
WELCOME
WOMINJEKA
ZERO WASTE
REFILL YOUR CONTAINERS
KENYA
VENEZUELA
CHINA
INDIA
MELBOURNE
ECOBUS
ELECTRIC BUS
FRUIT VEG SPICE FRUIT VEG SPICE
HOT
FRESH
RECYCLING STATION
GLASS
PAPER
CANS
PEOPLE NOT PROFIT
CLIMATE JUSTICE
WE ARE THE FUTURE!!
PLANT MORE TREES
SOMALIA
PAKISTAN
BANGLADESH
ZAMBIA
MANCHESTER
YOUNG PEOPLE AT A CROSSROADS

COVER NOTES

Lead author's note

As I talked to young people and families with experience of migration for this research project, I was struck by the complexity of their migration journeys. Family members had often lived in various places, and these remained part of their lives. I wanted the book cover to show how migration journeys are not 'one way' and places are not simply left behind

Maisy was able to show this beautifully through the winding road that stretches across the front and back covers of the book, passing different environmental challenges, 'solutions' and campaigns along the way. The accounts shared by young people and their families also show how there is no single, one-way path towards a more environmentally sustainable and liveable future. Rather, this path is winding, and it is composed of infinite decisions made by different people around the world as they try and live the best they can with the resources they have.

Illustrator's note

The cover I illustrated brings to life the personal stories from the young researchers in a manner that is approachable and playful, yet informative and considered. It showcases snippets of their own and their parents' climate change experiences from their respective journeys from Manchester and Melbourne and everywhere in between!

It was a joy to be able to draw upon these important contributions from the young researchers and represent the positive changes they have participated in such as tree planting, protests and beach cleans, as well as their concerns around fossil fuels, landfill waste and transport options. Whilst it is not exhaustive of all the positive impacts and changes they've encountered, it aims to showcase a snippet of their lived experiences in a personal and handcrafted manner.

To see more of my work please visit:
www.maisysummer.com

YOUNG PEOPLE AT A CROSSROADS
Stories of Climate Education, Action and Adaptation from Around the World

Compiled by Catherine Walker, YPAC Principal Investigator

With contributions by YPAC Young Researchers,
Kit Marie Rackley and Nerida Thompson.

Illustrations by Maisy Summer.

MANCHESTER 1824
The University of Manchester

UKRI Economic and Social Research Council

THE UNIVERSITY OF MELBOURNE

INTRODUCTION
Young People at a Crossroads

In recent years, we have heard a growing number of voices, young and old, saying that humanity is at a crossroads in terms of the path we take to tackle climate change. Today's young people are surrounded by messages about climate change – on social media, on posters and billboards, from parents and politicians, and especially in schools. These messages together reinforce the idea that the choices we make now, both individually and as communities and societies, will direct the paths that we are able to follow into the future.

Yet the climate crisis is not the only crossroads in young people's lives. Young people have many choices to make about their futures, and the paths they have travelled on and that lie ahead of them are shaped not only by decisions taken by governments and other leaders, but also by family backgrounds and journeys. This includes the sets of values and practices that they have inherited from parents and grandparents, the opportunities they have had to learn about the world, and the different perspectives and priorities they come into contact with along the way.

For this reason (and whilst acknowledging that young people of all backgrounds have valuable perspectives to share), researchers on the Young People at a Crossroads (YPAC) project set out to talk to young people whose parents had migrated or who had themselves migrated from one country to another. All of these young people were living in Greater Manchester or Greater Melbourne at the time of the research.

The researchers felt that these young people and their families, whose experiences of living in and moving between different countries would have led them to question the routine things they do and think about the environment, might have particularly useful perspectives to share.

These perspectives can help signpost how as individuals, communities and societies we can adapt to climate change in ways that value difference and diversity, treating opportunities to learn from one another as one of the greatest resources we have to live well in a changing climate.

ABOUT YPAC

The YPAC research ran from June 2021-June 2022 and over this time we spoke to 40 young people aged 14-18, 16 parents and grandparents, and 14 secondary school teachers or informal educators. We made contact with these young people through schools and youth organisations (see '**Acknowledgements**' for a full list).

We set out to talk not only to young people who call themselves climate activists, but to any young person with interests and concerns about the environment, whether they had taken part in an organised event such as a School Strike for Climate or not. We wanted to hear about the many ways young people and their families show concern for the environment, including in ways that often go unnoticed by the media.

Through interviews, focus groups and young people's own interviews with parents, we learned about what a diverse group of young people are learning about climate change at school in different countries, how they feel about what they are learning and how they talk about this with their families. We have organised this information into twelve 'thematic summaries' that help to think through different aspects of climate change education, climate change action and climate change adaptation.

Each thematic summary ends with a reflection from a young researcher. We are delighted that thirteen young researchers chose to interview family members, and eleven wrote reflections on their interviews for this book. We refer to these young people as 'young researchers' because they designed their interviews with parents, and chose how they wanted to write up their findings, including how other family members could be involved.

Two young researchers (Madeleine and Rebecca) co-authored their reflections with parents, whilst two young researchers (Stephen and Akos) wrote the reflections themselves but in their parents' voices, drawing on what parents had said in their interviews. Zac shared his interview experience with his brother Rei, who wrote a creative account, reimagining the interview.

GLOBAL PERSPECTIVES

Young people in this research had migrated, or grown up with parents who had migrated, from or through 34 different countries. The maps on the pages that follow show the different journeys that families took before moving to Manchester or Melbourne.

It is important to stress that we are not claiming that young researchers' stories, as told through their reflections, are representative of the experiences of all migrant-background young people and families in the cities where they live, or of all people in the countries where they have migrated from. Moreover, these are stories that were narrated, and subsequently written, through the memories and imaginations of people who have spent differing amounts of time in the places they speak of. This means that some memories will be dated and do not reflect the ways that countries may have changed since the family migrated.

We nonetheless present the eleven reflections and twelve thematic summaries from the research as snapshots into the diverse and complex ways that young people are making sense of the crossroads that lie before them. We hope that the stories and experiences presented here will be useful, hopeful and interesting for other young people, and for teachers who are teaching on the complex and emotionally-charged topic of climate change.

CONTENTS

HOW TO READ THIS BOOK

Reading this book from cover to cover will guide you through the research project, first introducing the topic and who was involved, then presenting a series of thematic summaries organised around climate change education, action and adaptation. Each thematic summary is followed by a young researcher reflection that dives deeper into the issues raised in the thematic summary. The book ends with a note about sensitive ways to have conversations about climate change and some helpful resources to support this.

If you have limited time or you want to read the book in stages, you could:

- Read **'Ten messages from this research'**. From here you can click to pages that open up these messages further.
- Read **'How and why teachers and students should read this book'** and go from there.
- If you are interested in a particular topic or a place, go to the **thematic summaries** (pages in italics) or the **young researcher reflections**.

Resources are referenced across the text, and collated on the final page of the book: **Helpful resources**.

CONTENTS

TEN MESSAGES FROM THIS RESEARCH

MESSAGE	TO READ MORE GO TO...
1. Climate change education as priority: Young people see teaching on climate change as a priority for preparing for uncertain futures. They want to see it taught, discussed and acted on in all areas of their education, and in politics.	**Young people's reflections on climate change education** (pp 22 - 23) **Rei's reflection** (pp 40 - 43) **What young people want from their leaders** (pp 44 - 45)
2. Action-oriented teaching and learning: Young people expressed a desire for cross-curricular teaching and learning about climate change that will help them not only to be well-informed but also to take action.	**Paula's reflection** (pp 28 - 29) **Madeleine and Anne's reflection** (pp 32 - 33) **Young people's ideas for climate change education** (pp 34 - 35)
3. Taking wellbeing seriously: Young people expressed a range of emotions about climate change, most commonly fear, despair, anger and hope. Taking action - big or small, individual or collective - was a way of combating despair.	**Feelings of hope and despair** (pp 30 - 31) **Working together as communities** (pp 48 - 49) **Afterword: Changing the conversations** (pp 80 - 81)
4. Recognising contextual differences and inequalities: Young people said climate change information is often too general and doesn't take into account differences and inequalities between communities around the world.	**Emaan's reflection** (pp 46 - 47) **How young people understand climate justice** (pp 54 - 55) **Connections and disconnections** (pp 72 - 73) **Noyesha's reflection** (pp 74 - 75)
5. A desire to hear and tell on the ground stories: Young people felt that on the ground stories can bring climate change to life and offer alternative perspectives to taken for granted ways of thinking about climate change.	**Young people's ideas for climate change education** (pp 34 - 35) **Learning from different places** (pp 66 - 67) **All young researcher reflections**

TEN MESSAGES FROM THIS RESEARCH

MESSAGE	TO READ MORE GO TO...
6. Intergenerational sharing of knowledge and practices: Young people talked about learning from the practices that they or their parents had carried from other countries in migration when describing how they cared for the environment or lived with a smaller resource footprint.	**Rebecca and Edward's reflection** (pp 24 - 25) **Learning across generations** (pp 62 - 63) **Barsa's reflection** (pp 64 - 65) **Haripriya's reflection** (pp 68 - 70)
7. Reducing guilt and assigning responsibility appropriately: Teaching on climate change must be carefully explained to avoid associating too much responsibility or too little responsibility to human action in a changing climate.	**Information overload** (pp 26 - 27) **Feelings of hope and despair** (pp 30 - 31) **Afterword: Changing the conversations** (pp 80 - 81)
8. Leaders need to step up: Young researchers felt that they as a generation are the best informed about climate change but they know they need the support of older generations and particularly governments to act on climate change.	**How young people see their role** (pp 38 - 39) **What young people want from their leaders** (pp 44 - 45) **Working together as communities** (pp 48 - 49)
9. Climate justice education, not climate change education: This research shows great potential for making education on climate change more focused on climate justice as an active project that everyone can be part of.	**Young people's ideas for climate change education** (pp 34 - 35) **Stephen's reflection** (pp 50 - 53) **How young people understand climate justice** (pp 54 - 55) **Siobhan's reflection** (pp 56 - 58) **Akos' reflection** (pp 78 - 79)
10. Supporting young people amidst their competing priorities: Young people's responses speak to the need for compassion, as well as action. Young people are concerned about climate change but they have other pressures in their lives and are at multiple 'crossroads'.	**Going forward together** (pp 76 - 77) **Afterword: Changing the conversations** (pp 80 - 81)

LIST OF CONTRIBUTORS

RESEARCHER REFLECTIONS

The following young researchers have written reflections on their interviews. Some young researchers wrote alone, others wrote the reflections with the support of other family members, who are also named here. The name of the young researcher is in bold.

Noyesha Agarwal and Navin Agarwal (Melbourne)

Emaan Asif (Manchester)

Akosua Brobbey (Melbourne)

Zac Chu, Rei Chu and Jot Chu (Melbourne)

Paula Jimenez Perez (Melbourne)

Rebecca Kalu and Edward Kalu (Manchester)

Stephen Kemboi, Eunice Ntheny and Robert Kemboi (Melbourne)

Haripriya Pathmaraj and Kunthi Pathmaraj (Melbourne)

Barsa Sarma (Melbourne)

Siobhan Stanton and Mukobe Stanton (Manchester)

Madeleine and Anne (Manchester)

Young researcher reflections contributed by Rebecca and Madeleine were co-authored with the parents they interviewed. The reflection from Zac's interview was written by Zac's brother Rei, with his brothers' (Zac and Jot) support. The titles included on the researcher reflection pages denote their authorship.

THEMATIC SUMMARIES

The thematic summaries that appear in this book are collated from interviews and focus groups with the young researchers listed above, as well as the following young people:

In Greater Manchester:
Aleeza, Aysha, Farah, Fatima, Ghalia, Syed Jahid, Hafsa, Haniya, Laiba, Masudul, Muskaan, Nadeera, Nagham, Rahma, Rebecca, Sahail, Saher, Talah, Zara.

In Greater Melbourne:
Anamika, Aravind, Daanika, Jack, Lisa, Roshek, Stephanie, Tejaswini, Yasmin, Zoe.

All young people who took part in the project were asked whether they wished for their real names to be included in this book or for a fake name to be assigned. This list reflects their preferences.

ACKNOWLEDGEMENTS

Many thanks to the 40 young people, 16 family members and 14 teachers who took part in the Young People at a Crossroads research. We wouldn't have this book to share without you.

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In Melbourne (Naarm), the research took place on the land of the Wurundjeri Peoples of the Kulin Nations. The researchers pay their respects to elders past, present and emerging.

Aside from young researchers interviewing parents, the interviews for this research were conducted by Dr Catherine Walker, University of Manchester and Dr Ellen van Holstein, University of Melbourne/RMIT.

Kit Marie Rackley and Nerida Thompson co-wrote the pages 'How and why students and teachers should use this book' and 'Afterword: changing the conversations'.

Many thanks to Adelin Balan, Diana Rodriguez Cala, Leonardo Felipe Faedo and Kauser Hussein who did a fantastic job of assisting with the interview training for young researchers.

Many thanks to the following schools and organisations:

Academy of Mary Immaculate, Melbourne; Camberwell Girls School, Melbourne; Centre for Multicultural Youth, Melbourne; Environmental Education Victoria, Melbourne; Levenshulme High School, Manchester; Loreto College, Manchester; Manchester Enterprise Academy, Manchester; Melbourne Girls College, Melbourne; Rochdale Islamic Academy, Greater Manchester; Werribee Secondary College, Greater Melbourne; Whalley Range High School for Girls, Manchester; Yarra Youth Services, Melbourne.

Many thanks to Gemma Romiti and Friends of the Earth for kindly authorising the reuse of the People's Climate Strategy for Victoria image.

Many thanks to Manisha Anantharaman, Sophie Hadfield-Hill, Lesley Head, Tally Katz-Gerro, Natascha Klocker, Raichael Lock, Sherilyn MacGregor, Narinder Mann, Susan Pike and Andrew Vance for valuable feedback.

Original illustrations for this book have been produced by Maisy Summer and are covered by a non-commercial copyright licence. The book has been designed by Richard Atherton, The Graphic Support Workshop, University of Manchester.

FAMILIES' JOURNEYS TO MANCHESTER & MELBOURNE

The list below shows the countries that the families of the 23 young people who took part in the research in Manchester and the 17 young people who took part in Melbourne moved between before arriving to these cities. The country where each young person was born is shown in bold text.

