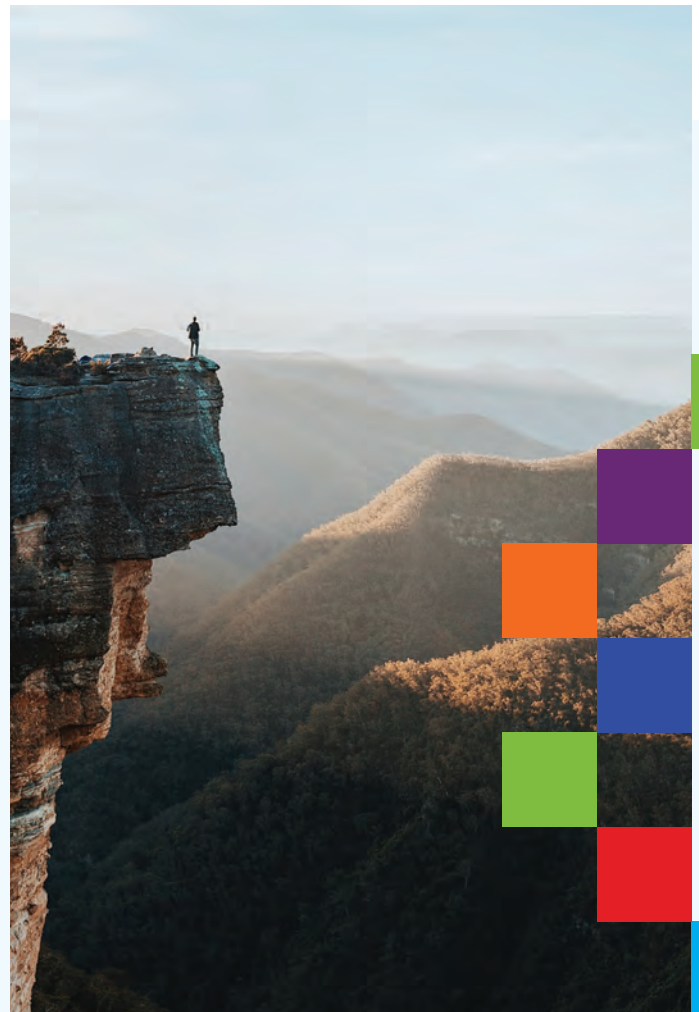
As the triple planetary crisis intensifies, children and young people face a bleak and uncertain future with many already acutely feeling the impacts of climate change, extensive pollution and the loss of biodiversity. Although their generation bears disproportionate responsibility to address and mitigate the causes and effects of climate change in their lifetime, their unique needs, interests and entitlements are largely missing from the strategic policy and practice initiatives led by governments, non-government organisations (NGOs), the private sector or United Nations (UN) agencies. And, yet, children and young people are eager to help create and implement solutions to climate change and ensure the world they inherit fulfils their basic needs, rights and aspirations.

How, then, can we ensure that actions to address the triple planetary crisis centre and positively impact the rights and lived experiences of children and young people?

Acknowledging the critical importance of measurement in defining, guiding and evaluating significant change in contemporary societies around the world, from March to October 2023, UNICEF Australia and the Young and Resilient Research Centre (Y&R) partnered to deliver a project to develop world-first child-centred indicators for climate change and climate action.

The child-centred indicators are designed to enable governments, the private sector, civil society, as well as children and young people to design climate initiatives and then measure the impacts of climate policies and strategies about what matters most to children and young people themselves.

Child-centred indicators describe the kinds of changes, improvements or developments that mark progress towards achieving climate outcomes, from children's and young people's perspectives. By measuring against these indicators, we can assess how the impacts of both climate change and climate action are impacting children and young people over time.



AIMS

Taking inspiration from the UN Committee on the Rights of the Child's General Comment No. 26 (2023)¹ on children's and young people's rights and the environment, with a special focus on climate change, the project had two key aims:

- To hear from diverse children and young people in climate-affected communities in New South Wales, Australia, about their experiences of the impacts of both climate change and climate action on their everyday lives, and to channel their insights into policy, advocacy and programming around the country.
- To develop practical child-centred indicators to guide the measurement of impacts of climate change and climate action.



WHAT WE DID

The project used Y&R's unique youth-centred co-research methods, which have been tested and applied in 79 countries.²

Forty-nine children and young people aged 10-18 years from three regions across New South Wales each participated in a series of two 5-hour (or equivalent) in-depth, creative and participatory workshops (10 hours total). Participants included children and young people whose communities are:

- affected by **urban heat** and flooding in Western Sydney, one of Australia's most diverse and rapidly growing regions
- recovering from **severe flooding** in the Northern Rivers district
- confronting the challenges of **just transition** away from coal mining in the Upper Hunter, a process that prioritises an equitable and sustainable shift from mining to renewable energy in a community traditionally build on an extraction economy.

We explored children's and young people's experiences and perceptions of climate change and its impacts, as well as their aspirations for a climate future. We talked with them about:

- how prepared they and their communities are to deal with climate change impacts
- what their climate action priorities are
- who is responsible for leading the necessary change
- how they want to participate in climate action.

We then distilled children's and young people's insights into a series of critical issues, ideal states, and accompanying child-centred indicators to guide the design and evaluation of climate policies, programming and other initiatives.



1 UN Committee on the Rights of the Child, 2023

2 Young and Resilient Research Centre, n.d.

KEY FINDINGS

Children and young people are angry, disappointed and deeply concerned that their generation bears a disproportionate burden of responsibility to solve climate change.

- Many children and young people are grappling directly and routinely with the immense burden of the triple planetary crisis and are deeply concerned about the everyday impacts of climate change, loss of biodiversity and pervasive pollution.
- Children and young people feel that the older generation has failed to care for the planet and has been too slow to react to the triple planetary crisis. They feel abandoned and alone in the fight against climate change.
- Children and young people believe their generation bears a disproportionate burden of responsibility to solve the climate crisis. Nonetheless, they remain hopeful that their generation can lead the necessary systemic change.
- Children and young people are calling on their caregivers, governments, private enterprise, and civil society to take responsibility, show leadership, engage children and young people, allocate resources, and take rapid, targeted action to address climate change before it is too late.

Children and young people see climate change, biodiversity loss and pollution as interconnected and are calling for comprehensive education and systemic solutions.

- Children and young people see climate change, pervasive air, water and land pollution and loss of biodiversity as interlocking, systemic issues. They highlight the urgency of addressing plastic waste, deforestation, the destruction of natural habitats, and the loss and extinction of wildlife.
- Children and young people say that extractive attitudes and practices towards the planet are driving unsustainable forms of overconsumption. They want principles of environmental stewardship to guide thinking about the repair and restoration of our planet.
- Children and young people have few opportunities to learn about the triple planetary crisis as part of their formal education. They urge governments to provide high-quality information and to educate all citizens about the principles, values and practices of environmental sustainability and disaster readiness.
- Children and young people are concerned about the cascading social, political and economic effects that will ensue from a worsening climate and are urgently calling for holistic, coordinated approaches to address the triple planetary crisis.

Children's and young people's experiences of climate change and their priorities for climate action are profoundly shaped by geographic and socio-economic differences.

- Children's and young people's concerns are inflected by their diverse, localised circumstances and lived experiences. Those with recent, lived experience of natural disasters were more likely to have a stronger sense of the immediacy of climate change.
- Diverse children and young people had 3 top priorities for climate-resilient communities: preparation, including warning systems and climate-resilient infrastructure; robust emergency response systems; and collective, community action to resist climate change.
- Children and young people are deeply concerned about the negative, long-term impacts of climate change on lower socio-economic communities and equity-seeking groups. They worry climate change will exacerbate intergenerational poverty; constrain some populations' mobility; exert extreme pressure on infrastructure; and limit communities' capacity to effect change.

Children and young people want governments and corporations to lead urgent and decisive action to halt, and reverse, climate change.

- Children and young people are calling on individuals of every age, local and multinational groups and corporations, and all levels of government to unite and take urgent, collective action to arrest and reverse climate change.
- Children and young people believe that the government and the private sector are failing in their responsibilities to act quickly and decisively to mitigate the threat of climate change, pointing towards a deeper crisis of trust in institutions and businesses in Australia.
- Children and young people want government and the private sector to: demonstrate greater accountability, transparency and immediate action; reduce emissions and transition to a green economy; provide evidence-based information and education about climate change; invest in, regulate and incentivise climate mitigation and adaptation strategies; and promote sustainable lifestyles and business practices.
- By responding to children's and young people's concerns about climate change promptly, respectfully and thoughtfully, political leaders can nurture an engaged citizenry to carry forward environmental and other political agendas into the future.

Children and young people urgently want diverse and accessible participation mechanisms to enable their diversity of views and experiences to actively shape climate futures.

- Children and young people have a significant stake in ensuring a sustainable climate future and want to contribute to efforts to tackle the triple planetary crisis. However, they reported that they have very limited influence over the decision-making processes that will impact their futures, and this heightens the anxiety they feel about climate change and the environment.
- Children and young people – particularly, though not exclusively, those from lower socio-economic communities – told us that existing child and youth participation mechanisms are inaccessible to most, and they typically have limited impact on decision-making processes.
- To ensure intergenerational equity, children and young people want opportunities to participate, take action and create change. They want real decision-making power and mechanisms to hold governments and corporations accountable to the younger generation.
- They are calling on governments to provide a wider variety of age-appropriate, safe and accessible participation mechanisms to enable their views to be heard at all levels of government and decision-making on climate and the environment. They are particularly keen for the government to facilitate children and young people to work together as part of collective efforts that result in concrete action to mitigate climate change.
- Improved participation mechanisms are key to minimising the next generation's anxiety about the future, and restoring their trust in democratic institutions and processes. Children and young people say that better child and youth participation mechanisms will catalyse them into action, enabling them to become more engaged citizens in the fight against climate change.





THE INDICATORS

Working with a youth co-researcher and UNICEF personnel, the Y&R team distilled children’s and young people’s insights into a set of 47 indicators that measure against the below outcomes and ideal states identified by the study’s participants as critical to driving climate change that impacts their lives positively.

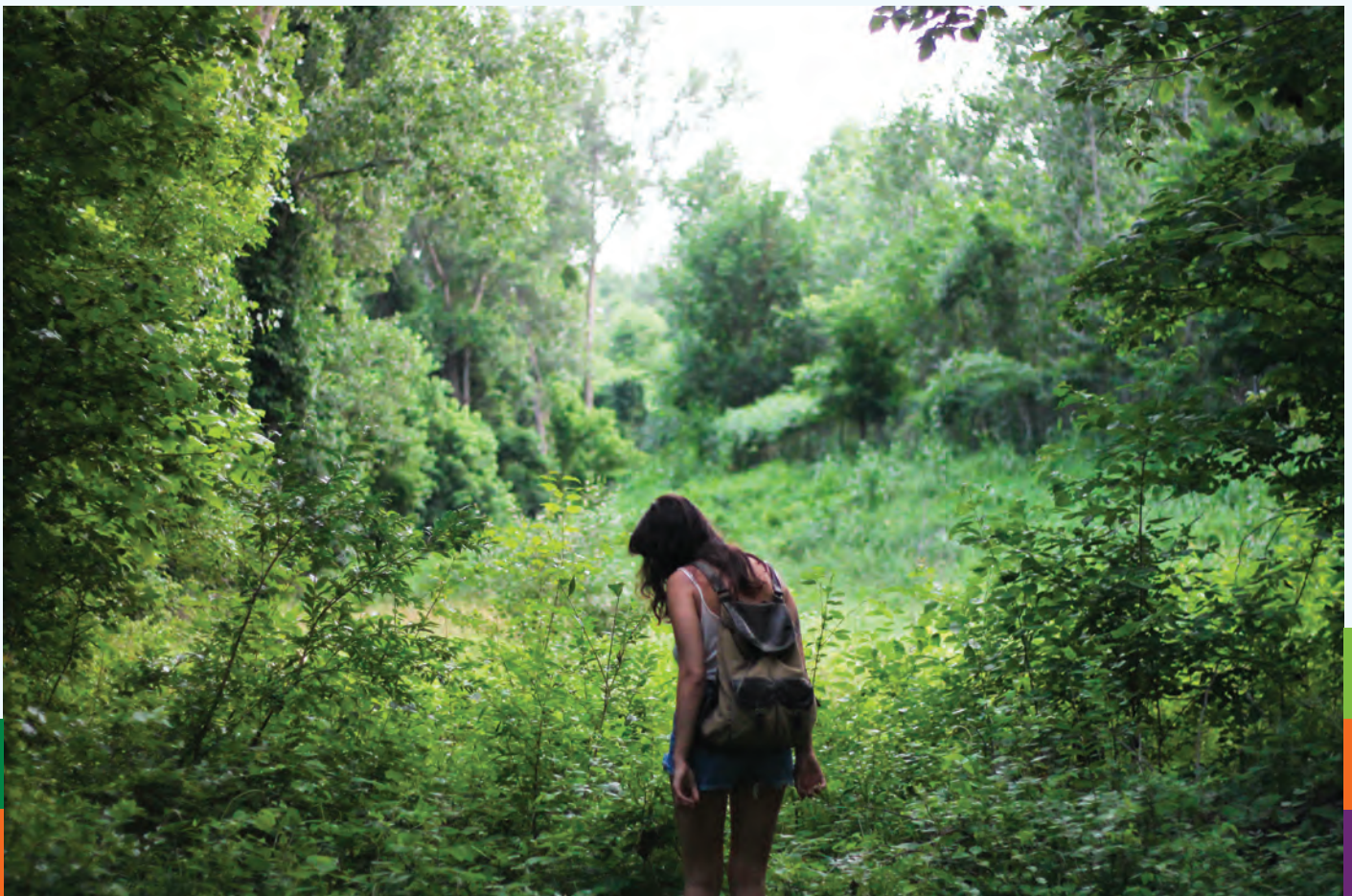
	Outcomes Challenges highlighted by children and young people	Ideal states The world as children and young people would like to see it, and the end goal of climate action
Individual	Healthy children and young people	Children and young people are physically healthy
	Resilient and thriving children and young people	Children and young people are safe, hopeful and thriving
Community	Resilient and sustainable infrastructure	Children and young people have access to climate-resilient and sustainable infrastructure and built environments
	Resilient and sustainable communities	Children and young people live in sustainable and climate-resilient communities
	Environmentally-informed communities	Children, young people and their communities are educated and climate-informed
	Equitable and just communities	Children and young people believe their communities are fair and equitable
Political	Meaningful participation and citizenship	Children and young people’s perspectives and needs shape decision-making about climate change
	Good governance, trust and accountability	Children and young people trust governments, corporations and the media to take action on climate change
Environmental	Healthy and sustainable environments	Children and young people live in and enjoy healthy and sustainable environments
	Environmental restoration and climate change reversal	Children and young people live in a world where climate change has reversed and the environment has been restored



NEXT STEPS

We recommend that the child-centred indicators (CCI) for climate change and climate action are activated via intergenerational, participatory outcome mapping processes. Outcome mapping is a collaborative process of identifying shared goals; developing a concrete, actionable plan to achieve them; and then tracking progress towards the desired outcomes against the indicators presented in the CCI framework. When young people and adult stakeholders in localised settings collaborate on outcome mapping, and track their progress according to child-centred indicators, it can enhance buy-in, build solidarity, and tangibly improve outcomes for young people – now and in the future.

Ultimately, we hope that, alongside other efforts, this report inspires the government, community and private sectors to engage deeply with diverse Australian children and young people as we all work together to address the challenge of our lifetimes.



INTRODUCTION

As the climate crisis intensifies, children and young people face a bleak and uncertain future, with many already acutely feeling its impacts. At the same time, their generation bears a disproportionate responsibility to address and mitigate the causes and effects of climate change in their lifetime.

Although children and young people bear the burden of climate change, their unique needs, interests and entitlements are largely missing from climate plans and processes. And their concerns rarely find traction in strategic policy and practice decisions, whether these are led by governments, non-government organisations (NGOs), the private sector or United Nation (UN) agencies.

While children and young people are typically excluded from these decision-making processes, they are eager to play an active role in creating and implementing solutions to climate change to ensure the world they inherit is one that fulfils their basic needs, rights and aspirations. Indeed, tens of thousands of children and young people around the world are calling for decisive action to halt climate change³ and for governments, NGOs and the private sector to urgently instigate the necessary transformations. They are calling from the streets, in digital media spaces, in their schools and in their communities – in ever-increasing numbers, and ever more loudly.

But how to respond to this call? The triple planetary crisis⁴ – climate change, extensive pollution and the loss of biodiversity – is a complex phenomenon that requires swift, systemic and coordinated action, backed by unbending political will. To achieve change at pace, practical strategies, tools and measures are needed to ensure that climate action directly and positively impacts the rights and lived experiences of children and young people.

Guidance is emerging to support duty-bearers – state or non-state actors responsible for upholding and protecting human rights⁵ – to develop coherent strategies for addressing the triple planetary crisis. The newly minted UN Committee on the Rights of the Child's General Comment No. 26 (2023)⁶ on children's and young people's rights and the environment, with a special focus on climate change, asserts the urgent need to address the negative impacts of climate change on children's and young people's capacity to realise their rights.

The General Comment calls for a child-rights approach to the environment and provides evidence-based, authoritative guidance about the legislative, administrative and other measures that must be taken by states and other duty-bearers to ensure that the environment can sustain the rights of children and young people, now and into the future.

General Comment No. 26 highlights the critical importance of enabling children's and young people's rights to participate in the decision-making that will shape their futures (paras. 26-28). It also asserts the need to urgently generate robust evidence and research to drive the design, implementation and evaluation of all policies, programming and planning in relation to the triple planetary crisis (para. 74).

From March to October 2023, UNICEF Australia partnered with the Young and Resilient Research Centre (Y&R) at Western Sydney University to implement a pilot project with two key aims that reflect these central principles from General Comment No. 26.

Firstly, taking inspiration from Article 12 of the UN Convention on the Rights of the Child, we sought to hear from diverse children and young people in climate-affected communities in New South Wales about their experiences of the impacts of both climate change and climate action on their everyday lives, and to channel their insights into policy, advocacy and programming around the country.

Secondly, we aimed to develop practical child-centred indicators to guide the measurement of the impacts of climate change and climate action. Indicators describe in specific terms the kinds of changes, improvements or developments that mark progress towards achieving defined outcomes.⁷ By measuring against indicators, we can assess whether some things change for the better over time.

This project worked closely with children and young people to embed their insights and experiences at the heart of the methods used to assess progress towards halting and reversing climate change. The child-centred indicators are intended to enable governments, the private sector, civil society, as well as children and young people to measure the impacts of climate policies and strategies in relation to what matters most to children and young people. Accordingly, decision-makers and other actors can determine the extent to which actions result in positive transformations at the level of children's and young people's experiences.

3 Sloam et al., 2022.

4 United Nations Framework Convention on Climate Change (UNFCCC), 2022.

5 European Network of National Human Rights Institutions, 2022.

6 UN Committee on the Rights of the Child, 2023.

7 Third et al., 2020.

‘The extent and magnitude of the triple planetary crisis, comprising the climate emergency, the collapse of biodiversity and pervasive pollution, is an urgent and systemic threat to children’s rights globally. The unsustainable extraction and use of natural resources, combined with widespread contamination through pollution and waste, have had a profound impact on the natural environment, fuelling climate change, intensifying the toxic pollution of water, air and soil, causing ocean acidification and devastating biodiversity and the very ecosystems that sustain all life.’

UNCRC General Comment No. 26 on children’s rights and the environment, with a special focus on climate change, 2023, para. 1.



To achieve these aims, we drew on Y&R's unique youth-centred co-research methods, which have been tested and applied in 79 countries⁸. Children and young people aged 10-18 years from three regions across New South Wales participated in creative and participatory workshops. Participants included children and young people:

- affected by urban heat and flooding in Western Sydney, one of Australia's most diverse and rapidly growing regions
- in the Northern Rivers district, a community that is recovering from recent, severe flooding
- from communities in the Upper Hunter confronting the challenges of just transition.

Thinking through the dual lenses of the present and the future, we explored:

- children's and young people's experiences and perceptions of climate change and its impacts
- their aspirations for a climate future
- their sense of how well prepared they and their communities are to deal with climate change impacts
- how they want to participate in climate action, what their climate action priorities are, who is responsible for leading the necessary change, and how change is being both impeded and enabled
- how they think the impacts of climate change and climate action should be measured and monitored.

This report documents the findings of this research. It presents young participants' insights into and experiences of climate change and climate action and describes the process we undertook to develop the child-centred indicators for climate. It then presents Australian children's and young people's call to action; the child-centred indicators and measures and accompanying guidance; and a list of child-centred recommendations to guide those in a position to influence climate action across sectors.

We hope that decision-makers across sectors will hear the clarion call of Australian children and young people, be inspired by their steadfast hope for the future of our planet, and respond swiftly and with renewed commitment to the challenges that lie ahead. In the first instance, we hope that the insights children and young people have shared in this project can be channelled directly into and bolster policy, advocacy, programming and other initiatives to address climate change. We hope, too, that decision-makers will implement the child and young person-centred indicators and measures to evaluate how climate change impacts, and how actions to mitigate and reverse them are impacting children and young people.

Lastly, we hope that, alongside cognate efforts, this report inspires the government, community and private sector to engage deeply with and be guided closely by diverse Australian children and young people as we all work together to address the challenge of our lifetimes.

MEET YEHANSA, OUR YOUTH CO-RESEARCHER

#keepingusreal

As part of our commitment to youth-centric co-research practices, following the workshops, a participant from Western Sydney joined the team as a paid youth co-researcher and contributed to the data analysis, indicator development and write-up of this report. She also attended regular meetings, led the authoring of the aspirational statement, foreword and provided illustrations.

Yehansa Dahanayake (age 15) is in Year 11 at high school. She is an active volunteer with the Australian Youth Climate Coalition advocating for climate justice and started a grassroots advocacy group in her area. She is passionate about developing and implementing equitable climate change solutions.

Over her time on the project, Yehansa kept a journal of her reflections on the project and what she was learning and thinking about. Her insights and perspectives were invaluable in shaping the direction and findings of this project. Her reflections on the data are embedded throughout this report, providing another window into the issues raised by children and young people in the workshops.

8 Young and Resilient Research Centre, n.d.

PROJECT ON A PAGE





METHODOLOGY

OVERVIEW AND AIMS

This project used a youth-centred creative and participatory workshop methodology to explore children's and young people's diverse experiences and perceptions of climate change and climate action, and to co-develop the set of child-centred indicators and measures.⁹

The process engaged participants from diverse geographical locations in New South Wales (NSW). Two 5-hour face-to-face workshops were held with participants in Western Sydney and the Northern Rivers. Due to challenges with recruitment, participants in the Upper Hunter completed an at-home workbook of activities and attended a 2-hour online workshop session.¹⁰

Workshops aimed to explore children's and young people's:

- **experiences and perceptions** of climate change and its impacts, now and in the future
- sense of **preparedness** to deal with the impacts of climate change and climate-related events
- priorities for **climate action**, who they feel is **responsible** for acting, and what the **barriers** are to effective climate action
- **participation** in the fight against climate change, and to what extent they see themselves as **agents of change**
- **aspirations and hopes** for their futures and future generations
- thoughts on how climate impacts and action should be **measured**.

YEHANSA SAYS...

As a youth co-researcher on this project, I've learned many things - about life, the workforce, teamwork, other young people's ideas about climate change, and more. But most importantly I've learned the value of bringing young people into projects **about them** and the things that **affect them**. Involving young people is beneficial for three reasons -

1. It helps young people develop leadership skills, valuable life qualities, and the autonomy and confidence we need as we grow up in the world
2. It helps the adults on the research team to learn what it is like to talk and work with us. It can disprove some stereotypes and close a generational gap. We can work together well.
3. And, most importantly, young people bring unique perspectives and ideas to projects in the 21st century.

Not all young people are the same, and not all of us will be interested in being a part of opportunities like this one. But if you can curate a space where our ideas, decisions and hard work are acknowledged and appreciated, great things can happen.

⁹ See Appendix 1 for an overview of the research process.

¹⁰ See Appendix 2 for details of the workshop activities.

RECRUITMENT AND SAMPLE

The project sought to engage participants with diverse experiences to ensure the resulting research and child-centred indicators were robust and to take into consideration the perspectives of children and young people who are typically excluded from climate change conversations and decision-making.

To that end, children and young people aged 10-18 were recruited to ensure experiences across childhood and adolescence were captured. Workshop locations in NSW were specifically chosen to enable participants with diverse backgrounds and experiences of climate change to participate, including children and young people in a region recovering from the effects of climate-related floods (Northern Rivers), children and young people affected by urban heat and flooding (Western Sydney), and children and young people in a community confronting the challenges of just transition (Upper Hunter). Participants represented a cross-section of socio-economic brackets and included Aboriginal and Torres Strait Islander, LGBTQI+, and children and young people with migrant and refugee backgrounds. Overall, 53% of participants identified as female, 45% as male and 2% as non-binary (see figure 1). The average age of participants was 14.7 years old.

In total, 49 children and young people aged 10-18 years old participated in the workshops. Due to overwhelming demand, 34 participants took part in Western Sydney in two separate workshop series. Thirteen participants were recruited in the Northern Rivers and two in the Upper Hunter.

As a qualitative study, this project does not aim to be statistically representative of all Australian children's and young people's views about climate change. Findings, therefore, cannot be generalised across the entire population. However, every effort has been made to ensure that a diverse array of views and perspectives have been included. Further, the insights presented in this report have been generated through in-depth activities and discussions with these children and young people, which provide a robust and rich understanding of the 'how' and 'why' of their experiences and perceptions, as well as the ways these children's and young people's contexts shape those experiences.

This project is intended to be a pilot study. As such, it is a starting point from which we expect to conduct further research to build upon and expand our understanding of children's and young people's wants, needs and aspirations for climate change and the environment.



