

HOW TO BE A HERO FOR ALL OUR CHILDREN

A little guide to climate science and climate actions we can take.

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Our climate is changing, and we are already feeling the effects of this around the world. The Intergovernmental Panel on Climate Change (IPCC) tells us that if we do not cut our greenhouse gas emissions that are warming the atmosphere, we will remain on track for a global 4.8°C temperature rise by 2100.¹ This rate of warming is too fast for humans and nature to adapt to safely. It would devastate civilization and the natural world as we know it.

In the 2015 Paris Agreement on Climate Change, our countries agreed to 'holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 °C above pre-industrial levels.'² The agreement is legally-binding under international law. In it, developed countries, who have benefited more from industrialization, have the responsibility to lead on core actions.

The IPCC has concluded that it is still possible to **limit global temperature rise to 1.5°C** if urgent action is taken.³ This would save people, other species and nature from the profound levels of suffering and loss of life under higher global temperature rises.

Global catastrophic climate change does not have to happen.

We are not powerless. We can make a positive difference.

And leave a legacy for all children, that we acted when we knew.

This booklet is written to inform and empower people wanting to build a more sustainable world. It offers:

- The latest climate science from the Intergovernmental Panel on Climate Change (IPCC). The IPCC informs our governments on what is happening, why it is happening, and what we can do to stop climate change. Our governments officially approve IPCC summaries.
- 2. Personal actions, in response to this science, that we can take in our daily lives. Current environmental crises, including climate change, are driven by humans. It is our responsibility to help, both in our personal lives and through our governments.
- 3. Questions to guide conversations with our politicians. Healthy and fair government policies can help us act urgently, while also protecting human rights, Indigenous People's rights, and nature.
- 4. Images to show how transforming the root causes of climate change can help heal other crises unprecedented in our human history, including rates of species extinction, ocean acidification, land degradation, chemical pollution, and freshwater scarcity.























WHAT WE EAT

The population is growing, and people are consuming more meat and dairy. This means we are cutting down more forests and using more water, land and chemicals to grow crops to feed livestock, rather than to grow food for us to eat. This also destroys wildlife.



What scientists tell our governments:

"Livestock are responsible for more greenhouse gas emissions than all other food sources."⁴

"Dietary shifts could contribute one-fifth of the mitigation needed to hold warming below 2°C, with one-quarter of low-cost options."⁵

"Around one-third of the food produced on the planet is not consumed, affecting food security and livelihoods."

"Decreasing food loss and waste and changing dietary behaviour could result in mitigation and adaptation by reducing both emissions and pressure on land, with significant co-benefits for food security, human health and sustainable development."⁷



WHAT WE CAN DO

- ✓ Eat a mostly plant-based diet.
- ✓ Reduce, or stop, eating meat and dairy.
- ✓ Reduce food waste.
- ✓ Buy locally grown, seasonal food.

What our politicians can do – climate action questions

Which government policies ensure nutritious, fresh food is available, affordable and not undercut by producers with lower environmental standards?

Which education campaigns focus on transforming diets, including the impact of meat consumption on climate change, species extinction, deforestation, chemical pollution and freshwater scarcity?

Which government policies help reduce plastic packaging and ban single use plastic?

How does the government ensure people have enough food to eat, before allowing the export of crops to other countries?























HOW WE GROW FOOD

Rising temperatures and disrupted weather make it harder for farmers to grow food. Industrial farming does more harm to soil, water supplies and insect populations than sustainable and multi-crop farming, particularly that practised by small-scale farmers.



What scientists tell our governments:

"If emissions associated with pre- and post-production activities in the global food system are included, the emissions are estimated to be 21-37% of total net anthropogenic (human created) GHG emissions."⁸

"Soil erosion from agricultural fields is estimated to be currently 10 to 20 times (no tillage) to more than 100 times (conventional tillage) higher than the soil formation rate."

"Sustainable land management [...] options include agroecology (including agroforestry), conservation agriculture and forestry practices, crop and forest species diversity, appropriate crop and forest rotations, organic farming, integrated pest management, the conservation of pollinators, rainwater harvesting, range and pasture management, and precision agriculture systems." 10





WHAT WE CAN DO

- ✓ Grow some of our own food and bee-friendly flowers.
- Avoid pesticides and chemical fertilizers.
- ✓ Where possible, buy from local and community farms.
- ✓ Choose food labelled as sustainably sourced/fairly traded.