MANCHESTER

Pakistan, **Netherlands**, UK
Nigeria, **UK**
Zambia, **Ireland,** UK
Australia, **UK**
Pakistan, **UK**
Sudan, Oman, Egypt, **Saudi Arabia,** UK
Somalia, **UK**
Pakistan, Spain, **UK**
Pakistan, UK
Iraq, Pakistan, Libya, **UK**
Pakistan, **Netherlands,** UK
Pakistan, **UK**
Bangladesh, **UK**
Bangladesh, **UK**
Bangladesh, **UK**
Pakistan, **Italy**, UK
Iraq, UK
Pakistan, **UK**
China, Guyana, **UK**
Algeria, Libya, **UK**
Pakistan, Italy, UK
Syria, UK
Syria, UK

MELBOURNE

Sierra Leone, **Ghana,** Australia
Kenya, Australia
Hong Kong, **Singapore,** Australia
Venezuela, Australia
India, Australia
Sri Lanka, Zambia, **Australia**
India, **Australia**
India, **Australia**
UK, **Australia**
Chile, Romania, **Australia**
India, **Australia**
India, Australia
India, **Singapore,** Australia
India, Australia
Indonesia, **New Zealand,** Australia
India, **Singapore,** Australia
Denmark, USA, **Australia**

On the pages that follow, these journeys are mapped out in two original illustrations by Maisy Summer. Maisy used the Peters projection (sometimes known as the Gall-Peters projection) as the base for these illustrations.

The Peters projection map was produced as a critical response to the more commonly used Mercator projection map that shows Europe and North America as larger than they are, thereby contributing to a Eurocentric understanding of the world. This is illustrated in the image below, which shows the Mercator projection in green and the Peters projection overlaid in blue.

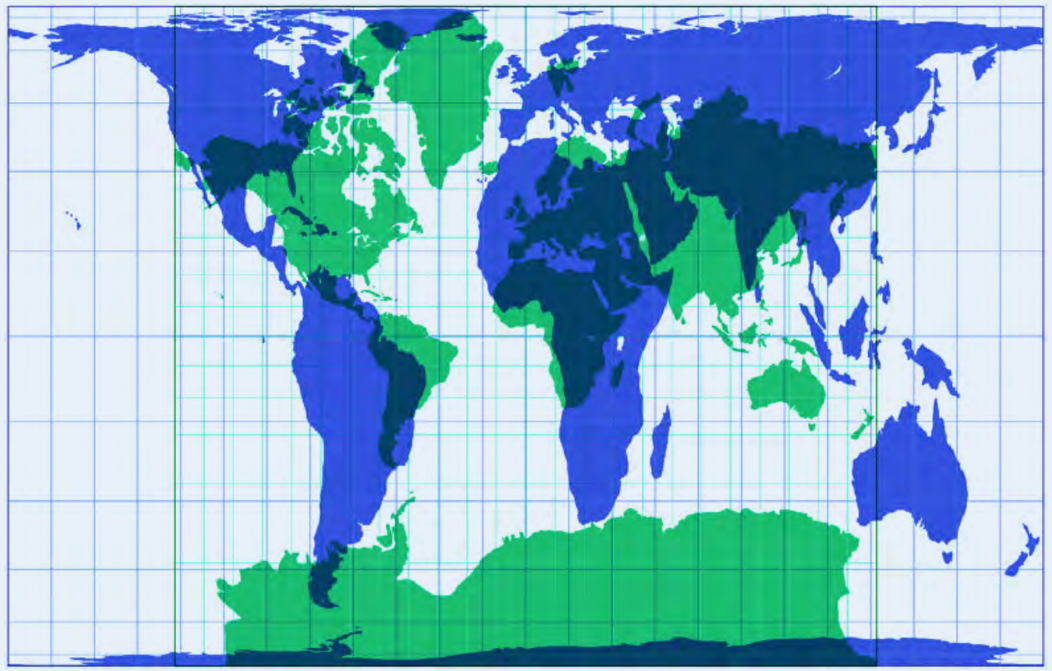


Image adapted from: www.map-projections.net/compare.php?p1=gall-peters&p2=mercator-84&w=0

Teachers may find this image and the links below useful as prompts to discuss the ongoing effects of colonialism on the way we see the world.

www.geogramblings.com/2020/08/01/decolonising-geography

www.oxfordcartographers.com/our-maps/peters-projection-map

GREENLAND

NETHERLANDS

IRELAND

UK

Arctic Ocean

NORTH AMERICA

EUROPE

ASIA

SPAIN

ITALY

SYRIA

IRAQ

CHINA

PAKISTAN

Atlantic Ocean

Algeria

LIBYA

EGYPT

SAUDI ARABIA

Oman

BANGLADESH

Sudan

Nigeria

Somalia

Pacific Ocean

GUYANA

SOUTH AMERICA

ZAMBIA

AUSTRALIA

PACIFIC OCEAN

Pacific Ocean

JOURNEYS TO MANCHESTER

Arctic Ocean

GREENLAND

NORTH AMERICA

U.S.A

DENMARK

UK

EUROPE

ROMANIA

ATlantic Ocean

INDIA

HONG KONG

PACIFIC OCEAN

VENEZUELA

SIERRA LEONE

GHANA

KENYA

SRILANKA

SINGAPORE

Indonesia

Pacific Ocean

SOUTH AMERICA

ZAMBIA

CHILE

AUSTRALIA

NEW ZEALAND

JOURNEYS TO MELBOURNE

How and why teachers and students should use this book

Global migration is on the rise. As people move around the world and classrooms become more racially diverse, this presents an opportunity for people to learn from one another. The stories in this book cannot be considered to be representative of all migrants, or of all people from the countries they migrated from. However, they offer new ways of opening up topics that teachers are increasingly being called to teach on.

Learning through the Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs), focused on the likes of ending poverty and hunger, achieving gender equality, and improving the quality of education for all, are synergetic with taking action to protect the climate and environment. This book and the YPAC project as a whole works towards SDG13: Climate Action. *The Sustainable Development Goals: A guide for teachers* by Oxfam (see Helpful Resources, p.82) gives subject-specific examples of how to teach the SDGs. Building on this important work, the adjacent table shows how parts of this book can provide the same stimulus.

Geography curricula as foci, not as a silo

The Geography curriculum will be a natural home for embedding the stories and messages in this book. Many of the young researcher reflections can link to the Geog iBacc and by extension most regional and national curriculums such as GCSE and A-Level in the UK, and VCE (Victoria) and HSC Geography (NSW) in Australia. The most common themes other than climate change and migration are:

- Deforestation and soil erosion
- Food/water/energy supply, security and sustainability
- Global and regional variations in development
- Resource management
- Extreme weather hazards (including drought and flooding)
- Urbanisation and urban sustainability

For example, Siobhan's mum talks about her lived experiences in Zambia when she was younger (pp. 56 - 58), weaving together how water and energy scarcity links to deforestation, and later how learning about El Niño brought these aspects into focus around climate change. This shows how the messages from the interviews can provide stimuli for learning and discussion, and how geographical issues and concepts are interconnected. Geography therefore provides a focal point from which learning can take place across the curriculum.

A cross-curricular approach

As the young people in this project recognised, the intersectional and global nature of the climate change issue lends itself very well to cross-curricular learning. The beautiful illustrations by Maisy Summer throughout this book demonstrate Saher's point on page 35 that the creative arts can be used to communicate and express emotion. How might students express their own climate stories creatively? Could some of the young researcher reflections be turned into a script and performed to convey a message or feeling?

The numerous references to both the unsustainable and sustainable sourcing and consumption of food, water and energy resources can provide stimulus for meaningful discussions in Design and Technologies.

In the UK, Leeds Development Education Centre and Teach The Future are two examples of organisations who have done great work to map cross-curricular links and provide resources for subjects such as Maths, MFL, RE, Citizenship, Science and History. The Australian Education for Sustainability Alliance have done similar work through their 'Steps to sustainability education' project. See Helpful Resources on page 82 for details.

Things to consider as you read

As you read, keep in mind that the lived experiences recalled by the young researchers and families are unique and personal to them. You might consider:

- From your own learning and lived experiences, how typical do you think those in this book are?
- Some stories recall lived experiences which can be years or decades old. How might things have changed since?
- What recent case studies that you have taught or learnt are comparable to each of the stories?
- Which stories or quotes do you relate to the most?

SDG	Where in book?
	Poverty as a barrier to addressing climate change (**Connections and disconnections, pp. 72 - 73**). Relative and regional poverty (**Siobhan's reflection, pp. 56 - 58**).
	Reducing and using food waste (**Rebecca & Edward's reflection, pp. 24 - 25**, **Haripriya's reflection, pp. 68 - 70**, **Connections and disconnections, pp. 72 - 73**).
	Hope and agency in addressing anxiety and negative mental health (**Feelings of hope and despair, pp. 30 - 31**, **Madeleine & Anne's reflection, pp. 32 - 33**).
	Water scarcity and saving water for times of drought and disaster (**Paula's reflection, pp. 28 - 29**, **Stephen's reflection, pp. 50 - 53**, **Siobhan's reflection, pp. 56 - 58**).
	Renewable energy (**Stephen's reflection, pp. 50 - 53**, **Noyesha's reflection, pp. 74 - 75**), energy insecurity and inequality (**Emaan's reflection, pp. 46 - 47**).
	Addressing the impacts of urbanisation and keeping the urban environment clean (**Rebecca & Edward's reflection, pp. 24 - 25**, **Stephen's reflection, pp. 50 - 53**, **Barsa's reflection, pp. 64 - 65**).
	Reducing meat consumption (**How young people see their role, pp. 38 - 39**, **Rei's reflection, pp. 40 - 43**), Minimising household waste (**Haripriya's reflection, pp. 68- 70**, **Akos' reflection, pp. 78 - 79**).

CLIMATE CHANGE EDUCATION

YOUNG PEOPLE'S REFLECTIONS ON CLIMATE CHANGE EDUCATION

Young people who took part in the research gave accounts of being taught about climate change across a range of subjects, including English, Urdu, Art, Geography and the Natural Sciences.

Young people's accounts of how often climate change came up as a topic at school varied greatly. Some students said that they saw images relating to climate change almost every day. In contrast, Stephen, a student in Melbourne, said "we don't really talk about climate change, unless we're like in Geography, doing like a subject that requires you to learn about it." Laiba in Manchester also shared her perception that "we don't ever talk about it."

Some young people expressed concern that students who didn't select Geography or Environmental Science as an elective subject would miss out on teaching about climate change. Speaking in Melbourne, Zoe commented that "I've found that most of my knowledge about the environment and climate change has not come from basic core classes. It's come from me choosing to actively learn them [through elective courses] in school instead."

In the UK, many students referenced a Geography/History divide, referring to GCSE exam options. In some schools, taking Geography seemed to have become a marker among students of being interested in climate change.

"It [climate change] would actually be more interesting than other subjects, because you're seeing the impact when you're living. History and Geography, it's just stuff that has already been done, or gone. But this is like your history."

For example, Aysha shared how "every Monday and Friday there is an argument because that is when we have History and Geography […] we start arguing: 'You're learning about dead people, while we're learning about what is going to happen in the future,' and then we just argue about climate change."

This quote shows both how young people see teaching on climate change as a priority for preparing for uncertain futures, and how subject divisions can disrupt conversations about solutions. In contrast, young people could see the value in a cross-curricular approach to teaching climate change going forward.

Fatima referenced changes to Department for Education guidance in the UK [specifically the new 'Natural History' GCSE], saying "I've seen it over the internet that there's going to be a new GCSE curriculum by 2025 that's going to have a climate change as, like, a subject itself. So, I think that would be really creative […] it would actually be more interesting than other subjects, because you're seeing the impact when you're living. History and Geography, it's just stuff that has already been done, or gone. But this is like your history."

Young people talked about the value of global case studies for bringing climate change to life and expressed interest in 'on the ground' stories of climate change adaptation. Some young people took interest in case studies relating to parents' country of origin.

Rebecca K, who interviewed her father about life in Nigeria for this book, commented that she enjoyed hearing her father talk about Shell's activities in the Niger Delta as she'd learned about this in Geography and Politics. Syed Jahid, Sahail and Masudul talked about how learning about flood-resistant buildings in Bangladesh came to life through present day accounts of heavy rains and floods from family members in Bangladesh.

Some students commented that teaching on their family countries of origin could be limited or misleading.

Lisa and Barsa, whose parents had moved from Assam state in India to Melbourne, commented that "In school when they talk about India, they think it's like overpopulated, overcrowded, and really polluted. But there's some parts such as Assam where there's lots of greenery, beautiful nature, and lots of nature thriving there. Sometimes school can get it wrong. Because real life experiences don't really compare to what you learn about in a textbook."

"Sometimes school can get it wrong. Because real life experiences don't really compare to what you learn about in a textbook."

This quote shows how young people with family connections overseas can, if they wish, enhance and balance case studies in school teaching with their personal experience.

Students talked about the role of school eco-clubs for having opportunities to act on what they know about climate change. Zoe had joined the environment team at her school in Melbourne in year 8 and said she had been "hooked ever since."

Other students who had been involved in school eco-clubs shared about going to School Strikes for Climate together, getting plastic bottles banned in school, campaigning for more vegetarian and vegan meal provision, speaking in assemblies, and planting trees.

Whilst all valuable activities, some young people felt that action on climate change in school was often treated as of secondary importance. They wanted climate change to take a more prominent place in curricular teaching, in addition to extra-curricular activities.

Rebecca & Edward's Reflection

Rebecca

In the interview I asked my dad three sets of questions on: memories of Nigeria, climate change and Nigeria, and sustainability and everyday life.

Edward
(Rebecca's father)

The interview brought back my memories of my childhood and the environment at the time compared to now. Back then, there was a conscious effort to preserve the environment, and this was displayed in the lush green village trees, the aromatic smell of the primary school flowers from the flower bed, and the range and variety of flowers on display.

Each school block had little gardens in front of them. The conservation effort that was made by public bodies to grow plants, conserve trees, and protect the habitat was evident. Over the years there has been less of a conservation effort, especially now as the environmental impact of climate change is quite highly noticeable in the village. There's been a lot of urbanisation, which has led to deforestation, soil erosion, and noticeable change in village temperature.