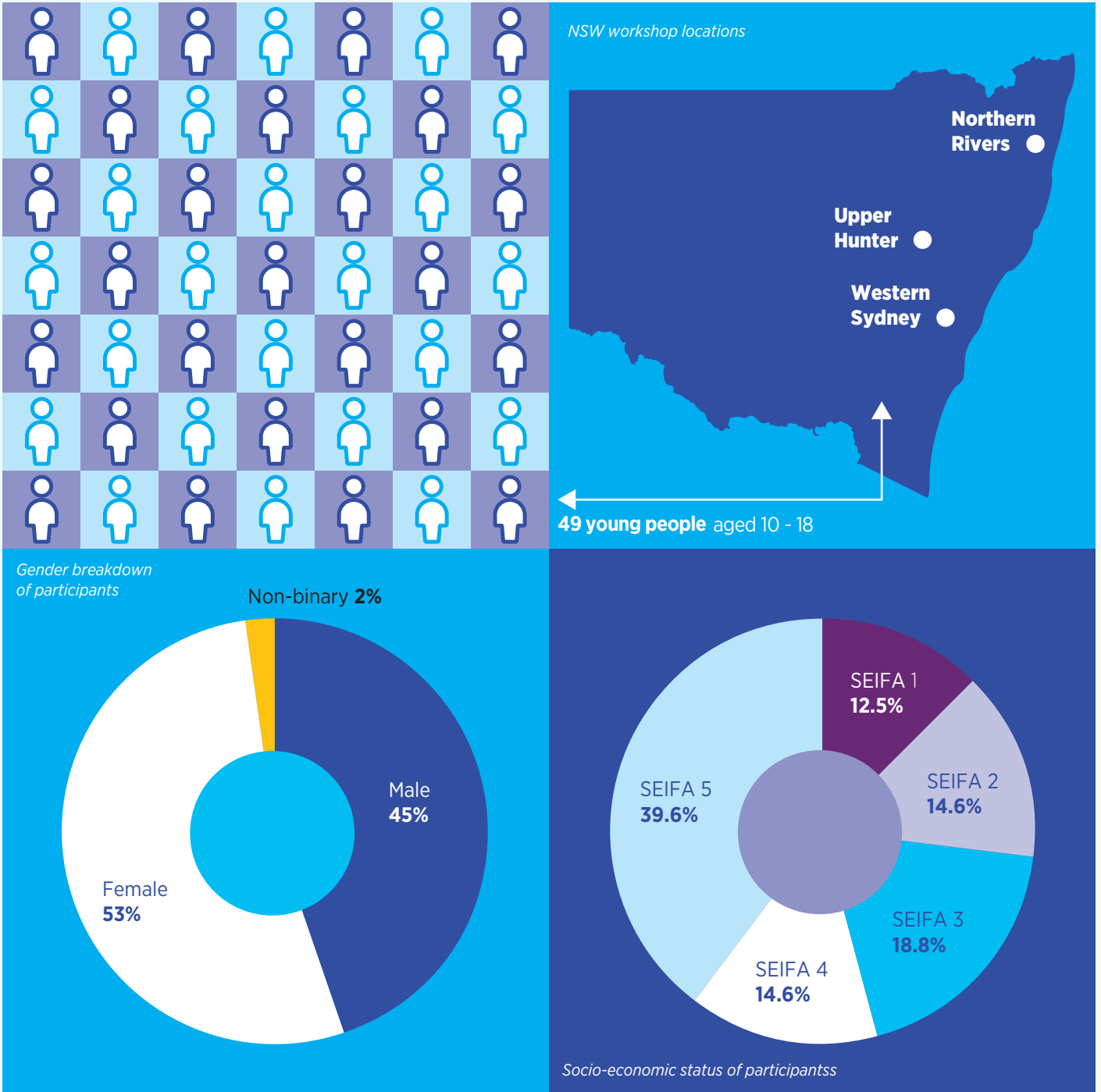


Figure 1: Participant sample demographics.

Participants were recruited with the support of a recruitment agency, through youth-facing partner organisations, social media advertisements, and handing out flyers. Despite efforts to use a variety of recruitment strategies, recruiting children and young people in regional areas posed significant challenges. As a result, participant numbers in the Northern Rivers and Upper Hunter were lower than anticipated. We speculate that this was a result of lower populations of young people in the regions, communities being dispersed across larger distances, and fewer options for transportation. Better numbers in the Northern Rivers compared to the Upper Hunter may be because of their recent experiences with flooding.

CHILD AND YOUNG PERSON SAFEGUARDING AND ETHICS

This project received ethics approval from the Western Sydney University Human Research Ethics Committee (H15448). Ethical procedures for this project adhered to the child and young person safeguarding principles outlined in the National Statement on Ethical Conduct in Human Research, as well as UNICEF Australia's Children Safeguarding policies and practices.

The project took a strengths-based approach, recognising that children and young people are resilient and adaptive, and bring unique experiences and perspectives to the challenges of climate change. The workshop activities aimed to foreground these strengths and adopted an aspirational lens through which to explore issues of climate change with children and young people. The design, delivery and outputs of this project have been guided by a commitment to facilitating children's and young people's right to participate in decision-making that impacts their lives.

Given the recency of the devastating flooding in the Northern Rivers region, the research team consulted with youth-facing partner organisations (NSW Advocate for Children and Young People, and Royal Far West) working on the ground and assisting with the recovery efforts before commencing the project. This was to ensure that it would not put children and young people at risk of re-traumatisation or place an unnecessary burden on them. Partner organisations emphasised that the opportunity would be valuable for creating a sense of belonging and participation for children and young people at a time when the community is disconnected.

Safeguards were in place at all stages during the workshops to ensure that participants were safe and supported. Each workshop was attended by a minimum of three facilitators with extensive experience conducting participatory work with vulnerable children and young people. Participants were also provided with the contact details of child and young-person-friendly counselling support services which they were encouraged to contact if they felt they needed additional support.

Data was co-analysed, and indicators were co-developed with a youth co-researcher to help ensure faithful interpretations of children's and young people's contributions to the project.



KEY FINDINGS

This section presents the key findings distilled from the insights shared by children and young people in the Northern Rivers, Upper Hunter and Western Sydney about their views, experiences, hopes and aspirations for climate change and climate action. In overview, these findings are:

- Children and young people are angry, disappointed, and deeply concerned that their generation bears a disproportionate burden of responsibility to solve climate change.
- Children and young people see climate change, biodiversity loss and pollution as interconnected and are calling for comprehensive education and systemic solutions.
- Children's and young people's experiences of climate change and their priorities for climate action are profoundly shaped by geographic and socio-economic differences.
- Children and young people believe governments and corporations are responsible for leading climate action and want these actors to restore their faith in democratic process by taking urgent and decisive action to halt – and reverse – climate change.
- Children and young people want diverse and accessible participation mechanisms to enable their diversity of views and experiences to actively shape climate futures.

KEY FINDING 1

Children and young people are angry, disappointed and deeply concerned that their generation bears a disproportionate burden of responsibility to solve climate change.

Like many children and young people around the world, those we spoke to in the workshops are grappling with the immense burden and uncertainty of the climate crisis. Research has shown that 78% of young Australians report feeling concerned or very concerned about climate change.¹¹ These concerns fuel growing levels of eco-anxiety,¹² feelings of loss and grief,¹³ and betrayal by those in power,¹⁴ among children and young people around the world. Across diverse cultures, many report feeling sad, anxious, angry, powerless, helpless and guilty about climate change.¹⁵

Eighty-nine percent of participants associated climate change with negative emotions, such as sadness, worry, anger and fear.

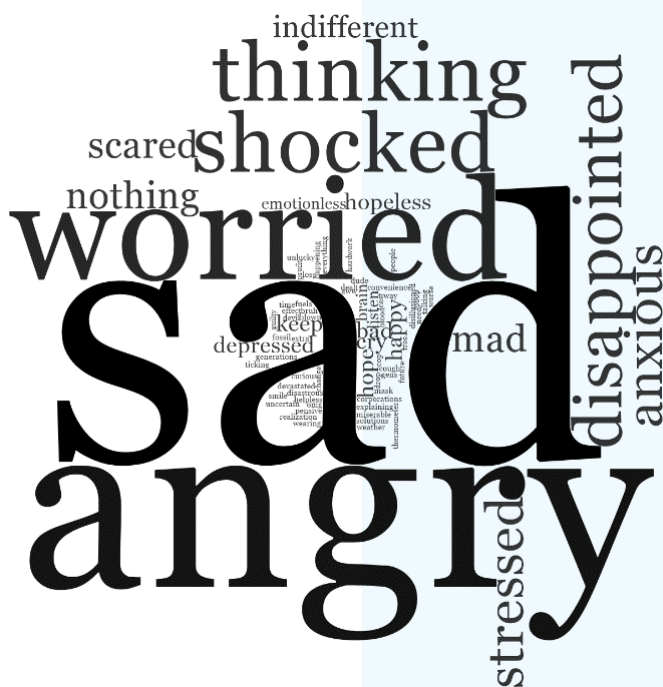


Figure 2: Word cloud of the emotions that participants associate with climate change

'The Earth is dying, bro... Drastic temperatures [are] affecting the sea levels and damaging the ecosystem/environment as a whole. This happened 'cause we decided it was a good idea to create revolutionising industry, including economic growth/advancement, without looking at the cost to the Earth. Basically, the Earth is gonna die cause people are bad.' - 15, male, Western Sydney

They expressed profound apprehension about the future, citing concerns about the impending loss of natural habitats, ecosystems and wildlife, as well as the fate of humankind. Ideas about decay, death, extinction and the end of the world were commonplace, evoking a prevailing sense of existential angst.

'[In the future] all the nature will be gone and depressed.' - 16, non-binary, Western Sydney

'[In the future] water will rise, more animals will be extinct... [and] the Earth will someday be uninhabitable.' - 11, female, Northern Rivers

'[Climate change is] making Earth [un]inhabitable for children and young people's future.' - 18, female, Western Sydney

'[Climate change makes me feel] stressed ('cause we all gonna die); worried (what are we gonna do?); angry (people keep talking but not doing).' - 15, male, Western Sydney

'[Climate change] could kill everyone and everything.' - Whole group, Northern Rivers

'Human civilisation [is] at high risk.' - Small group, ages 12-15, Western Sydney

11 Australian Institute for Disaster Resilience, 2020.

12 Ojala, 2018

13 Chawla, 2020.

14 Hickman et al., 2021; Galway et al., 2023.

15 Hickman et al., 2021; Galway et al., 2023; Halstead et al., 2021.

YEHANSA SAYS...

Young people are angry and concerned for our future. No previous generation has had to deal with an existential threat to their future like this.

We feel a burden to solve this ourselves because we can't see action being taken fast enough.

I think this can be seen in the school strikes. Most of us are deeply worried.

We **want** to be in classes, we **want** to learn, we **want** to get an education and enhance our future. Yet we feel so hopeless, and at times distrusting that people who can make a difference will act.

We feel a sense of urgency about climate change. We can't stay static. We need to do anything that we can.

Importantly, for the children and young people we spoke to, climate collapse is not abstract. It is very real and tangible, with most reporting that they and their communities already experience the impacts of the climate crisis. Participants reported facing frequent natural disasters, extreme weather and heat, poor air quality and pollution, and they are witness to the loss of habitats and biodiversity. Their physical and mental health is suffering, and natural disasters are exacerbating cost-of-living pressures and impacting access to affordable housing, and healthy and nutritious food. The impacts of climate change with which they have first-hand experience include:

'Natural disasters, [which] negatively affect food/economy/house.' - 15, female, Western Sydney

'Increased temperature; trauma due to extreme weather conditions; polluted air.' - 15, female, Western Sydney

'Marine life, for example, coral dead bleaching; hazardous air quality; dead flora and fauna.' - 16, male, Western Sydney

'Mental health conditions – depression, anxiety about the future.' - 18, female, Western Sydney

'Health risks – heat/sun – skin cancer; ocean (pollution) – microplastics; pollution – respiratory issues.' - 15, female, Western Sydney

'Petrol prices, cost of living, food, homes/shelter, clothing.' - 18, female, Western Sydney

This is to say that the climate crisis radiates consistently in the background of children's and young people's everyday lives. They are growing up with the knowledge that climate change will drastically impact the planet in their lifetimes. Many fear what that future will bring. This has consequences for their experience of childhood. Children and young people reported that managing the concerns and responsibilities of climate change in their formative years can have a significant impact on their ability to enjoy their childhoods and adolescence.

'[The] sense of responsibility/burden put on teenagers to create change and solve climate crisis that they did not start... This can take time from their education, self-care and simply growing up.' - 15, female, Western Sydney

'[Climate inaction] puts pressure on us to fix the mistakes of the older generation.' - 15, female, Western Sydney



Crucially, children and young people do not see the adults in their lives sharing their concerns about the future of the planet. Indeed, compounding the unsettling reality of the existential threat posed by climate change, participants conveyed a deep sense of abandonment and betrayal by older generations who, in their view, have failed to address climate change and take care of the planet young people will inherit.

The sense of an intergenerational betrayal is fuelled by what children and young people perceive as attitudes of indifference, which they identified as the primary barrier to climate action. They feel that adults 'don't really care' about climate change and are not invested in finding solutions because they will not be alive to experience its most serious consequences.

'Parents know what the problem is, but it's in the future so they really don't care.' - whole group, Western Sydney

'[Adults say] it's not gonna affect us; who cares about the future; we will be dead.' - whole group, Western Sydney

'[Adults say] I don't really care; I have lived my life.' - whole group, Western Sydney

'[Adults] don't have as much fear as we do.' - whole group, Northern Rivers

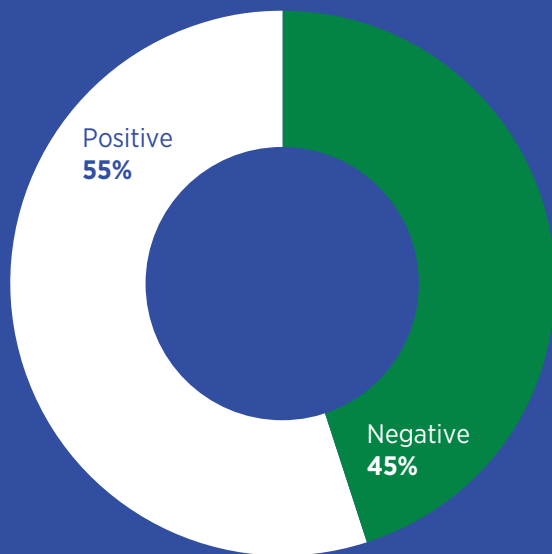
'[Adults] haven't grown up with it so I believe they're not as worried.' - whole group, Northern Rivers



How do children and young people perceive generational attitudes towards climate change?

While overall the children and young people in these workshops feel that older generations have negative attitudes towards climate change, they perceive adults' attitudes becoming progressively more negative as they age. 45% of children and young people said that parents are apathetic, or do not care or take responsibility for climate change. This compares with 67% of children and young people indicating that grandparents have negative attitudes about climate change, including not believing in it or feeling that it will not affect them. This aligns with research that shows that younger generations are more likely to perceive global warming as a serious issue that requires urgent action.¹⁶

Parents



Grandparents

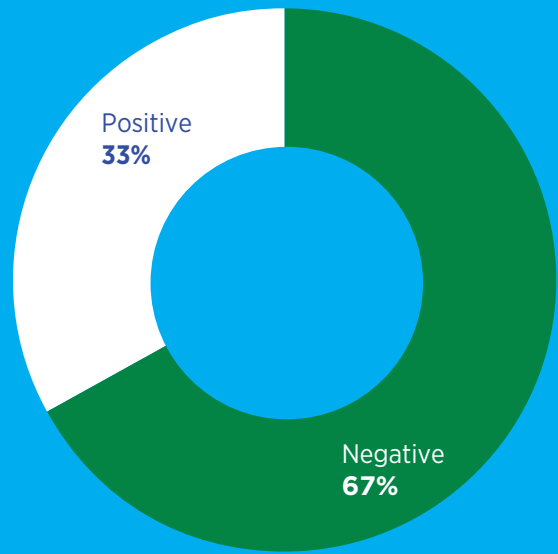


Figure 3: Children's and young people's perceptions of parents' and grandparents' attitudes towards climate change.

Some participants feel that adults actively shift responsibility for climate action onto the younger generation's shoulders.

'[Adults] think it's our job to solve climate change.' - whole group, Northern Rivers

'[Adults say] It is your issue, not mine.' - whole group, Western Sydney

'[Adults say] It is children's responsibility to take care of [the] environment.' - whole group, Western Sydney

'[Adults say] It's your problem now, son.' - whole group, Northern Rivers

'[Adults say] That's a "you" problem.' - whole group, Western Sydney

16 Lowy Institute, 2023.

How prepared do children and young people feel to deal with the impacts of climate change?

Children's and young people's sense of how prepared they feel to deal with the impacts of climate change varies significantly. Overall, approximately 14% said they feel prepared or very prepared to deal with climate change, while the same number feel unprepared. Most participants (72%) fell somewhere in the middle.

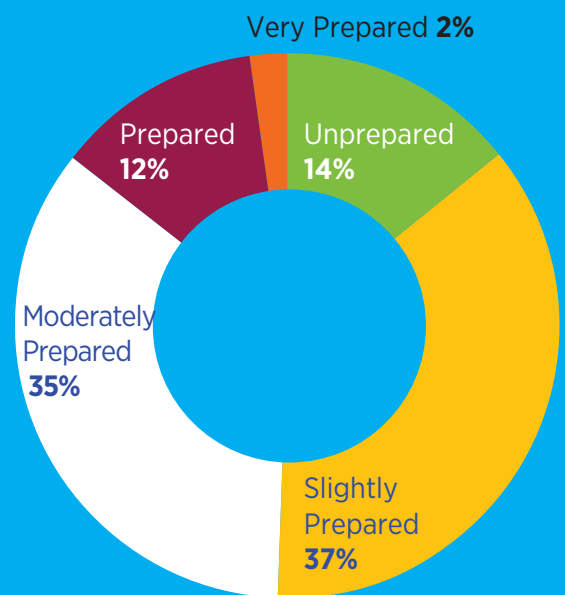
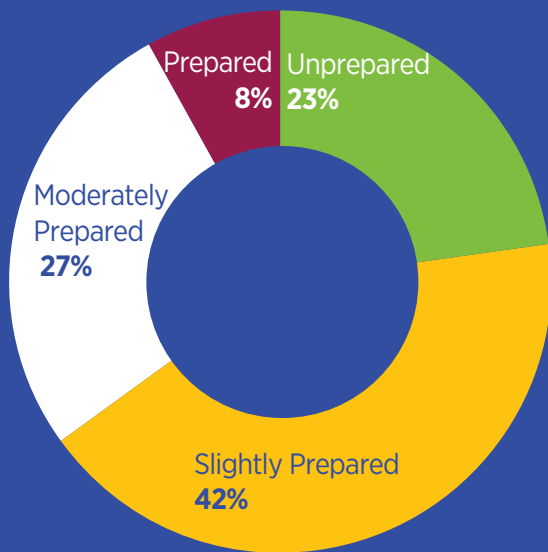


Figure 4: Children's and young people's overall sense of preparedness to deal with the impacts of climate change.

The extent to which young people feel prepared varies based on their gender and geographic location.

Overall, girls feel less prepared to deal with the impacts of climate change than boys. 65% of girls feel unprepared or only slightly prepared, compared with 32% of boys. Twenty-three per cent of boys feel prepared or very prepared, while only 8% of girls feel prepared (0% feel very prepared).

Girls



Boys

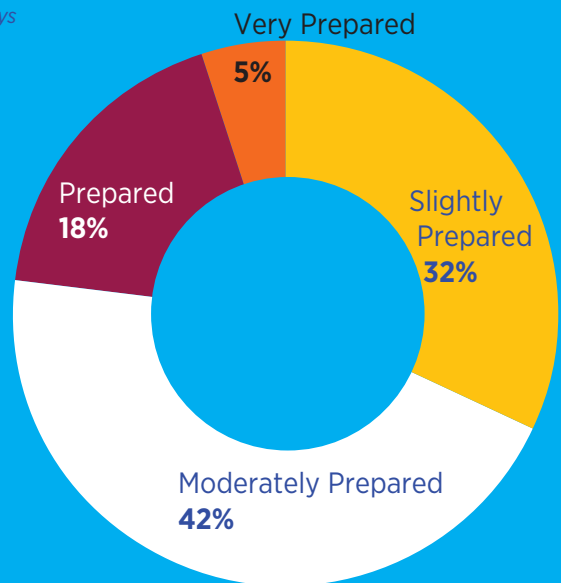


Figure 5: Girls' sense of preparedness

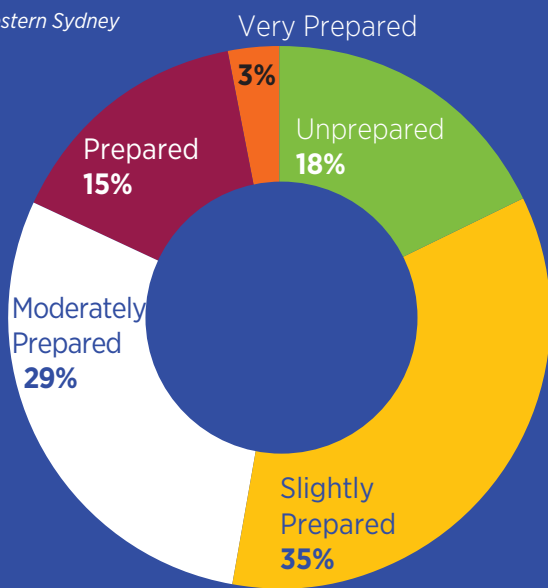
Figure 6: Boys' sense of preparedness

In the Northern Rivers, participants felt either unprepared, slightly prepared or moderately prepared. None felt prepared or very prepared. By contrast, 18% of participants in Western Sydney felt prepared or very prepared. Of the two participants in Upper Hunter region, one felt prepared and one felt moderately prepared. This suggests that recent experiences with climate-related disasters might impact children’s and young people’s sense of preparedness to deal with climate impacts. It is concerning that children and young people generally feel underprepared, especially as climate preparedness requires whole-of-community efforts. Children and young people rely on their caregivers, policymakers and other significant adults for many of the things they need to confront climate change:

- access to safe and secure housing
- adequate healthcare
- healthy and nutritious food
- protection from dangerous weather
- social and emotional support.

This reliance means that children and young people are unable to take actions that significantly address their feelings of under-preparedness for the impacts of climate change.

Western Sydney



Northern Rivers

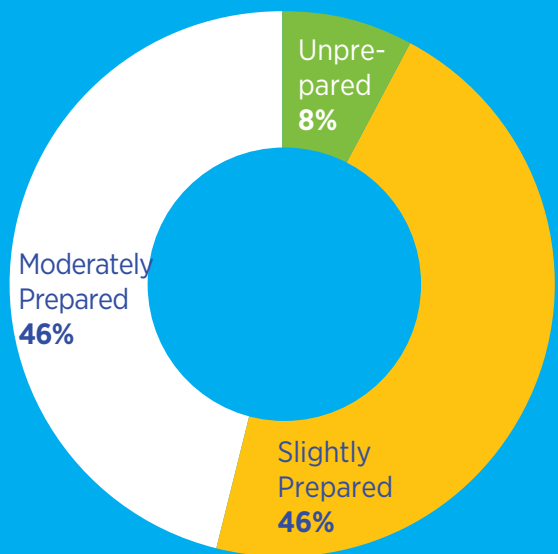


Figure 7: Western Sydney participants preparedness

Figure 8: Northern Rivers participants preparedness

Individually, children and young people feel that their capacity to act and effect change, without the support of adults and institutions, is limited. Most participants believe their circle of influence is relatively small, confined to small actions they can implement in their everyday lives, such as reducing waste, adopting more eco-friendly lifestyles, and educating themselves on climate change. Some feel disillusioned when their actions are unable to influence others in their lives, or they can't see how the modifications they make in their lives are contributing to more widespread change.

'It's hard to influence my parents... They might still eat cow meat even though chicken might have less emissions.' - 15, female, Western Sydney

'Sometimes I feel like my impact doesn't do anything.' - 15, female, Western Sydney

'Does anything I do make a difference if the problem isn't being addressed by larger entities?' - 18, female, Western Sydney

'[I'm] feeling disillusioned. I can't make a difference.' - 17, female, Western Sydney

Despite this, collectively, children and young people have hope. As a community, they have power. As children and young people mobilise in their communities around the world, they create hope, strength and confidence.¹⁷ The children and young people we spoke to have confidence that their generation will lead positive, sustainable and systemic change when they come into power, even though some acknowledged this may be too late. Others feel that their generation has power in numbers now, is united in their care and concern for the world, and, by mobilising together, they can amplify their impact and push for systemic changes needed to combat climate change. As existing climate change research has argued, children and young people are effective agents of change for their families and communities.¹⁸ Children and young people need those in power to recognise them as citizens of today, not just citizens of the future¹⁹ They need governments to listen, and to implement youth participation mechanisms that can effectively channel their views into climate plans, policy and practice.

Even though governments, businesses, civil society and community groups are working hard to address different dimensions of the climate crisis, these actions are not necessarily visible to children. Consequently, children and young people feel abandoned and alone in the fight against climate change. They are weighed down by their future and present and feel their caregivers have failed them. While they have faith in their own generation's collective commitment to change, they cannot and should not be expected to halt climate change alone. They are calling on the older generations to ease the burden on them by shouldering their share of the responsibility and by taking action to reverse the damage that has already been done.

¹⁷ Halstead et al, 2021.

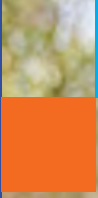
¹⁸ Treichel, 2020; Trott, 2019, 2020.

¹⁹ Trott, 2020.

KEY TAKEAWAYS

- Many children and young people are grappling directly and routinely with the immense burden and uncertainty of the climate crisis. They are deeply concerned about the trifold challenges of climate change, loss of biodiversity and pervasive pollution, which have become the backdrop to their everyday lives.
- Children and young people commonly feel that the older generation has been derelict in their duty to care for the planet and is failing to acknowledge and act upon the urgency and seriousness of the triple planetary crisis. They feel abandoned and alone in the fight against climate change.
- Children and young people feel angry and disappointed that their generation bears a disproportionate burden of responsibility to solve the climate crisis, especially given it is not of their making. Even so, they remain hopeful that their generation can lead positive, sustainable and systemic change that will resolve the climate crisis.
- Children and young people are calling on the older generation – their caregivers, their governments, private enterprise, and civil society – to step up, listen to children and young people, take responsibility, show leadership, channel the necessary resources, and take rapid, targeted action to address climate change before it is too late.





KEY FINDING 2

Children and young people see climate change, biodiversity loss and pollution as interconnected and are calling for comprehensive education and systemic solutions

Science shows that the unsustainable exploitation of the Earth's resources has led to a triple planetary crisis²⁰ comprising three distinct but interlinking issues: climate change, biodiversity loss and pervasive pollution. Children and young people who participated in workshops are deeply concerned about these issues and see them as intertwined.

When it comes to pollution, they are profoundly concerned about the ubiquitous waste that pollutes our air, waterways and landscapes. They are calling for corporations to act responsibly and with a long-term view to reduce pollution, and for individuals to be much more mindful of their waste. They want governments to implement stronger penalties for those who pollute the Earth.