What our politicians can do – climate action questions

What percentage of our food is grown in our country?

How can we reduce the concentration of food power in a small number of multinational companies?

Which government policies protect farmers from unfair supermarket buying practices?

Which government policies help farmers switch from intensive animal production to plant-based crops?

Which government policies help protect the rights of poorer citizens to secure land tenure?

How can agriculture in our country be more sustainable, to protect biodiversity, soil, and avoid dangerous pesticides?























HOW WE CHERISH AND PROTECT NATURE

Our human existence is dependent on the health of the planet. Yet we exploit nature and human beings for profit over wellbeing, resulting in environmental crises that threaten the survival of our and other species. We can heal these relationships and protect future generations.



What scientists tell our governments:

"Risks of local species losses and, consequently, risks of extinction are much less in a 1.5°C versus a 2°C warmer world ... "11

"Marine ice sheet instability in Antarctica and/or irreversible loss of the Greenland ice sheet could result in multi-metre rise in sea level over hundreds to thousands of years. These instabilities could be triggered at around 1.5°C to 2°C of global warming."12

"The ocean has absorbed about 30% of the anthropogenic carbon dioxide, resulting in ocean acidification and changes to carbonate chemistry that are unprecedented for at least the last 65 million years."13

"Carbon Dioxide Removal (CDR) deployed at scale is unproven, and reliance on such technology is a major risk in the ability to limit warming to 1.5°C."14











WITH URGENT ACTION WE CAN HEAL

WHAT WE CAN DO

- ✓ Support efforts to protect and restore nature.
- ✓ Avoid pesticides and toxic cleaning materials.
- Reconnect with nature and cherish wildlife.
- Reduce or stop eating fish and animals.

What our politicians can do - climate action questions

What are we doing to restore biodiversity of animals and plants that have been so tragically lost in the last 50 years?

Which government policies protect marine life from overfishing and dredging of the seabed?

Do we ban dangerous pesticides?

Do we prioritize restoring land and forests to protect wildlife and store carbon?

Which government policies protect environmental defenders and Indigenous People's rights?

Which policies support land reform for fairer tenant rights, and which policies limit excessive land ownership?



















HOW WE SOURCE AND USE ENERGY

Extracting and burning fossil fuels is a main driver of rising global temperatures. Renewable energies can be cleaner, healthier, locally owned, and less likely to lead to conflict.



What scientists tell our governments:

"By 2050, renewables (including bioenergy, hydro, wind, and solar, with direct equivalence method) supply a share of 52–67% (interquartile range) of primary energy in 1.5°C pathways with no or limited overshoot..." 15

"The political, economic, social and technical feasibility of solar energy, wind energy and electricity storage technologies has improved dramatically over the past few years, while that of nuclear energy and carbon dioxide capture and storage (CCS) in the electricity sector have not shown similar improvements. "16"

"Changes in energy demand are associated with improvements in energy efficiency and behaviour change."¹⁷

"Policies reflecting a high price on emissions are necessary in models to achieve cost-effective 1.5°C pathways." 18





WHAT WE CAN DO

- ✓ Reduce our energy use and insulate our homes.
- ✓ Invest in low-carbon heating and/or cooling systems.
- ✓ Buy 100% clean and renewable energy where possible.
- ✓ Avoid investments in fossil fuel companies.

What our politicians can do - climate action questions

Does your political party accept donations from fossil fuel companies? If so, will you reduce this influence?

Is our government actively reducing our coal, oil, and gas extraction, to ensure a safer climate for our children?

Does our government work to end subsidies for fossil fuels, and fund solar, wind, water, tidal and geothermal renewable energy to the best of its ability?

Does our government support poorer communities to afford clean cooking stoves and low carbon heating/cooling systems?

Do we use large scale bioenergy that destroys forests?

















HOW WE RUN OUR ECONOMIES

The earth is our spaceship; its natural resources are limited. Unsustainable and unjust economic approaches are driving environmental crises, including climate change. The "global economy is almost five times the size it was half a century ago and has already been accompanied by the degradation of an estimated 60% of the world's ecosystems." ¹⁹



What scientists tell our governments:

"Sustainable development means 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs'."²⁰

"Globally, economic and population growth continued to be the most important drivers of increases in carbon dioxide (CO2) emissions from fossil fuel combustion."²¹

"Social justice and equity are core aspects of climate-resilient development pathways for transformational social change."²²

"Limiting warming to 1.5°C requires a marked shift in investment patterns."²³



WITH URGENT ACTION WE CAN HEAL

WHAT WE CAN DO

- ✓ Consider our lifestyle and recycle, reuse, share out.
- Explore our role as a consumer and learn about 'circular', 'doughnut' and ecological economics'.
- Support businesses with good environmental standards and conditions for workers.
- Change to an environmentally minded, socially responsible Bank.