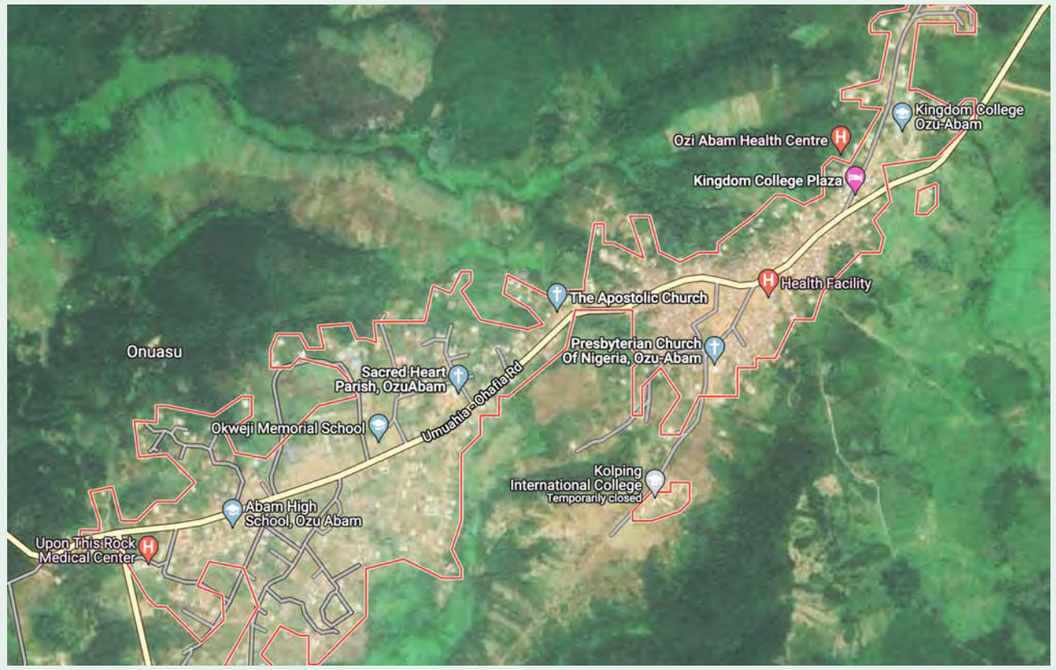
Rebecca

In the interview I really enjoyed hearing my dad's early life experiences, hearing him talking about the flower beds in his primary school as well as the greenery of the area he grew up in. His experiences of torrential rain and soil erosion were also very interesting. The interview really helped me to appreciate the natural environment in Nigeria and the positive impact it had on my dad. I was also able to learn lots about the changing nature of Ozu Abam because of deforestation.

Edward

This was a great interview because for the first time I could see looking at the map that there were a lot of earth patches on the ground which were once forest. This was as a result of urbanisation and deforestation.

"Back then, there was a conscious effort to preserve the environment, and this was displayed [...] in the range and variety of flowers on display."



Ozu Abam, where Edward grew up, on Google Maps. Edward said: "some of these were very thick forests before. [Now] you can see, literally see bare earth … so I can see the [tree] logging that my uncle was talking about".

Seeing such dramatic change has really given me the determination to do something about the environment because such large causes of climate change are occurring where I grew up.

I have taken practical steps to conserve food, ensuring that I'm making conscious effort to recycle items, to avoid food wastage, and to conserve energy. The interview also highlighted the need for educating the village residents about climate change, and to create more awareness.

This will help them to take more action to bring the impact of the worsening climate situation to the attention of the governors of the area who could in turn create good governance.

Rebecca

From my dad recounting memories of lessons being taught under a tree and learning about being content in life, I was able to see that the key is in learning and passing on lessons about the environment and sustainability. It is important to teach both younger and older generations about the environment and climate change, as well as actively implementing strategies to help the environment.

As my dad said in the interview: "So I think the strategy now … since we don't have the normal seasonal pattern, [would be] to find a way of being able to store food and manage the environment … to cope with a constantly changing situation".

INFORMATION OVERLOAD

Young people shared how climate change is being mentioned more and more at school and linked to a growing range of topics.

"We'll do something about urbanization and they'll start talking about how climate change affects things, or climate change refugees or we'll be doing weather, which is obviously linked to climate change […] every topic we do in Geography, they'll always be a segment about 'this is how climate change is going to affect us in the future.'" (Madeleine, Manchester)

Some young people suggested that this information can be presented in a way that is out of context and does not help them to understand the different ways that climate change is affecting different communities and individuals around the world.

"I think in school, we get told like a lot of information and numbers and places, but we're not told that much about how to interpret that information and what we should do with this information and how we as a community, and as a school, can manage climate change." (Aleeza, Manchester)

The presence of climate change images on social media came out strongly as young people responded to a series of images in the focus group activity.

"I feel like that all of [these images], technically, are a part of me, because I've seen them every single day of my life and I've seen them on the Internet, talking with my family, at school, so they're all technically a part of me and [what I] think about climate change." (Yasmin, Melbourne)

Young people shared that the volume of information they receive about climate change can feel overwhelming at times. They talked about their coping strategies on how to deal with this information - including acting on knowledge (as further discussed below) but also laughing and disengaging from the extreme seriousness of climate change.

"Sometimes if it's really, really hot we're like 'Oh climate change' and stuff. Like, we do it like slightly jokingly, but we know it's serious." (Zara, Manchester)

"It probably mostly starts in geography but if someone rips out a piece of paper then we'd be like, 'Excuse me, that's deforestation, you've wasted a tree there,' or something like that. It is normally a joke but then we do often talk about it. Or if someone accidentally throws litter or something then we'll be like, 'Save the turtles,' or something like that." (Aysha, Manchester).

Online searches reveal that the volume of information on climate change intended for schools is also enormous, with 250,000,000 + results for 'climate change education'. The volume of information available can create a lot of work for teachers to sift through the various resources and assess their quality and fit to the contexts in which they teach, although environmental education organisations that have reviewed resources have useful reports for teachers[1].

"Every topic we do in Geography, they'll always be a segment about 'this is how climate change is going to affect us in the future.'"

Whilst young people have an enormous amount of knowledge about climate change, accounts shared for the research suggest the volume of information has generated some confusion about the causes and effects of climate change, with climate change becoming a 'go-to' word for all kinds of environmental concerns.

For example, many young people talked about efforts to reduce the use of household plastic or to clear litter left in public spaces as a way of tackling climate change.

Although these issues are not entirely unrelated (both the generation of plastics and waste incineration are energy intensive, contributing to overall greenhouse gas emissions rises), young people often did little to explain the connections.

Without critical understanding of the connections between environmental hazards, pro-environmental actions and climate change, there is a risk that environmental education can create unrealistic expectations that individuals can solve the climate crisis by engaging in actions that are good (picking up litter, reducing plastic) but secondary to the need for large corporations to drive down fossil fuel use.

On the other hand, it was also common for young people to associate any kind of unpredictable weather with climate change, or to remove human actions from explanations of events such as forest fires or flooding, so that the cause became only 'climate change' rather than human actions – such as starting the fires, or clearing ground leading to soil depletion – intersecting with more extreme temperatures and rainfall.

Young people's association of climate change as the sole cause of any environmental hazard showed how much this was at the forefront of their minds and suggests a fatalistic understanding that can remove human action from the overall picture. These examples serve as a reminder that teaching on climate change must be carefully explained to avoid the traps of associating too much responsibility or too little responsibility to human action in a changing climate.

[1] *In the UK, the Ministry of Eco Education has produced a range of resources, including an 'Eco Education Landscape' review and Guide for Teachers.* **www.ministryofeco.org**

In Australia, the Australian Education for Sustainability Alliance has produced a Sustainability Resources Portal including practical guides, lesson plans and case studies. **www.sustainabilityinschools.edu.au**

PAULA'S REFLECTION

I was born in Venezuela and moved with my family when I was 6 years old to Australia. I interviewed my dad regarding the differences between life in our home country, Venezuela, when we used to live there over 10 years ago and where we live now, Australia.

These are some of the responses that most made an impact on me:

Paula: Were your expectations growing up in Venezuela different from mine growing up here in Australia?

Father: Yeah, quite different, because in my personal experience growing up in Venezuela, we didn't have the same facilities and the services the majority of people in Australia have. Clean running water, garbage collections, we didn't have that. We had running water but it

"That was a big adjustment that I had to do mentally, to actually grab a glass and take a glass of water from the tap."

wasn't drinkable, so we had to either buy bottled water, or boil the water.

Paula: Do you think those experiences shaped the way you grew up in Venezuela?

Father: Mmm, to some extent, because even though the water was not drinkable, at that time people were not necessarily too conscious about saving water.

Now in Australia people are extremely conscious of the water compared to back then in Venezuela. There was no concern at all over saving water.

Here it's more conscious, especially with water. In Australia we have drinkable water straight from the tap and that is big, actually that was a big adjustment that I had to do mentally, to actually grab a glass and take a glass of water from the tap.

That was a challenge at the beginning

"I think more Australians should adopt more cultural aspects on the way they teach environment like in Venezuela, where they plant trees as a part of their school programme and have celebrations of nature as a community."

because we were used to boiling the water. If you drank from the tap, it would make you very sick.

Paula: Do you remember a specific event that caused like a shock from the environment here in Australia when you first moved?

Father: The Black Saturday event, when there was a lot of bush fires and there was quite extensive damage here in Australia with lost properties and a huge impact on animals.

PAULA

REFLECTIONS ON THE INTERVIEW

Overall I think that Venezeula should adopt some conscious and some everyday practices that Australia has like the garbage and water system.

However, I think more Australia should adopt more cultural aspects on the way they teach environment like in Venezuela, where they plant trees as a part of their school programme and have celebrations of nature as a community.

FEELINGS OF HOPE AND DESPAIR

Some young people reflected that the way they learned about climate change in school could reinforce feelings of despair and powerlessness.

"Most of the time when they educate us [about climate change] it gets a bit too generalized or too doom and gloom […] when it comes to the time where they actually going to tell us what we can do, they don't usually have specific instructions." (Zac, Melbourne)

"Even though it's like exposing us to like the truth of what's happening, it's also dampening our passion for changing climate change. It's terrifying to think about how this can happen anywhere, and this happens in places right now, and that's why some people may not feel empowered to take action, because it terrifies them." (Lisa, Melbourne)

Zac and Lisa's words resonate with a growing number of studies that report on the emotional impacts of being surrounded by talk of climate change on young people.

"Maybe the fact to understand is that we don't have to wait for someone to start making the change."

One of the largest studies, carried out with 10,000 16-25-year-olds from across ten countries, found that 59% of participants were 'very or extremely worried' about climate change, with participants also reporting high incidences of sadness, powerlessness and guilt. This condition has been termed by some researchers as 'eco-anxiety' or 'climate anxiety'.

Anger is also an increasingly vocalised (and understandable) response from young people in response to insufficient action on climate change, or actions perceived to exacerbate climate change.

"[President Bolsonaro] was elected on the - I may be wrong but [he said] that he would use the Amazon forest's resources. That made me very angry. I didn't like that at all, that he was going to exploit it. It's such a beautiful forest and he's saying he wants to use it for something else." (Barsa, Melbourne)

For most young people, taking action - however big or small - was a way to combat despair. Young people spoke of focusing their hope on the actions that still could be taken, as well as being motivated by concern for those most immediately at risk.

"It's terrifying to think about how this can happen anywhere, and this happens in places right now."

"There has definitely been a conversation recently, mostly about if it's too late for us to do anything about [climate change], if we've kind of dug ourselves too deep a hole to be able to actually go back to what should be a normal earth. Um, but I think seeing the real-life effects of it on people is making others kind of think about how we can do active things to stop it from getting worse." (Haripriya, Melbourne)

Young people also reflected on the importance of not feeling they had to resolve every issue, but rather doing what they could in the spaces where they are.

"Maybe the fact to understand is that we don't have to wait for someone to start making the change […] you may only have the power over your school, or like your place where you live, not over the whole world. But then if you start off and make this change people would actually look at you and see how you're a 15-year-old, and you actually just started it yourself, and you didn't wait for, like, government. So that would make people around the world wanting to make this change feel more confident." (Rebecca L, Manchester)

Rebecca's quote anticipates how taking action can generate hope in both the person taking action and those around them. These are not naïve hopes, but hopes that are grounded in an understanding of the scale of the problem, and a determination not to give way to despair.

Whilst the increasing prevalence of eco-anxiety might cause some teachers to shy away from discussing climate change in their classrooms, research shows that conversations about climate action can soften these anxieties. For more information, please see resources listed in the 'Climate Emotions and Eco-Anxiety' section on the **Helpful Resources** page (p.82).

[1] *Hickman, C. et al. (2021) 'Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey'. The Lancet Planetary Health, 5:12.*

[2] *Helpful information on eco-anxiety can be found here:* **www.ecoanxiety.com/what-is-eco-anxiety/** *This is a dedicated website by young people for young people containing information about eco-anxiety, advice and organisations that can help.*

MADELEINE & ANNE'S REFLECTION

MADELEINE

During this project I have learnt more about why my mum does certain things and how that might have affected how we (my brother and I) also do things.

She spoke about how her parents influenced her and it's made me think about how we are being affected as well, for example how her job affects how she raises us – she looks at rivers and lakes doing environmental assessments. The project has also made me think more about how climate change is talked about in school. It either isn't mentioned at all or it's talked about in a lesson that's mostly negative which can be really overwhelming for young people.

Obviously climate change is also mostly negative, but having a lesson about the upcoming apocalypse that'll happen in 5-10 years and then moving on to algebra is not very good for my mental health. We discussed in the interview how the teaching that young people in the UK are getting about climate change could be improved to try and reduce the feelings of hopelessness.

Climate change is something that is going to affect us all and we need teachers to link our lessons to the kinds of things we are learning and skills that will be useful to solve the problems.

We need to not just talk about climate change only when we are learning about the consequences, with a bit tacked on at the end about solar panels and wind turbines. It's not taking away from the negative consequences or making it seem less serious but talking about small positives would make the future a bit less daunting.

I said in the interview that I think one of the ways that kind of helps you be less anxious is doing little things. Even though using reusable stuff or turning the lights off isn't going to save the planet on its own, it still makes you feel like you're doing something, and you're not just sitting there watching the world dissolve.

Or going to protests like the Fridays for Future ones which my mother took me to, makes you feel like you're actually doing something and so it helps you be less anxious. I think having teachers and parents talk more often about how it is going to be possible to get jobs doing useful things in the future and talking about the positive changes people are making now would help with young people's fear and dread for the future.

ANNE

(MADELEINE'S MOTHER)

The project has been a valuable opportunity to reflect on where my version of environmentalism has come

"Going to protests like the Fridays for Future ones which my mother took me to makes you feel like you're actually doing something and so it helps you be less anxious."

from and, more importantly, to take time to better understand how I could now be influencing my children.

I've never questioned how exposure in my childhood in Australia to activities such as growing seedlings for Trees for Life helped develop a knowledge that land care and biodiversity are important.

This was just something my family did. My father worked in natural disaster management and while anyone living in Australia couldn't avoid the existence of extreme weather events (even back then) the complexity of and threat from these types of events was always very 'present' in our lives.

The interview prompted me to think about how this has shaped my concerns about climate change, but also to consider if the climate change denial in some parts of Australian culture has also been shaped by the seemingly 'everyday' nature of extreme events which perhaps allows people to avoid the evidence in front of them.

Climate change and the importance of nature is such a big and complex topic. It must be challenging enough to teach in schools but the project has highlighted to me how crucial it is to bring in perspectives from different geographies to help all regions better understand the issues.

The project has also made me reflect on the contrast between the issues confronting Madeleine now and my experience at the same age. This has made me reflect on the what she is learning about at school on this topic as well as online.