'[In my dystopian future] waterways and landscapes are covered in rubbish and sewerage.' - small group, ages 13-15, Northern Rivers

'[We need to] take measures to... not dispose waste in the oceans, to reduce reliance on plastic as a material... [and] to stop oil spills into [the] ocean.' - small group, ages 18, Western Sydney

'We need to stop polluting the climate and think long-term.' - 13, female, Northern Rivers

'[World leaders] should stop polluting the ocean and waterways and sending chemicals into the sky.' - 14, male, Northern Rivers

'[Industries] need to minimise pollution in any way they can.' - 14, female, Western Sydney

'The agricultural industry is one of the largest polluters and needs to change their process enough to save land and water for future generations.' - 17, male, Northern Rivers

'My hopes are that in the future, there will be less pollution in the air and all around us.' - 12, female, Upper Hunter

They single out the use of plastics as a particular pollution concern. They are calling for governments to ban single-use plastics and for corporations to use sustainable packaging.

'[In twenty years, my community will not have] plastic bags and rubbish floating in the air.' - small group, ages 13-15, Northern Rivers

'Plastic [has a serious impact] because it doesn't break down.' - 10, male, Northern Rivers

'[Governments should] implement laws...[to] make all single-use items reusable.' - 16, male, Western Sydney

'In my utopian world I would want to see more animals and all the oxygen is clean and healthy as well as there being no plastic around.' - 12, female, Upper Hunter

They care deeply about what they see as rampant deforestation, the destruction of natural habitats, and the loss and extinction of wildlife. They want to see more conservation efforts to preserve the rich biodiversity of the world.

'Animals [are] dying due to pollution.' - 17, female, Western Sydney

'There are many different effects of climate change such as global warming from air pollution, animal species becoming extinct, loss of animal habitats due to deforestation.' - 15, female, Northern Rivers

'[Governments and corporations] should be protecting wildlife more and helping the world.' - 10, female, Northern Rivers

'[In my utopian world] natural habitats are undisturbed; national forests conserve fauna and flora.' - 15, female, Western Sydney

'[In my utopian world there are] lots of flourishing ecosystems: trees, flowers... no endangered animals, and reintroduced animals that were extinct.' - small group, ages 18, Western Sydney

'[In my utopian world] near extinct animals have come back from the brink of death.' - 13, male, Upper Hunter

For children and young people in this study, environmental degradation is inseparable from climate change. Together, these issues reflect deeper, systemic problems in the way that humans are engaging with the world's resources. They believe a capitalist worldview is driving unsustainable lifestyles and overconsumption, reflecting concerns that children and young people have raised in other studies.²¹ They asserted that consistently living beyond our means has come at the expense of our Earth and its life support systems.

'Earth holds the resources to fulfil the needs of every single organism. However, the human tendency of greed disadvantages the environment.' - 15, female, Western Sydney

'Society has gone through great technological advancements, [and] with these advancements, come a toll on our planet, the health of our planet, the health of our Earth. The world's capitalists and governments emit and pollute with toxic gases which slowly kill our Earth year by year, decade by decade.' - 18, male, Western Sydney

'Industrial processes and mass production increased exponentially because the standard profit became more important than sustainability... People wanted to create as much as possible instead of what was needed.' - 18, female, Western Sydney

'Guys such as Jeff Bezos, Elon Musk, Zuckerberg and Narendra Modi use heavy aerospace vehicles for their personal use.' - 15, male, Western Sydney

'The world will end if it continues... Continuous unsustainability has led to climate change.' - 18, female, Western Sydney

'Everything that we do and how we live creates pollution.' - 15, female, Western Sydney

Children and young people drew attention to the cascading effects of direct climate impacts across economic, social, political and ecological domains. For example, they explained how natural disasters can disrupt public transport and prevent them from getting to school or can result in school closures. Indeed, some participants had direct experience of disruptions to their schooling.

'More weather events can affect access to education.' - 15, female, Northern Rivers

'Transportation issues due to floods could impact children to go to schools/going outside; Trains consistently have issues due to excessive rain, which disrupts my day-to-day life. For example, getting to school or work.' - 18, female, Western Sydney

YEHANSA SAYS...

We can see in the data set that these young people have a holistic and intricate view not only of climate change but of the environment.

When we talk about climate change, we're not just talking about 1.5 degrees of warming or greenhouse gases. We are talking about the impact on wildlife, air quality, and the built and natural environments.

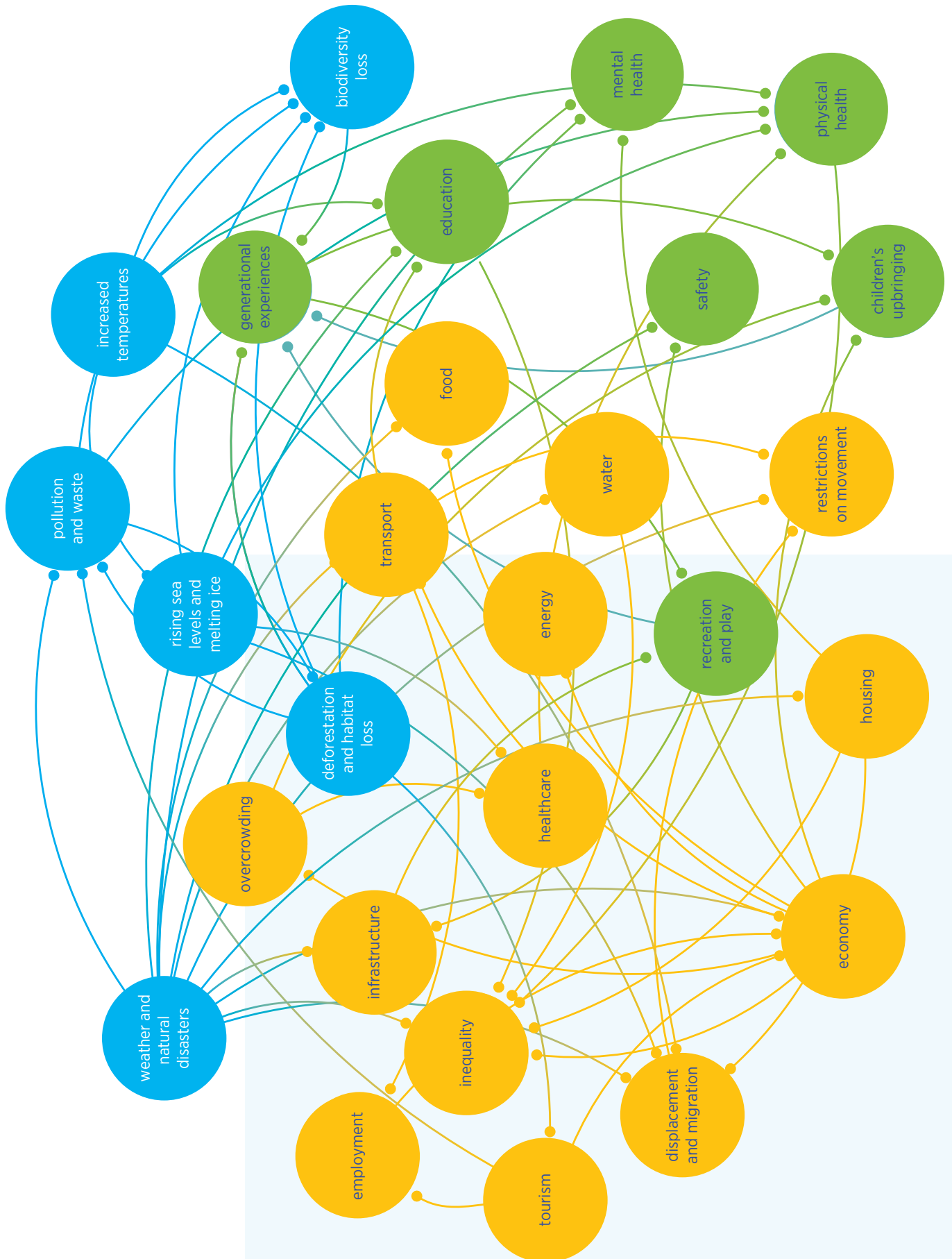
We're thinking about the impacts and how they shape our communities. We're thinking about what that means for our education, access to opportunities, social equality, and mental health. We're thinking about what that means for our future.

For children and young people, climate action is not just about the reduction of emissions. It's also about education, it's about ensuring equality, and it's about getting young people's voices out there and others listening to what we have to say. We have plenty to say.

21 Watkins and Aitken, 2020.

Mind map of climate and environmental impacts

This mind map shows the complex interrelationships children and young people in this workshop identified between environmental and climate, socio-economic, and individual impacts.



'Children with limited access to remote learning struggle to access education in times of bushfires, droughts, floods.' - 17, female, Western Sydney

'Young people's future education will be structured differently. To minimise [the impacts of] climate change [on young people's education], electronic digital devices and resources will be adopted. However, not everyone can afford these resources [which can create a] divide in education.' - 15, female, Western Sydney

Children and young people draw connections between increasing temperatures, poor air quality and the ability to safely go outdoors, which could have flow-on effects on people's health and fitness. This could, in turn, disproportionately affect those with chronic health conditions, worsening health inequalities.

'Overheating causing health impacts, unequal to people with chronic health conditions.' - 15, female, Western Sydney

They connect the changes in climate to resource shortages, leading to food insecurity and malnutrition in children and young people, or farmers losing their livelihoods. Children and young people fear that these shortages will also increase the cost of living, making basic housing and facilities unaffordable, or making it difficult for families to support their children.

'Cost of living [such] as food prices skyrocket due to food insecurity.' - 15, male, Western Sydney

'Higher prices; food insecurity, farmers losing jobs.' - 15, female, Western Sydney

'Transport costs will rise.' - 16, male, Western Sydney

'[Because of the] cost of living crisis, young people won't be able to afford homes or to eat; parents won't be able to support children so the population will drop.' - 15, female, Western Sydney

Participants also explained how unstable social and political conditions caused by the flow-on effects of climate change could increase crime, lead to riots or violent protests, and ultimately impact their safety.²²

'[I worry there will be a] lack of safety due to increases in crime.' - 15, male, Western Sydney

'[I foresee] riots, fights for rights and action, lack of safety.' - 15, female, Western Sydney

For children and young people, combatting climate change requires that humans radically transform our relationship with the Earth, and address these environmental issues in parallel, not in isolation. Some recognise that practices that are widely considered every day are luxuries we cannot afford.

'Everyone needs to sacrifice luxuries that provide comfort but lead to global warming; these luxuries include things like plastics and using fossil fuels.' - small group, ages 14-17, Northern Rivers

'Capitalism and consumerism need to decrease.' - small group, ages 12-17, Western Sydney

'[Communities need to] buy energy-friendly items (not petrol cars).' - 13, male, Upper Hunter

Participants in this project are demanding an end to exploitative practices and attitudes towards the natural world, calling on every individual, community, corporation, and government to adopt a mindset of environmental stewardship. They assert that people must learn to value the natural environment in the same way that we value humans and society. Some referenced First Nation's traditional knowledge and environmental practices as important in achieving positive action on climate change.

'[We need to promote] an equal society that contributes to taking care of the society and land equally.' - small group, ages 12-15, Western Sydney

'We [must] work as a community to take action against climate change and to sustain the environment. We all know our responsibilities and that the environment is as important as humans.' - small group, ages 12-15, Western Sydney

'Follow First Nation's environmental practices.' - small group, ages 12-16, Western Sydney

²² Research has shown correlations between changes in the climate (including increased temperatures and above or below normal rainfall) and increases in violence, crime and war. See Akresh, 2016.

And they argue that, collectively, we must work together to restore the planet. In their view, it is imperative to not only protect and sustain but to enrich the Earth through everyday actions and sustainable practices.

'[We must] try to enrich the planet as much as we can.' - small group, ages 15-18, Western Sydney

'[It should be] part of [our] daily routine to tend to the environment.' - small group, ages 12-17, Western Sydney

'[Our utopian future is a] community based around planet conservation.' - large group, ages 12-18, Western Sydney

'[In the future,] the environment [will be] healthy because we all work together to sustain it and care for it.' - small group, ages 12-15, Western Sydney

'[In my utopian future] people [are] making change themselves because they are aware of the impacts of pollution.' - 12, female, Upper Hunter

To achieve this vision, they called for education that instils the principles, values and practices people need to act as environmental stewards for our planet.

'[We need] "How to take care of the environment" education.' - large group, ages 15-18, Western Sydney

'Education would be better, and they would be helping teach [people] how to keep the planet right.' - small group, ages 10-13, Northern Rivers

While children and young people recognise that climate change education is critical to driving climate action and justice, most said they do not receive climate change education in school. They are calling for targeted, scientifically accurate education about how to take care of the planet to be delivered across the community (see 'Education – a priority for climate action' on page 48).

Despite some common misconceptions about the science, which are widespread among children and young people around the world,²³ participants were deeply attuned to the systemic and complex nature of climate change. They articulated sophisticated understandings of the interconnections between human activities, environmental degradation, and societal systems. They recognise the importance of understanding the environment as a whole system and believe that, while climate change is an urgent and significant threat to the viability of life on Earth, it is one threat in a greater web of risks facing the planet and its survival.

The children and young people we spoke to recognise that, because of the systemic nature of the triple planetary crisis, finding effective solutions is not straightforward. In discussions, participants debated the trade-offs inherent in even the most promising climate innovations. For example, children and young people in the Northern Rivers area passionately deliberated about whether the environmental and social impacts of the consumption of fossil fuel by petrol cars are worse than those of the mining of the lithium required to produce batteries for electric cars. Weighing up the pros and cons, they agreed that perfect solutions are not obvious.

For children and young people, climate change is one component of the triple planetary crisis and must be addressed alongside pollution and biodiversity loss. They assert, however, that these issues are not only environmental crises but deeply human crises. Participants recognise that we are connected to and dependent on the Earth. Destabilising the climate and the Earth's ecosystems will have cascading and catastrophic impacts on every facet of human life. They are calling for us to end the triple planetary crisis, and respond with holistic, coordinated approaches across social, political, economic and ecological domains.

KEY TAKEAWAYS

- Children and young people see climate change, pervasive pollution and loss of biodiversity as interlocked and systemic issues. They are particularly concerned about air, water and land pollution, highlighting the urgency of addressing the ubiquity of plastic, as well as rampant deforestation, the destruction of natural habitats, and the loss and extinction of wildlife through, for example, stricter penalties.
- Children and young people locate the foundations of the triple planetary crisis in humans' exploitative attitudes and practices towards the planet and its resources. They are concerned that capitalist orientations to the world are driving unsustainable forms of overconsumption. They are calling on their governments and communities to radically reorient our relationships with the natural world towards environmental stewardship, to repair and restore our planet.
- Children and young people reported that they have few opportunities to learn about climate change, loss of biodiversity and environmental pollution as part of their formal education. They urge governments to provide high-quality information about the triple planetary crisis and to educate all citizens about the principles, values and practices of environmental stewardship.
- Children and young people are concerned about the widespread and cascading social, political and economic effects that are likely to ensue from a worsening climate. They are urgently calling for holistic, coordinated approaches to address the triple planetary crisis across the social, political, economic and ecological domains of everyday life.



'Looking Up for Change' by Yehansa Dehanayake.

KEY FINDING 3

Children's and young people's experiences of climate change and their priorities for climate action are profoundly shaped by geographic and socio-economic differences

While climate change is a global phenomenon, its effects are highly localised,²⁴ which means that children's and young people's experiences, concerns, and needs regarding climate change are specific to their local contexts, situations and backgrounds.

The impacts of climate change are not felt equally by all children and young people everywhere. Research shows that climate impacts exacerbate existing inequalities, disproportionately affecting marginalised communities and underserved children and young people.²⁵ Given existing inequities, it is anticipated that children and young people from Aboriginal and Torres Strait Islander, migrant or refugee backgrounds, those from lower socio-economic brackets, living with disability or living in disaster-prone areas (like those in the Northern Rivers region) will be especially impacted.²⁶

Geographic locations and socio-economic backgrounds play an important role in how the children and young people we spoke to understand and experience climate change, and their priorities for climate action. While there are similarities across cohorts in this project, children and young people in each of the three locations reported different experiences of, and concerns about, the impacts of climate change on their lives and communities. We summarise these key differences below.

Northern Rivers

In February and March 2022, communities in the Northern Rivers were affected by the biggest flood in modern Australian history.²⁷ A needs assessment conducted by UNICEF Australia and Royal Far West in 2022 showed that children and young people in this region experienced significant impacts on their education, physical and mental health, and safety.²⁸ Over 18 months after the floods, Northern Rivers communities are still recovering from these impacts, a 2023 study highlighting the prevalence of eco-anxiety among flood-impacted young people in the region.²⁹

The children and young people we spoke to in the Northern Rivers have been profoundly shaped by these experiences. More than children and young people in other locations, they identified flooding and other weather events as some of the most serious effects of climate change, highlighting how such events impact their access to education.

During the 2022 flooding, 331 schools in NSW were impacted and forced to close temporarily. With these events fresh in their minds, children and young people shared their experiences and concerns about how constant flooding can cause school closures and force flood-impacted schools to relocate to other school campuses for extended periods.³⁰ They report that this can lead to overcrowding in schools, affecting the quality of education they receive.

'Schools won't be usable because of the constant flooding and the school will have to be constantly rebuilt which would cost lots of money.' - small group, ages 14-17, Northern Rivers

'[Having a] bigger school affects education equality.' - 15, female, Northern Rivers

'Overpopulated [schools] lead to [a] lack of quality education and opportunities.' - small group, ages 13-15, Northern Rivers

24 Nash et al., 2019.

25 Akresh, 2016.

26 United Nations Committee on the Rights of a Child, 2023.

27 The Visual Stories Team and Gilmore, 2022.

28 UNICEF Australia and Royal Far West, 2022.

29 headspace, 2023.

30 UNICEF Australia and Royal Far West, 2022.

They are also concerned that, when schools are temporarily relocated in emergency circumstances, teachers do not always have the resources they need to teach. Alternatively, emergency schooling may prevent students from taking extracurricular or elective classes that require access to special facilities, such as woodwork and metalwork. One participant speculated that, if this continues in the long term, it could eventually lead to shortages of workers in associated trades, such as carpentry.

‘Schools won’t have the right materials to teach.’ - 14, male, Northern Rivers

In conversations, participants also shared how closures to local swimming pools, netball and tennis courts have affected their ability to play and take part in recreational activities both inside and outside of school. Access to safe places to play is an important part of children’s and young people’s ability to express their stress and recover post-disaster.³¹

Northern Rivers participants were focused on the issue of mobility into and out of the region. They were concerned about how people moving to the area to escape the impacts of climate change on cities might lead to overcrowding or rapid urbanisation in regional areas. They were also concerned that people might flee the area due to natural disasters. In the long term, they said that the latter may lead to teacher shortages and compound the negative educational impacts of climate change on future generations.

Unlike participants in Western Sydney and the Upper Hunter region who spoke about climate change in somewhat more abstract terms, those in the Northern Rivers area – in particular, those from Lismore – live with a very real sense of the immediacy of climate change. They spoke candidly about the threat that climate change poses to the longevity and viability of their communities.

‘Don’t build in Lismore; relocate [the] downtown [areas].’ - small group, ages 14-17, Northern Rivers

‘By doing nothing about climate change, downtown Lismore will be uninhabitable due to regular flooding.’ - small group, ages 14-17, Northern Rivers

‘Twenty years into the future [climate change will have] flooded Lismore out of existence.’ - small group, ages 13-15, Northern Rivers

Despite the immense challenges children and young people in the Northern Rivers region have faced, they demonstrated remarkable resilience in the face of such adversity. Underlying this resilience was a strong sense of community, with many emphasising that if the community works together, the situation will be better. This speaks to the importance of strong, grassroots community action in the wake of such natural disasters.³² Governments must work closely and coordinate with local communities to provide support and resources for these recovery efforts.

‘Your community and loved ones help you be resilient; they need community to recover – working together, helping each other.’ - small group, ages 10-13, Northern Rivers

‘[We need to] help victims and create a closer community [to build resilience against climate change].’ - small group, ages 13-15, Northern Rivers

Unsurprisingly, Northern Rivers participants’ priorities for climate action emphasised preparation for natural disasters and taking action to mitigate future risks of climate-related events.

31 Kinoshita and Woolley, 2015

32 UNICEF Australia and Royal Far West, 2022.

What do children and young people say their communities need to be resilient?

While children and young people in the 3 locations had different expectations about how climate change would play out, they had remarkably consistent priorities for building climate-resilient communities.

Their top three priorities are:

- preparation, including warning systems and climate-resilient infrastructure
- robust emergency response systems
- collective, community action to mitigate and respond to climate change.

However, the ways these priorities are inflected differ between regions.



Figure 9: Children’s and young people’s top three priorities for climate-resilient communities

Preparation

Reflecting their recent experiences, children and young people in the Northern Rivers focused on the need for flood-resilient infrastructure to better prepare their communities for climate change. They highlighted a need for effective drainage and pump systems, and better water catchments upstream. They called to 'raise the levee', referring to the breach of Lismore's levee system in the 2022 floods. Other participants suggested that houses should be raised further off the ground, or simply that people 'don't build in Lismore'. One called for 'insurance for flooding.'

Children and young people in Western Sydney's concerns revolved more around fires, possibly reflecting their experiences with the 2019/2022 bushfires, which touched on the edges of Western Sydney and ravaged the Blue Mountains. To reduce the likelihood and severity of bushfires they want 'backburning' and community clean-ups to remove dry matter and leaves. Their suggestions for climate-resilient infrastructure were less specific than those in the Northern Rivers: they want 'natural disaster specialised buildings', waterproof housing, and 'swayable buildings' to protect against earthquakes. They also emphasised the need for adequate shelters for those in need, and community action plans.

One participant in the Upper Hunter called for 'air pollution radars at the mine', referencing the impacts of the coal-fired power stations that dot the landscape and contribute to significant pollution in the region. Referencing the 2019/2020 fires in the Greater Hunter area, they also called for fireproof houses and 'fires near me apps'.

Emergency response

Early evacuation and relocation of populations was a priority for children and young people living in the Northern Rivers. One participant said, 'let boat owners help sooner during the floods'. Financial support for those affected by natural disasters was a priority in the Northern Rivers and Western Sydney, and participants in both areas called for mental health support for communities post-disaster.

Community action

Across all groups, children and young people emphasised the need for communities to work together to prepare and respond to climate change and natural disasters, through community support networks, shared resources and tree-planting initiatives. Children and young people told us that activities that bring communities together create connection and support that strengthens children's and young people's resilience to climate change.

Western Sydney

Western Sydney is one of the most culturally and linguistically diverse communities in Australia,³³ and home to large numbers of migrants, including those who are newly arrived and/or refugees. Across the region, larger family sizes and cultural norms, such as intergenerational living, affect housing occupancy. In addition to denser housing occupancy, a shortage of affordable housing, rising inflation and the cost-of-living crisis have exerted increasing pressure on households, local facilities and resources.

For many children and young people in this region, the COVID-19 pandemic compounded pre-existing inequities, giving them an insight into the possible effects of climate change on their daily lives, families and communities.³⁴ At a local level, the COVID-19 Delta outbreak in the second half of 2021 had significant psychological, social and financial impacts in Greater Western Sydney, with many families experiencing a disruption to stable employment and food insecurity.³⁵ It is no surprise, then, that children and young people in the Western Sydney workshops highlighted the cost of living, access to resources and overcrowding as their chief concerns about the impacts of climate change.

The affordability of food and transportation were major concerns for children and young people in Western Sydney, especially as climate change puts increasing pressure on resource availability.

'Food [will] get more expensive.' - 16, non-binary, Western Sydney

'The cost of travel will increase (petrol and gas); [public] transport costs would rise due to overuse.' - 16, male, Western Sydney

Some are worried that these economic pressures could ultimately impact families' abilities to provide for their children's basic needs, leading to longer-term developmental impacts.

'Cost-of-living/prices going up: food, petrol, houses, [meaning that] parents can't support their children.' - 13, female, Western Sydney

Participants' concern about the financial impacts of climate change is particularly acute in relation to housing. The affordable housing shortage in major cities like Sydney³⁶ is exerting immense pressure on households. Children and young people expressed concern that increasing costs in relation to housing will lead to overpopulation and overcrowding, affecting the quality of life of individual families and whole communities. While overcrowding in homes and communities was a concern among all cohorts, it was most pronounced in Western Sydney.

'There will be an overpopulation in homes [because of climate change], affecting the upbringing of children due to cost of living [pressures].' - 15, female, Western Sydney

'Overcrowding in cities is leading to hardships to access basic facilities such as schools, hospitals, etc.' - 18, female, Western Sydney

'Overcrowding in urban sprawls/cities [is a major concern].' - 15, male, Western Sydney

Extreme heat and heatwaves were also a major focus for participants from this region, and more pronounced compared to those in the Northern Rivers or Upper Hunter. Research has shown that communities in Western Sydney are already exposed to extreme heat and heatwaves much more frequently and intensely than their coastal counterparts – sometimes with differences of up to 10 degrees in maximum temperatures. Over the last 30 years, very hot days have become common in Western Sydney.³⁷ Children and young people are concerned that heatwaves, poor air quality in the urban environment, and disruptions to public transport caused by extreme weather will drastically inhibit their future ability to go outside for school, work or play.

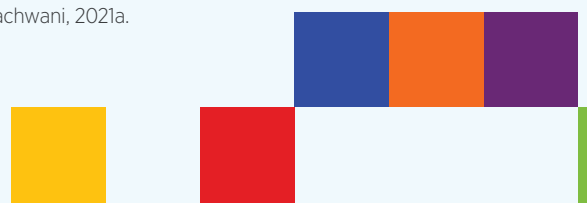
33 Western Sydney University, 2022.