What our politicians can do – climate action questions

How can our tax system make us a more equal society, and prioritize people and the planet?

Do we have a carbon tax and financial transaction tax to fund climate action?

What level of climate finance do we provide to poorer countries? Is this in the form of grants, not loans which further disadvantage them?

What policies support a just transition for workers to retrain from polluting to green jobs?

To best protect our children, can we shift defence money from weapons to climate action?





















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WHERE WE ARE HEADED

TRANSFORMING INDUSTRY AND BUILDING SECTORS

Transformations in both the industrial and building sectors are needed for a safer climate. When you add in energy use, the industrial sector contributes about one third of greenhouse gas emissions, and the building sector about one fifth.²⁴



What scientists tell our governments:

"Pathways limiting global warming to 1.5°C with no or limited overshoot would require rapid and far-reaching transitions in energy, land, urban and infrastructure (including transport and buildings), and industrial systems."²⁵

"Important options for mitigation in waste management are waste reduction, followed by re-use, recycling and energy recovery."²⁶

"Reductions of black carbon and methane would have substantial co-benefits, including improved health due to reduced air pollution."²⁷

"Feasible adaptation options include green infrastructure, resilient water and urban ecosystem services, urban and peri-urban agriculture, and adapting buildings and land use through regulation and planning."²⁸



WHAT WE CAN DO

- ✓ Insulate our home effectively.
- Use low carbon, sustainable materials in our home or any building work.
- ✓ Learn which industries in our region produce high levels of pollution/emissions and who pays for their cleanup.

What our politicians can do – climate action questions

How do we support people with grants and loans to make their homes more energy efficient?

How do we ensure new housing projects have low-income housing for the poorest?

How do our policies require new buildings and industries to be low-carbon in all ways?

Are you concerned that carbon capture storage (CCS) is energy intensive, risks leakage and fails to capture upstream methane emissions?

Are industries held responsible for cleaning up their pollution, and do they pay a carbon tax on their emissions?

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WHERE WE ARE HEADED

HOW WE CONSUME AND TRAVEL (INCLUDING TRANSPORT)

The richest 1% of the world's population is responsible for more than twice as much carbon emissions as the poorest half of humanity (3.1 billion people).²⁹



What scientists tell our governments:

"The spread of fossil-fuel based material consumption and changing lifestyles is a major driver of global resource use, and the main contributor to rising greenhouse gas (GHG) emissions." 30

"Other rapid changes needed in urban environments include de-motorization and decarbonization of transport, including the expansion of electric vehicles, and greater use of energy-efficient appliances."³¹

"Means of raising resources ... include the reduction of fossil fuel subsidies, increasing revenues from carbon taxes, levies on international aviation and maritime transport, and sharing of the proceeds of financial arrangements supporting mitigation activities." 32



WITH URGENT ACTION WE CAN HEAL

WHAT WE CAN DO

- ✓ Buy what we need, not what we want.
- ✓ Invest in energy efficient appliances.
- ✓ Walk or cycle rather than drive short distances.
- ✓ Where possible, use public transport and avoid flying.

What our politicians can do – climate action questions

How are we investing in electric buses and the electrification of railways, powered by renewable energy?

How much waste are we burning rather than recycling? How can we burn less and recycle more?

What more can we do to build bike lanes and reduce cars in city centres, and car dependency overall?

What government policies do we have to reduce emissions and pollution from shipping and from aviation, including limiting airport expansion and taxing frequent flying?

Is our public transport publicly owned? As a public service, can we make it free for all, and reduce traffic and air pollution?

HOW TO BE A HERO FOR ALL OUR CHILDREN















Slow down

Whether we recognize it or not, we are destroying our children's ability to thrive on this planet.



Listen, observe, discuss and learn

What is the legacy we want to leave our children? Love, support, and a world in which they can live healthily? Listen to your heart, your soul, and your dreams for this world. Let go of fear.