I'm now more conscious that avoiding talking about climate change can't shield Madeleine from the overwhelming information she is exposed to. Avoiding the subject also means we miss the opportunity to highlight the links between the positive choices that we are making as a family (our everyday choices regarding food, travel, energy, etc.) and the positive stories we come across in the media/ online. These links are so important to highlight to avoid hopelessness, especially for young people.

YOUNG PEOPLE'S IDEAS FOR CLIMATE CHANGE EDUCATION

Overall, young people expressed a desire for creative, solutions-focused, enquiry-led ways of teaching and learning about climate change that will help them not only to be well-informed, but also to take action.

"It's very textbook, like, this is climate change, here are some case studies, and then you have a test on it. And obviously we do like debates about like climate change and things like that. But maybe I think we're missing out on the idea of a project, like […] choose a country and see their progress on climate change and what they do, and that can maybe help people in Australia" (Paula, Melbourne).

"We just need to bring up more awareness. And I feel like change sometimes comes through education so maybe they should kind of like try and embed […] talk about [climate change] more in classes." (Akos, Melbourne)

"It's only when you see actual pictures and people suffering because of this, you empathize with it and finally begin to understand like this is happening."

Young people expressed a view that climate change was 'more than a school subject' but rather something they wanted to see taught, discussed and acted on in all areas of their education:

"I want them to bring up the issue of climate change, not just in subjects or not just in classes as well, like, just in general in everything we talk about. You know, we just don't talk about climate change, you know, not just like a subject topic or whatever…" (Stephen, Melbourne).

Young people also spoke of wanting to see and hear more stories from the ground on climate change, including diverse adaptation strategies of people around the world, particularly those who had moved from one country to another.

"[I would recommend] learning individual stories rather than like the whole collective story of a country, mostly individual stories will resonate with people more. I feel like [it would be good to] use more first-person experiences from each of the countries and get those people to talk at schools to show their point of view on climate change to provoke a discussion. " (Lisa, Melbourne)

"[it would be good to] use more first-person experiences from each of the countries and get those people to talk at schools to show their point of view on climate change to provoke a discussion."

"You learn about all these figures and numbers […] this much rainfall has occurred because of this, this is how many heatwaves there are, this is how much pollution there is in the rivers and stuff. But it's only when you see actual pictures and people suffering because of this, you empathize with it and finally begin to understand like 'this is happening'." (Aleeza, Manchester)

Young people's accounts of engaging with climate change across school subjects point to the importance of visual and creative responses to climate change, and the need to appeal to different learning styles.

"Looking at a picture you think about it more […] like, you're drawing the rainforests and looking at pictures of the rainforests and you want to get into it, it makes it more fun, you enjoy it more by drawing it and looking at it. You want to explore into it rather than having to write about it." (Saher, Manchester)

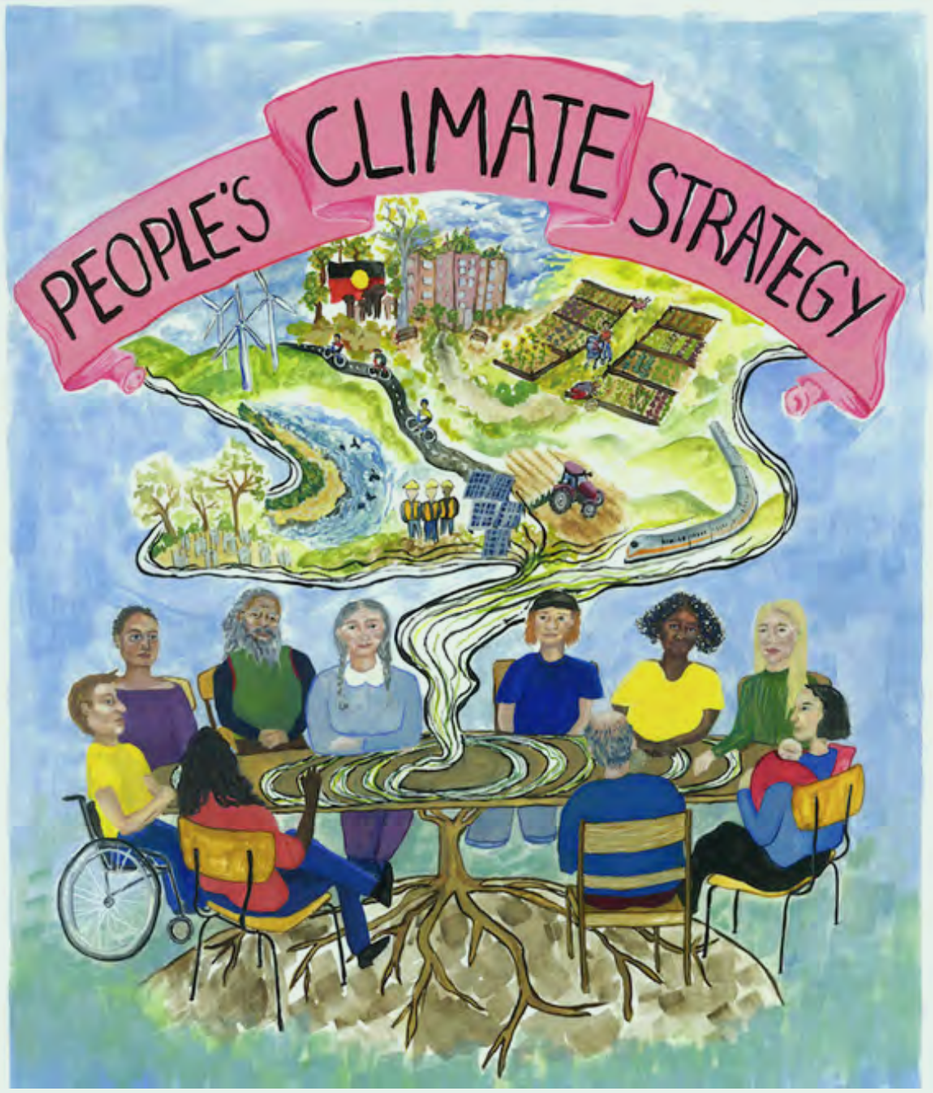
Overall, young people expressed a wish to be heard, and to discuss solutions collectively. In the focus group activity, many young people responded positively to the image of a 'People's Climate Strategy' (included on the next page) and were inspired by this to imagine themselves taking part in such collective discussions.

"The People's Climate Strategy, so if they'd taught us that, we would have known that we could have done something as well." (Fatima, Manchester)

"The People's Climate Strategy […] seems more of a project for the people, like, anybody. And it's something anyone can do. Like for our age, obviously we're not part of any higher authorities, but we can take part in little groups and work hard with them." (Farah, Manchester)

Young people's responses to the People's Climate Strategy image shows there is great potential for making education on climate change more focused on climate justice as an active process that young people can be a part of in their different contexts and communities. This is discussed further in the next section.

Young people's responses to the People's Climate Strategy image are also discussed on pp. 78 – 79 (Going forward together).



This image was designed by Gemma Romiti for Friends of the Earth Melbourne for the launch of the People's Climate Strategy for Victoria, and is reproduced with permission.

More information about Friends of the Earth and the People's Climate Strategy is available at:
www.melbournefoe.org.au

Follow Gemma on Instagram **@gemijuu**

CLIMATE CHANGE
ACTION

HOW YOUNG PEOPLE SEE THEIR ROLE

Young people who took part in this research shared a sense that they as a generation are the best informed about climate change and see the greatest urgency for action. Zoe put this down to "the influx of social media", expanding that "I think a lot of people have learnt about [climate change] through posts on social media or those little mini-documentaries you might see on YouTube, those random websites you might find."

However, young people recognised that they need the support of other generations. As Farah said, "right now climate change might not be as bad as it's going to be in 20 years, so it's probably going to be our job to do it. But then […] if we weren't ever taught about climate change, we wouldn't even know about any of the stuff."

Other students focused on the need for action from adults in the present, like Tejaswini, who said that "as the younger generation, we can protest and spread the news, but I think the older generation has to take action". Young people felt that adults could rely too much on them, as expressed by Zara: "You see a lot of young people now, like Greta Thunberg and people, but the generation above us, I feel like they just rely on what we're going to do […] they should take some action as well."

Young people sometimes traced the sense of urgency they felt to particular events, such as experiencing a heatwave or seeing footage of wildlife loss or deforestation. The 2019/20 bush fires in Australia were mentioned by many young people in both Manchester and Melbourne as turning points in their concern about climate change.

As Zac explained: "After the bush fires, that was when there was greater impetus in me to seek more knowledge about climate change, as well as what could be done. So, in that sense I did start to commit more to being an environmentalist".

Speaking from Manchester, Nadeera also pinpointed the 2019/20 bush fires as a turning point for her, saying "I saw pictures of kangaroos and I was like, 'Oh, my God,' and then I was like researching and I found out that everything we're doing from like not recycling or using too much plastic, over-consumption of like, meat and fish, like, everything that we do here has an effect somewhere else".

Young people spoke of being inspired by high-profile youth climate activists, in particular Greta Thunberg. However, most young people were wary about using the term 'environmentalist' to describe themselves.

"As the younger generation, we can protest and spread the news, but I think the older generation has to take action."

For example, Paula said "I try and do my best to put things in the recycling, and I go to the climate strikes, because I think it's a very important issue, but I don't consider myself to be an environmentalist".

Many young people expressed a simpler form of caring for the environment. As Akos said, "to be honest, I've never really thought about it, like if I'm an environmentalist or not. I do care about the environment a lot, but I've never liked labelled it." Rebecca K saw an environmentalist as "somebody who cares for the environment and encourages the protection of it" and ended by reflecting that "if that's what an environmentalist is, then I am one."

Five of the 40 young people who took part in the research had taken part in School Strikes for Climate and spoke of this in mostly positive terms. Madeleine reflected that "it makes you feel like you're actually doing something and so it helps you to be less anxious". Other young people said they would like to take part in a climate strike but hadn't had the opportunity. Many young people referenced the covid-19 pandemic as holding them back, whilst young people who lived far from city centres described how the distance would make it difficult to take part.

Some young people were reticent to engage in School Strikes for Climate and related this to their ethnic or cultural background. Hafsa said "There are some marches that happened in Manchester but I'm not allowed to go to them, my parents say it's too dangerous. Because I am not a white person, who's got a physical religious garment, it's not safe".

Ghalia, who had moved to Manchester as a child also shared that "I still remember my parents, they were always very scared of talking about politics or making changes, like just going against the government really scared them and they never talked about it. So I guess it's like you stay away from these things […] it's hard to stand up for things because even your parents couldn't do that."

Young people saw diverse roles for themselves beyond protest-based activism, sometimes relating this to their future career plans, for example, wanting to work in environmental law, engineering and caring professions. Young people also emphasised the value of everyday changes and actions, despite acknowledging these as 'small'.

As Siobhan reflected, "…raising awareness, recycling, making sure food is secure. All the minimal things, even though they might be small, if you keep on doing it and doing it, I feel like you can make a difference."

REI'S REFLECTION

DARE TO SAVE EARTH?

1. THE INTERVIEW

Knock! Knock! My eldest brother, Zac opened my room's door before I could even respond. "Hey, Rei! I need you to attend a phone interview for me in a few minutes' time. Jot and I have to take care of certain urgent DTSE business that has just cropped up."

"What is this DTSE business? Isn't it time for you to tell me about it? Or was I made a DTSE cofounder just so that you can boss me around under the pretence of DTSE?", I asked with annoyance and resentment whilst staring at Zac.

"You may well find out during the interview! In any case, they will just ask you for your opinions on certain issues. No need to worry about or prepare for, the session. Just relax and wait for the call. I have already emailed the interviewers to inform them of the last-minute change", said Zac with a smile.

"How will you thank me for helping you?", I shot back.

Zac continued with his charm offensive by promising me a gourmet meal at a nice restaurant, but I was not impressed at all.

"Yeah, it is always the same type of food which suits you but is not my cup of tea!", I grumbled wanting to negotiate for a better deal.

But before I could think of what I would like, I heard Zac saying, "Got to run, let me know how you go!" and then a bang from him slamming my door closed.

Ring! Ring! Zac had timed his escape perfectly. I took a deep breath to douse my spark of anger and answered the call.

"Hello! This is Professor Sauver from Down Under University. May I speak with Rei?"

"Speaking", I answered whilst wondering what to expect from my maiden interview.

"Great! I have next to me Dr Terre from Britannia University. Zac has nominated you to stand in for him to provide input to our research project called "Intergenerational Intersection". Can I ask you a few questions?"

"Sure", I replied whilst pondering the nature of the project given its name.

"Hi, Rei! This is Dr Terre. Our project aims to find out how different generations in families are adapting to climate change. Do I take it that you know about climate change since you are one of the cofounders of DTSE alongside your brothers?"

"Yess!", I was trying to sound confident but was actually scrambling to figure out the connection between climate change and DTSE.

"Great! Do you think people should take action to mitigate climate change and why?", Dr Terre posed her first substantive question.

"Of course! In his speech delivered at the 2014 United Nations Climate Change Summit, former United States President Obama quoted an American governor saying, "We are the first generation to feel the effect of climate change and the last generation who can do something about it"", I felt proud for giving what I considered to be the perfect answer.

2. THE CULPRIT

"Well said! In your view, do older generations such as your parents and grandparents bear greater responsibility to take climate action than your generation?", Dr Terre questioned me further.

"Definitely! They are the ones who have polluted Earth. They are in power. They were warned 30 years ago about climate change, but they keep arguing whether it is real and procrastinating from rectifying their mistakes.

Lest we forget the Native American saying, 'We do not inherit the Earth from our ancestors; we borrow it from our children.'

Just as I felt I was on a roll scoring full marks again with my apt quote, I was brought down from cloud nine by Professor Sauver's follow-up questions: "Don't you think your children's generation can use the same quote against your generation for not having done enough to return to them an Earth that is at least the same as now if not better? If so, how would you feel? After all, isn't it always easier to blame others for the problem faced by us?"

I was dumbfounded momentarily but before I could launch my counterstrike, Professor Sauver dropped another bomb shell on me: "Since you are a cofounder of DTSE, you would know that children and youth also contribute to climate change in their own ways, right?"

I was perplexed but decided that attack was the best defence. "My generation did not decide to burn oil and gas. The dominance of fossil fuels and the prevalence of deforestation were well established before my generation was even born!

For goodness' sake, the older generations would not even accept that children have an inalienable right to a healthy environment, with only Mexico among the G20 nations having signed the Intergovernmental Declaration on Children, Youth and Climate Action!", I fired a barrage of charges with increasing intensity in my voice that ended in a crescendo to convey my conviction that my generation are innocent victims.

"My generation did not decide to burn oil and gas. The dominance of fossil fuels and the prevalence of deforestation were well established before my generation was even born!"

"Rei, Professor Sauver was simply alluding to the futility of engaging in an intergenerational blame game when it comes to overcoming the climate change challenge which requires all hands on deck. No anxiety or discomfort was intended. Are you okay to continue the interview as I would like to seek your input on the major ways in which children and youth contribute to climate change?", asked Dr Terre.

