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 human activities are warming the climate, and we are already experiencing the effects around the world. The Intergovernmental Panel on Climate Change (IPCC) concluded that, if we continue this current rate of greenhouse gas emissions, global surface temperature could rise above 3.2°C by 2100, compared to preindustrial levels.\(^1\) 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.\(^2\)

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.’\(^3\) 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.

In its recent 6th Assessment Report, the IPCC scientists concluded that it is still possible to limit global temperature rise to 1.5°C if urgent action is taken to transform root causes.\(^4\) This would save people, other species and nature from the profound levels of suffering and loss of life under higher global temperature rises.

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

1. **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 transform human activities driving climate change. Our governments officially approve IPCC Reports, creating accountability.

2. **Personal actions, in response to this science, that we can take in our daily lives.** Current environmental crises, including catastrophic rates of 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 Peoples’ rights, and saving lives 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.

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**It is not too late; every fraction of a degree of warming matters to saving lives and nature.**

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

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

“Livestock are responsible for more greenhouse gas emissions than all other food sources.”

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

“In addition to climate mitigation gains, a transition towards more plant-based consumption and reduced consumption of animal-based foods, particularly from ruminant animals, could reduce pressure on forests and land used for feed, support the preservation of biodiversity and planetary health.”

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

WHAT WE CAN DO

- Eat a mostly plant-based diet.
- Reduce, or stop, eating meat and dairy.
- Compost and 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 healthy diets, including the benefit of plant-based diets to heal climate change, species extinction, deforestation, chemical pollution and freshwater scarcity?
- Which government policies help reduce plastic packaging and ban single use plastic?
- What policies help ensure the poorest in our society have food before we export our crops to wealthier countries?
HOW WE GROW AND SELL 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:

“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.”9

“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.”10

“Packaging contributed about 6% of total food system emissions.”11

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.
✔ Seek to buy food labelled as sustainably sourced and fairly traded.

What our politicians can do – climate action questions

How can we improve the quantity and quality of plant-based food grown in our country?

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

How can we better protect farmers from unfair supermarket buying practices and help farmers switch from intensive animal production to plant-based crops?

How can we better help protect the rights of poorer citizens to secure land tenure?

How can agriculture in our country support sustainable land management to protect biodiversity and 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. In healing these relationships, we help protect future generations.

“Risks of local species losses and, consequently, risks of extinction are much less in a 1.5°C versus a 2°C warmer world …”

“Overshooting 1.5°C … increases the risks of severe impacts, such as increased wildfires, mass mortality of trees, drying of peatlands, thawing of permafrost and weakening natural land carbon sinks; such impacts could increase releases of GHGs making temperature reversal more challenging.”

“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.”

“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.”

WHAT WE CAN DO

✓ Support efforts to protect, conserve and restore nature.
✓ Avoid pesticides and toxic cleaning materials.
✓ Reconnect with nature and seek to protect 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?

How can we better protect marine life from overfishing and dredging of the seabed?

Do we ban pesticides that harm humans and wildlife?

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

How can we better protect environmental defenders and Indigenous Peoples’ rights?

How can we better support land reform for fairer tenant rights and limit excessive land ownership?
HOW WE USE AND SOURCE ENERGY

Extracting and burning fossil fuels is a main driver of rising global temperatures. Renewable energies can be cleaner, healthier, cheaper, locally owned, and contribute to peace-building and community resilience.

“What scientists tell our governments:

“Rapid and deep reductions in GHG emissions require major energy system transitions (high confidence).”\(^{16}\)

“Changes in energy demand are associated with improvements in energy efficiency and behaviour change.”\(^{17}\)

“Electricity from PV and wind is now cheaper than electricity from fossil sources in many regions...”\(^{18}\)

“Implementation of carbon capture storage (CCS) currently faces technological, economic, institutional, ecological environmental and socio-cultural barriers.”\(^{19}\)

“Policies reflecting a high price on emissions are necessary in models to achieve cost-effective 1.5°C pathways.”\(^{20}\)

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?

Does our government fund renewable energy to the best of its ability?

Does our country actively reduce dependence on coal, oil, and gas extraction, to ensure a safer climate for our children?

Does our government work to end subsidies for fossil fuels?

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

Do we avoid large scale bioenergy use that destroys forests?
HOW WE RUN OUR ECONOMIES

The earth is our spaceship; its natural resources are limited. Yet most current economic systems promote unlimited use of natural resources, resulting in ecological collapse. These unsustainable and unjust economic approaches are driving environmental crises, including climate change.