Act

Speak out, build the alternative, tell a new story³³, make changes to empower ourselves and inspire others. Leave a legacy for all children, that we acted when we knew.



Save lives

We still have a chance to limit global temperature rise to 1.5°C above pre-industrial levels. This is a chance to save the human family, other species and nature from profound levels of suffering and loss of life expected with higher global temperature rises.



Get involved

The 2015 Paris Agreement on Climate Change is a framework for global action. Developed countries are responsible for leading on urgent GHG emission reductions, and climate finance to poorer countries. All countries must submit 'Nationally Determined Contributions' (NDCs) to reduce their GHG emissions. Write to your local decision makers, read your country's NDC (Is it as ambitious as it could be?)³⁴, hang a poster in your window, join a march, and be sure to vote.



We have enough knowledge. Our human influence on the climate system is clear.³⁵

We can transform fear, anger, and confusion into compassion, clarity, and hope to inspire environmental action.³⁶

We can build a fairer and healthier world for our children, respecting and protecting human rights, Indigenous People's rights, and create rights for nature.

- TRANSFORMATIVE CLIMATE ACTIONS INCLUDE³⁷:

Sustainable economic and development models Rapid reduction of fossil fuel extraction and
combustion - Deep reductions in emissions of
methane and black carbon - Energy efficiency Refrigerant management - Onshore wind turbines Rooftop solar - Solar farms - Educating girls Family planning - Clean cooking stoves - Offshore
wind turbines - Protection of peatland areas Sustainable transport - Tropical staple tree regeneration - Reduced food waste - A plant-rich diet Planting new forests - Restoring degraded forests Sustainable agriculture practices - Sufficient climate
finance - Reduce individual consumption

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In this space, write what you hope to transform in vour life.

What inspired you in this booklet? Can you share it with a family member, a neighbour, a stranger? Can you write to, or meet with, decision makers to help build conversations?

We all have gifts; what do you feel called to do?

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³ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Summary for Policymakers. p. 5, A2; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf
⁴ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 4, p. 327; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_Chapter4_High_Res.pdf

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⁹ IPCC. 2019. Climate Change and Land. Summary for Policy Makers, p. 3, A1.5; https://www.ipcc.ch/site/assets/uploads/sites/4/2020/02/ SPM_Updated-Jan20.pdf

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¹¹ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 3, p. 179; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15 Chapter3 Low Res.pdf

¹² IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Summary for Policymakers, p. 7, B2.2; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf
¹³ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 3, p.178; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Chapter3_Low_Res.pdf

¹⁴ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 2, p. 96; https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15 Chapter 2 Low Res.pdf

¹⁵ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 2 p. 96; https://www.ipcc.ch/site/assets/uploads/sites/ 2/2019/05/SR15 Chapter2 Low Res.pdf

¹⁶ IPCC, 2018, Special Report on the impacts of Global Warming of 1.5°C. Ch 4. p. 315; https://www.ipcc.ch/site/assets/uploads/sites/ 2/2019/05/SR15 Chapter4 High Res.pdf

¹⁷ IPCC, 2018, Special Report on the impacts of Global Warming of 1.5°C. Summary for Policymakers, p. 14; https://www.ipcc.ch/site/assets/ uploads/sites/2/2019/05/SR15 SPM version report LR.pdf

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²¹ IPCC. 2014. Climate Change 2014: Synthesis Report of the 5th Assessment Report, p. 5:

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²² IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 5 p. 448; https://www.ipcc.ch/site/assets/uploads/sites/ 2/2019/05/SR15 Chapter5 Low Res.pdf

²³ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 2, p. 95; https://www.ipcc.ch/site/assets/uploads/sites/ 2/2019/05/SR15 Chapter2 Low Res.pdf

²⁴ IPCC. 2014. Climate Change 2014: Synthesis Report of the 5th Assessment Report. p. 46; https://www.ipcc.ch/site/assets/uploads/ 2018/02/SYR AR5 FINAL full pdf

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²⁸ IPCC. 2018. Special Report on the impacts of Global Warming of 1.5°C. Ch 4. p. 316:

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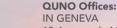












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The Quaker UN Office is an expert observer of the IPCC and UNFCCC.



QUNO has been supporting work on climate change at the international level through diplomacy, advocacy and education initiatives since 2012. Please consider making a donation to help us continue with this work https://guno.org/donate/geneva