34 Western Sydney University, 2022; Western Sydney MRC, 2021; McNicholas et al., 2022; Rachwani, 2021a.

35 Rachwani, 2021b; Vistontay and Taylor, 2021; Western Sydney University, 2022.

36 Herath and Bentley, 2018.

37 Speer et al., 2023.

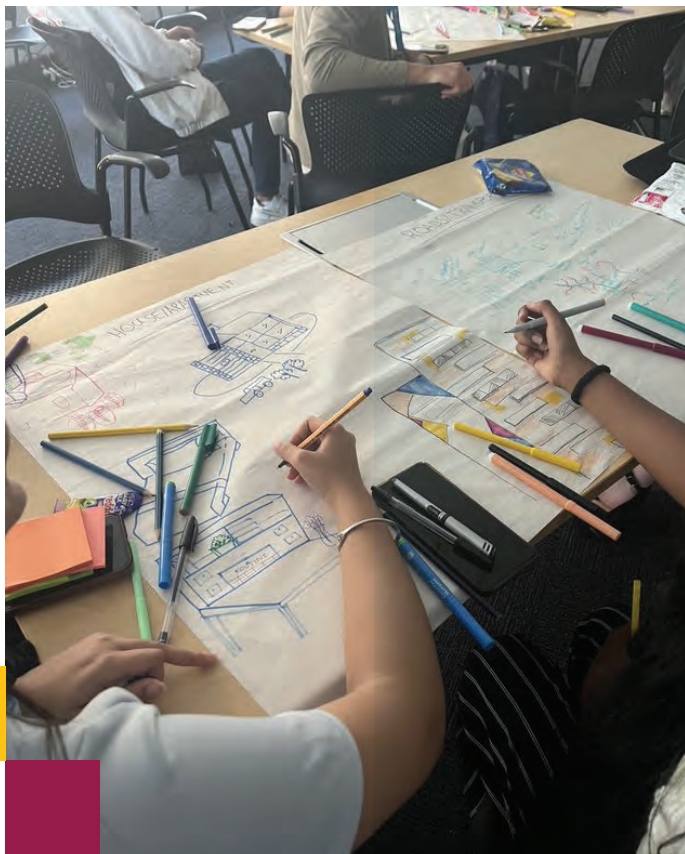


'Weather conditions will be unfit to go outside. We will be stuck inside or living underground.'
- 15, male, Western Sydney

'We need to stay inside [because we can] not [go] outside.' - 18, female, Western Sydney

'Transportation issues due to floods could impact kids getting to school or going outside.' - 18, female, Western Sydney

Interestingly, these fears were rarely noted by participants in the Upper Hunter region or the Northern Rivers, where children and young people tend to have more recreational space and were not subjected to the same restrictions during COVID-19.



Participants complete activities in the Western Sydney workshop

Upper Hunter

Children and young people in all locations highlighted air quality and its impacts on clean environments and health. However, while children and young people in Western Sydney focused on air pollution from urban environments, those in the Upper Hunter were primarily concerned with the air pollution from coal mining plants. In 2018, the Upper Hunter region had the most polluted air in NSW, a result of having the largest concentration of coal mining and processing in proximity to townships in Australia.³⁸ For the two participants from the Upper Hunter region, coal mining was prominent in their experiences and priorities for climate action. They call for a cease to all mining near developed areas so the air is clean and free of pollution.

'[I hope for a future in which] mining has stopped near heavily populated towns [and] coal mines [have] moved further away.' - 12, female, Upper Hunter

'[I want] to have a clean and better future in which we... stop using gasses that can and will pollute the air, and... we stop cutting down trees.' - 12, female, Upper Hunter

Children and young people say the priorities for climate action in their region are to 'shut down coal mines', move 'away from coal' and shift to renewable energy.

'We need to move away from coal and gas, move towards clean energy.' - 13, male, Upper Hunter

The Hunter Valley region is traditionally a mining community, with coal mines employing '14,000 workers directly and thousands more indirectly'.³⁹ As priorities shift from mining to renewable energy, there is an urgent need for a just transition in these communities, giving affected employees alternative opportunities for 'decent work and quality jobs'.⁴⁰

38 Australian Conservation Foundation, 2018.

39 Phelan and Crofts, 2022.

40 UNFCCC, n.d.

Socio-economic inequality

Children and young people from all locations were attuned to the disproportionate impacts of climate change on lower socio-economic communities, as well as those who live in rural and remote communities, and people living with disabilities and chronic illness.

'[Climate change] results in extreme weather conditions, for example, droughts, glaciers melting, less water available. [It] impacts people in lower socio-economic conditions significantly.' - 17, female, Western Sydney

'[Climate change] can affect certain communities more (for example, regional/rural, disabled, chronically ill etc).' - 15, female, Western Sydney

Participants – especially those in Western Sydney – were particularly concerned about the negative and long-term impacts of climate change on lower socio-economic communities. As climate change continues to affect regional migration, employment and resource security, children and young people fear that generational cycles of poverty will be harder to break; facilities and resources will be harder to access; and children and young people in lower socio-economic areas will have both less opportunities and less power to effect change.

'Those who have grown up in a poor household will never be able to escape poverty due to the worsening of the economy [due to climate change].' - 15, female, Western Sydney

'Accessibility and cost of facilities would greatly affect young adults and children as the costs for these facilities would go up and accessibility would get lower and be less accessible for people in lower class areas.' - 15, male, Western Sydney

'[It will be] harder to get a place in a lower-class area as the affordability of a place near a lot of facilities for most people wouldn't be good, therefore leading them to go to a cheaper, less accessible area, making it harder for them to travel there.' - 15, male, Western Sydney

Local experiences of socio-economic difference profoundly affected children's and young people's expectations about population mobility. Children and young people in the Northern Rivers region tended to worry that people might move out of their community to avoid the threat of flooding, ultimately undermining the strength and viability of their community. In the lower socio-economic area of Western Sydney, by contrast, children and young people were concerned that climate change will exacerbate cost-of-living pressures, resulting in overcrowding in their homes and schools, and, lacking the necessary resources, residents would be unable to relocate and rebuild their lives.

Many of these fears reflect the recent lived experience of COVID-19. During the global pandemic, Australian children and young people faced the realities of higher unemployment rates, food insecurity, disruptions to education and a shift to online learning, and significant and prolonged restrictions on movement.⁴¹ Research exploring the effects of the pandemic in Australia demonstrates that households in lower socio-economic areas were most affected.⁴² Participants in this study were acutely aware of the inequality of these impacts, and the challenges that disadvantaged communities face when the security of essential resources is threatened. Drawing on their localised experiences of climate change, they call for widespread, collective and collaborative solutions and climate action.

Children's and young people's experiences of climate change and priorities for climate action are shaped by their geographic locations and environments. Responses that aim to protect children and young people from the impacts of climate change must be tailored to their local contexts and communities⁴³ – whether they are disaster-prone areas, urban environments, or just transition communities. It is equally critical that children's and young people's communities are supported by governments to build resilience and respond to climate change⁴⁴

41 Western Sydney University, 2022; Western Sydney MRC 2021; McNicholas et al., 2022; Visontay and Taylor, 2021.

42 Western Sydney University, 2022; Western Sydney MRC 2021; McNicholas et al., 2022; Visontay and Taylor, 2021.

43 UNICEF, 2021.

44 Nash et al., 2019.

KEY TAKEAWAYS

- While children and young people across diverse contexts are equally troubled by the causes and effects of climate change, their concerns are inflected by their localised circumstances and lived experiences. Those in the Northern Rivers were most concerned about flooding. Those in the Upper Hunter worried about air pollution caused by coal-fired power stations. And the top concerns of those in Western Sydney were urban heat and fires, and how climate change will impact lower socio-economic communities.
- Those with recent, lived experience of natural disasters were more likely to have a stronger sense of the immediacy of climate change. Further, children's and young people's experiences of COVID-19 impact their expectations about the future social and economic impacts of climate change.
- Despite their different experiences of and expectations about climate change, children and young people had remarkably consistent priorities for building climate-resilient communities in all three locations. Their top three priorities for community resilience are preparation, including warning systems and climate-resilient infrastructure; robust emergency response systems; and collective, community action to resist climate change.
- Children and young people are particularly concerned about the negative and long-term impacts of climate change on lower socio-economic communities and equity-seeking groups. They worry that climate change impacts on regional migration, employment and resource security will exacerbate generational cycles of poverty; constrain the mobility of populations; exert extreme pressure on infrastructure; and severely limit communities' capacity to effect change.

KEY FINDING 4

Children and young people believe governments and corporations are responsible for leading climate action and want these actors to restore their faith in democratic process by taking urgent and decisive action to halt – and reverse – climate change

Participants asserted that meaningful action to mitigate and reverse climate change requires everyone to take collective responsibility for the planet. They urge individuals of every age and socio-economic status, local and multinational groups and corporations, industry and all levels of government to unite, work together and fight for change.

‘It is everyone’s responsibility to look after the Earth.’ - small group, ages 12-15, Western Sydney

‘Everybody needs to work together to create an ideal and sustainable future.’ - small group, ages 12-15, Western Sydney

‘Understanding climate change needs to be collective.’ - 15, female, Western Sydney

‘It is a problem we all need to take action against.’ - 12, female, Western Sydney

However, they overwhelmingly believe governments and corporations bear the greatest responsibility for securing a climate-resilient future.

‘Because the government has the power and makes the rules, they need to be enforcing change in order to push the country [to do] better.’ - 17, male, Northern Rivers

As figure 10 shows, children and young people were most likely to attribute responsibility for action on climate to governments, including federal, state, local and world governmental leaders (27%), followed by industries and corporations (24%). They also highlighted the collective (that is, everyone) as highly responsible (17%), as well as themselves (11%).

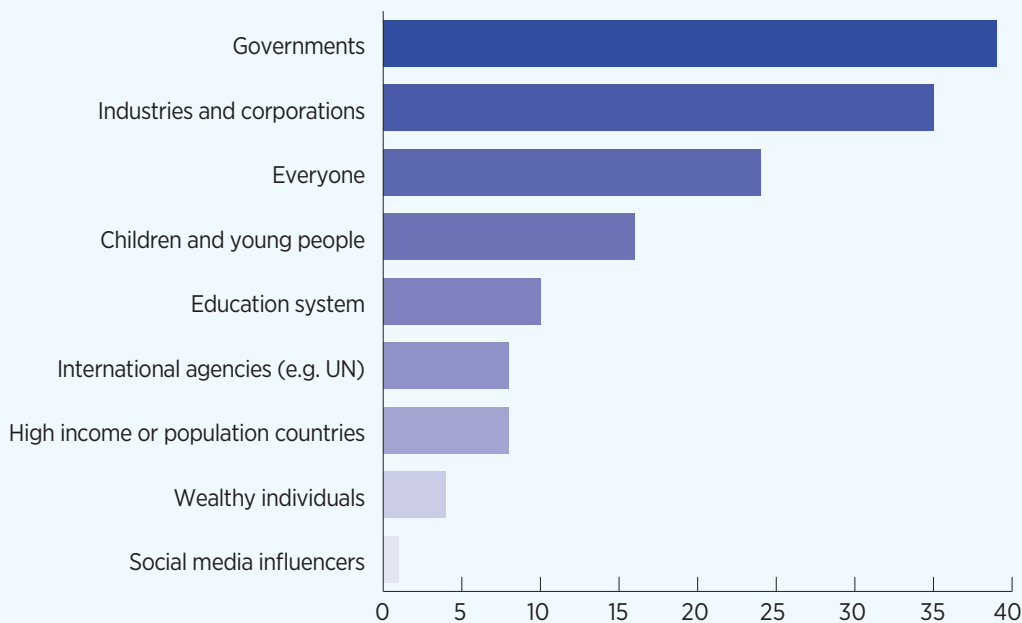


Figure 10: Children’s and young people’s perceptions of who is most responsible for climate action.



YEHANSA SAYS...

'Everyone' comes up in the list of responsible actors a lot in this dataset. I think this is because we understand climate change needs collective, collaborative action. But that's not all of it.

I think the reason 'everyone' came up a lot is because the steps to action are not always clear. We do have climate targets and the Paris Agreement, which are so useful and important, but it's not always clear how those targets apply to our everyday life. How do we make those a reality?

Without a clear understanding of the actions we can all take - young people, companies, schools, parents, etc. - all we have to point to are general, collective actions.

Catalysing collective responsibility into actions requires that entities with power, influence and the capacity to contribute the most to climate change show leadership and take proportionate climate action to reverse the damage already done to our planet.⁴⁵ To this end, children and young people are calling on governments and private enterprise, in particular, to implement the following actions outlined in figure 11.



Figure 11: Priorities for climate action.

45 Cazorla and Toman, 2000.



Education – a priority for climate action

Children and young people in this project consistently presented climate change education as a leading priority for climate action. They are asking for scientifically accurate education about climate change that is based on current research. Specifically, they want education about the causes, effects and solutions for climate change; how to prepare for climate change; and actions they and their communities can take to mitigate and adapt to climate change. They call on the education system (education bodies and the government), to equip young people and their communities with the practical knowledge they need to mitigate climate change.

Climate change education is a critical component of effective climate action. Specific, scientifically accurate climate change education can have a profound effect on a child's or young person's willingness and ability to meaningfully participate in climate action and be an agent of change.⁴⁶ Importantly, climate education can mitigate the negative feelings experienced by children and young people, and increase their awareness and concern for the planet, while simultaneously preserving a sense of hope and optimism.⁴⁷ Children and young people need specific types of education that enable them to learn scientifically accurate information, articulate and explore their fears, develop actions that create change in their family and community, and foster optimism for their future.

'[We] hope that future generations all believe in climate change, so they can try to do something about it.' - small group, ages 12-18, Western Sydney

'[We envision a world] where education has improved...and people are motivated and educated about how to tackle climate changes and its effects.' - small group, ages 12-18, Western Sydney

'[We want] education on climate change and taking care of the environment [to be] included in the curriculum.' - small group, ages 12-18, Western Sydney

'NSW Education Standards Association (NESA) should include more consequences of climate change in science/geography.' - small group, ages 12-18, Western Sydney

Equipping and empowering children and young people to face the climate crisis requires climate change education that is participatory, action-based and focused on transformation.⁴⁸ As the United Nations Committee on the Rights of the Child states, education is a cornerstone of a child rights-based approach to the environment and 'rights-based environmental education should be transformative, inclusive, child-centred, child-friendly and empowering'.⁴⁹

At the same time, reflecting broader trends relating to the erosion of trust in democratic societies around the world⁵⁰ they are deeply suspicious of governments' and corporations' motivations and promises. A recent survey of 500 Australian children and young people found that the vast majority of children and young people believe that climate policies are driven by economic imperatives rather than concern for the wellbeing of current or future generations, perpetuating a belief that state and federal governments do not take the climate crisis seriously.⁵¹ There is great scope for these actors to step up efforts to address climate change and, thereby, to work

46 Lee et al., 2020; Trott, 2020

47 Trott, 2019, 2020, 2022.

48 Trott, 2020.

49 United Nations Committee on the Rights of the Child, 2023.

50 Arnot et al., 2023; Galway et al., 2023; Antronico et al., 2023; Hickman et al., 2021

51 Arnot et al, 2023

towards restoring children's and young people's faith in democratic leadership, institutions and processes.

Government responsibility

Children and young people expressed their appreciation for a range of government initiatives addressing the triple planetary crisis, such as bans on plastic and the 'Net Zero by 2050' target.

'[Politicians say] they want to stop air pollution before the year 2050 (net zero emissions).' - 12, female, Upper Hunter

Even so, they expressed a distinct lack of confidence in politicians' leadership on climate change and are calling on them to enhance efforts to tackle climate change and to communicate transparently about what actions they are taking and why.

Children and young people who participated in the study are alarmed that climate change is not at the top of government agendas.

'[Climate change] is not properly addressed by our leaders.' - 15, female, Western Sydney

'[Governments] should actually have plans of action rather than thinking about it [but] not doing anything about it.' - 15, male, Western Sydney

Children and young people expressed disquiet about the actions of those politicians who accept the reality of climate change. They believe that political leadership is not acting quickly and decisively enough to mitigate the accumulating threat of climate change. They want to see governments take a much stronger stance on climate change.

'Politicians say climate change action is important but do not take any actions.' - whole group, Western Sydney

'[Governments] implement subtle changes towards renewable resource use. However, much more action needs to be taken to reduce the burning of fossil fuels.' - whole group, Western Sydney

Participants told us they worry that rather than having clearly defined agendas, robust plans, and long-term, steadfast commitment to stopping climate change, governments are frequently motivated by short-term political gains.

They recognise that addressing climate change is incredibly challenging and politically risky, highlighting that politicians may be unable to acknowledge the full extent of their climate concerns or propose aggressive climate action policies due to political hierarchies and their career precarity. Children and young people want these politicians to call out the shortcomings of political systems and to seek help from scientists, other professionals, and citizens to find workable solutions.

'[Politicians need to ask:] What can I put in place to help? How can we help the environment and the people?' - whole group, Northern Rivers

Concerningly, however, children and young people believe that most politicians are either ineffective or outwardly destructive influences on climate change action. 75% of participants' responses said that politicians are avoidant, apathetic or outright deny the existence of climate change.

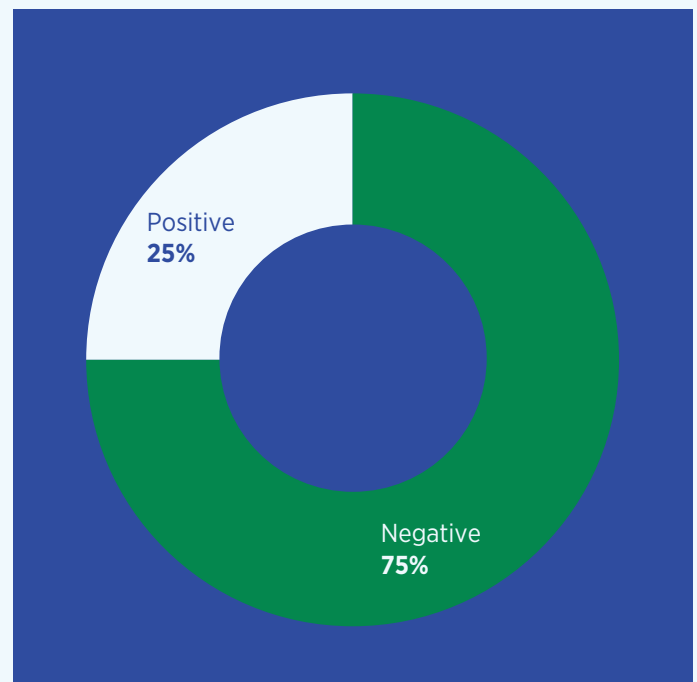


Figure 12: Children and young people's perceptions of politicians' attitudes towards climate change.

Participants perceive that political leaders tend to place financial interests and the perpetuation of their power before climate justice. They are frustrated and disappointed by what they see as disingenuous attempts to leverage the climate debate to harness voter sympathies or to achieve political gains.

'[Politicians are] using false initiatives for votes and support.' - whole group, Western Sydney

'[Politicians say] I don't care but I'll pretend to care to get more votes.' - whole group, Western Sydney

'Politicians are lying about actively combating climate change. The actual intention is to earn more money.' - whole group, Western Sydney

They are outraged by what they see as cynical attempts by leaders to deny or block meaningful action on climate change and their perpetuation of climate myths. They also take issue with political leaders they perceive as abandoning their communities in the hour of need, potentially playing into children's and young people's broader sense of abandonment by the older generation (see Key Finding 1).

'People with power blocking action; politicians denying or not doing action.' - 13, male, Upper Hunter

'The PM ran away during Australia's bushfire crisis!' - whole group, Western Sydney

It appears that children and young people growing up in lower socio-economic areas are more distrustful of politicians' motivations and actions than others we spoke to. Participants in the Upper Hunter region had the most positive perceptions of politicians' attitudes (75% positive responses) towards climate change. One-third of responses in the Northern Rivers were positive, while children and young people in Western Sydney had the most negative perceptions (19% positive responses).

Governments must address children's and young people's sense of disappointment in political leadership on climate change. Vibrant democratic processes will be vital to our society's capacity to meaningfully address the demands of the climate crisis.

Barriers to climate change

Children and young people in this project identified a range of barriers to climate action. These can be categorised according to informational (10%), institutional and organisational (22%), policy and governance (24%), psychological and social (35%), and resource barriers (9%) (Mackey et al., 2019).



Psychological/Social

- Indifference
- Ignorance and climate denial
- Challenges and dismantling social norms and behaviours
- Desensitisation



Policy/Governance

- Lack of transparency
- Lack of leadership
- Lack of political willingness and initiative
- Political profiteering



Organisational/Institutional

- Financial motivations (e.g. green)
- Economic reliance on fossil fuels
- Lack of opportunities to participate in climate action



Informational

- Lack of education on climate change
- Lack of information about how to contribute to climate action
- Misinformation
- Media deprioritisation



Resources

- Availability of renewables to replace fossil fuels
- Lack of funding
- High costs for manufacturing and mitigation/adaptation

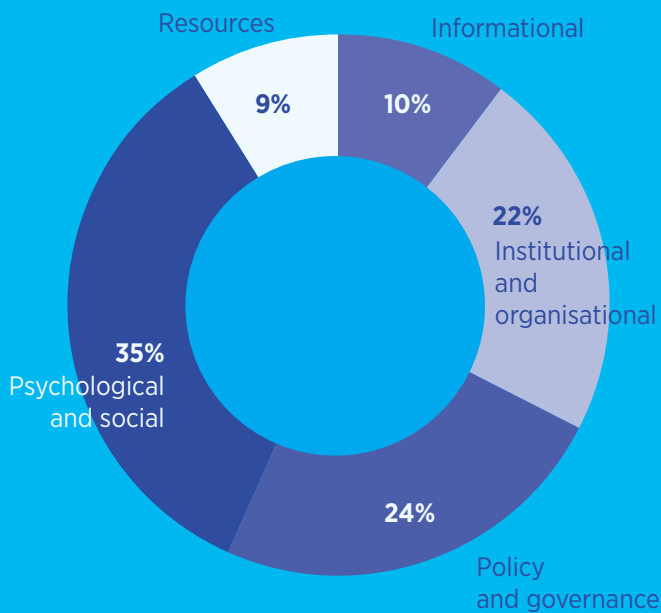


Figure 13: Barriers to climate change action

Corporate responsibility

Children and young people have similar critiques of corporations. They are especially mistrusting of fossil fuel companies and multinational corporations.

'Governments/big corporations don't really care/don't do anything.' - 18, female, Western Sydney

Children and young people attribute a key responsibility for climate change to corporations but feel that they generally lack transparency about emissions, use deceitful and performative greenwashing tactics, and actively dodge taxes that could otherwise be directed towards climate mitigation and adaptation efforts.

'[Corporations need] transparency about climate targets.' - 15, female, Western Sydney

'[Corporations should] stop greenwashing [and]... pay their taxes.' - 18, female, Western Sydney

'Greenwashing – future generations are getting impacted by these big corporations to believe that they are taking part in climate change, but it is just for monetary gain.' - 15, female, Western Sydney

'Industries/companies are definitely going to exploit [climate change] (greenwashing – it's gonna happen more).' - 15, female, Western Sydney

'Make corp[oration]s pay tax... Actually tax them, and use tax dollars for disaster relief... anything but profit for corporate use.' - 18, female, Western Sydney

They see giant corporations consciously exploiting the Earth for their own profits, prioritising profits over ethics and morals, and with little regard for individuals or the environment.

'[Corporations should] put moral and ethical responsibilities above profit.' - 18, female, Western Sydney

'Stop greenwashing, like actually be ethical and don't just do stuff for monetary gain.' - 15, female, Western Sydney

'Manufacturing companies prioritise profit over the climate.' - small group, ages 13-15, Northern Rivers

'Treat workers with better living standards and better pay.' - 15, female, Western Sydney

They are dismayed that fossil fuel companies lobby politicians and undermine long-term, sustainable change. They are attuned to the ways that capitalism has led to unchecked growth and exploitation of the planet's resources, and how such interests are embedded into political decision-making, enabling their perpetuation. According to participants, corruption, greed and power are major barriers to climate action, following what they perceive as government and corporate indifference to climate change.

'[Politicians] align with fossil fuel companies to get donations.' - whole group, Western Sydney

'They do not advocate for climate change or their source of income will decline.' - whole group, Western Sydney

'[Politicians say] is it beneficial to talk about that? Will it make me money?' - whole group, Northern Rivers

They call for an overhaul of regulation governing corporate practices to ensure transparency, accountability and just transition to a net zero economy.

‘Don’t donate to government. Understand your social responsibility and carbon footprint. Transparency about climate targets. Transition into renewables. Recreate business structures and targets.’ - 15, female, Western Sydney

Ultimately, children’s and young people’s reflections on the role of government and private enterprise point towards a deeper crisis in citizen trust in the mechanisms and leadership of democratic governance and corporate practices that must be addressed.

Children and young people identify at least two concrete actions that would help to restore their faith in democratic governance and boost their confidence in private enterprise to effectively confront climate change:

- They call on governments and corporate entities to demonstrate commitment by taking urgent action on climate change. Children and young people want government and the private sector to set agendas, to play a coordinating role, to model good practice, and to deliver substantial, concrete progress on goals towards halting climate change.
- As we discuss in the next section, children and young people want processes to deal with climate change to be transparent and open to young people’s input and contributions. As the generation that will inherit the climate change mantle, they are dedicated to working with or alongside existing institutions and processes to generate solutions to the climate crisis.

By communicating transparently and reflexively with children and young people, and by genuinely responding to their concerns about climate change promptly, respectfully and thoughtfully, political leaders can build solidarity and support an engaged citizenry to carry forward environmental and other political agendas into the future. If such efforts are not forthcoming, there is a risk that the generational differences and disappointments in the democratic process that already exist will become more entrenched, leading to the next generation’s widespread sense of alienation from the political and institutional life of the nation.



KEY TAKEAWAYS

- Children and young people believe that action on climate change requires a collective effort across sectors, populations and locations. They are calling on individuals of every age, local and multinational groups and corporations, and all levels of government to unite and take urgent action to arrest and reverse climate change.
- Children and young people see governments and private enterprises as particularly critical to meaningful transformation. However, they believe that neither political leadership nor the private sector is fulfilling their responsibilities to act quickly and decisively to mitigate the threat of climate change, pointing towards a deeper crisis in citizen trust in the mechanisms and leadership of democratic governance and corporate practices that must be addressed.
- Children and young people are looking to government and the private sector to set agendas, show leadership and deliver substantial, concrete progress on goals towards halting climate change by taking the following steps:
 - › Demonstrate greater accountability, transparency and immediate action.
 - › Reduce emissions and transition to a green economy.
 - › Provide evidence-based information and education about climate change.
 - › Invest in, regulate and incentivise climate mitigation and adaptation.
 - › Promote sustainable lifestyles and business practices.
- By responding to children's and young people's concerns about climate change promptly, respectfully and thoughtfully, and providing meaningful mechanisms for young people to shape, implement and evaluate climate-related policies and actions, political leaders can build solidarity and support engaged citizens to carry forward environmental and other political agendas into the future.

Key responsibilities

The children and young people in this workshop recognise that climate change requires multi-stakeholder collaboration and approaches. Key areas of responsibilities for governments, industries and corporations, NGOs and international organisations, media and local communities are outlined below.



Industry and corporations

Children and young people urge industry and corporations, including fossil fuel and mining and manufacturing, multinational organisations, tourism, agriculture, logging and fishing industries, to take urgent action on climate change.