Sensing that it was the perfect timing to pass the buck back to Zac, I seized the opportunity to make a strategic retreat with my response: "I should first reflect on Professor Sauver's thought-provoking comments. May I ask Zac to liaise with you to schedule the completion of this interview at another time?" "Absolutely! We appreciate your candid feedback which you had shared with us during this session. Thank you Bye for now", replied Dr Terre.

3. THE ANSWER

As soon as Zac returned home, he checked with me on how the interview went. I gave him a quick summary of the short session and asked him about the connection between DTSE and climate change.

"See, you were doodling when we discussed the vision and mission of DTSE. No wonder you can't remember what DTSE stands for!", Zac lectured me just like my fierce form teacher.

"Don't forget that the DTSE logo came from my doodles!", I cut Zac short on his lecture.

"If you can remember the DTSE logo, shouldn't the pair of hands putting a globe to the lips remind you of the vision and mission of DTSE?", Zac stared at me with his puzzled look.

"I can think of the logo's association with DTSE's slogan but…", I failed to make the connection between the logo and what DTSE stands for.

Zac then proceeded to give me a brief overview of DTSE: "Diet to Save Earth promotes dietary changes as a climate action. This is because up to almost 40 percent of global emissions are derived from food systems!"

"Okay, I remember now! That is why DTSE's objective is to educate and mobilise young people to be catalysts in encouraging their families, communities, and societies to promote and adopt dietary changes.

Something which everyone can do to contribute to the achievement of relevant United Nations Sustainable Development Goals", I interjected eagerly and excitedly to elaborate on DTSE's purpose whilst emerging victorious from the shadow of the embarrassment suffered minutes earlier.

"That's right! Not only for Earth but for our own health and for others' welfare in terms of food justice", added Zac.

"So, why would Dr Terre ask about how children and youth contribute to climate change when we are the victims?", I shrugged with open arms.

"Well, children and youth eat and drink just like everyone else, right? A lot of us are not only carnivores but eat too much! Our love for junk food also contributes to deforestation", Zac explained solemnly.

"Oh, we have to walk the talk with our own dietary habits so that we can persuade others, especially our children, to do the same!", I exclaimed as I had my epiphany.

"Spot on! Now, let's go for the reward which I had promised you", Zac high-fived me and then put his arm around me as we walked out of my room.

"No wonder you always took me out for vegetarian meals! Ah, that's why DTSE asks members and visitors to leave on its Facebook page their secrets of getting kids to eat vegetables. I will now learn to appreciate veggies", I promised Zac.

"We don't all have to be herbivores. The key is to make a conscious effort to reduce meat consumption. Let's put our Earth where our mouth is!", Zac proudly declared the DTSE slogan coined by him.

WHAT YOUNG PEOPLE WANT FROM THEIR LEADERS

All young people expressed a strong sense that they wanted and expected clear leadership on addressing climate change from elected leaders:

"I think, as a country like you put faith in your government, right? And you would expect in like a perfect world, that the government would have climate change in mind more. But, um, that just doesn't happen, even though - like, even though there are these kinds of rallies and things […] I think if they did use that power in a different way, we could be so much further along in terms of climate change." (Haripriya, Melbourne)

Young people were not naïve about the relative lack of power they had as individuals to take action when compared to governments. However, some students felt that even as young people without voting rights they could influence the course of government policy by raising their voices.

"I think everyone equally has a has a responsibility to make climate justice happen, but people with more power and authority, like the government, […] should be able to do more […] And we can just give them the voice, like we can show them that, yeah, do this." (Lisa, Melbourne)

"We really actually need to see that change. And not just empty promises."

Many young people, particularly in Australia, expressed frustration that the governments where they lived were not doing enough to resolve the climate crisis.

"I mean, recently we had this Australian election and Labor won, so Anthony Albanese is now Prime Minister and he promised to put action on climate change. So I feel like that's kind of a step forward, but we really actually need to see that change. And not just empty promises ." (Yasmin, Melbourne).

Some young people referenced a culture of climate denial or hypocrisy in passing as they evaluated their leaders' progress on climate change:

"[The UK Government] just lacks a green fund so... it's quite hypocritical, it's kind of more of a show, I think, because something as basic as recycling [still] needs to be done, when the UK claims to be like the, a leading light in adapting towards climate change." (Hafsa, Manchester)

"Everyone equally has a has a responsibility to make climate justice happen, but people with more power and authority, like the government, […] should be able to do more."

"I feel like at the end of the day, the youth is going to be the one left to be picking up the pieces. I feel like adults also need to try and make a change or like to be more like understanding, you know, you don't necessarily have to believe in it but, like, just try." (Akos, Melbourne)

Beyond individual governments, there was a strong sense that governments around the world were failing in their key responsibility to work together to resolve the climate crisis. Many young people referenced the COP26 summit held in Glasgow in 2021 as they evaluated world leaders' commitment to addressing climate change.

"I mean you've got the world leaders. They need to start it as well. But most of them are neglecting global warming and animal habitats are being destroyed and all that. I think most of them are neglecting them. But I think recently they had a meeting about it as well. All the world leaders came together to talk about global warming." (Syed Jahid, Manchester)

Young people also expressed a view that not all countries can play an equal role in delivering climate solutions as they have different levels of resources, and different historic levels of pollution.

"It can be a bit, like, imbalanced because even if Western Europe will reduce [emissions] a little bit, China or USA should try to reduce it too, then maybe it can cause some change." (Haniya, Manchester)

"They're all responsible at the end because they all have resources now, but then at the same time in the low-income countries, they actually have a matter of living before thinking about climate change because they don't have their natural human needs that you need in your daily life [met], whereas in rich countries you don't think about it." (Nagham, Manchester).

EMAAN'S REFLECTION

I really enjoyed interviewing my Mum for the YPAC research project and hearing my Mum's reflections on life in Pakistan (where I was born, and where my parents spent most of their lives) and in the UK (where we now live).

These are some of the things that my Mum shared that made me think about how we care for the environment across different times and places:

"As a family, we grabbed every opportunity to plant trees, as much as we could. I remember when I was a kid my parents were also not in favour of nuclear testing, which was happening all around the world at that time.

Although it was said that it was necessary for the wars and weapon forging for the countries, from my parents, I was taught that this is contributing to the pollution.

And we also talked about the factory waste, and the pollution that was also destroying the ozone layer.

"When I was a kid my parents were also not in favour of nuclear testing, which was happening all around the world at that time."

My family was quite worried about upcoming global changes."

I found it interesting to hear my Mum talk about this, and I wanted to share this because I feel it is very important to show that these concerns have been going on for generations and it is still a big issue currently.

"Although there is public transport in Pakistan, it's only for the for the people who are less fortunate, with less money or something. But here in UK the buses are cleaner, and everybody can use the buses and transport in UK equally, regardless of which category they belong to, whether they are rich or poor. Also, there's electric and hybrid buses also in UK, which I have never seen in Pakistan."

This highlights some of the contrasts between the two countries where we have lived. Public transport might not seem like a big topic however I believe if the standards were the same in Pakistan, the environment would be a lot cleaner, and Pakistan would be a lot more sustainable.

We need to spread awareness that there is a lot of room for improvement and a need for greater investment in many countries.

"I wanted to share this because I feel it is very important to show that these concerns have been going on for generations and it is still a big issue currently."

"When I came here [to the UK], I felt that it's an easier life here, like so many resources are at our disposal at little cost. While in Pakistan, we have to pay for such resources in heavy amounts and still we don't get those resources easily.

Still there are too many power cuts - they are still too many - and there are shortages of water every now and then. So, when I came here, I was kind of relieved."

This quote from my Mum shows that one of the main reasons why people in low-income countries are struggling to care for the environment is because it is expensive, and they just simply cannot afford to live ethically and sustainably.

This made me think about resource shortages in Pakistan: even though it is very hot, lots of people don't have air conditioning, we often can't use it because of power cuts or even if we have it, we don't want to because we know the environmental impact it will have going into the future.

As I commented in the interview at the time "whatever we did [in Pakistan], we had to like really take care of whatever we were doing, because we knew it had a really big impact on what would happen in the future".

This has not been something we have had to worry about in the UK. This has made me reflect on how in high income countries people might take their power resources for granted because there are a lot of resources present right now, but these resources are finite.

Many people have not gone through the consequences of not having these resources, and that is why they are relaxed at present.

WORKING TOGETHER AS COMMUNITIES

Young people did not only want and expect action on climate change from elected leaders, they also saw a role for communities to take action. Many young people and parents (such as Stephen, Eunice and Robert, whose reflections follow) have written about the strong role of community actions in the countries where parents or grandparents grew up.

Young people also talked about activities they or other community members had been involved in more recently, such as planting trees, litter picks and campaigns to reduce air pollution.

"We do things that help prevent global warming, in our school, in our area. We put up carbon dioxide monitors around school and talk about how we can prevent the levels rising." (Muskaan, Manchester)

Within such community strategies, young people saw a clear role for people of different generations and backgrounds to work together and hold one another accountable.

"I think the younger generation they look up to older generations. Because they feel like if the older generation do something about it, then they can follow the footsteps. Maybe someone you know even. Then if someone talks to you about it, then you can like know what to do." (Fatima, Manchester)

"I think the younger generation they look up to older generations. Because they feel like if the older generation do something about it, then they can follow the footsteps."

"The government has their things to do. The people have their things to do as well. We have to come together and commemorate together and work together as well. But I mean I'd say the Bengali community, they've got to get things in place as well." (Syed Jahid, Manchester)

Many young people – particularly those who identified as Muslim, Christian or Hindu - saw a role for faith communities to promote environmental care, thus potentially reaching broader communities than those composed of people who would identify first and foremost as environmentalists.

Rahma spoke of her family's faith as a powerful way of understanding environmental concerns, and something that she knew her parents would respond to, saying "For us, from a Muslim point of view, we're into looking at problems and how we can solve it, or try to solve it. So, with the climate change stuff, you're supposed to protect the climate. You're supposed to not waste, not destroy it, take care of it, this is your home […] I think that has helped for me and my sister, because we have changed our habits quite a lot through conversations that we've had."

Sahail explained that "In Islam, cleanliness is half our faith. So, if we're clean but everything around us is dirty, it's going to make us dirty. But if we clean the world up and try to prevent climate change, then the world could be better."

As a digital generation, young people also saw a role for action spreading through online communities as well as physical communities, sharing accounts of how social media had raised their own awareness. Aysha explained that "I don't really think about [climate change] often, but if I'm watching a video and it comes up, like if I'm on TikTok or YouTube and it comes up then I think about it more."

"We have to come together and commemorate together and work together as well."

The potential of social media to raise awareness of particular issues also became apparent in three young people's responses to an image of a polar bear on thin ice that was presented in the focus group activity.

[A] famous person might highlight [the image] and say 'this is happening to polar bears'. And then they might show loads of videos about polar bears and what's happening to them and then Arctic penguins and animals that most people love. Then everyone will sympathise and say 'let's stop climate change for this polar bear.'" (Sahail, Manchester).

Despite the overall message that community strategies should be inclusive, some young people saw a particular role for those with greater financial resources to take a leading role in responding to climate change.

"People who have the money to just, if they wanted to, they could just plant a forest full of trees or help with something really big […] someone who is a billionaire [is] much more able to be able to help the climate than just me or you." (Madeleine, Manchester)

STEPHEN'S REFLECTION

STEPHEN

I was born in Nairobi, Kenya and migrated to Melbourne Australia in 2015. When I was interviewing my parents, I was able to learn more about them and their childhood and how the world back then was different from now in terms of the environment and society's views on climate change. I wrote these reflections based on the interviews I did with them.

Hearing the responses from my parents helped me realise that the world's climate was different back then and it has gotten worse now. It gave me a sense of guilt and despair as I could not imagine how worse it could get in the generation I am in right now.

EUNICE

(STEPHEN'S MOTHER)

"It was 7:00 am, and the sun was starting to rise. I was catching a bus to university. I remember when I was younger, I used to see plastic bags flying around even though they weren't there the day before. I always used to wonder where they came from and where they were flying off to.

I also used to tell myself that those plastic bags could have been put to good use like turning them into soccer balls. Where I grew up kids used to collect plastic bags and turn them into soccer balls and kick them around. I used to watch the plastic bags drift away into the sky without a trace to be found. I never really thought that those plastic bags would ever affect the world.

When I started going to primary school, I used to walk past a river every time on my walk to school. I used to see a lot of tadpoles in the river and some kids would even collect them. Nine years later and that is not the case anymore because all there is to the river is just dry soil replacing what used to be a stream of water with life.

Nowadays it would be very hard to try and convince someone that there used to be a river stream over there as the water has completely gone.

A couple of years later I was 19 and was in university. I remember there being a conference about the hole in the ozone layer and that we needed to be careful with the environment and minimize the carbon emissions, but during that time I did not think a country such as Kenya which did not have as many factories and cars would be contributing to the carbon emissions.

I did notice that there were a lot of rubbish and plastic bags lying around in streets that used to be considered cleaner. I used to wonder why the City Council weren't doing their work and collecting the rubbish. I saw a lot of kids eating lollies and throwing wrappers on the streets. I then realized that there had to be a change. I turned to my friends, and we all had a deep discussion about whose responsibility it was to maintain a clean environment. Us or the City Council?

If people were throwing rubbish and littering the streets, then why should the City Council be blamed for not cleaning up the streets when the residents are not trying to minimize the pollution themselves?

As a result of that discussion with my friends, we all came to an agreement that we would not be contributing to pollution, and instead of shifting the responsibility to somebody else, it would be better if each of us took on that responsibility so that the environment would be a much better place for us and future generations.

If rubbish was left around then it will build up to even more rubbish and eventually those plastic bags will fly away and end up in our oceans and endangering our sea life. I believe we are all part of the problem. We are the reason why wildlife is losing habitats because of deforestation. We are the reason why the air is polluted because of factories and cars that produce carbon emissions.

We as a people only have one Earth and one place we call home. It is time for every one of us to stand up and take responsibility for climate change.

We are in this together. For Earth.

"I used to watch the plastic bags drift away into the sky without a trace to be found. I never really thought that those plastic bags would ever affect the world."

"We were really convinced about planting trees because in the environment we were in there wasn't much water and not a lot of natural resources."

ROBERT
(STEPHEN'S FATHER)

I grew up on a farm and in an environment where it was not dry or wet. It was a semi-arid environment. Farming was large-scale and very successful.

When I went to visit my home country Kenya a few years ago, I noticed that there was a lot of rain in December which was quite unusual. There was a lot of deforestation and flooding, and people weren't eager to do farming anymore.

The weather used to be fantastic, the water was clean but nowadays there is a lot of commercial economic activity going on which has led to a lot of pollution. During my younger years in school, I was never taught about climate change. It is only when I finished high school that there were discussions about deforestation and the depletion of the ozone layer.