"What scientists tell our governments:

"Globally, gross domestic product (GDP) per capita and population growth remained the strongest drivers of CO2 emissions from fossil fuel combustion in the last decade."\textsuperscript{21}

"Eradicating extreme poverty, energy poverty, and providing decent living standards to all, consistent with near-term sustainable development objectives, can be achieved without significant global emissions growth."\textsuperscript{22}

"Actions that prioritise equity, climate justice, social justice and inclusion lead to more sustainable outcomes, co-benefits, reduce trade-offs, support transformative change and advance climate resilient development."\textsuperscript{23}

"[Sufficiency is] a set of measures and daily practices that avoid demand for energy, materials, land and water while delivering human well-being for all within planetary boundaries."\textsuperscript{24}

WHAT WE CAN DO

✓ Seek a sustainable lifestyle and reuse, recycle, thrift, and share out.
✓ Explore and learn about ‘sufficiency’, ‘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 promote an equitable society, which prioritizes people and the planet?
- Do we have carbon, aviation and financial transaction taxes to help fund climate action?
- Do we support climate grants and loss and damage funds to poorer countries?
- How can we support just transitions for people leaving polluting jobs?
- To best protect our children, can we shift money from bombs to climate action?
TRANSFORMING INDUSTRY AND BUILDING SECTORS

The industry, buildings and transport sectors make up 44% of global GHG emissions, or 66% when the emissions from electricity and heat production are reallocated as indirect.\(^25\) Transformations are needed for a safe climate.

**What scientists tell our governments:**

“By 2019, the largest growth in absolute emissions occurred in CO\(_2\) from fossil fuels and industry followed CH\(_4\), whereas the highest relative growth occurred in fluorinated gases, starting from low levels in 1990.”\(^26\)

“Reducing emissions in industry will involve using materials more efficiently, reusing and recycling products and minimising waste.”\(^27\)

“Reductions of black carbon and methane would have substantial co-benefits, including improved health due to reduced air pollution.”\(^28\)

“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.”\(^29\)

**WHAT WE CAN DO**

- Insulate our home effectively, reduce our energy use.
- 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 their pollution, and do they pay an effective carbon tax on their emissions?
HOW WE CONSUME AND TRAVEL (INCLUDING TRANSPORT)

“In 2019, atmospheric CO2 (carbon dioxide) concentrations were higher than at any time in at least 2 million years, and concentrations of CH4 (methane) and N2O (nitrous oxide) were higher than at any time in at least 800,000 years.”[^30] “Globally, households with income in the top 10% contribute about 36–45% of global GHG emissions.”[^31]

> 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.”[^32]

> “Individuals with high socio-economic status contribute disproportionately to emissions, and have the highest potential for emissions reductions, e.g., as citizens, investors, consumers, role models, and professionals.”[^33]

> “Emissions from shipping and aviation continue to grow rapidly.”[^34]

> “Electrification combined with low-GHG energy, and shifts to public transport can enhance health, employment, and can contribute to energy security and deliver equity.”[^35]

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

- Is our public transport publicly owned? As a public service, can we make it free for all and reduce traffic and air pollution?
- 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?
Slow down
Whether we recognize it or not, our unsustainable energy, economic and food systems 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 and a world in which they can live healthily. Listen to your heart, your soul, and your hope for the world. Let go of fear.

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

Save lives
We have the science but lack sufficient political will. We can make a difference and every fraction of a degree of warming matters. 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?)36, hang a poster in your window, join a march, and be sure to vote.

WITH URGENT ACTION WE CAN HEAL

There is a rapidly closing window of opportunity to secure a liveable and sustainable future for all.36

Our human influence on the climate system is clear.37

We can transform fear, greed, and confusion into compassion, clarity, and hope to inspire environmental action.38

We can build a fairer and healthier world for our children, respecting and protecting human rights, Indigenous Peoples’ rights, and create rights for nature.39

TRANSFORMATIVE CLIMATE ACTIONS INCLUDE40:

- Sustainable energy, economic and food systems, including: Rapid reduction of fossil fuel extraction and combustion - Deep reductions in methane emissions and black carbon - Energy efficiency and reduction - Onshore and offshore wind turbines – Solar Panels - Public transport - Refrigerant management - Sustainable agriculture - Plant-rich diet - Reduced food waste - Sustainable individual consumption - Sufficient climate finance – Debt reduction - Family planning - Clean cooking stoves - Protection of peatland –Tropical staple tree regeneration - Restoring degraded forests.
In this space, write what you hope to transform in your 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?

3 Paris Agreement. 2015. Article 2; https://unfccc.int/sites/default/files/english_paris_agreement.pdf
5 IPCC, 2018: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, p. 327; https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Full_Report_HR.pdf
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