- Reduce carbon emissions
- Embed social and environment responsibility across all business practices
- Be transparent and accountable
- Lead and invest in sustainable and eco-friendly alternatives



Government

Children and young people consider government and politicians, including world leaders, federal, local and state governments, and government organisations, to be the most responsible bodies for climate change

- Lead and implement climate mitigation and adaptation policies, plans and strategies
- Invest in green energy, education and infrastructure
- Be transparent and accountable for climate action
- Listen to and act on children's and young people's needs



Media

Children and young people see the media as a powerful influence in society with a responsibility to incite climate action

- Report factual, scientifically accurate information on climate change
- Combat misinformation on climate change and environment degradation
- Convey the urgency of climate action



NGO's and international organisations

Children and young people hold NGO's and global agencies responsible for generating fresh impetus for climate action around the world

- Educate and build community awareness of climate change and the environment
- Support communities to build resilience and adapt to climate change
- Lobby governments to take action on climate change



Local communities

Children and young people recognise that communities form a critical part of our social action against climate change, and are integral to their own capacities to be climate-resilient

- Build climate-resilience through coordinated community action
- Strengthen community disaster management approaches
- Provide community education on climate change

KEY FINDING 5

Children and young people want diverse and accessible participation mechanisms to enable their diversity of views and experiences to actively shape climate futures

Arguably, children and young people growing up today, and those of future generations, have the most at stake when it comes to climate change. And, yet, global summits, events or other critical, local, national or international decision-making processes related to climate and environmental issues rarely discuss, let alone centre on, the needs, rights and aspirations of children and young people. For example, the key guiding international environmental treaty on climate change, the UN Framework Convention on Climate Change (UNFCCC), makes no mention of children and young people. Further, it was not until 2022 – 28 years after the UNFCCC came into effect – that the Conference of the Parties (COP), the Convention’s decision-making body, formally recognised children and young people as agents of change with a significant interest in climate and environmental action.⁵²

Children and young people in our study expressed a strong desire to contribute to debate and decision-making to secure a sustainable climate future. They want opportunities to participate in discussions, but also to take action and to create measurable change. Given their significant stake in addressing the triple planetary crisis, they hope for a world in which children’s and young people’s views and actions are taken seriously, and in which they wield significant influence over decision-making.

‘[In my ideal climate future] young people have opportunities to make decisions, especially the ones that directly affect them. Youth [are] in positions of power. [They are] not facing climate anxiety and... [they] grow up without worrying about the Earth’s future.’ - 15, female, Western Sydney

‘[In our ideal climate future] children and young people are in positions of power and have a voice.’ - small group, ages 12-17, Western Sydney

‘[I hope] for the voice of young people in parliament.’ - small group, ages 12-17, Western Sydney

While children and young people are clear that they want to actively participate in debates and efforts to arrest climate change, our findings suggest that they cannot imagine what this participation would look like. In the absence of other inspiring precedents with which to think about appropriate child and youth participation mechanisms, they call for youth ambassador programs or intergenerational advisory boards.

‘[The federal government] should have a young ambassador program allowing them to contribute to their future rather than the adults taking their opinionated actions for our future where it does not impact them at all.’ - 15, male, Western Sydney

‘[To avoid a dystopian climate future, we need] scientists/industry/young people advisory boards.’ - small group, ages 12-16, Western Sydney

A number of local, state and federal government initiatives are already in place to facilitate children and young people to champion the need for and to advise on climate action.

Federally, the Australian Office for Youth, in partnership with the Department of Climate Change, Energy, the Environment and Water, auspices the Australian Climate Change and COP28 Youth Advisory Group. The eight young members are tasked with building children’s and young people’s awareness of the COP process and to enhance the number and participation of children and young people contributing meaningfully to the United Nations Framework Convention on Climate Change (UNFCCC) and Conference of the Parties (COP) processes.⁵³ The federal government also provides funding for some young people to attend COP events.

52 While there had not been formal recognition by UNFCCC of children as agents of change pre-2022, youth organisations have been participating in the UNFCCC negotiations as a civil society organisation since 2009. The Conference of Youth is also held each year alongside COP, which brings young people together to build capacity and participate in climate negotiations.

53 See Climate Change and COP28 Youth Advisory Group

Most state governments now have climate initiatives underway. However, aside from Tasmania,⁵⁴ the current climate policies and action plans of all state and territory governments make no explicit mention of children or young people.⁵⁵ Similarly, climate change and environmental concerns receive only cursory treatment in Australia's state and territory youth strategies, with the exception of the Northern Territory's Youth Strategy.⁵⁶

A few state and territory governments offer a select number of children and young people opportunities to advise government on climate-related issues. Examples include the Youth Environment Council of South Australia,⁵⁷ which has been enabling high school students to have a say and take action on key environmental issues facing South Australia since 1997; and the Environment Youth Advisory Council (12 diverse young people aged 15-22), established by the New South Wales Environmental Protection Authority (EPA) in 2022 to provide strategic advice to the EPA on climate and environmental issues, policies and projects that impact young people.⁵⁸

A number of state and territory-based Children's Commissioners have consulted with children and young people in their jurisdictions about climate change⁵⁹ and are using these insights to advocate. Some local governments are engaging with children and young people to enact change at a local level,⁶⁰ and several organisations offer funding for climate action projects that target children and young people.⁶¹

While these are necessary and important initiatives, those we spoke to identified that these mechanisms provide very limited opportunities for them to contribute, and then only to select children and young people. Children and young people – particularly, though not exclusively, those from lower socio-economic contexts – highlighted that such opportunities require particular forms of cultural, social and political capital and thus are not equally available to all children and young people. They also report that such mechanisms tend to have limited influence over decision-making processes, not least because adults don't take children's and young people's ideas and contributions seriously. They say that adults often make them feel as though their very real and serious concerns about the impact of climate change on their futures are swept aside.

'Don't ignore young people.' - small group, ages 15-17, Western Sydney

'Adults [are] ignoring young people's research and facts.' - 15, male, Western Sydney

When they demand action, they feel patronised by those in positions of power – in particular, by political figures.

'Politicians say that kids are overreacting, it's a phase.' - whole group, Western Sydney

'Politicians say that activists are overreacting about climate change.' - whole group, Western Sydney

Feeling unable to change the minds even of those in their most immediate circles of influence heightens the anxiety they feel about climate change and the environment and augments their sense that the older generation has abandoned them.

They are therefore calling on governments to provide much more diverse ways to participate in climate discussions and programs of action. They want not only to be heard but for their demands to be acted on by decision-makers. They're calling for accountability from governments, corporates, and adults in general, and they want to realise demonstrable decision-making power for their generation.

54 See Tasmania's Climate Change Action Plan 2023-25

55 See ACT Climate Change Strategy; NSW Climate Change Policy Framework; Northern Territory Climate Change Response; Queensland Climate Action; South Australia Responding to Climate Change; and Western Australia Climate Change Policy

56 See Northern Territory Youth Strategy 2023-2033

57 The Youth Environment Council of South Australia is supported by the South Australian Department for Education and Green Adelaide.

58 See NSW Environment Youth Advisory Council

59 See Submission on Duty of Care and Climate Equity Bill, 2023

60 For example, the Blue Mountains Youth Council has a special focus on climate and environment, and the 2168 Children's Parliament is educating primary school children to research and advocate on a range of issues including climate change and environmental sustainability

61 For example, Climate Action Network Australia offers small grants for climate projects targeting those who are 'most affected by the impacts of climate change', which includes children and young people under the age of 35.



Children and young people are particularly keen for government, corporations and other parties to facilitate children and young people to work as part of collective efforts that result in concrete action to mitigate climate change. They suggest that the participation opportunities they find most meaningful are collective in nature and build solidarity and a platform for ongoing change, such as climate workshops, youth groups, 'state youth councils for scouts' or 'environmental societies in unis'. Working together increases their belief in their capacity to effect change, and collaborating with like-minded peers contributes to their sense of hope and progressive steps towards a healthier climate future.⁶² Children and young people describe opportunities to work together as thought-provoking, validating, inspiring and empowering.

'I would like to take part in youth groups that work together to bring change.' - 15, female, Western Sydney

That said, children are not waiting for adults to hand them the opportunities they need. They have a palpable sense of themselves as a powerful political constituency and urge one another to join together to demand their rights to safe and healthy futures.

'We call for the action of all children, all young people, all those who will inherit the Earth. We want YOU to advocate, and fight to prevent this dystopian possibility. Your actions will ensure the survival of the planet you will soon inherit.' - small group, ages 14-18, Western Sydney

'Children and youth are responsible for ensuring this change happens, we have to be activists and make sure we don't waste Earth, there is no Planet B.' - 13, male, Upper Hunter

'Youth is the future! [Children's responsibility is to raise] awareness and shape the future.' - small group, ages 14, Western Sydney

'[Children] have more power than they think they do. [They should] spread the message onto other older generations.' - small group, ages 15-17, Western Sydney

Many participants responded that children and young people should show leadership and take action by building awareness and educating themselves or others about climate change.

'[Children should] spread the word [about climate change], share opinions, learn more, and be prepared.' - small group, ages 13-18, Western Sydney

'[Children should] educate others to create a cycle of knowledge to tackle the effects of climate change.' - small group, ages 15, Western Sydney

They urge one another to engage in traditional civic engagement activities, such as writing letters to government decision-makers. They see it as their responsibility to educate themselves and to advocate for government to respond to children's and young people's calls to action. And they see digital technologies – and, in particular, social media – as important platforms in helping to raise awareness about climate change.

'[Children should] spread awareness. Be individually responsible and pressure the government.' - small group, ages 12-15, Western Sydney

'Children and young people have the role of speaking up and educating themselves on the issue. Try to push governments to be more sustainable.' - small group, ages 16-18, Western Sydney

'[In our ideal climate future, children are] spreading awareness on social media... protesting, fundraising, [and] writing letters [to governments].' - small group, ages 13-15, Northern Rivers

Such sentiments are already translating into youth-led initiatives that are beginning to wield significant political influence. For example, the Australian Youth Climate Coalition (AYCC) is Australia's largest youth-led movement for climate justice⁶³ Their nationwide network of volunteers runs campaigns and nurtures action on climate justice in local communities. AYCC runs a Student Climate Leadership Program, School Summits and workshops in high schools to help raise awareness of climate change and pathways for young people to take action. AYCC also auspices Australia's first indigenous, youth-led climate network, Seed Mob.

Critically, children and young people underscore that they need to believe that change is possible to enact a change.

62 Halstead et al., 2021.

63 See AYCC

Children have the role of believing they can make a change and then helping make a change.' - small group, ages 14-17, Northern Rivers

The question therefore remains for adults about how they will nurture children's and young people's hope, while supporting them to confront the challenges ahead.

Children and young people are calling on governments to provide a wider variety of age-appropriate, safe and accessible participation mechanisms to enable their views to be heard at all levels of government and decision-making on climate and the environment. They say that stronger child and youth participation mechanisms will catalyse them into action, enabling them to become more engaged citizens in the fight against climate change.

'Attending more workshops like this or similar things that are related to climate change [motivates me to take more action].' - 18, female, Western Sydney

Research has shown that children's and young people's participation in climate action and citizenship can build their confidence and resilience⁶⁴ enhance their sense of agency and belief in themselves as agents of change,⁶⁵ and mitigate negative emotions around climate change.⁶⁶ Facilitating children's and young people's participation in environmental decision-making promotes active citizenship and also safeguards children's and young people's futures by enabling continuities in environmental governance and action. Improved participation mechanisms are key to minimising the next generation's anxiety about the future, and to restoring their trust in democratic institutions and processes.

YEHANSA SAYS...

I think there needs to be a space where everyone, across generations, can get together and create a big action plan. I'm not just talking about world leaders at COP conferences (while they are very important and necessary): I mean teachers, doctors, engineers, lawyers, politicians, industries, banks, with young people, working together to find solutions and how we can get there. Everyone, across all sectors – including young people – must be included in planning spaces from the start so all views are represented.

There is an urgent need for diverse and accessible participation mechanisms that effectively and meaningfully involve children and young people in decision-making that shapes their futures. Such mechanisms could not only help to restore children's and young people's faith and trust in democratic institutions, they could also provide a remedy for the immense pessimism and anxiety they feel about a future over which they have no control. Such mechanisms should aim to build children's and young people's capacities, prioritise their best interests and be grounded in education on climate change so that they can contribute meaningfully and productively to decision-making.

While it is critical that young people have platforms to voice their views, it is equally important that governments and communities acknowledge young people as key stakeholders and actively work with them in all stages of planning and decision-making. This means valuing their unique expertise and contributions in the same way that we value the knowledge of engineers, lawyers and other professionals. Genuinely intergenerational, interdisciplinary, and community-led responses to climate change and action are urgently required.

64 Treichel, 2020.

65 Trott, 2019.

66 Trott, 2022.

KEY TAKEAWAYS

- Children and young people have a significant stake in ensuring a sustainable climate future and want to contribute to efforts to tackle the triple planetary crisis. However, they reported that they have very limited influence over the decision-making processes that will impact their futures, and this heightens the anxiety they feel about climate change and the environment.
- Children and young people – particularly, though not exclusively, those from lower socio-economic communities – told us that existing child and youth participation mechanisms are inaccessible to most, and they typically have limited impact on decision-making processes.
- To ensure intergenerational equity, children and young people want opportunities to participate, take action and create change. They want real decision-making power and mechanisms to hold governments and corporations accountable to the younger generation.
- They are calling on governments to provide a wider variety of age-appropriate, safe and accessible participation mechanisms to enable their views to be heard at all levels of government and decision-making on climate and the environment. They are particularly keen for government to facilitate children and young people to work together as part of collective efforts that result in concrete action to mitigate climate change.
- Improved participation mechanisms are key to minimising the next generation’s anxiety about the future, and to restoring their trust in democratic institutions and processes. Children and young people say that better child and youth participation mechanisms will catalyse them into action, enabling them to become more engaged citizens in the fight against climate change.

ASPIRATIONAL STATEMENT

This aspirational statement was written by Yehansa, our youth co-researcher, on behalf of the children and young people in this project. Drawing on the insights shared by children and young people, the statement reflects their stated aspiration to live in a world in which the existential threat of climate change has been eliminated. The indicators presented in the next section provide a practical tool grounded in these aspirations.

We want to live in a world where climate change is corrected and reversed. Our generation, and those to come, deserve to live in a thriving world.

We hope for a better future for all children and young people, regardless of where they live, their socio-economic status, disability, race, culture, or sexuality.

We hope for a healthy environment in which extreme weather events and natural disasters are rare, biodiversity is thriving, and ecosystems have regenerated.

We hope for a world where people work together to protect and conserve nature and wildlife. We want children and young people to enjoy the natural environment for generations to come!

We hope for a future where our oceans, rivers and landscapes are free of pollution, plastics and waste.

We hope for a future where technology and sustainable methods have eliminated greenhouse gas emissions; where renewable energy is not only available but commonplace and relied upon.

We hope for a future where climate scientists are acknowledged, valued and listened to. A future where their recommendations are acted upon.

We hope for a future where children and young people live in sustainable cities and towns. There are less cars and more affordable and greener public transport. Green spaces abound. Infrastructure is resilient to the effects of climate change.

We hope for a future where communities are informed, just and equitable. Communities work together to build resilience against climate change. Communities integrate sustainable practices into their everyday lives.

We hope for a future where all children and young people, no matter who they are, have access to their basic needs – healthy food, clean water, housing, education and healthcare.

We hope for a future where children and young people can play, skip and explore outdoors. A future where they are safe from violence and conflict.

We hope for a future where children and young people have opportunities to participate in decision-making spaces. Their views, needs and aspirations are respected and acted upon by those in power.

We hope for a future where children's and young people's physical and mental health is not impacted nor exacerbated by climate change; where they are healthy, hopeful and thriving.

We hope for a future where children and young people can hope for their future.

We believe that everyone has a role to play in the fight against climate change. We are calling on you to utilise the skills and networks you have to help us make this world a reality. We cannot do this without you.

We call for the older generation to use your work, power and networks to mitigate and prevent climate change, and protect us from its impacts. We believe that the older generation should step up, take responsibility and act in the best interests of children and young people today and in the future.

We call for children and young people to be engaged, educate yourselves and urge your leaders to act on climate change. We have the power to make a difference.

We call for schools to provide all children and young people with equal access to climate education and its related opportunities, so that they can grow into adults who are informed and motivated to make a difference.

We call for governments, world leaders, philanthropists and the UN to invest in climate and environmental research, innovations and solutions. We believe these groups have a bigger role to play and must utilise their platforms and capabilities.

We call for industries and corporations to make a genuine commitment to social and environmental responsibility. We call for you to decarbonise the way you work and develop carbon reduction processes that are authentic, transparent, and accurate to current climate projection targets.

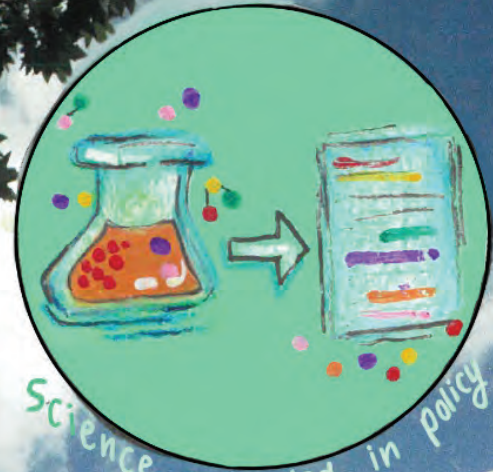
We call for governments and corporations to put the Earth and our future before profits, greed and money.

We call for governments to coordinate, support and collaborate with communities, children and young people, scientists and other vulnerable groups so that they can inform climate solutions.

We call for governments to implement ambitious and effective climate plans, policies and legislation grounded in long-term and sustainable mindsets. We urge you to lead us.

We call for intergenerational, interdisciplinary, and systemic responses. We call for everyone to do their part.

We are calling on you to help us. We cannot do this without you. We believe our generation and future generations deserve to live in a thriving world.



solar panels

everyday renewables



accessible physical & mental healthcare



climate disaster resilient buildings



community gardening

vertical gardening



waste management

bike paths



bee stops / comm

greenery

reduced petrol cars

zero carbon



youth seat at table

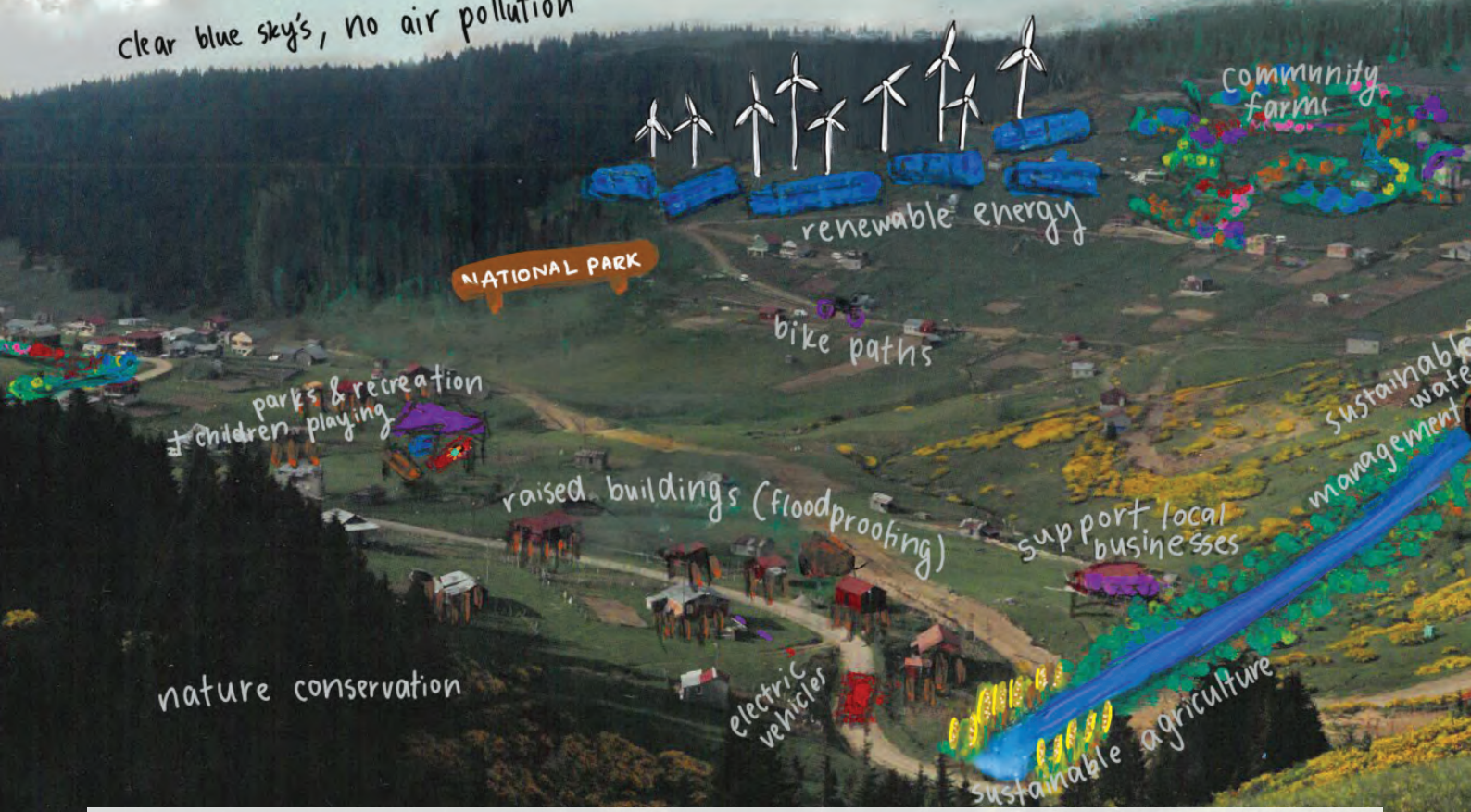


disaster warning systems



wildlife conservation

clear blue sky's, no air pollution



NATIONAL PARK

renewable energy

community farms

bike paths

parks & recreation
+ children playing

raised buildings (floodproofing)

support local businesses

sustainable water management

nature conservation

electric vehicles

sustainable agriculture

'Future Landscapes: Bridging Aspiration' by Yehansa Dehanayake.

Artist Description: This artwork is a visionary collection of what young people in our workshops want to see in a climate-safe and resilient future. From key concepts and themes they care about, to the way they would like their urban cities and rural landscapes to look, this artwork envisions young people's hopes into reality. I hope this artwork lets young people's aspirations take centre stage, inspiring hope, dialogue, and action towards a more sustainable tomorrow.

CHILD-CENTRED INDICATOR FRAMEWORK

In this section, we turn to the child-centred indicator (CCI) framework. This section provides a brief critique of existing child-centred frameworks and explains why child-centred indicators for climate change and climate action are needed. It then gives a detailed overview of the framework, including key terms and principles, and describes the process we used to generate it. Finally, it provides practical guidance on how to implement the framework, and some key considerations for doing so.

Drawing on children's and young people's experiences of climate change, as well as their insights about the actions underway to mitigate, halt or reverse climate change, the second stage of this project developed child-centred indicators (CCI) for climate change and climate action.

The CCI framework acknowledges the centrality of measurement to decision-making in contemporary societies. The premise of the CCI is that, under the right circumstances, measurement can prompt important change, precisely because measurement occupies a privileged place within processes of governance and accountability.

However, current measurement practices rarely explicitly prioritise the needs, rights and aspirations of children and young people. Where measurement frameworks do address the specific needs of children and young people, they do not capture the multifaceted and systemic nature of climate change impacts on children's and young people's needs. For example, UNICEF's Children's Climate Risk Index (CCRI) focuses on children's and young people's exposure and vulnerability to environmental risk factors.⁶⁷ Such an approach is critical to ensure children and young people are protected from harms caused by the unfolding crises. However, it falls short of comprehensively assessing the impacts of climate change on the full breadth of children's and young people's rights and experiences (including wellbeing, safety, and participation).

The Australian Research Alliance for Children and Youth (ARACY) Australian Children's Wellbeing Framework (the Nest) goes some way further to offering a holistic and strengths-based tool to track progress on children's and young people's rights and wellbeing. While this framework does not include a specific domain for climate change or the environment, it is referenced in two of the six domains.⁶⁸ Further, the impacts of climate change may be seen and measured across other domains – for example, health.⁶⁹ The limitation of this framework is that it does not measure changes at the macro-levels (for example, political or ecological), beyond the child or young person's immediate community. These macro forces can have significant

influences on children's and young people's outcomes and quality of life,⁷⁰ especially when it comes to climate change.

Finally, while both these frameworks can effectively measure change in the ways that children and young people are experiencing the impacts of climate change at different levels, they do not measure what is most important to children and young people in terms of both reducing specific impacts of climate change and making progress on specific climate actions.

A change in the ways we measure the impacts of climate change and climate action is required if we are to genuinely respond to children's and young people's needs, insights, experiences and aspirations as we meet the demands of the climate crisis. To that end, the purpose of the indicators is twofold:

- To embed children's and young people's insights and experiences at the heart of the measurement of climate change impacts and actions so that children and young people, decision-makers and other actors can be sure that actions to mitigate, halt or reverse climate change impact children and young people discernibly and positively.
- To promote the ongoing participation of children and young people in measuring and tracking the impacts of climate change and climate action.

THE CCI FRAMEWORK

Drawing on children's and young people's insights, the CCI target both the measurement of climate change impacts and the success of climate action. They are grounded in the children's and young people's aspirational statement and are intended to provide a measurement framework to guide the realisation of children's and young people's ambitions for eliminating environmental pollution, supporting biodiversity and ending the climate emergency.

67 UNICEF, 2021.

68 Climate change and the environment are included in the 'Valued, Loved and Safe, and Material Basics' of the Nest. See Goodhue, Darkin and Noble, 2021.