I started hearing about climate change during the 90s when I was in university. I heard about the greenhouse effect. I did learn about the greenhouse effect in science classes in high school but not how it related to climate change. Growing up me and my friends used to pick up a lot of rubbish, and we grew a lot of trees as was mandated by the government.

I was taught about responsible farming that would lead to the lessening of soil erosion. Schools, churches, and other communities were encouraged to plant trees.

We knew why we were planting trees and the other important things about trees as well such as making the surroundings look beautiful and temperature cooling. We were really convinced about planting trees because in the environment we were in there wasn't much water and not a lot of natural resources.

In 1984 there was a drought in Kenya. We had a crop failure, animals dying of hunger, shortage of water when I was just 10 years of age.

I saw families in distress that used to come to my home and beg for food. That's when I came face to face with a disaster and how much a disaster could affect people.

When I turned 12 there was the Chernobyl disaster, and everyone was scared that they were going to die of radioactive pollution. That's when we were sensitized to pollution and radiation. There was a shortage of water when I was younger, and my family used to rely on storage containers to collect water.

When it rained, we stored water in the containers as there was not much rain where I lived. We also used to rely on water from a well. Because of these experiences growing up, I am conscious of saving water in my household now.

I am also conscious of plastic pollution as I grew up in a place where cattle used to die because of plastic.

I try to educate my friends and others about climate change. I once saw a documentary around the late 2000s that was airing on a lot of channels and no matter how many times you changed the channel it was on another channel which was odd.

I've watched that documentary 10 times now and it is something that really opened my eyes. It helped me change in terms of climate change awareness, water scarcity, and pollution.

In my household, I try to use renewable energy sources such as solar panels but then again it can turn into a debate on whether you want to use a renewable energy source to reduce greenhouse gas emissions or want to use it just to save money.

I believe everyone can become an environmentalist and care for the world if they are educated about current issues and how to find solutions to them. I also think children should be educated about the current state of the world is in right now. People should be aware of climate change and what it is doing to Earth right now.

HOW YOUNG PEOPLE UNDERSTAND CLIMATE JUSTICE

With some exceptions, young people were initially unfamiliar with the term 'climate justice'. Where they had come across the term, it was not through education, but through observing or taking part in climate activism or online campaigns.

"I haven't heard of it before, but I - we sort of know what it is already when someone says climate justice, we know it's bringing justice to the environment and how poorly it's been treated." (Farah, Manchester)

"I feel like justice is trying to do the best you can to stop climate change. Greta Thunberg I think brought it up in one of her speeches that was on the news, I think that is when I heard it." (Daanika, Melbourne)

Despite its initial unfamiliarity, many young people found inspiration in the term, seeing climate justice as an active, ongoing process that they could be part of. This was in contrast to climate change, which felt like something that was already determined by events that took place before they were born.

"I think it's similar to climate action but also slightly different. It's almost like we need to act on it, but with justice. Justice, I normally think it's being fair, and it's almost like saying with climate justice that we're not being fair to our earth, and we need to be fair with the climate to bring justice to our earth , like climate justice." (Zoe, Melbourne)

"I think it could mean, like, fighting for the climate […] I also agree with that, fighting for the climate. Saying it's not impossible. We can achieve it." (Aravind and Tejaswini, Melbourne)

Some young people focused on current injustices to make sense of the idea of climate justice.

"It's like the idea of winners and losers, so like big energy companies, because they are like multi-millionaires or billionaires, they obviously know the effects of what they're doing and it will affect people in Bangladesh, where people are losing land. But it's the idea that right now they're making more money and won't have to deal with their own consequences." (Hafsa, Manchester)

Young people were particularly engaged with global inequalities in how climate change is affecting different parts of the world, and related this both to learning about climate change, and their own family backgrounds.

"In Geography this year, we were learning about the Maldives. And something that really just stuck out to me was just how fast it's actually getting eroded. Because if they didn't do any defence measures and stuff like that, in the next 50 years probably most of it will be gone. Which is crazy […] because they don't hardly contribute anything to climate change, it's mostly other countries." (Rebecca K, Manchester)

"When I think about climate change, I think about a lot of low-lying islands and people that have to live on those kinds of places where they're prone to tsunamis and floods and also places that are prone to extremely hot weather. So that's kind of like where our parents were from, Sri Lanka, India, the Asian countries. Places that are just so exposed to humidity and heat on a constant basis." (Haripriya, Melbourne)

Young people also focused on justice in the sense of the effects of human activities on other species.

"All this global warming and stuff is really affecting the world, so it's justice for the climate, you need to show a bit of, you know, compassion because there are other people in this world and it affects a lot of animals as well […] When it does affect humans, they're going to be like, 'Why didn't we sort this out earlier on?'" (Aysha, Manchester)

Other young people went further and framed climate justice from the perspective of the earth itself.

"[Climate justice is] maybe letting the world breathe, like letting it be what it is supposed to be." (Stephanie, Melbourne)

"I feel like [climate justice is] what the earth is doing to us. You see all these like bad things that the earth is… like, climate change and all that. I feel like it's repaying us for doing all the bad stuff to the world. Like the climate is trying to get justice for itself." (Rebecca L, Manchester)

> "We need to be fair with the climate to bring justice to our earth."

Overall, beyond a slogan seen at rallies, young people collectively envisaged climate justice as a project or lifestyle, something that everyone needs to have a role in, including themselves.

"I hadn't heard of the term climate justice much before. All I know now is that it's in our hands, if we want to change it, we can do." (Tejaswini, Melbourne)

"It's everyone trying as well, not just leaving it to like bigger hands. Just doing your part." (Stephen, Melbourne)

"So, one perspective is protesting. Another is putting strategies together. Recycling… these are all strategies to stop climate change and for climate justice." (Sahail, Manchester)

SIOBHAN'S REFLECTION

"Now, Mum, when did you first hear the words climate change?", I enquired as we both boarded the plane in Johannesburg, South Africa.

She turned to look at me with a pondering look on her face and stated, "That's a really good question."

The flight to Lusaka, Zambia (my mother's hometown) was short and smooth sailing. Looking out of the plane window, the view was much different to what I had ever seen before; drier, more brown, almost earthy-red land, scattered trees and as we got closer to touchdown, thatched houses, too.

Most evidently when getting off the plane, I was not only greeted by the masses of family members that seem to be ongoing, but also by the scorching embrace of the sun. Mum described it as being one of Zambia's extremely hot summers. I didn't think much into it then.

It being my first-time visiting Zambia (August 2019), one important thing I must mention is that my mother took the duty in teaching me that the lifestyle there is much different to that of Manchester.

She told me that there would be times were water would be scarce, where electricity would run out and where certain types of food wouldn't be readily available. In accordance with this, she taught me how to respond to these types of situations.

I significantly remember having to use a small bucket of water every day to wash myself with, instead of using the typical shower (despite there being one). Water for this specified use was stored in large containers and bottles and was not to be used to drink.

Just like water, electricity is a rare commodity. Because of the scarcity of these resources, the government distributes electricity and water throughout Zambia in different stages and at different times of day, so eventually everyone has a share of it. This is called load-shedding.

"That reminds me of the water and carbon cycles that we learned in Geography – the biological pump, the great ocean currents; it all links to the increasing warming of the oceans and the up/downwelling of water."

Depending on distribution time, selected areas could be without these resources for up to two days. The longest interruption we experienced during my visit, specifically at my grandmother's house, was over 24 hours.

The effects of this included buying bottled water which tended to be very expensive. Although the natural option was to boil your current water at home, without electricity, no opportunity arose to do this on the stove.

Planned distribution wasn't always certain, so it was extremely important that we prepared when the resources came back. Filling up as many water tanks as possible and charging electrical devices were main priorities.

I found a whole new appreciation for life.

A global conversation can be initiated by listening to other people's stories and experiences so that we can gain a better understanding of the problems surrounding climate change. I believe there is a high importance in doing so.

With this, the barrier between the most affected by climate change and the highest contributors becomes apparent and those who need to be held accountable, will be. It's in our faces, we can't ignore it, so recognising our responsibilities is part of our duty.

One doesn't need to experience the effects of climate change to help mitigate against it; it's something I believe we must do anyway. It's a big issue whether you know about it or not.

"So, Mum, do you have that answer for me?", I eagerly asked.

"Well, let me start with this; in Zambia, when there's no electricity or water, life needs to go on. So, for water, people use what is stored. For electricity, the alternatives are braziers (the most common option for those who are poorer), gas and generators. For food, if there is no stove (because of no electricity), a brazier is used. A brazier is powered by charcoal, meaning people are cutting down trees and burning wood to produce charcoal.

Those who sell this charcoal then survive off its trade, making it their source of income. It's all they know. They don't know about the importance of preserving trees and the consequences of deforestation. For the need of preservation, what alternative can the charcoal burners find if they are told to stop their livelihood? What will they have?", Mum replied. "It's a roller coaster."

"So, hearing that, would you say you first heard about climate change in Zambia?", I responded.

"No, actually, in Zambia, I initially heard the term 'El-Niño' on news.", she told me. ('El-Niño' is a climate pattern

"A global conversation can be initiated by listening to other people's stories and experiences so that we can gain a better understanding of the problems surrounding climate change."

describing the unusual warming of the Pacific Ocean). "I always thought it was foreign news, so at the time of first hearing it in the 1990s, I didn't understand its true meaning. The problems seemed so far away, so far that it wouldn't affect me.

But for those who are farmers, they feel the effects first-hand; that being the dry spells impacting their crops and land. It was only until you, your father and I moved from Ireland to Manchester where climate change was being increasingly vocalised. That's when I started connecting the dots from my childhood in Zambia and news from family members still living there."

"Oh, that reminds me of the water and carbon cycles that we learned in Geography – the biological pump, the great ocean currents; it all links to the increasing warming of the oceans and the up/downwelling of water", I mentioned. "This shows the simple reality of things; we're all interconnected one way or another."

"Exactly. The extreme weather, the lack of resources; its major contributor is climate change.", Mum said to me. "Little did I know, the threats were for everyone."

And with hearing that, I turned to look out the window of the plane, and found rain, pouring down as usual, as we landed back in Manchester.

GOING DEEPER: WHAT IS CHARCOAL AND HOW IS IT CONNECTED TO CLIMATE CHANGE?

Siobhan's reflection refers to charcoal production as a driver of deforestation and therefore climate change, yet it also shows how many people in Zambia (and other countries) rely on charcoal as a source of energy, and a source of livelihood.

Reflections by Stephen and Rebecca and Edward also highlight deforestation as a major environmental concern in Kenya and Nigeria respectively. Their reflections show one way that poverty can intersect with energy demand to accelerate the causes of climate change. From these reflections, we can see clearly the need for government interventions to provide more sustainable livelihood and energy options in countries where deforestation is high.

A report by the Food and Agriculture Organization of the United Nations published in 2017 includes the following statistics about charcoal:

- About half the wood extracted worldwide from forests is used to produce energy, mostly for cooking and heating. Of all the wood used as fuel worldwide, about 17 percent is converted to charcoal.

Image: www.nationaltrust.org.uk

- The charcoal sector, which is largely informal, generates income for more than 40 million people, but a lack of regulation means that it promotes inefficiency and governments forgo billions of dollars in revenue.

- Greenhouse gases generated by the production and use of fuelwood and charcoal account for 2–7 percent of global anthropogenic [that is, produced by humans] emissions.

These statistics are adapted from: FAO. (2017). *The Charcoal Transition: Greening the Charcoal Value Chain to Mitigate Climate Change and Improve Local Livelihoods*. Food and Agriculture Organization of the United Nations: Rome. Available online at: **www.uncclearn.org/wp-content/uploads/library/charcoal.pdf**

Further information is available at: **www.fao.org/forestry/energy/en/**

CLIMATE CHANGE ADAPTATION

LEARNING ACROSS GENERATIONS

The value of learning across generations is at the heart of this project, and so perhaps it was unsurprising that when explaining their environmental concerns and practices in the present, young people talked about their parents or grandparents as key influences. In new contexts, practices that parents had 'carried' from their countries of origin such as reuse, using water sparingly and sharing food took on new relevance and meaning, as seen in the following examples:

"I started learning about climate change in Primary School. So we would talk about how we can stop producing these plastic bags. [My parents] would also talk about the past then, because in India you actually don't have this much waste and living here you get everything in plastic bags and everything. So we should try reducing it by using some of the old waste." (Anamika, Melbourne)

"Back when my mum was in China, she knew how to sew and stuff. So, she really encouraged us to not throw away clothes or at least donate them if they don't fit or you don't want to wear them. And for my sister, she does art at University, so she knows how to sew as well. She uses fabric from old clothes that we don't need or we don't wear and she uses it to upcycle old clothes that she already has." (Rebecca L, Manchester)

Even when they had not lived in or visited the country where their parents migrated from, some young people talked about parents' experiences to explain how they responded emotionally to climate change.

Nadeera wove the story of Somalia's desertification into her own story of climate concern, saying: "The whole reason I got this influence was because of my parents [...] I remember we were watching a David Attenborough documentary and then my Mum was telling me how in her lifetime, Somalia went from like very agricultural, lots of green lands and just full of wildlife to when she was leaving, very desert-like [with] the majority of the animals [having] migrated to Ethiopia or Kenya".

Young people's practical and emotional responses were not limited to learning from very different cultures to the ones they grew up in. Siobhan spoke of being influenced by – as well as herself influencing - both her Irish and Zambian parents in learning to adapt to climate change in Manchester, reflecting that "I've definitely had my adaptations of how I live through my Mum and my Dad."

Some young people spoke about their grandparents' influence on their parents, especially after the interviews carried out with parents.

"The whole reason I got this influence was because of my parents."

Reflecting on her and her sister Barsa's interview with her mother in Melbourne, Lisa commented that "the way she was brought up by her mum is like… you can see the way she brought it in with us because she would always try to make us appreciate everything, be grateful for the world around us and look after the environment ."

Environmental influences did not simply pass down from one generation to the next, however, but could also pass up from young people. Young people gave accounts of trying to influence their parents with new concerns and knowledge from school or independent research. Nadeera, for example, spoke of encouraging her mother to sponsor a polar bear by making connections between wildlife loss in Somalia and potential wildlife loss in other parts of the world.

Other young people's accounts of influencing parents demonstrated a similarly high degree of sensitivity, as they were able to frame environmental concerns in ways that they knew would resonate with parents and grandparents. This is seen clearly in Zac's account of explaining the importance of the environmental campaigning organisation that he founded together with his brothers: "[My grandparents] were kind of against it at the beginning, but then I mean, ever since I told them that 'if you can teach me frugal habits, then perhaps I can spread the word as well' - so more common sense in that way - they kind of reluctantly agreed."

Young people also spoke about debating environmental concerns or strategies such as electric cars, plant-based diets and disposable plastic together with parents, showing that environmental practices are not static, but rather change in response to new knowledge and messages that families come into contact with over time and place.

Negotiations of knowledge and practices were not always productive, however. Some young people felt their families did not see the same urgency as them in taking action on climate change. In these final examples, individual young people's names are removed out of respect for family relationships.

"I actually think about it a lot, it worries me a lot. Because I feel like we might be wasting time, I feel like we might be ruining the planet […] [but] when I try to do things that are better for the environment, I find it hard because my family doesn't kind of accept it. I feel like whenever I talk to them about it, they kind of don't take me seriously."

"I've not gone full vegetarian - I probably will in a few years - because of my household and there is a very big meat-eating culture. They know that I want to become a vegetarian when I move out. But it's not like I'm going to force it down their throats and say 'we should all stop eating meat, we're awful people', so it's just me doing it. And they can join me if they like."

"Sometimes yes, they can be really responsive, but sometimes they can be just like 'why?'. Because I feel like the traditional thinking there is that, like, that's not much of an issue, it's okay to use that resource however it's being used. So I tell them it's not okay sometimes."

BARSA SARMA

awareness for climate change

Based on my experiences during this project, each country has its own culture, customs, and expertise. Climate change is a worldwide issue that demands the attention of everyone in every country, and addressing it requires new ways. My parents, both of whom are from Pathsala in Assam, India, have similar views about the environment. They both care about the environment in their own ways. My mother likes to conserve materials and doesn't like wasting food or items. My father keeps and maintains a garden and encourages us to play sports and go enjoy the great outdoors. My grandma was an ardent gardener who managed a plant nursery. My grandmother's passion was this simple act of pure curiosity and delight, which influenced my parents and my other family.

Throughout my mother's interview, I realised that our countries may learn from one another in order to enhance our environment. Littering is a major issue in India, since waterways and land are littered with massive amounts of garbage. This problem can be alleviated with efficient garbage disposal and recycling services. There is a lot of advertising in Australia on appropriate garbage disposal and recycling products. More advertising and bin placement will raise awareness of this issue and encourage people to consider where their trash will end up and how to properly dispose of it.

PATHSALA

Even simple things may appear minor in the short run, but my grandmother's devotion created a culture of growing and maintaining plants among our large family, with proof being our uncle building his own plant nursery and our veggie garden at home. These actions have a significant impact on the people around you as well as the environment.

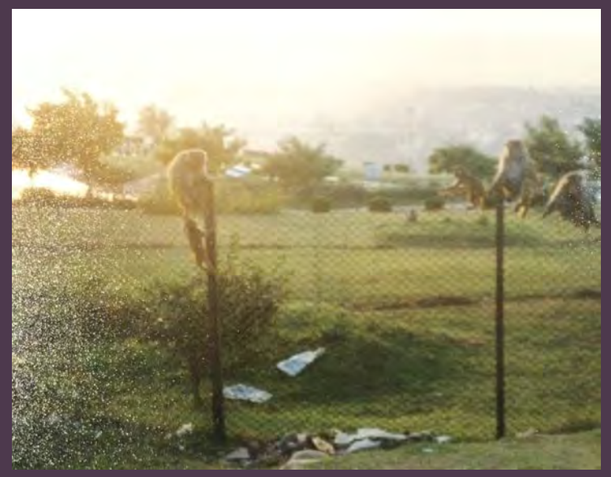
BIG TIPS

1. TALK TO OTHERS ABOUT CLIMATE CHANGE.
2. BE AWARE OF CONSUMING PRODUCTS
3. RECYCLE AND REUSE THINGS AS MUCH AS YOU CAN
4. DON'T HAVE THE HEATER RUNNING, PUT ON LAYERS

Educating and raising awareness about climate change creates a big impact on other people. It may even change others' beliefs and perspectives to adopt ways that bring less harm to the environment. You never know the impact you'll have on people if you don't try.

Throwing out things all the time is a waste when you can find ways to repurpose them.

These images were taken at India, near Pathsala where my parents grew up. The one on the right is a picture where natural wildlife battles with modern problems as seen with litter on the ground. This image is similar to many places around India.



The one on the left depicts a massive mountain temple dedicated to Hinduism, the most common religion practiced in India. This temple is Vaishnu Devi, located at Kashmir and Jammu. This is temple our family visits each year to pray and worship the gods.

LEARNING FROM DIFFERENT PLACES

Young people were encouraged in this research project to think about connections between the things they are learning about climate change at school, and their parents' and grandparents' experiences (or community experiences more broadly) in countries of origin. The researchers encouraged young people to think about what could be learned from these examples, and these examples might help with teaching on climate change for other young people in the UK, Australia and beyond.

Young researchers' reflections from their interviews with parents speak for this themselves on this point. However, young people's reflections, shared in interviews, offer additional insights into some of the valuable learning perspectives that can be afforded by a greater understanding of contexts other than the highly industrialised countries where a lot of climate change learning is developed and - owing to such countries' political and economic influence - exported around the world.

Some young people talked about the lessons for resource management and sustainability from communities where people have long-term experience of living with fewer resources:

"Talking about water, this was something we talked about in school a couple of years ago. It was a topic in Geography, I think in grade eight or nine. But I don't think at school there's a lot of focus on other countries… I think it's mostly talking about how we [in Australia] can be sustainable, whereas I think in the project that we're doing now [YPAC] it's good that we're looking at other countries because, even though they may be less developed, clearly there's are a lot of things they're doing, like my mum said, that we can learn from." (Haripriya, Melbourne)

"We kind of have to use what we already have. Maybe Australia could learn from that and, like, not overproduce resources."

"I feel it would be nice to have like different perspectives from different countries as well, you know, not just our own […]. Because Sierra Leone doesn't really… it's not like a rich country. We kind of have to use what we already have. Maybe Australia could learn from that and, like not overproduce resources ." (Akos, Melbourne)

"I learnt more of Zambia's sustainability […] in the interview [with Mum] […] I didn't really think about it before, like college geography or high school geography. But now I'm thinking about it, I'd say [we can learn from Zambia's] water shortages, food shortages and level of growth and development." (Siobhan, Manchester)

Other young people stressed how alternative perspectives on things could be useful to stop taken-for-granted ways of thinking about climate change:

"Like my Dad was saying, the people in his village [in Nigeria] kind of just saw the natural hazards as something that just happens. They weren't necessarily like 'this is climate change, we need to try and stop it'. So maybe it would be good to look more at why the people in the communities think things happen." (Rebecca K, Manchester)

Finally, some young people felt that making learners, teachers, leaders and others in more affluent countries aware of their relatively privileged position of having the resources to act on climate change (in comparison to less economically privileged countries) could be a prompt for reflection and action:

"In Kenya it is more about like my needs first instead of like, the world's needs first, you know? So, I guess they've [richer countries] got to know that they're different and they've got to know they have a better chance, so they should start trying to battle climate change. Because other countries don't really have that chance, you know, to start." (Stephen, Melbourne)

"I can actually use my voice and do something, because I'm in a position where I'm able to. Whereas maybe people in Asia, Africa don't really have the chance to speak up that people would actually listen to. Like, I have something to say that could be heard." (Nadeera, Manchester)

"It's good that we're looking at other countries because, even though they may be less developed, clearly there's are a lot of things they're doing, like my mum said, that we can learn from."

HARIPRIYA'S REFLECTION

For the YPAC project, I interviewed my mother, who was born in Sri Lanka, before moving to Australia where we now live. My reflection begins with an extended quote from our interview, before reflecting on what we can learn from this in the present day.

"I think the first thing that comes to mind is there were no plastic bags. I don't think there were any plastic bags, I remember, we had woven bags, that we would take shopping and we just bought the shopping back, and we would reuse those bags. But they were very strong bags, they were sort of woven out of either palmyra leaves or sometimes plastic, but I think that came later.

So that was one thing we did out of necessity. I remember, with the vegetables, all the peelings, we will just use them as manure in the garden. I don't think we had a compost bin per se, but we did something to that effect: let it dry out a little bit and then that would become manure for the vegetable patch.

In Sri Lanka you couldn't really go and buy artificial fertilisers and manure at that time. In the villages, you would use the cow poo and goat poo as the manure and fertilizer for the garden and the vegetable patch.

Again, out of necessity, especially in the villages, we didn't have running water.

We didn't have the need for hot water where we lived in Sri Lanka. We didn't have to waste resources to heat water. It was just cold water because of the climate.

I remember that we would go out to the well and fetch the water with a pail. We used to also bathe by the well, and the used water was then channelled to go into the garden or the farm, so that it watered the plants."

LEARNING FROM MY MOTHER'S EXPERIENCE

In the present day, even though we are using sturdier plastic bags at supermarkets, there still remain plastics that take years to decompose and can cause soil and water pollution. When we throw away food and put it in the landfill, it decomposes and produces methane, a very harmful greenhouse gas that is even more harmful than CO2.

We use an excess of clean water, which is already not readily available to everyone for essential use and therefore puts a strain on earth's resources.

HOW CAN OTHER COUNTRIES HELP US?

The stories above that my mum told me were choices made because of necessity, however in retrospect, it is clear to see that these techniques can be used in our everyday lives to make us more environmentally conscious.

At that time in Sri Lanka, environmental consciousness was not really discussed or given top priority, as finding basic necessities in a developing country was hard enough.

However, even in well developed countries such as Australia, we can still take lessons from what other nations such as Sri Lanka are doing in everyday lives and implement these strategies to help our environment.

WHAT CAN WE DO?

We can learn how to make our own bags that can be reused, similar to the Sri Lankan palmyra bags, to take another step towards zero plastic bags, and to replace the plastic bags we are still using at supermarkets.

"The stories above that my mum told me were choices made because of necessity, however in retrospect, it is clear to see that these techniques can be used in our everyday lives to make us more environmentally conscious."

"I remember, we had woven bags, that we would take shopping and we just bought the shopping back, and we would reuse those bags. But they were very strong bags, they were sort of woven out of either palmyra leaves or sometimes plastic, but I think that came later."

Even though we have moved towards the plastic bags that can be reused, they still get thrown out after a few uses, and cause the same environmental issues that single use plastics can. We can use dried vegetable peelings as compost to limit the waste we produce by having a separate bin for food scraps to turn into compost.

Some city councils in Melbourne have started promoting binning green waste and food waste together, which is a great start, but we could also use our own organic waste to make our own compost. We could also channel water used for washing dishes to water our gardens, to limit clean water usage.

Climate change is no longer a topic of the future, so we must act now.

CONNECTIONS & DISCONNECTIONS

Young people taking part in this research project demonstrated growing awareness that what they and others do have impacts that resonate across different times and places, as indeed their own lives are shaped by things done at different points and places in the past.

Quotes seen in earlier sections also show different aspects of interconnection and interdependence: between countries, between communities, between species, and with the earth itself. In interviews, young people were often building connections between environmental concerns and practices in different times and places.

One clear example of this was shared by Talah who explained that "I tell my mum, 'Hey Mum, we learned this today, we learned that today,' to the point that my mum started to take care of what I was saying and she started to do little things that I probably didn't even notice. For example, she would tell me that the food that we would eat back in Sudan, I think they […] decompose it to turn it into fertile soil or something like that. This is why over here she tells us to eat all our food so that it doesn't get thrown into landfill." (Talah, Manchester)

Other young people reflected that taking part in the research project had helped them to understand connections they had not thought about previously. For example, Rebecca K shared the following reflection:

"Just what we've been able to do here has been really beneficial. Just, you know, to just to listen to my dad's stories. Um, and then to make me think like how they've affected him, how they've affected people around him. And how they have affected me also, like in distant ways, but still, in some of the ways." (Rebecca K, Manchester)

Young people also shared stories of emotional connection or physical disconnection which were unprompted by the researchers. Sometimes this was a sense of dis/connection to a place where their family had once lived, but they had never known, such as Nadeera talking about the desertification of Somalia, a country where she had never visited. In a similar way, Stephanie, whose parents moved from Indonesia to Australia before she was born commented in relation to ecological damage in Indonesia that "it makes me feel sad because the future generations won't be able to see what Indonesia was like before."

Other reflections on disconnection came through young people's observations on how climate change could feel distant to people living far from places where the effects were being felt, or where there were other concerns such as war or poverty.

As Paula, whose family had migrated to Australia from Venezuela, observed, "I don't think we talk a lot about climate change in Venezuela because right now it's more about surviving. So it's like, it doesn't really matter. Well, it goes to the back of people's brain because it's like, 'we need to put food on the table or get clean water". Speaking from Manchester, Aysha expressed a similar view that "over here people are really desensitised to war because they're not the ones who are being affected by it. So that is the same with global warming or climate change, we're not really being impacted by it that much so that is why people here don't really care as much."

Another form of disconnection was seen in the way that some young people felt that environmental practices developed in one place could not be applied to another because they were culturally inappropriate, impractical, or not economically viable in another place. As Ghalia reflected, "if I tell my parents I'm going to miss lessons to plant trees, or miss school to go protest for climate change, I don't think they'd approve […] from our culture if you do this, or where I'm from, they feel like you're whitewashed, or you're very influenced by things."

Muskaan, who was in the same interview as Ghalia, agreed, saying about family in Pakistan "they're just surprised how white people have the freedom or they have the money and time to be thinking about these things and to actually make a change, whilst they're just thinking about how to live life."

"Just what we've been able to do here has been really beneficial. Just, you know, to just to listen to my dad's stories."

These quotes from young people remind us that whilst the world is interconnected in many ways and there is a lot to be learned between contexts, there are also stark differences in priorities and resources between some countries. These differences means that 'one size fits all' ways of learning about climate change and adapting to climate change cannot be applied from context to context. Where learning from one country to another does take place, it is important for teachers to have sensitivity, and carefully contextualise case studies for learners to avoid reinforcing stereotypes about particular places. This is shown in Noyesha's comment below, as well as in the interview reflection that follows.

"I feel like [in Australia] we don't have enough exposure to what's happening in […] below the poverty line kind of countries because their access to social media and like what happens out here, so like news and stuff, would be limited. We don't really understand what they're going through. So I don't really know how that can be incorporated into our curriculum [unless] we were to sort of understand what happens with them on a daily basis." (Noyesha, Melbourne)

NOYESHA'S REFLECTION

India is a very diverse land of culture and people. It gives me immense pride to be an Indian and be able to represent even the tiniest amount of this heritage.

The natural world is very important to Indians. In some of our rituals we worship the Banyan Tree on 'Vat Purnima' as the tree symbolises longevity, strength and holds significant spiritual importance for Hindus in the western parts of India. Along with this, though, the tree is also of paramount importance to the environment.

One of the reasons why these festivals were created millennia and centuries ago is because of their environmental importance. However, we see a real switch in the Indian society if we look at the current state of the Indian sub-continent. In my interview with my father, we discussed in detail about how this transition from a culturally rich past to a mediocre present took place and where we stand as individuals in order to lead to a greener Earth.