69 Harris et al., 2021

70 Ben-Arieh, 2008.

Key term	Definition & use
Critical issues	A critical issue represents an issue or problem commonly highlighted by children and young people. Measurement against indicators can tell you about the state of a critical issue at a particular moment or about changes over time.
Domains	<p>Domains are the different levels at which the change produced by climate impacts or action would occur: individual, community, political or environmental.</p> <p>Domains can tell you whether specific climate mitigation or adaptation interventions are achieving their aims at the desired level.</p> <p>They may also be used to target specific interventions. We note that domains are interconnected and interdependent. The effectiveness of interventions is therefore maximised if they address multiple domains in tandem.</p>
Outcomes	<p>Outcomes describe how the world would look after a critical issue is resolved.</p> <p>In this project, outcomes are expressed in the terms children and young people use to describe the transformations they wish to see.</p> <p>Outcomes are useful for shaping action plans and assessing progress.</p>
Ideal states	Ideal states represent the world as children and young people would like to see it. They represent the end goal of climate action.
Indicators	<p>Indicators are observable signs that point to changes over time and that can be assessed for an issue or objective (for example, climate change impacts or climate action). Indicators can be subjective (for example, feelings of safety) or objective (for example, official mortality and morbidity rates). They are useful for describing what something is like right now or assessing if something has changed across time and space.⁷¹</p> <p>Child-centred climate indicators are the observable signs that <i>children say</i> will tell us whether climate action is having a positive impact on their lives.</p> <p>In line with other scholars, our indicators are aspirational – they represent the world as children would like it to be.⁷² They tell us whether climate action is helping to achieve or progress towards the ideal state.</p>
Factors	<p>Factors are specific impacts or actions that contribute to achieving the aspirations expressed in the indicators. These factors are direct suggestions from the children and young people in these workshops and should not be considered exhaustive.</p> <p>Factors are accompanied by symbols that indicate how the indicator needs to shift over time, and whether it is a climate mitigation or adaptation strategy (or climate impact):</p> <ul style="list-style-type: none"> + The factor must increase over time to signify progress towards the indicator. - The factor must decrease over time to signify progress towards the indicator. ≠ The factor must be eliminated or reduced to zero to achieve the indicator. « The factor is a climate mitigation action. » The factor is a climate adaptation action. <p>NB: If the factor does not have a « or », it is a climate impact.</p>
Measures	<p>A measure is a specific method or tool used to capture information related to a specific indicator. Measures can be quantitative or qualitative.</p> <p>For the effective implementation of child-centred indicators, either children and young people or adults working closely with children and young people should be capable of applying relevant measures.</p>

71 Liebowitz and Zwingel, 2014

72 McKinnon, Carnegie, and Gibson, 2016; Law and Urry, 2004.

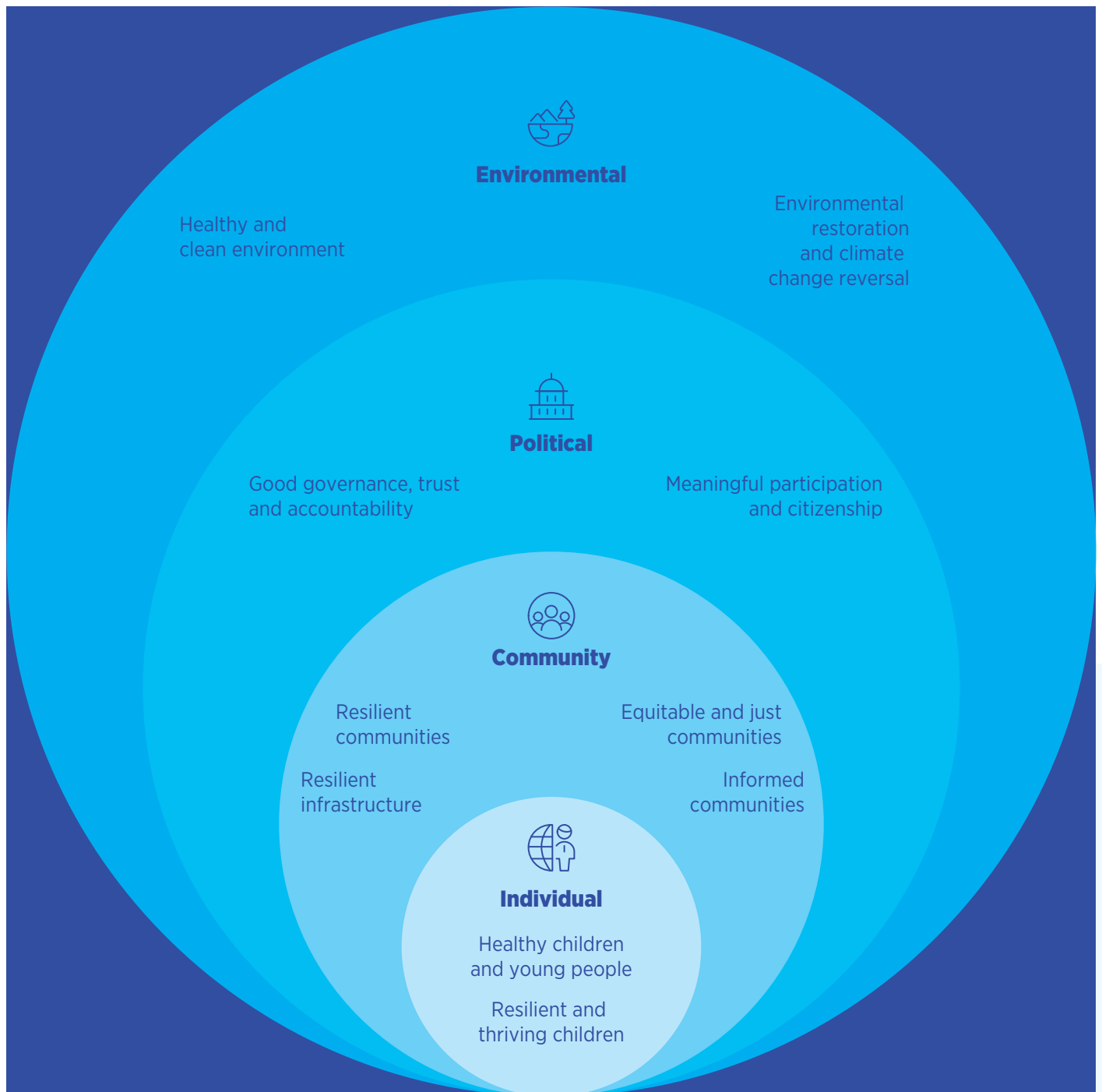


Figure 14: Indicator outcomes mapped to different domains where the change would occur

	Outcomes	Ideal states
Individual	 Healthy children and young people	Children and young people are physically healthy
	 Resilient and thriving children and young people	Children and young people are safe, hopeful and thriving
Community	 Resilient and sustainable infrastructure	Children and young people have access to climate-resilient infrastructure and built environments
	 Resilient and sustainable communities	Children and young people live in sustainable and climate-resilient communities
	 Informed communities	Children, young people and their communities are educated and climate-informed
	 Equitable and just communities	Children and young people believe their communities are fair and equitable
Political	 Meaningful participation and citizenship	Children and young people's perspectives and needs shape decision-making about climate change
	 Good governance, trust and accountability	Children and young people trust governments, corporations and the media to take action on climate change
Environmental	 Healthy and sustainable environments	Children and young people live in and enjoy healthy and sustainable environments
	 Environmental restoration and climate change reversal	Children and young people live in world where climate change has reversed and the environment has been restored

CCI Principles

The CCI are underscored by seven key principles:

Child-Centred: This framework aims to embed what children and young people say is important at the heart of processes for measuring climate change impacts and actions. Each indicator begins with the phrasing, ‘children and young people say’. Framing the indicators in this way demonstrates the indicators’ grounding in children’s and young people’s insights and experiences. It also asserts the importance of continuing to ask children and young people themselves about the impacts of climate change and climate action when refining the indicators and/or using them in the process of data collection and measurement.

Living: The CCI must be considered a living measurement framework. They will need to be tested, refined and adapted to other settings and contexts to ensure they are robust across cultures and diverse circumstances. We anticipate that we may add to, replace and/or adapt the CCI over time. However, what will not change is the commitment to ensuring that the CCI firmly focus attention on measuring progress at the level of children’s and young people’s everyday experiences.

Aspirational: The framework is an expression of children’s and young people’s highest hopes and aspirations for the climate future. The framework is necessarily ambitious because bold approaches are required if we are to realise a world where the wicked problem of climate change is mitigated – let alone arrested or reversed. Children’s and young people’s aspirations are expressed in the outcomes, ideal states and indicators. The outcomes and ideal states describe the world as they would like to see it, and the indicators and associated factors measure progress towards these aspirations. Moving from left to right in the framework, we progressively move from high-level ambition to specific and measurable criteria.

Iterative: Children and young people were very clear that, while the immediate goal must be to halt climate change, climate adaptation is not a long-term solution. Their ultimate goal is to reverse climate change. For this reason, we developed two sets of CCI which lay out an iterative approach to realising children’s and young people’s aspirations. The first set targets an end date of 2030, by which date the world aims to have achieved the Sustainable Development Goals and focuses on halting climate change and climate adaptation. The second set is designed for implementation post-2030 and focuses on the ambitious task of reversing climate change.

Holistic: The CCI framework is a holistic framework for measuring the impacts of climate change and climate action on children and young people. It recognises that climate change impacts are multidimensional and affect every aspect of human life. Drawing on children’s and young people’s insights, this framework is structured according to four key domains, from micro- to macro-levels (individual > community > political > environmental). These domains represent the contextual factors that influence children’s and young people’s experiences of climate change. Drawing on socio-ecological models, this framework places children and young people at the centre, surrounded by community, political and environmental domains. These domains are the levels at which the expected change would occur, and also at which actions should be targeted.

Interdependent: While indicators are structured according to domains, it is important to note that domains, indicators and factors are interconnected and interdependent. Changes at one level can indicate or produce change at another level: for example, a change at the individual level may be influenced by changes at the political or environmental levels. Alternatively, achieving progress on one indicator may also strengthen progress on other indicators.

Complementary: The CCI are designed to complement and extend existing modes of measurement. To support this, the CCI have been aligned to four key frameworks: UNICEF’s Children’s Climate Risk Index, ARACY’s Australian Children’s Wellbeing Framework, the UN Convention on the Rights of the Child, and the Sustainable Development Goals (SDGs) (see Appendix 3 for a list of codes for the aligned framework). When used alongside other frameworks, these indicators can provide greater depth and understanding about how climate change and environmental degradation are impacting children and young people (CCRI, Nest), and bolster efforts to ensure children’s and young people’s rights and needs are respected and protected (UNCRC, SDGs), especially in relation to environmental governance.

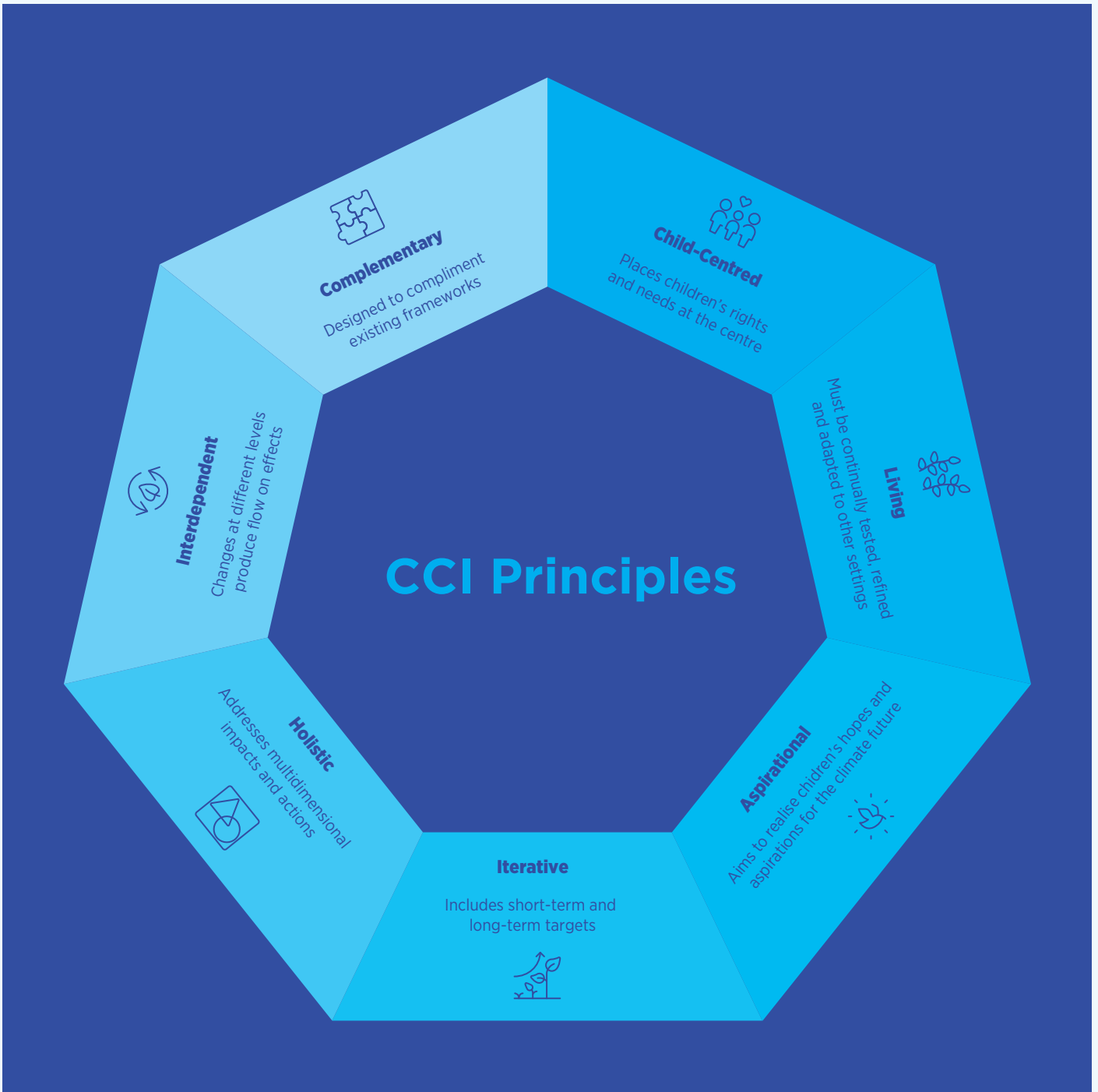


Figure 15: Key principles underlying the child-centred indicators framework



PROCESS TO DEVELOP THE CCI FRAMEWORK

The CCI were developed through an iterative process of generating, validating and refining the indicators, drawing on the analysis of the children's and young people's data. At all stages, we were mindful of ensuring that the indicators remained an accurate reflection of children's and young people's ideas as represented in the data. Yehansa, our youth co-researcher, supported this process by providing feedback and input into the development.

The process we used to develop the indicators is outlined below.

Project on a page



Critical issues

Thirty-one critical issues were distilled from the analysis of children's and young people's responses. These critical issues represent children's and young people's key thematic concerns about climate change impacts and action and form the basis of the outcomes and indicators.

- Access and opportunities for recreation and play
- Access to healthcare
- Access to education
- Climate-resilient and sustainable housing and infrastructure
- Community resilience
- Disaster management
- Economic pressures
- Emission reductions
- Entrenched norms, practices and routines
- Environmental protection
- Exploitative corporate practices
- Fair work
- Food security
- Freedom of movement
- Good governance and leadership
- Green transition
- Intergenerational equity
- Loss of biodiversity
- Media representation and misinformation
- Mental health and wellbeing
- Migration and forced displacement
- Participation and civic action
- Physical health
- Effective climate policy and regulation
- Pollution and waste
- Climate data, research and innovation
- Safety
- Social and economic inequality
- Sustainable practices
- Transparency and accountability
- Water security

IMPLEMENTATION OF THE CCI FRAMEWORK

The CCI are intended to be used by governments, corporations, civil society, and importantly, children and young people themselves, to measure the impacts of climate change and climate action on children and young people. They can be applied alongside other frameworks to guide the design, implementation and evaluation of policy, advocacy and programming initiatives seeking to prioritise children in climate action planning.

To operationalise the framework, two key things should be kept in mind:

1. The indicators themselves are not measures. They are observable signs which can be measured to assess whether progress has been made over time.⁷³ Specific measures will need to be developed to measure this progress. An outline of how to do this and some examples are provided below.
2. In keeping with the spirit of the CCI, children and young people should be involved in the implementation of the framework. They may be asked to respond directly to measures. Alternatively, they might be asked to review data collected against measures or to collect data using the specified measures themselves. We recommend that, where resources permit, children and young people are involved at all stages in the design of measures, their implementation and analysis of data collected using this framework.

Why have specific measures not been provided in this framework?

We have not provided specific measures for each of the indicators in this framework because the impacts of climate change are highly contextualised. At the local level, the environmental transformations caused by climate change are mediated and shaped by social, cultural and political norms and practices, which differ from location to location and between populations. Because of this, initiatives to mitigate, adapt or build resilience to climate change in one location may not be as effective in other locations.⁷⁴

Climate responses are ideally adapted to local contexts and calibrated to national and/or international climate action agendas. As such, ideally, indicators and measures for assessing the effectiveness of climate responses should align with indicators that are applied across national and international contexts and also be contextualised to the local.



73 Third et al, 2020.

74 Eriksen and Mendes, 2022.

Localising the framework, indicators and measures

Given the need to take account of the local, we recommend choosing a subset of indicators and developing corresponding measures (that is, the methodologies used to collect data against each of the indicators) that are localised to the specific contexts in which they are being implemented. To do this, consideration should be given to two aspects:

The context of children and young people in the target population.

It is important to choose a subset of indicators and factors that represent relevant and critical issues for the children and young people in the target population. It is highly recommended that children and young people themselves are involved in choosing the subset of indicators and factors. This is to ensure that measurement remains child-centred and reflects what matters most to the children and young people in that community.

Likewise, when developing measures, the formulation of the questions (for example, language, phrasing and expression) used to gather the data for each indicator should also be checked for relevance and accessibility for the children and young people from whom the data is being collected. This also applies to children and young people who may be involved in collecting the data. Consideration should be given to age groups, socio-economic, sociocultural, and other contextual factors.

The context of the people or organisation implementing the framework.

To ensure that the data collected against the indicators is useful and practical for the people or organisation implementing the framework, it's important to also choose indicators and measures that are relevant to their policy, advocacy or programming aims and objectives. This should be balanced with choosing indicators and measures that the children and young people say matter most to them. We recommend that this balance is negotiated through a collaborative, intergenerational process.

The size of the indicator subset and the types of methods used to collect data will also be influenced by the organisation's internal capacity and resources. This is critical to ensure that the implementation is manageable given the constraints on the organisation, and so should be tailored accordingly. Further, while we recommend that children and young people participate at all stages in the implementation of this framework, limitations on capacity and resourcing may mean that it is not always realistic. If that is the case, we recommend using a scaled-back approach that allows the implementing person or organisation to engage with children and young people meaningfully and productively. However, at a minimum, children and young people should be involved in choosing the subset of indicators (or defining the critical issues) and as participants in the data collection.

IMPLEMENTATION PROCESS

Below, we propose a process to implement the framework.

1. Define the target population and identify critical issues:

- Define the population of children and young people you wish to work with. Consider age group, location, socio-economic, minority status, etc.
- In partnership with children and young people from that community, identify the critical issues relating to climate change and action that are most important and relevant to their lived experiences.

2. Define aims and objectives:

- Define your policy, advocacy, or programming aims and objectives for measuring the impacts of climate change and action on this community of children and young people.
- Confirm organisational capacity and available resourcing to undertake data collection, and to engage in a meaningful process of youth participation at specific stages, or throughout the process.

3. Choose a subset of indicators:

- We recommend using an intergenerational process involving children and young people from the target population to choose the subset of indicators that you will measure against. In this process, ensure that the chosen indicators balance the organisational aims with the children's and young people's key concerns.
- You do not need to choose indicators from all domains. Depending on the contextual factors mentioned above, you may choose indicators from one, two, three or four domains.
- Choose the number of indicators and factors that are manageable for your organisation to implement. To generate robust evidence, we recommend choosing at least four indicators to generate a multidimensional view of the impacts you are measuring. However, you can use as few as you wish.

4. Choose factors (optional):

- It is not necessary to choose factors to base measures on. However, doing so can provide more granular insights into the impacts and actions that contribute to realising the indicator.
- The factors provided in the framework are not exhaustive, and careful consideration should be given as to whether they are relevant to children and young people in the context, and if there are any other factors not listed that are more appropriate in that context.
- The choice of factors should be validated by children and young people.

5. Adapt indicators and factors:

- Across the process, we recommend continual reflection on the appropriateness of indicators and factors for implementation with diverse children and young people in the context.
- If working with specific minority groups, we strongly recommend using a process to culturally contextualise, validate and refine the chosen indicators and factors with children and young people from that group. This may involve rewording, rephrasing or supplementing with additional new indicators.

6. Develop measures:

- To develop measures, first choose methods appropriate for the chosen indicators and contexts. Methods can be qualitative or quantitative and might include surveys, interviews, focus groups, or analysis of existing datasets. The chosen method should be commensurate with the skillsets and resources of the people or organisation assessing the change. It should also be appropriate to the contexts of the children and young people in the target population.
- Measures can be based on either the indicator itself or specific factors that contribute to the indicator. For example:

EXAMPLE 1:

Indicator:

'Children and young people say they are generally healthy and do not encounter frequent illness.'

Example measures:

'How often do you feel healthy and good in your body?' [sample response scale: 1) never, 2) rarely, 3) sometimes, 4) often, 5) very often]

'How often do you get sick?' [sample response scale: 1), never, 2) rarely, 3) sometimes, 4) often, 5) very often]

'Tell us about how you feel in your body and why.'
[open response]

EXAMPLE 2:

Factor:

'+ Opportunities for children to participate in outdoor recreation and play.'

Example measures:

‘How often can you go outside to play?’ [sample response scale: 1) never, 2) rarely, 3) sometimes, 4) often, 5) very often]

‘Can you play outside?’

What kinds of things are there for you to do when you want to play outside?’ [open response]

Measures may also be supplemented with measures from other child-centred frameworks (e.g. CCRI, Nest) that align with this framework.

7. Collect and analyse data:

- a. Data collection and analysis will be determined by the methods chosen. For example, if you are conducting qualitative focus groups with children and young people, you will use qualitative analysis techniques (such as thematic or discourse analysis) to analyse the data.
- b. As child-centred indicators, it is critical that we ask children about their experiences to determine whether and how climate impacts and actions are shaping their lives. As such, children and young people in the target population should always constitute a participant group in the data collection.
- c. It may also be appropriate to involve other stakeholder participant groups (such as parents, educators, government representatives, etc.). For example, it may be appropriate to survey or interview teachers about education-related indicators or factors or speak to government representatives about policy-related indicators or factors.
- d. Data may also be supplemented by existing datasets (for example, census data).
- e. Where data from adult stakeholders and/or existing datasets are used, wherever possible, children and young people should be involved in interpreting this data to ensure it aligns with their perceptions. For example, where data shows that climate change is included in the school curriculum, children should be asked whether this education is fit for purpose and meets their needs.
- f. Involving children and young people as co-researchers in both the collection and analysis of the data is also recommended.

8. Repeat data collection (optional):

- a. Repeating the data collection at multiple points in time is important to compare the results and measure change over time.
- b. The periodicity (time between data collection phases) is dependent on the indicators and contexts, however, there should be enough time between data collection stages to be able to observe meaningful changes.
- c. The indicators can also be used to measure the current state of children’s and young people’s experiences of climate change. In this case, one-off data collection is sufficient.

Ideally, indicators and measures will be embedded into an intergenerational outcome mapping process to develop concrete, actionable plans and track progress towards the desired outcomes and ideal states. Progress can then be measured against the relevant indicators using the specific measures developed through the process described above.

OUTCOME MAPPING

Outcome mapping is a participatory methodology for planning and assessing development programming that is oriented towards social transformation. It also provides a set of tools to design and gather information on the outcomes defined in the change process. By involving everyone in the planning, monitoring and evaluation of the project, outcome mapping increases ownership of interventions and practice.



CHILD-CENTRED INDICATORS FOR CLIMATE CHANGE

Below we present the child-centred indicator framework.

Key

Factors	Alignment
>2030 The factor should be achieved by 2030 to signify progress towards the indicator.	CCRI: Alignment with Children’s Climate Risk Index.
2030> The factor should be prioritised post-2030.	Nest: Alignment with ARACY’s Australian Children’s Wellbeing Framework.
+ The factor must increase over time to signify progress towards the indicator.	UNCRC: Alignment with UN Convention on the Rights of the Child.
- The factor must decrease over time to signify progress towards the indicator.	SDG: Alignment with Sustainable Development Goals.
≠ The factor must be eliminated or reduced to zero to achieve the indicator.	
« The factor is a climate mitigation action.	
» The factor is a climate adaptation action.	
NB: If the factor does not have a « or », it is a climate impact.	

Domain: Individual							
Outcome 1: Healthy Children and Young People							
Ideal State 1: Children and young people are physically healthy							
NO.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-1.1	Children and young people say that everyone has equal access to high quality and affordable healthcare	<ul style="list-style-type: none"> - Overcrowding in hospitals + Quality healthcare professionals » + Government-funded healthcare systems » 	<ul style="list-style-type: none"> ≠ Overcrowding in hospitals + Quality healthcare professionals » + Government-funded healthcare systems » 	CCRI-2.1	NEST-3.0	UNCRC-24	SDG 3; SDG 10
CI-1.2	Children and young people say they are generally healthy and do not encounter frequent illness	<ul style="list-style-type: none"> - Acute illnesses and diseases (including viruses, cancer) - Allergies - Respiratory issues from air pollution + Life expectancy + Children's opportunities to participate in outdoor recreation and play » + Children's access to outdoor recreational spaces (including sports grounds, parks and nature) » 	<ul style="list-style-type: none"> - Acute illnesses and diseases (including viruses, cancer) - Allergies ≠ Respiratory issues from air pollution + Life expectancy + Children's opportunities to participate in outdoor recreation and play » + Children's access to outdoor recreational spaces (including sports grounds, parks and nature) » 	CCRI-2.1	NEST-3.0	UNCRC-24	SDG 3
CI-1.3	Children and young people say they have equal access to sufficient and affordable nutritious food	<ul style="list-style-type: none"> + Access to healthy, fresh and nutritious food » + Access to organically grown food » + Locally grown food » - Malnutrition among children 	<ul style="list-style-type: none"> + Access to healthy, fresh and nutritious food » + Access to organically grown food » + Locally grown food » ≠ Malnutrition among children 	CCRI-2.1.2	NEST-2.0; NEST-3.7	UNCRC-24	SDG 2; SDG 3; SDG 10
CI-1.4	Children and young people say they have reliable access to clean, safe and sufficient water	<ul style="list-style-type: none"> + Availability of clean water (general) » + Availability of clean water for children living in arid locations » + Availability of clean water for children in global South » + Access to clean water (general) » + Access to clean water for children living in arid locations » + Access to clean water for children in global South » 	<ul style="list-style-type: none"> + Availability of clean water (general) » + Availability of clean water for children living in arid locations » + Availability of clean water for children in global South » + Access to clean water (general) » + Access to clean water for children living in arid locations » + Access to clean water for children in global South » 	CCRI-2.3; CCRI-1.1	NEST-2.0; NEST-3.6	UNCRC-24	SDG 6; SDG 10

Domain: Individual							
Outcome 1: Healthy Children and Young People							
Ideal State 1: Children and young people are physically healthy							
NO.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-1.5	Children and young people say that governments support them and their communities to realise the highest attainable standard of health	<ul style="list-style-type: none"> + Government investment in health and medicine research and innovation » + Government investment in sustainable and innovative agriculture (including vertical farming) » + Government investment in effective management of water resources » + Government subsidies for healthy food » + Government-funded healthcare programs and systems » 	<ul style="list-style-type: none"> + Government investment in health and medicine research and innovation » + Government investment in sustainable and innovative agriculture (including vertical farming) » + Government investment in effective management of water resources » + Government subsidies for healthy food » + Government-funded healthcare programs and systems » 	CCRI-2.1	NEST-3.0	UNCRC-24	SDG 3

Domain: Individual							
Outcome 2: Resilient and Thriving Children and Young People							
Ideal State 2: Children and young people are safe, hopeful and thriving							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-2.1	Children and young people are generally mentally well and happy	<ul style="list-style-type: none"> - Levels of stress among children - Levels of anxiety among children - Levels of depression among children + Levels of positive wellbeing among children + Levels of resilience among children + Opportunities for socialisation among children (including face-to-face learning) » 	<ul style="list-style-type: none"> - Levels of stress among children - Levels of anxiety among children - Levels of depression among children + Opportunities for socialisation among children (including face-to-face learning) » 		NEST-3.4; NEST-3.8	UNCRC-24	SDG 3
CI-2.2	Children and young people are hopeful and optimistic about their futures	<ul style="list-style-type: none"> + Levels of optimism among children + Levels of hope among children - Levels of anxiety about the future among children 	<ul style="list-style-type: none"> + Levels of optimism among children + Levels of hope among children - Levels of anxiety about the future among children 		NEST-3.4; NEST-3.8	UNCRC-24	SDG 3
CI-2.3	Children and young people say that everyone - adults and children alike - has equal access to high quality and affordable mental healthcare	<ul style="list-style-type: none"> + Mental health support services (general) » + Mental health support services (post-crisis) » + Government investment in mental health support in communities » 	<ul style="list-style-type: none"> + Mental health support services (general) » + Mental health support services (post-crisis) » + Government investment in mental health support in communities » 		NEST-3.4	UNCRC-24	SDG 3; SDG 10

Domain: Individual							
Outcome 2: Resilient and Thriving Children and Young People							
Ideal State 2: Children and young people are safe, hopeful and thriving							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-24	Children and young people report they feel safe in their communities	<ul style="list-style-type: none"> + Levels of safety in parks and public spaces - Crime rates - Children exposed to natural disasters and adverse weather + Effective warning systems for natural disasters and adverse weather » + Community planning and preparation for natural disasters and adverse weather » + Community response to natural disasters and adverse weather » + Government support for communities affected by natural disasters and adverse weather » + Adequate child protection programs » 	<ul style="list-style-type: none"> + Levels of safety in parks and public spaces ≠ Crime rates ≠ Children exposed to natural disasters and adverse weather + Effective warning systems for natural disasters and adverse weather » + Community planning and preparation for natural disasters and adverse weather » + Community response to natural disasters and adverse weather » + Government support for communities affected by natural disasters and adverse weather » + Adequate child protection programs » 		NEST-1.0	UNCRC-19	SDG 11; SDG 16
CI-25	Children and young people feel that the world is a safe place to live	<ul style="list-style-type: none"> - War or conflict between countries - War or conflict between communities 	<ul style="list-style-type: none"> ≠ War or conflict between countries ≠ War or conflict between communities 		NEST-1.0	UNCRC-38	SDG 16
CI-26	Children and young people say their families have enough money to support them and provide for their basic needs	<ul style="list-style-type: none"> - Cost of living impacts on families - Inflation + Families in adequate employment » + Living wages «» + Adequate child protection programs » + Government financial support for families » + Community social support » 	<ul style="list-style-type: none"> - Cost of living impacts on families ≠ High inflation + Families in adequate employment » + Living wages «» + Adequate child protection programs » + Government financial support for families » + Community social support » 	CCRI-2.4	NEST-2.0	UNCRC-18; UNCRC-26; UNCRC-27	SDG 1; SDG 8

Domain: Community		CCRI	NEST	UNCRC	SDG
Outcome 3: Resilient and Sustainable Infrastructure					
Ideal State 3: Children and young people have access to sustainable and climate-resilient infrastructure and built environments					
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)		
CI-3.1	Children and young people say that public transport is reliable, affordable and accessible in their communities	<ul style="list-style-type: none"> + Access to affordable public transport «» + Reliable public transport «» + Variety of public transport options «» + Green public transport «» - Public transport impacted by adverse weather and natural disasters + Walking paths «» + Bike lanes «» + Number of people using public transport «» + Affordable green vehicles «» - Number of people using air travel «» 	<ul style="list-style-type: none"> + Access to affordable public transport «» + Reliable public transport «» + Variety of public transport options «» + Green public transport «» ≠ Public transport impacted by adverse weather and natural disasters + Walking paths «» + Bike lanes «» + Number of people using public transport «» + Affordable green vehicles «» - Number of people using air travel «» 	NEST-2.0 UNCRC-27	SDG 7; SDG 9; SDG 11
CI-3.2	Children and young people say that buildings, infrastructure and transport in their communities are climate-resilient and sustainable	<ul style="list-style-type: none"> + Greenery in building designs «» + Renewable energy in building designs «» + Climate-resilient buildings and infrastructure «» + Climate resilient parks and playgrounds «» + Effective drainage systems «» + Use of sustainable construction materials (e.g. recycled) «» + Use of green vehicles «» + Walking paths «» + Bike lanes «» 	<ul style="list-style-type: none"> + Greenery in building designs «» + Renewable energy in building designs «» + Climate-resilient buildings and infrastructure «» + Climate resilient parks and playgrounds «» + Effective drainage systems «» + Use of sustainable construction materials (e.g. recycled) «» + Use of green vehicles «» + Walking paths «» + Bike lanes «» 	NEST-2.0 UNCRC-27	SDG 7; SDG 9; SDG 11
CI-3.3	Children and young people say they have access to adequate, affordable and safe housing	<ul style="list-style-type: none"> + Affordable housing «» + Decent available housing «» - Homes impacted by natural disasters and adverse weather - Coastal homes impacted by rising sea levels 	<ul style="list-style-type: none"> + Affordable housing «» + Decent available housing «» ≠ Homes impacted by natural disasters and adverse weather ≠ Coastal homes impacted by rising sea levels 	NEST-2.0 UNCRC-27	SDG 9; SDG 11

Domain: Community							
Outcome 4: Resilient and Sustainable Communities							
Ideal State 4: Children and young people live in sustainable and climate-resilient communities							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-4.1	Children and young people say their communities are adequately prepared to adapt to, respond to and recover from climate change and related events (e.g. natural disasters)	<ul style="list-style-type: none"> + Effective forecasting systems for natural disasters and adverse weather » + Effective warning systems for natural disasters and adverse weather » + Effective evacuation plans » + Climate-resilient buildings and infrastructure » + Adequate government financial support post-disaster (for rebuilding, recovery) » + Community mental health support post-disaster » + Effective drainage systems » + Community action plans » + Government and community-coordinated climate action plans » + Provision of basic resources post-disaster (food, water, shelter) » + Effective insurance schemes for those recovering from disasters » - Forced displacement and homelessness post-disaster - Community mental health decline after disaster » 	<ul style="list-style-type: none"> + Effective forecasting systems for natural disasters and adverse weather » + Effective warning systems for natural disasters and adverse weather » + Effective evacuation plans » + Climate-resilient buildings and infrastructure » + Adequate government financial support post-disaster (for rebuilding, recovery) » + Community mental health support post-disaster » + Effective drainage systems » + Community action plans » + Government and community-coordinated climate action plans » + Provision of basic resources post-disaster (food, water, shelter) » + Effective insurance schemes for those recovering from disasters » ≠ Forced displacement and homelessness post-disaster ≠ Community mental health decline post-disasters » 		<ul style="list-style-type: none"> NEST-1.0; NEST-2.0; NEST-5.0; NEST-3.0 	<ul style="list-style-type: none"> UNCRC-6; UNCRC-24; UNCRC-27 	<ul style="list-style-type: none"> SDG 11; SDG 12; SDG 13; SDG 14; SDG 15
CI-4.2	Children and young people say their community works together to build community resilience to climate change	<ul style="list-style-type: none"> + Community tree-planting initiatives «» + Community gardens «» + Community education events on climate change and the environment «» + Community planning and preparation for climate-related events » + Community support systems and resources post-disaster » + Community mental health services » 	<ul style="list-style-type: none"> + Community tree-planting initiatives «» + Community gardens «» + Community education events on climate change and the environment «» + Community planning and preparation for climate-related events » + Community support systems and resources post-disaster » + Community mental health services » 		<ul style="list-style-type: none"> NEST-5.0; NEST-6.0 	<ul style="list-style-type: none"> UNCRC-6; UNCRC-24; UNCRC-27 	<ul style="list-style-type: none"> SDG 11; SDG 13

Domain: Community		FACTORS (2030>)				
No.	INDICATORS	FACTORS (>2030)	CCRI	NEST	UNCRC	SDG
Outcome 4: Resilient and Sustainable Communities Ideal State 4: Children and young people live in sustainable and climate-resilient communities						
CI-4.3	Children and young people say that natural disasters or climate-related events are not forcibly displacing communities	<ul style="list-style-type: none"> - Communities displaced by natural disasters or climate-related events - Children displaced by natural disasters or climate-related events 		<ul style="list-style-type: none"> NEST-1.0; NEST-2.0 	<ul style="list-style-type: none"> UNCRC-6; UNCRC-27 	<ul style="list-style-type: none"> SDG 11; SDG-13
CI-4.4	Children and young people say the government supports communities to adapt and respond to climate change and its impacts	<ul style="list-style-type: none"> + Effective emergency response programs » + Provision of basic resources post-disaster (food, water, shelter) » + Adequate government financial support post-disaster (for rebuilding, recovery) » + Fair climate-migration policies » + Effective just transition policies and plans » + Government investment in disaster prevention » + Government funding for community mental health support » 		<ul style="list-style-type: none"> NEST-2.0; NEST-3.0 	<ul style="list-style-type: none"> UNCRC-4 	<ul style="list-style-type: none"> SDG 11; SDG 13; SDG 16
CI-4.5	Children and young people say their homes, schools and communities are not overcrowded	<ul style="list-style-type: none"> + Government investment in infrastructure to support growing populations «» - Students per class - Overcrowding in houses - Homelessness 		<ul style="list-style-type: none"> NEST-2.0; NEST-4.0 	<ul style="list-style-type: none"> UNCRC-27; UNCRC-28 	<ul style="list-style-type: none"> SDG 10; SDG 11

Domain: Community		CCRI	NEST	UNCRC	SDG
Outcome 4: Resilient and Sustainable Communities					
Ideal State 4: Children and young people live in sustainable and climate-resilient communities					
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)		
CI-4.6	Children and young people say that people in their communities integrate sustainable practices and behaviours into their everyday lives	<ul style="list-style-type: none"> + Effective recycling programs (including composting) « + Use of recycling programs among the community « + Reuse habits among the community « + Responsible consumption habits among the community « + Availability of affordable, eco-friendly products « + Plant-based diets « - Use of plastics « - Water usage « - Energy usage « - Food waste « + Responsible rubbish disposal « + Use of green public transport « + Support for local businesses « + Locally grown food « 	<ul style="list-style-type: none"> + Effective recycling programs (including composting) « + Use of recycling programs among the community « + Reuse habits among the community « + Responsible consumption habits among the community « + Availability of affordable, eco-friendly products « + Plant-based diets « ≠ Use of plastics « - Water usage « - Energy usage « ≠ Food waste « + Responsible rubbish disposal « + Use of green public transport « + Support for local businesses « + Locally grown food « 	<ul style="list-style-type: none"> UNCRC-6; UNCRC-27 	<ul style="list-style-type: none"> SDG 7; SDG 11; SDG 12; SDG 13; SDG 14; SDG 15
CI-4.7	Children and young people say that communities work together to protect, sustain and enrich the natural environment	<ul style="list-style-type: none"> + Community tree-planting initiatives « + Community land and sea clean up initiatives « + Responsible rubbish disposal habits among the community « + Effective recycling programs « + Use of recycling programs among the community « 	<ul style="list-style-type: none"> + Community tree-planting initiatives « + Community land and sea clean up initiatives « + Responsible rubbish disposal habits among the community « + Effective recycling programs « + Use of recycling programs among the community « 	<ul style="list-style-type: none"> UNCRC-6; UNCRC-27 	<ul style="list-style-type: none"> SDG 11; SDG 12; SDG 14; SDG 15

Domain: Community		FACTORS (>2030)		FACTORS (2030>)		CCRI	NEST	UNCRC	SDG
<p>Outcome 5: Environmentally-Informed Communities Ideal State 5: Children, young people and their communities are educated and climate-informed</p>									
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG		
CI-5.1	Children and young people say that people in their communities are informed about climate change and its impacts	<ul style="list-style-type: none"> + Community awareness of climate change «» - Climate denial in the community + Adults acknowledge the need to urgently address climate change «» 	<ul style="list-style-type: none"> + Community awareness of climate change «» ≠ Climate denial in the community + Adults acknowledge the need to urgently address climate change «» 			UNCRC-28	SDG 4; SDG 11; SDG-13		
CI-5.2	Children and young people receive high-quality education on climate change and its effects	<ul style="list-style-type: none"> + Compulsory climate change education in schools, including causes, impacts, how children and their communities can prepare, and how to reverse climate change «» + Compulsory environmental education in schools, including human-induced environmental degradation, and how to take care of the environment «» + Climate change education based on current research in schools «» 	<ul style="list-style-type: none"> + Compulsory climate change education in schools, including causes, impacts, how children and their communities can prepare, and how to reverse climate change «» + Compulsory environmental education in schools, including human-induced environmental degradation, and how to take care of the environment «» + Climate change education based on current research in schools «» 	CCRI-2.2.2	NEST-4.0	UNCRC-28; UNCRC-29	SDG 4; SDG-13		
CI-5.3	Children and young people say climate change and its effects do not impact their education	<ul style="list-style-type: none"> + Face-to-face schooling - School closures due to climate and environmental impacts + Equal access to quality digital learning for all children «» 	<ul style="list-style-type: none"> + Face-to-face schooling ≠ School closures due to climate and environmental impacts + Equal access to quality digital learning for all children «» 	CCRI-2.2.1	NEST-4.0	UNCRC-28	SDG 4; SDG 9; SDG 10; SDG 11; SDG-13		
CI-5.4	Children and young people say that governments ensure children and their communities are adequately informed about climate change by facilitating access to information and quality, affordable education	<ul style="list-style-type: none"> + Government funding for education «» + Government funding for climate change and environmental education «» + Access to affordable, quality education + Accurate environmental and climate information available through government sources «» 	<ul style="list-style-type: none"> + Government funding for education «» + Government funding for climate change and environmental education «» + Access to affordable, quality education + Accurate environmental and climate information available through government sources «» 	CCRI-2.2.3	NEST-4.0	UNCRC-28; UNCRC-29	SDG 4; SDG 11; SDG-13		

Domain: Community							
Outcome 5: Environmentally-Informed Communities							
Ideal State 5: Children, young people and their communities are educated and climate-informed							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-5.5	Children and young people say that governments value, fund and listen to quality climate science and research	<ul style="list-style-type: none"> + Government funding for climate and environmental research and innovation (including renewable energy, sustainable agriculture, manufacturing) «» + Incentives for environmental science careers «» + Independent science advisory boards to government «» + Evidence-based government decision-making on climate and environmental issues «» 	<ul style="list-style-type: none"> + Government funding for climate and environmental research and innovation (including renewable energy, sustainable agriculture, manufacturing) «» + Incentives for environmental science careers «» + Independent science advisory boards to government «» + Evidence-based government decision-making on climate and environmental issues «» 			UNCRC-4	SDG 4; SDG 7; SDG 12; SDG 13; SDG 17
Domain: Community							
Outcome 6: Equitable and Just Communities							
Ideal State 6: Children and young people believe their communities are fair and equitable							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-6.1	Children and young people say that people in their communities support and respect each other	<ul style="list-style-type: none"> + Support for local business «» + Positive community groups and events «» + Community action on climate and environmental issues «» + Coordinated community disaster response and recovery efforts «» - Discrimination experienced by children from minority groups + Equitable distribution of resources among the community «» 	<ul style="list-style-type: none"> + Support for local business «» + Positive community groups and events «» + Community action on climate and environmental issues «» + Coordinated community disaster response and recovery efforts «» ≠ Discrimination experienced by children from minority groups + Equitable distribution of resources among the community «» 		NEST-1.0; NEST-5.0; NEST-6.0	UNCRC-2	SDG 10; SDG 11

Domain: Community		Outcome 6: Equitable and Just Communities		Ideal State 6: Children and young people believe their communities are fair and equitable		FACTORS (2030>)				
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG			
CI-6.2	Children and young people say that no one is disproportionately impacted by climate change and its effects	<ul style="list-style-type: none"> - Disproportionate climate impacts on lower socio-economic groups - Disproportionate climate impacts on those living with disability - Disproportionate climate impacts on those living with chronic health conditions - Disproportionate climate impacts on those living in the global South - Disproportionate climate impacts on those living in climate-vulnerable areas - Disproportionate climate impacts on First Nations peoples - Disproportionate climate impacts on girls and gender-diverse young people 	<ul style="list-style-type: none"> ≠ Disproportionate climate impacts on lower socio-economic groups ≠ Disproportionate climate impacts on those living with disability ≠ Disproportionate climate impacts on those living with chronic health conditions ≠ Disproportionate climate impacts on those living in the global South ≠ Disproportionate climate impacts on those living in climate-vulnerable areas ≠ Disproportionate climate impacts on First Nations peoples ≠ Disproportionate climate impacts on girls and gender-diverse young people 	CCRI-2.4.1	NEST-2.5; NEST-6.0	UNCRC-2; UNCRC-6; UNCRC-23; UNCRC-24; UNCRC-27; UNCRC-28	SDG 1; SDG 3; SDG 5; SDG 10; SDG 13; SDG 11			
CI-6.3	Children and young people say that everyone has equal and affordable access to the resources they need to survive	<ul style="list-style-type: none"> + Equal access to affordable education «» + Equal access to affordable healthcare «» + Equal access to affordable, nutritious food «» + Equal access to clean water «» + Equal access to affordable, quality housing «» + Equal access to affordable, quality, sustainable energy sources «» + Green jobs «» + Government investment in the green energy sector «» - Government investment in fossil fuel mining and processing «» + Sustainable corporate business structures «» 	<ul style="list-style-type: none"> + Equal access to affordable education «» + Equal access to affordable healthcare «» + Equal access to affordable, nutritious food «» + Equal access to clean water «» + Equal access to affordable, quality housing «» + Equal access to affordable, quality, sustainable energy sources «» + Green jobs «» + Government investment in the green energy sector «» ≠ Government investment in fossil fuel mining and processing «» + Sustainable corporate business structures «» 	CCRI-2.1; CCRI-2.2; CCRI-2.3; CCRI-2.4.1	NEST-2.0; NEST-3.0; NEST-4.0	UNCRC-2; UNCRC-6; UNCRC-24; UNCRC-27; UNCRC-28	SDG 2; SDG 6; SDG 8; SDG 10; SDG 11			
CI-6.4	Children and young people say that governments and corporations facilitate and support just transition communities	<ul style="list-style-type: none"> + Green jobs «» + Government investment in the green energy sector «» - Government investment in fossil fuel mining and processing «» + Sustainable corporate business structures «» 	<ul style="list-style-type: none"> + Green jobs «» + Government investment in the green energy sector «» ≠ Government investment in fossil fuel mining and processing «» + Sustainable corporate business structures «» 		NEST-2.0	UNCRC-4	SDG 8; SDG 9; SDG 11			
CI-6.5	Children and young people say there are sufficient opportunities for decent work available to everyone	<ul style="list-style-type: none"> + Living wages «» + Green jobs «» + Opportunities for local employment «» 	<ul style="list-style-type: none"> + Living wages «» + Green jobs «» + Opportunities for local employment «» 	CCRI-2.4.3	NEST-2.4; NEST-2.6	UNCRC-27	SDG 8			

Domain: Political							
Outcome 7: Meaningful Participation and Citizenship							
Ideal State 7: Children and young people's perspectives and needs shape decision-making about climate change							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-71	Children and young people have opportunities to participate in decision-making on climate change	<ul style="list-style-type: none"> + Mechanisms for child and youth participation in climate and environmental governance «» + Intergenerational mechanisms for climate in government, industry and private sector «» 	<ul style="list-style-type: none"> + Mechanisms for child and youth participation in climate and environmental governance «» + Intergenerational mechanisms for climate in government, industry and private sector «» 		NEST-5.2	UNCRC-12	SDG 16
CI-72	Children and young people feel safe and empowered to take part in climate and environmental activism	<ul style="list-style-type: none"> + Youth-led climate and environmental initiatives «» + Children's engagement in climate and environmental activism on social media «» - Violence at protests (including climate protests) + Children are educated about climate change causes and prevention «» + Children's awareness of opportunities for participation in climate and environmental governance «» + Children's access to opportunities to participate in climate and environmental governance «» + Children's awareness of opportunities for participation in climate and environmental engagement activities «» + Children's access to opportunities for participation in climate and environmental advocacy and civil engagement activities «» 	<ul style="list-style-type: none"> + Youth-led climate and environmental initiatives «» + Children's engagement in climate and environmental activism on social media «» ≠ Violence at protests (including climate protests) + Children educated about climate change causes and prevention «» + Children's awareness of opportunities for participation in climate and environmental governance «» + Children's access to opportunities to participate in climate and environmental governance «» + Children's awareness of opportunities for participation in climate and environmental engagement activities «» + Children's access to opportunities for participation in climate and environmental advocacy and civil engagement activities «» 		NEST-1.0; NEST-5.0	UNCRC-12; UNCRC-13; UNCRC-15	SDG 13; SDG-16
CI-73	Children and young people say that governments and corporations listen to, value and act on their needs and aspirations relating to climate change and the environment	<ul style="list-style-type: none"> + Formal and meaningful youth participation mechanisms in government, corporate and the private sector «» + Policies and legislation on climate change and the environment informed by children's needs «» 	<ul style="list-style-type: none"> + Formal and meaningful youth participation mechanisms in government, corporate and the private sector «» + Policies and legislation on climate change and the environment informed by children's needs «» 		NEST-5.2	UNCRC-4; UNCRC-12	SDG 16

Domain: Political							
Outcome 8: Good Governance, Trust and Accountability							
Ideal State 8: Children and young people trust governments, corporations and the media to take action on climate change							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-8.1	Children and young people say that governments and corporations are honest and transparent about policies and practices that impact the environment	<ul style="list-style-type: none"> + Levels of trust in government among children + Levels of trust in corporations among children + Political commitment to climate action «» + Government communication to children on climate and environmental issues «» - Political lobbying from fossil fuel companies «» - Political donations from fossil fuel companies «» - Fossil fuel subsidies «» 	<ul style="list-style-type: none"> + Levels of trust in government among children + Levels of trust in corporations among children + Political commitment to climate action «» + Government communication to children on climate and environmental issues «» ≠ Political lobbying from fossil fuel companies «» ≠ Political donations from fossil fuel companies «» ≠ Fossil fuel subsidies «» 			UNCRC-4	SDG 9; SDG 12; SDG 16
CI-8.2	Children and young people say that the government is taking action on climate change	<ul style="list-style-type: none"> - Greenhouse gas emission levels + Progress towards net zero «» + Emissions reduction schemes «» + Incentives and subsidies for renewable energy «» - Fossil fuel subsidies «» + Government funding for climate mitigation efforts « + Corporate environmental and climate policy and regulation «» + Government funding for climate and environmental research and innovation «» + Government funding for climate and environmental education «» + Government investment in planning, preparation, response and adaptation for climate change « 	<ul style="list-style-type: none"> ≠ Greenhouse gas emission levels + Progress towards net zero «» + Emissions reduction schemes «» + Incentives and subsidies for renewable energy «» ≠ Fossil fuel subsidies «» + Government funding for climate mitigation efforts « + Corporate environmental and climate policy and regulation «» + Government funding for climate and environmental research and innovation «» + Government funding for climate and environmental education «» + Government investment in planning, preparation, response and adaptation for climate change « 			UNCRC-4	SDG 13

Domain: Political							
Outcome 8: Good Governance, Trust and Accountability							
Ideal State 8: Children and young people trust governments, corporations and the media to take action on climate change							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-8.3	Children and young people say that world leaders collaborate to lead climate action	+ Global summits for climate action «» + Global action plans for climate change «» + Achievement of global climate change targets «» + Internationally equitable climate action «»	+ Global summits for climate action «» + Global action plans for climate change «» + Achievement of global climate change targets «» + Internationally equitable climate action «»			UNCRC-4	SDG 13; SDG 16; SDG 17
CI-8.4	Children and young people say that media coverage of climate change is adequate, accurate and fair	+ Accurate and trustworthy information on climate change in the media «» + Media coverage of climate change portraying urgency «» + Balanced and evidence-based media coverage of climate change and environmental issues «»	+ Accurate and trustworthy information on climate change in the media «» + Media coverage of climate change portraying urgency «» + Balanced and evidence-based media coverage of climate change and environmental issues «»			UNCRC-17	SDG 16
CI-8.5	Children and young people say that industries and corporations are held accountable for environmentally damaging practices	+ Effective corporate accountability laws for environmentally damaging and unsustainable practices «» + Enforcement of corporate accountability laws «»	+ Effective corporate accountability laws for environmentally damaging and unsustainable practices «» + Enforcement of corporate accountability laws «»			UNCRC-4	SDG 9; SDG 12; SDG 14; SDG 15; SDG 16
CI-8.6	Children and young people say that governments are held accountable for acting on climate change	+ Independent environmental advisory boards «» + Federal environmental protection agency «»	+ Independent environmental advisory boards «» + Federal environmental protection agency «»			UNCRC-4	SDG 12; SDG 13; SDG 16; SDG 17