When I asked my dad if he had anything to share about the environmental issues we face now, such as plastic management, he told me that while growing up, the society around him was so simple that the environment wasn't harmed at all by him or his family and therefore environmental campaigns weren't common in those days. He told me that their lifestyle in those days didn't cause harm to the environment.

The communities back then didn't cut trees, throw rubbish into the oceans, they didn't use chemicals in their daily lives which were harmful, and it was never necessary to think about saving the planet. People lived lives that were so 'hand-to-mouth' that environmental damage never took top priority, though no harm was caused either.

However, as times have changed, India as a country faced continuous backlash because of different reasons which have led to a fair loss of culture which cannot be recovered. Some of the changes in my family weren't only limited to changes in the outer world and time but also the changes that were brought by our relocation to Melbourne from Mumbai.

It is also unfair to compare the two places as there are innumerable differences in culture, background, population and resources between the two cities.

My dad told me about some of the conscious choices he has made in his life because he wants to achieve a net carbon negative footprint as an individual and a family.

Some of the positive changes we have made include the installation of solar panels, choosing to buy an electric car, recycling rainwater into toilets and then using the sewage treatment plant (STP) to recycle this water into the community.

Even though the above may seem like enough, it really doesn't help resolve the fact that we still cause huge amounts of damage to the environment. The

"In some of our rituals we worship the Banyan Tree on 'Vat Purnima' as the tree symbolises longevity, strength and holds significant spiritual importance for Hindus in the western parts of India."

air-conditioners we use in our homes, workplaces, schools etc operate on chlorofluorocarbons (CFC gases) which is really harmful to the environment, but we really don't have a choice. At least on our small consuming scale as a family there is no viable alternative to CFC gases.

Ultimately, we discussed that arguably although there isn't much more than the above which can be done, our focus should be on decreasing our net carbon footprint and even trying to make it negative in using these small steps and changes in our daily lives.

GOING FORWARD TOGETHER

The stories and reflections young people shared so generously for this project offer much to think about as families, communities and societies negotiate climate change education, action and adaptation in ways that learn from cultural difference and diversity.

Young people's comments show a clear generational mandate for urgent action on climate change. Faced with such an enormous challenge, young people want to be part of the response, although their comments show that they know they can't act alone.

Indeed, one of the main appeals of the 'People's Climate Strategy' image that young people found the most inspiring of the images shown in focus groups was the diversity of the people shown sitting around the table, suggesting that, in the words of Zara, "anyone can help, and anyone can make a change."

"The part where there's roots shows that actually there is hope, that the environment is still there but if you are taking action you will build it up and improve it more. So like, your starting point is there, but you just need to kick off and start changing."

Other young people expanded further on why they liked this image and took hope from it:

"Usually when you hear of like COP26 or something, you see them having a big conference with formal wear, like suits and everything, which makes them seem big and powerful, but when you look at that photo, you see people in like casual clothes. Like, clothes that you wear yourself. And it just shows that you don't have to be big and powerful to make changes. You can do it yourself." (Rebecca L, Manchester)

"There are like different types of people, there are elderly, there are people who are disabled, there are different ethnicities and there's like a root at the bottom. [It's like] they are showing [how] they all came from the bottom, if that makes sense." (Saher, Manchester)

"So, the part where there's roots shows that actually there is hope, that the environment is still there but if you are taking action you will build it up and improve it more. So like, your starting point is there, but you just need to kick off and start changing." (Nagham, Manchester)

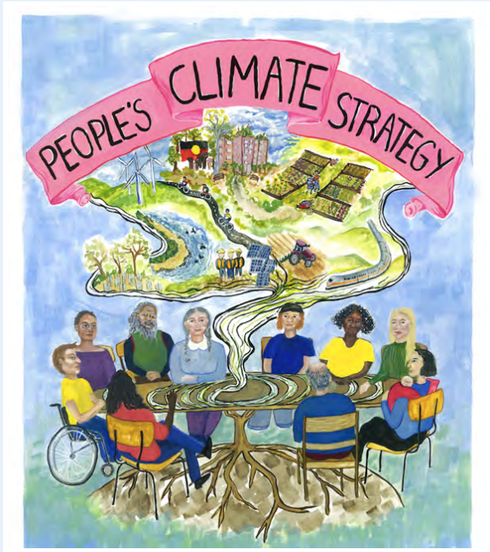
"There are like different types of people, there are elderly, there are people who are disabled, there are different ethnicities and there's like a root at the bottom. [It's like] they are showing [how] they all came from the bottom."

Young people's responses across this project speak to the need for compassion, as well as action. Whilst young people are highly concerned about climate change and want to be part of the collective response, they have many other pressures in their lives. For some young people, it can be overwhelming trying to figure out a sense of environmental identity amidst these other pressures.

"It's just so confusing, where do you fit in? Who do you belong to and stuff? I think that answer will come to me over time. Like, I'm starting to open doors and look at things from different point of view […] things change, things happen, and I hope that I'll gain the skills to adapt and to open my mind and find the answer I'm looking for." (Rahma, Manchester)

Like young people's responses to climate change overall, Rahma's reflection here is emotionally-charged and complex, but ultimately hopeful. Rahma's words also remind us that as young people face the challenges of climate change, they are not at one but at many crossroads in their lives.

The combination of challenge and hope entailed in navigating these crossroads in a globally connected world is at the heart of this research project, which sought to work with migrant-background young people and families in order to learn from difference and diversity in a rapidly changing but increasingly interdependent world.



For more details about this image, please see page 36.

Akos' Reflection

I wrote this reflection myself from my Mum's perspective. It is based on the things she told me in her interview about her life in Sierra Leone when she was my age.

My memories of life in Sierra Leone are that it was filled with fresh air, love, happiness, a sense of community, and hope for the people. I remember the days my siblings and I would walk to and from school in the nice tropical weather, enjoying each other's company and the beautiful scenery of people laughing, kids playing soccer and families united.

I went to a Catholic all-girls school in Sierra Leone called 'Our Lady of Guadalupe.' I loved it there. Even with the lack of resources, I got a good education that shaped my future. At school, I remember playing games like basketball, which was my favourite sport. Even though I didn't have the height for it I enjoyed the challenge of reaching for the ball. I also enjoyed playing games like tennis, baseball, balance ball and gymnastics at the boarding school.

Now reflecting on my childhood, I thank God and my family because I never lacked for anything in my life and my parents tried their best to provide me with everything that I needed, and for that, I will always be grateful.

One of the things I love most about Sierra Leone is the connections. Everyone was family, even the neighbours. However, I wished the environment was cleaner. I grew up in Freetown and there was a lot of pollution and plastic waste.

Growing up, no one had any idea what climate change was or the importance of being environmentally friendly. To be honest, it wasn't until I came to Australia that my daughter, Akos, started educating me more about climate change and building my awareness of the issue. Over the decades climate change has had a huge impact on the environment.

Sierra Leone has always had nice tropical weather that was perfect but over the past couple of years, the temperature has been increasing making it difficult for people to even breathe. There has been a lot of heavy rainfall which causes mudslides and threatens people's lives.

Climate change has increased the risk of droughts and floods, making it difficult for farmers to grow crops.

The government is aware of the damage climate change has been causing to the country. I am proud of my people because even with the lack of resources and technology, members of the community are trying their best to be environmentally friendly by using natural resources, less plastic and coming up with strategies and climate-smart policies on being environmentally friendly.

Other countries, like Kenya, are recycling plastics into reusable containers and water bottles.

In my opinion, westernised countries like Australia can learn from Sierra Leone. Back home we don't waste food or products and we don't tend to overproduce compared to Australia.

Everything in Australia is covered in plastic and it's our job to make a change and make this world better for ourselves, our children, and their children.

"I am proud of my people because even with the lack of resources and technology, members of the community are trying their best to be environmentally friendly by using natural resources, less plastic and coming up with strategies and climate-smart policies on being environmentally friendly."

AFTERWORD: CHANGING THE CONVERSATIONS

"Hearing the responses from my parents helped me realise that the world's climate was different back then and it has gotten worse now. It gave me a sense of guilt and despair as I could not imagine how worse it could get in the generation I am in right now."

This eloquent quote from Stephen in the introduction to his reflection, on page 50, presents a stark picture of how many young people feel today. Emotions such as guilt and despair, along with hope for action still to be taken, are a reasonable and appropriate response to the challenge of climate change.

In light of such responses, we might be tempted to feel that it is better to keep discussion of climate change to a minimum. However, avoiding opportunities to discuss painful emotions minimises opportunities to remind ourselves of why we care about the world we live in, and to collectively share and act on hope to live better. Researchers who have studied the emotions associated with climate change argue that it is ultimately better to speak about painful emotions than to shut them away[1].

It is neither possible nor productive to stop conversations about climate change, but we can change the tone of the conversations. We can show compassion for the emotions people express and demonstrate a willingness to learn from diverse opinions and experiences, without assigning disproportionate responsibility onto young people and their families.

SAFEGUARDING & INCLUSIVITY

Scientific research on eco-anxiety and related mental-health impacts has been sufficiently robust and extensive to warrant focus in the sixth assessment reports by the IPCC[2]. Reflecting on this, educator Kit Rackley writes that: 'As teachers we strive for our professional practice to be research-led, therefore when we combine conclusions that climate change is real with more frequent extreme weather, that our young people are increasingly anxious and that we have a duty of care to them, then we must treat climate change as a safeguarding issue'[3].

Safeguarding can be positive and hopeful, much in the same way we may use games, interactive learning and role play as teaching strategies in Personal, Social and Health Education (PSHE) or Personal Development, Health and Physical Education (PDHPE). Celebrating success stories, no matter how small, will go some way to tackling anxiety. Using lived experiences from a range of backgrounds means diverse pupils will have a sense of voice and collective empowerment.

MAKING SPACE TO TALK

A universal experience of teachers is being pressed for time. However, young people's accounts highlight the importance of having the time and space to talk through emotions raised by classroom content. Acknowledging our shared humanity is important when teaching on topics such as ecological loss and destruction, future climate projections and the unequal impacts of climate change.

A study conducted with university students makes further recommendations such as amending the order in which material on climate change appears in the syllabus so as not to end with content that might prompt feelings of despair[1]. A safeguarding approach to climate change would also ensure that students have opportunities to discuss feelings raised by curriculum content outside of class.

Allowing for opportunities to debate solutions to challenges is also productive. Young people in this research were attracted to the People's Climate Strategy image of people debating around a table (see p. 36 and p. 77) and wanted to have such opportunities at school. This image was originally used by Friends of the Earth Melbourne in a campaign to produce a People's Climate Strategy that the campaign organisers observe "has unearthed local knowledge about the climate impacts already changing Victoria and has generated a wealth of creative ideas to tackle this multifaceted crisis"[4].

SENSITIVITY AND RESPECT

In this project we sought to foreground the voices of young people and families who have migrated because we believe they have particular experiences to share, which have often been overlooked in research, policy and educational settings. However, it is important to not put unreasonable expectations on migrants to share knowledge as a way to solve problems that have been created mostly by rich countries, or rich companies operating within and across countries.

This is not about assigning blame but about acknowledging that we all have ideas to share about building fairer and more sustainable futures, and we come to these ideas and discussions from different and unequal starting points.

We hope that because of this research, the conversations taking place in schools, homes, on and offline communities and parliamentary chambers might encompass a greater degree of sensitivity and respect for these different starting points.

[1] Klocker, N. et al (2021). 'Hope and grief in the human geography classroom'. Journal of Geography in Higher Education. Begins with a global review of existing literature on emotions and environmental education.

[2] Intergovernmental Panel on Climate Change (2022) "Observed Impacts from Climate Change" in Assessment Report 6, Working Group 2: Summary for Policymakers, pp. 9-11.

[3] Rackley, K. (2021). School safeguarding policy should consider climate change and eco-anxiety [Online]. **www.geogramblings.com/2021/04/25/school-safeguarding-policy-should-consider-climate-change-and-eco-anxiety**

[4] Act on Climate and Friends of the Earth. (2021). A People's Climate Strategy for Victoria, p.70. Available on request, please visit: **www.melbournefoe.org.au/contact**

HELPFUL RESOURCES

This list collates the resources referenced across this book. Whilst no such list can ever be entirely up to date or exhaustive, the websites below are regularly updated and offer helpful reference points to return to.

REPORTS & STATISTICS

Intergovernmental Panel on Climate Change assessment reports.
www.ipcc.ch

United Nations migration statistics.
www.un.org/en/global-issues/migration

TEACHING GUIDES

Australian Education for Sustainability Alliance has produced a Sustainability Resources Portal including practical guides, lesson plans and case studies.
www.sustainabilityinschools.edu.au

Environmental Education Victoria has case studies and other resources supporting schools to get on board with the ResourceSmart Schools programme.
www.eev.vic.edu.au/resources

Leeds Development Education Centre aim to empower young people through progressive education on global development issues. They have produced a set of 'off the shelf' schemes of work and resources for teaching about climate change across the UK curriculum.
www.leedsdec.org.uk/

Ministry of Eco Education are a UK-based organisation supporting primary schools to develop sustainability education. Teachers working at all curriculum stages will find their 'Eco Education Landscape' review and 'Foundations for an eco-curriculum' helpful.
www.ministryofeco.org

Oxfam Education have a range of practical resources to incorporate global development into classroom teaching. The online repository, including *The Sustainable Development Goals: A guide for teachers*, can be viewed here:
https://oxfamilibrary.openrepository.com/handle/10546/620557

Teach The Future is a campaign to improve education on the climate emergency and ecological crisis in the UK. Supported by educators, they reviewed and revised KS3 and GCSE curricula for five subjects as part of the Curriculum for a Changing Climate project. Revised curricula:
www.teachthefuture.uk/blog/curriculum-for-a-changing-climate-science

CLIMATE EMOTIONS & ECO-ANXIETY

Alcock, D. 2020. Hopeful Education.
www.alcock.blog/2020/09/

Hickman, C. et al. 2021. 'Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey'. The Lancet Planetary Health, 5:12.
www.sciencedirect.com/science/article/pii/S2542519621002783?via%3Dihub

Klocker, N. et al. 2021. 'Hope and grief in the human geography classroom'. Journal of Geography in Higher Education.
www.tandfonline.com/doi/full/10.1080/03098265.2021.1977915

Rackley, K. 2021. 'School safeguarding policy should consider climate change and eco-anxiety'
www.geogramblings.com/2021/04/25/school-safeguarding-policy-should-consider-climate-change-and-eco-anxiety/

What is eco-anxiety?
www.ecoanxiety.com/what-is-eco-anxiety

We would love to hear what you think once you have read the book!

If you have any feedback, or would like to request a printed copy of the book for teaching purposes, please contact **catherine.walker-2@manchester.ac.uk**

To reference this book, please use the following:

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