Domain: Environmental		FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
Outcome 9: Healthy and Sustainable Environments							
Ideal State 9: Children and young people live in and enjoy healthy and sustainable natural environments							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-9.1	Children and young people say that natural places, habitats and ecosystems are protected and conserved	<ul style="list-style-type: none"> - Deforestation « + Conservation of animal habitats «» + Industry and corporate regulations for environmental protection « + Environmental protection legislation « + Political commitment to environmental protection and conservation « + National and marine parks « + Biodiversity 	<ul style="list-style-type: none"> ≠ Deforestation « + Conservation of animal habitats «» + Industry and corporate regulations for environmental protection « + Environmental protection legislation « + Political commitment to environmental protection and conservation « + National and marine parks « + Biodiversity 			<ul style="list-style-type: none"> UNCRC-6; UNCRC-24; UNCRC-27 	<ul style="list-style-type: none"> SDG 14; SDG 15
CI-9.2	Children and young people say there are places they can go to play and take part in recreational activities outdoors	<ul style="list-style-type: none"> + Parks and green spaces in communities «» + National and marine parks « - Recreational spaces impacted by climate events + Climate-resilient recreational spaces in communities (including sports facilities, playgrounds) « + Children's access to safe, climate-resilient recreational spaces (including sports facilities, playgrounds) « + Children's use of recreational spaces (including sports facilities, playgrounds) « 	<ul style="list-style-type: none"> + Parks and green spaces in communities «» + National and marine parks « ≠ Recreational spaces impacted by climate events + Climate-resilient recreational spaces in communities (including sports facilities, playgrounds) « + Children's access to safe, climate-resilient recreational spaces (including sports facilities, playgrounds) « + Children's use of recreational spaces (including sports facilities, playgrounds) « 			<ul style="list-style-type: none"> UNCRC-6; UNCRC-27; UNCRC-31 	<ul style="list-style-type: none"> SDG 3; SDG 11; SDG 14; SDG 15
CI-9.3	Children and young people say that wildlife is protected	<ul style="list-style-type: none"> + Conservation of animal habitats « - Endangered animals (land and sea) - Extinction of animals (land and sea) 	<ul style="list-style-type: none"> + Conservation of animal habitats « ≠ Endangered animals (land and sea) - Extinction of animals (land and sea) 			<ul style="list-style-type: none"> UNCRC-6 	<ul style="list-style-type: none"> SDG 14; SDG 15
CI-9.4	Children and young people say the climate is safe and stable where they live	<ul style="list-style-type: none"> - Children exposed to heatwaves - Children exposed to severe weather events - Children exposed to natural disasters 	<ul style="list-style-type: none"> - Children exposed to heatwaves - Children exposed to severe weather events - Children exposed to natural disasters 	<ul style="list-style-type: none"> CCRI-1.2; CCRI-1.3; CCRI-1.4; CCRI-1.6 		<ul style="list-style-type: none"> UNCRC-6; UNCRC-24; UNCRC-27 	<ul style="list-style-type: none"> SDG 11; SDG 14; SDG 15

Domain: Environmental							
Outcome 9: Healthy and Sustainable Environments							
Ideal State 9: Children and young people live in and enjoy healthy and sustainable natural environments							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-9.5	Children and young people say they live in clean and healthy environments	<ul style="list-style-type: none"> - Pollution and waste in communities - Pollution and waste in the environment (air, land and sea) - Children exposed to air pollution - Children exposed to land pollution - Children exposed to water pollution + Effective waste management programs » 	<ul style="list-style-type: none"> ≠ Pollution and waste in communities ≠ Pollution and waste in the environment (air, land and sea) ≠ Children exposed to air pollution ≠ Children exposed to land pollution ≠ Children exposed to water pollution + Effective waste management programs » 	CCRI-1.7; CCRI-1.8		UNCRC-6; UNCRC-24; UNCRC-27	SDG 6; SDG 11; SDG 14; SDG 15
CI-9.6	Children and young people say that industries and corporations are genuinely socially and environmentally responsible	<ul style="list-style-type: none"> + Corporate environmental and social responsibility plans «» + Adequate pay for employees » - Greenwashing «» + Regulations for corporate waste and pollution (including plastics) « - Waste from manufacturing + Renewable energy in manufacturing and production processes «» - Fossil fuel mining «» + Reusable and recyclable product packaging «» + Use of sustainable agriculture techniques « + Corporate/industry use of sustainable and responsibly sourced resources «» + Payment of carbon taxes «» 	<ul style="list-style-type: none"> + Corporate environmental and social responsibility plans «» + Adequate pay for employees » ≠ Greenwashing «» + Regulations for corporate waste and pollution (including plastics) « ≠ Waste from manufacturing + Renewable energy in manufacturing and production processes «» ≠ Fossil fuel mining «» + Reusable and recyclable product packaging «» + Use of sustainable agriculture techniques « + Corporate/industry use of sustainable and responsibly sourced resources «» + Payment of carbon taxes «» 			UNCRC-6; UNCRC-24; UNCRC-27	SDG 7; SDG 8; SDG 9; SDG 12; SDG 13; SDG 16
CI-9.7	Children and young people say that governments prioritise environmental protection and conservation	<ul style="list-style-type: none"> + Effective corporate accountability laws for environmentally damaging and unsustainable practices (including deforestation, overfishing) « + Government funding for conservation «» + Emissions reduction schemes «» + Incentives and subsidies for renewable energy «» - Fossil fuel subsidies «» 	<ul style="list-style-type: none"> + Effective corporate accountability laws for environmentally damaging and unsustainable practices (including deforestation, overfishing) « + Government funding for conservation «» + Emissions reduction schemes «» + Incentives and subsidies for renewable energy «» ≠ Fossil fuel subsidies «» 			UNCRC-4	SDG 12; SDG 13; SDG 14; SDG 15

Domain: Environmental							
Outcome 10: Environmental Restoration and Climate Change Reversal							
Ideal State 10: Children and young people live in a world where climate change has reversed and the environment has been restored							
No.	INDICATORS	FACTORS (>2030)	FACTORS (2030>)	CCRI	NEST	UNCRC	SDG
CI-10.1	Land and ocean temperatures have returned to safe levels	<ul style="list-style-type: none"> - Duration of heatwaves - Highest temperature in heatwaves - Coral bleaching + Regeneration of wildlife (including land and sea) - Average global surface temperature rises in smaller increments 	<ul style="list-style-type: none"> - Duration of heatwaves - Highest temperature in heatwaves - Coral bleaching + Regeneration of wildlife (including land and sea) - Average global surface temperature stabilises 	CCRI-1.6		UNCRC-6; UNCRC-24; UNCRC-27	SDG 14; SDG 15
CI-10.2	Sea levels have receded	<ul style="list-style-type: none"> - Coastal flooding 	<ul style="list-style-type: none"> ≠ Coastal flooding 	CCRI-1.3		UNCRC-6; UNCRC-24; UNCRC-27	SDG 14
CI-10.3	Polar ice has refrozen	<ul style="list-style-type: none"> + Ice caps coverage + Regeneration of polar wildlife 	<ul style="list-style-type: none"> + Ice caps coverage + Regeneration of polar wildlife 			UNCRC-6; UNCRC-24; UNCRC-27	SDG 14; SDG 15
CI-10.4	Natural habitats have regenerated	<ul style="list-style-type: none"> + Coverage of forests + Regeneration of flora + Regeneration of wildlife 	<ul style="list-style-type: none"> + Coverage of forests + Regeneration of flora + Regeneration of wildlife 			UNCRC-6; UNCRC-24; UNCRC-27	SDG 15
CI-10.5	Biodiversity is thriving	<ul style="list-style-type: none"> + Biodiversity - Endangered flora and fauna 	<ul style="list-style-type: none"> + Biodiversity ≠ Endangered flora and fauna 			UNCRC-6; UNCRC-24; UNCRC-27	SDG 14; SDG 15
CI-10.6	Natural disasters are infrequent	<ul style="list-style-type: none"> - Frequency of natural disasters - Frequency of severe weather events 	<ul style="list-style-type: none"> - Frequency of natural disasters - Frequency of severe weather events 	CCRI-1.2; CCRI-1.3; CCRI-1.4		UNCRC-6; UNCRC-24; UNCRC-27	SDG 13; SDG 14; SDG 15
CI-10.7	Pollution has been eliminated	<ul style="list-style-type: none"> - Air pollution - Land pollution - Water pollution 	<ul style="list-style-type: none"> ≠ Air pollution ≠ Land pollution ≠ Water pollution 	CCRI-1.7; CCRI-1.8		UNCRC-6; UNCRC-24; UNCRC-27	SDG 6; SDG 12; SDG 13; SDG 14; SDG 15
CI-10.8	Greenhouse gases in the atmosphere have returned to safe levels	<ul style="list-style-type: none"> - Emissions levels - Atmospheric greenhouse gas levels 	<ul style="list-style-type: none"> ≠ Emissions levels - Atmospheric greenhouse gas levels 			UNCRC-6; UNCRC-24; UNCRC-27	SDG 12; SDG 13; SDG 14; SDG 15

CONCLUSION

The climate crisis is already having unprecedented impacts on children's and young people's everyday lives – including on their education and on their mental health. These impacts are and will continue to worsen year by year unless urgent and concrete action is taken to prioritise children's and young people's needs, rights and aspirations in climate mitigation and adaptation policies, planning and interventions. Critically, children and young people themselves need to be involved in all climate and environmental-related decision-making. They have vital contributions to make, and they will carry forward the enormous task of addressing climate change, loss of biodiversity and endemic pollution.

The child-centred indicator framework presented in this report offers a practical tool to support the public, private and civil society sectors to design, implement, monitor, and evaluate the short- to long-term impacts of climate policies and interventions, in partnership with children and young people. Using measurement as a key point of intervention, this framework aims to centre children's and young people's diverse needs, concerns, and aspirations and to initiate intergenerational conversations about how to best safeguard their present and build climate-resilient futures.

We recommend that the child-centred indicators for climate change and climate action are activated via an intergenerational, participatory outcome mapping processes. Outcome mapping is a collaborative process of identifying shared goals; developing a concrete, actionable plan to achieve them; and then tracking progress towards the desired outcomes against the indicators presented in the CCI framework. When young people and adult stakeholders in localised settings collaborate on outcome mapping and track their progress according to child-centred indicators, it can enhance buy-in, build solidarity, and tangibly improve outcomes for young people – now and in the future.

The children and young people who participated in this project were clear that this work needs to start today. They urge governments and corporations to lead immediate action and drive systemic, whole-of-society responses that not only protect them from the multidimensional impacts of the triple planetary crisis, but which also empower them as agents of change and enable them to flourish in a rapidly changing climate. Their generation and future generations deserve to live in a thriving world.



RECOMMENDATIONS

1. Children's rights:

- a. Governments, businesses and other stakeholders should employ a child-rights sensitive approach to all new climate laws, policies, and investments. Such an approach should be grounded in the Convention on the Rights of the Child (CRC) and General Comment 26.

2. Child and youth participation:

- a. Governments should create and fund structured, sustainable, and inclusive platforms and forums for children and young people of diverse backgrounds to participate routinely meaningfully in climate change-related policymaking at national, state and territory, and local council levels.
- b. Children and young people should have representation on all new and pre-existing climate policymaking and advisory bodies at national, state and territory, and local council levels.
- c. The Australian Government should sign on to and commit to implement the Intergovernmental Declaration on Children, Youth, and Climate Action, and the Action for Climate Empowerment (ACE) action plan.

3. Health:

- a. Federal and State and Territory Governments should prioritise children's climate-related health needs in all economic and social policy design, focusing specifically on child-critical social services, social protection (income support) policies, built environment planning, and whole-of-government policymaking processes in order to safeguard the health and wellbeing to current and future generations from the worst impacts of climate change.
- b. The Federal Government should develop a national plan to address the growing mental health implications of climate change, specifically addressing the impacts of exposure to more frequent and severe climate disasters, and the growing levels of 'eco-anxiety' amongst children and young people.

4. Education:

- a. The Federal Government should develop a national Education and Climate Strategy that sets out guiding principles and key actions for addressing the multidimensional impacts of climate change on learning; for preparing children and young people with the practical skills and knowledge to withstand the worst impacts of climate change; for building climate resilience within and greening the education system.
- b. Federal and State and Territory Governments should elevate practical climate change education (CCE) within the primary, secondary, tertiary and VET curriculums, complemented by preservice training and regular professional development for educators at all levels.

5. Localisation:

- a. Governments should maximise the effectiveness of adaptation and mitigation policy decisions in Australia by employing risk-informed approaches, context-specific policy interventions and ensuring that Australia's overarching adaptation and emissions reduction plans are child-sensitive.
- b. The Federal Government should develop a national Children's Climate Risk Index to accompany the National Climate Risk Assessment, in order to identify and plan for the children's unique vulnerabilities and high levels of exposure to the varied impacts of climate change, and to specify child-focused laws, policies, and investments on the basis of these.

6. Disasters:

- a. The Federal Government should work with State and Territory Governments to develop a national Disaster Resilience Education (DRE) strategy that sets out principles, content, messages, and activities to enhance children's practical knowledge of disaster response, recovery, and resilience-building, and that can be mainstreamed into state and territory curriculums.
- b. The Federal Government should work with State and Territory Governments to develop a National Framework for Child and Youth-Focused Disaster Recovery that can be adapted for varied climate-related disasters and operationalised at all levels of government.

7. Child-centred indicators:

- a. In line with principles of intergenerational equity, public and private sector decisionmakers should utilise the child-centred indicator framework, accompanied by outcome mapping processes, to plan and to assess the impacts of new and pre-existing climate change and environmental policies and interventions on children's rights, and determine child-sensitive policy pathways in responding to the climate crisis.
- b. The child-centred indicator framework should be further refined, contextualised, and localised to diverse settings using a process of intergenerational engagement to enable children, young people and their communities to contribute to monitoring and evaluating the impacts of climate change and climate action on children and young people in ongoing ways.

8. Further research:

- a. Further research to understand the complex, multidimensional impacts of climate change and climate action on children should be funded and conducted by public, private and civil society actors, with the aim of informing evidence-based policy and interventions to support children's resilience and adaptation to the climate crisis.

APPENDIX 1 - RESEARCH PROCESS

PROCESS

The project was carried out across four phases, with input from the UNICEF Australia team across all phases.

1. Design

- a. A preliminary meeting was held with the UNICEF Australia team to identify and develop a set of key research questions to explore in the project, and to determine the purpose and aims of the child-centred indicators.
- b. Drawing on the team's extensive experience and expertise in youth participation and child-centred indicator methods, creative and participatory activities were developed based on the research questions. Specific activities were also developed to elicit participants' perspectives on measuring the impacts of climate change and climate action over time.
- c. Workshop activities were designed to include a mix of textual responses, drawings, maps, vox pops and storytelling, as well as individual, small group, large group and whole group activities and discussions.
- d. Worksheets were designed to capture data from individual and collaborative activities on large pieces of paper or butchers' paper.
- e. The UNICEF Australia team provided feedback on the workshop activities.
- f. A facilitator manual and detailed agenda were developed to support the Y&R and UNICEF Australia facilitators.
- g. Ethics approvals were obtained from the Western Sydney University Human Research Ethics Committee.

2. Data collection

- a. Before conducting the workshops, Y&R led a 2-hour facilitator training seminar with the UNICEF Australia team which included a detailed run-through of the method and workshop activities, as well as child and young person safeguarding and ethical procedures to ensure consistent approaches across the board.
- b. Workshops in the Northern Rivers and Upper Hunter regions were facilitated by three members of the Y&R team. Workshops in Western Sydney were co-facilitated by the Y&R team and three members of the UNICEF Australia team.
- c. Workshops were held face-to-face in the Northern Rivers and Western Sydney. In Western Sydney, two groups of 17 participants participated in two 5-hour workshops. In the Northern Rivers, one group of 13 participants participated in two 5-hour workshops. Data was captured on paper-based worksheets.
- d. Participants in the Upper Hunter completed an at-home workbook of the activities, with an optional online drop-in session. After the workbooks were completed, participants attended one 2-hour online workshop. Data was captured on an online Miro board.
- e. Facilitators took detailed notes of discussions during the workshops and participated in in-depth debrief discussions immediately after each workshop.

3. Data analysis

- a. Data was thematically coded using inductive techniques to ensure that the analysis centred on children's and young people's insights, needs and experiences and did not impose adult frameworks onto their responses. Rather than condense codes into broader thematic groupings, the decision was made to retain a granular list of codes (309 in total) to capture the nuances of children's and young people's perspectives. This also facilitated the identification of critical issues in the next phase.
- b. Coding was systematically validated by multiple members of the Y&R research team.
- c. A co-analysis session was held with the UNICEF Australia team to capture their key insights and identify important findings.
- d. Data was then analysed using the codes and participant attributes (age, gender, location, SEIFA index) to respond to the research questions and identify a final set of key findings.
- e. The youth co-researcher conducted her analyses of the specific subsets of the data, checked and validated the team's analyses, and participated in team analysis workshops to formulate the final key findings. While this was just one youth perspective, her contributions assisted immensely in ensuring the findings are an accurate interpretation of young people's experiences and perceptions.

4. Critical issue mapping and indicator development

- a. After the dataset had been coded and systematically validated, codes were sorted into 31 thematic groups representing the critical climate change issues (impacts and actions) that concern young people.
- b. Following the identification of critical issues, a preliminary set of indicator statements were developed based on the children's and young people's data according to the critical issue groupings. This process ensured that the indicators were grounded in children's and young people's perspectives. The preliminary indicators were then further refined and re-validated against the data.
- c. Indicators were sorted and grouped into 'outcomes' representing the 'ideal states' that, for children and young people, would reflect a world where climate change has been arrested and/or reversed. Each outcome and associated indicators were grouped into a specific domain to indicate the level at which that change must occur.
- d. Next, 'factors' were identified for each indicator. These are the 'factors' that must shift to achieve children's and young people's outcomes and ideal states. They represent both climate change impacts, and climate change mitigation and adaptation actions and strategies. These were drawn directly from children's and young people's statements in the dataset.
- e. Finally, indicators were mapped to existing indicator sets (UN Children's Climate Risk Index and the ARACY Nest Wellbeing Framework) and frameworks (the UN Convention on the Rights of the Child and the Sustainable Development Goals) to show alignment and facilitate integration with existing measurement processes.
- f. UNICEF Australia provided input and feedback into the draft of the indicator set.

APPENDIX 2 - WORKSHOP ACTIVITIES

Activities	Type	Aim
Happy place	Individual	Participants were asked to describe/draw a personal sanctuary where they feel safe, either real or imagined. These representations remained on their tables throughout the workshops as an anchor point for comfort and security.
Time traveller	Individual	Participants had to envision explaining climate change to a traveller from the past, considering the causes, effects, and impacts. The aim was to explore participants' initial perspectives on climate change, and their emotions associated with it.
My community	Small groups	Participants created two maps of their communities, one in the present and one 20 years in a future where action has not been taken on climate change. The purpose of this activity was to understand the potential effects of climate change on their communities and local resources.
Warning	Individual	Participants used a colour-coded warning scale to rate and categorise the seriousness of climate change impacts on children and young people. The aim was to identify the current and potential future consequences of climate change.
Time capsule	Individual and small groups	In part one of the activity, participants rated their preparedness on a scale. In part two, they worked in small groups to create a time capsule with items to help children and young people prepare to confront climate change. The purpose of this activity was to assess participants' sense of preparedness and identify tools and resources that could aid them in future.
Communi-tree	Individual and small groups	Individually, participants wrote down their understanding of resilience in relation to climate change. In small groups, they identified the factors that support their communities to be resilient to the effects of climate change. This activity aimed to understand participants' perceptions of resilience in the context of climate change.
What did you say?	Individuals	This activity explored participants' perceptions of generational differences in attitudes towards climate change. Participants were asked to write down three things they thought their friends/siblings, parents, grandparents and politicians say about climate change.
Responsibilities	Large groups	Participants identified who they think bears responsibility for climate action, specifying various sectors and roles, and identifying who they believe are making significant changes and efforts. Coloured dots were used to indicate the varying degrees of responsibility and stars were awarded to entities for their climate action contributions.
Snakes and ladders	Small groups	Participants played a modified version of this game where they identified climate actions they wished to see as ladders and barriers to climate actions as snakes. This activity aimed to identify desired climate actions, urgent priorities and obstructions to climate action progress.

Activities	Type	Aim
My power	Individual	Participants used a worksheet to indicate their current and desired level of engagement in climate action, and the amount of power they feel they have to affect change. They were also asked to indicate the factors that motivate or prevent them from taking action. The purpose of this activity was to assess how participants see themselves as agents of change in climate action.
Utopia/dystopia	Small groups	Participants were divided into groups and tasked with writing presentations for the Prime Minister describing future utopian or dystopian scenarios, children's and young people's experiences, and climate action priorities. This activity was aimed to reveal participants' aspirations, future concerns and climate action priorities.
Our utopian future	Large groups	Participants collaboratively drew a communal artwork that represented the qualities of their ideal climate futures. This activity aimed to discover the key qualities of children's and young people's utopian vision.
Where am I?	Small groups	Participants identified the sensory, social and economic factors that contribute to their ideal futures. The purpose of this activity was to capture children's and young people's perspectives on measurable signs that indicate their ideal climate futures.
Help	Small groups	Participants determined the importance of various indicators in tracking the progress toward the utopian future they envisioned in this activity. This activity aimed to assess current indicator frameworks against children's and young people's sense of what is most important.
Manifesto	Small groups	Participants collaborated to craft a manifesto for future generations that expressed their beliefs, aspirations, responsibilities and calls to action for a world impacted by climate change. The manifesto aimed to articulate children's and young people's highest aspirations for climate action.
Vox pops	Small groups	The manifestos by children and young people were recorded as vox pops to express their future vision.

APPENDIX 3 - CODES FOR ALIGNED FRAMEWORKS

UN Child Climate Risk Index			
Pillar 1		Pillar 2	
Water scarcity	CCRI-1.1	Child health and nutrition	CCRI-2.1
Riverine floods	CCRI-1.2	Child health	CCRI-2.1.1
Coastal floods	CCRI-1.3	Nutrition	CCRI-2.1.2
Tropical cyclones	CCRI-1.4	Maternal health	CCRI-2.1.3
Vector-borne diseases	CCRI-1.5	Education	CCRI-2.2
Heatwaves	CCRI-1.6	Out-of-school children	CCRI-2.2.1
Air pollution	CCRI-1.7	Youth literacy	CCRI-2.2.2
Soil and water pollution	CCRI-1.8	Education expenditure	CCRI-2.2.3
		Water, sanitation and hygiene	CCRI-2.3
		Drinking water service level	CCRI-2.3.1
		Basic handwashing facilities	CCRI-2.3.2
		Poverty, communication assets, and social protection	CCRI-2.4
		Poverty and inequality	CCRI-2.4.1
		Communication assets	CCRI-2.4.2
		Social protection and economic empowerment	CCRI-2.4.3

ARACY Australian Children's Wellbeing Framework (the Nest)

Valued, loved and safe

NEST-1.0

Young people as carers

NEST-1.1

Detention of children and youth

NEST-1.2

Family conflict

NEST-1.3

Out-of-home care

NEST-1.4

Positive peer relationships

NEST-1.5

Positive relationship with parents

NEST-1.6

Bullying

NEST-1.7

Receiving child protection services

NEST-1.8

Material basics

NEST-2.0

Access to educational resources

NEST-2.1

Homelessness

NEST-2.2

Overcrowding

NEST-2.3

Parental unemployment

NEST-2.4

Child poverty

NEST-2.5

Youth employment

NEST-2.6

Information technology and the internet

NEST-2.7

ARACY Australian Children's Wellbeing Framework (the Nest)

Healthy	NEST-3.0
Disability	NEST-3.1
Health at birth	NEST-3.2
Immunisation	NEST-3.3
Mental health	NEST-3.4
Chronic condition	NEST-3.5
Learning	NEST-4.0
Early childhood education	NEST-4.1
Parent engagement	NEST-4.2
School attendance	NEST-4.3
School readiness	NEST-4.4
School satisfaction	NEST-4.5
International performance	NEST-4.6
Participating	NEST-5.0
Engagement in sport or recreation	NEST-5.1
Civic engagement	NEST-5.2
Engagement through technology	NEST-5.3
Having a voice with family and friends	NEST-5.4
Having a voice in the community	NEST-5.5
Volunteering	NEST-5.6

ARACY Australian Children's Wellbeing Framework (the Nest)

Positive sense of identity and culture	NEST-6.0
Acceptance of other cultures	NEST-6.1
Body image	NEST-6.2
Experience of discrimination	NEST-6.3
Gender and sexuality	NEST-6.4
Indigenous identification	NEST-6.5
Religion	NEST-6.6
Engagement in cultural activities	NEST-6.7



UN Convention on the Rights of the Child

Definition of the child	UNCRC-1
Non-discrimination	UNCRC-2
Best interests of the child	UNCRC-3
Implementation of the Convention	UNCRC-4
Parental guidance and evolving capacities	UNCRC-5
Life, survival and development	UNCRC-6
Birth registration, name, nationality and care	UNCRC-7
Protection and preservation of identity	UNCRC-8
Separation from parents	UNCRC-9
Family reunification	UNCRC-10
Abduction and non-return of children	UNCRC-11
Respect for the views of the child	UNCRC-12
Freedom of expression	UNCRC-13
Freedom of thought, belief and religion	UNCRC-14
Freedom of association	UNCRC-15
Right to privacy	UNCRC-16
Access to information	UNCRC-17
Parental responsibilities	UNCRC-18
Protection from violence	UNCRC-19
Children unable to live with their families	UNCRC-20
Adoption	UNCRC-21
Refugee children	UNCRC-22
Children with a disability	UNCRC-23
Health and health services	UNCRC-24
Review of treatment in care	UNCRC-25
Social security	UNCRC-26

UN Convention on the Rights of the Child

Adequate standard of living	UNCRC-27
Right to education	UNCRC-28
Goals of education	UNCRC-29
Children from a minority or Indigenous groups	UNCRC-30
Leisure, play and culture	UNCRC-31
Child labour	UNCRC-32
Drug abuse	UNCRC-33
Sexual exploitation	UNCRC-34
Abduction, sale and trafficking	UNCRC-35
Other forms of exploitation	UNCRC-36
Inhumane treatment and detention	UNCRC-37
War and armed conflicts	UNCRC-38
Recovery from trauma and reintegration	UNCRC-39
Juvenile justice	UNCRC-40
Respect for higher national standards	UNCRC-41
Knowledge of rights	UNCRC-42

UN Sustainable Development Goals

No poverty	SDG-1
Zero hunger	SDG-2
Good health and wellbeing	SDG-3
Quality education	SDG-4
Gender equality	SDG-5
Clean water and sanitation	SDG-6
Affordable and clean energy	SDG-7
Decent work and economic growth	SDG-8
Industry innovation and infrastructure	SDG-9
Reduced inequalities	SDG-10
Sustainable cities and communities	SDG-11
Responsible consumption and production	SDG-12
Climate action	SDG-13
Life below water	SDG-14
Life on land	SDG-15
Peace, justice and strong institutions	SDG-16
Partnerships for the goals	SDG-17

APPENDIX 4 - LIST OF ABBREVIATIONS

ARACY	Australian Research Alliance for Children and Youth
CCI	Child-centred indicators
CCRI	Children's Climate Risk Index
NESA	NSW Education Standards Authority
NGOs	Non-government organisations
SEIFA	Socio-Economic Indexes for Areas
SDGs	Sustainable Development Goals
UN	United Nations
UNCRC	UN Convention on the Rights of the Child
UNEP	United Nations Environmental Program
UNFCCC	UN Framework Convention on Climate Change

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