



A brighter tomorrow: climate change, child rights and intergenerational justice



*"This is the moral challenge of our generation.
Not only are the eyes of the world upon us. More
importantly, succeeding generations depend on us.
We cannot rob our children of their future."*

UN Secretary-General Ban Ki-Moon,
Address to the UN Framework Convention on
Climate Change, Bali, December 2007.

UNICEF

UNICEF continues to highlight the impact of climate change on children and raises money to help children adapt to their changing climates.

UNICEF is the world's leading organisation working for children and their rights. We work in partnership with families, local communities, other organisations and governments in more than 190 countries to help every child realise their full potential.

We support children by providing health care, nutrition and education. We protect children affected by crises including war, natural disasters, climate change and HIV.

In the UK, UNICEF works to champion children's rights and to win support and raise money for our work with children worldwide.

1. States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services.
 2. States Parties shall pursue full implementation of this right and, in particular, shall take appropriate measures:
 - (a) To diminish infant and child mortality;
 - (b) To ensure the provision of necessary medical assistance and health care to all children with emphasis on the development of primary health care;
 - (c) To combat disease and malnutrition, including within the framework of primary health care, through, inter alia, the application of readily available technology and through the provision of adequate nutritious foods and clean drinking-water, taking into consideration the dangers and risks of environmental pollution;
 - (d) To ensure appropriate pre-natal and post-natal health care for mothers;
 - (e) To ensure that all segments of society, in particular parents and children, are informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation and the prevention of accidents;
 - (f) To develop preventive health care, guidance for parents and family planning education and services.
 3. States Parties shall take all effective and appropriate measures with a view to abolishing traditional practices prejudicial to the health of children.
 4. States Parties undertake to promote and encourage international co-operation with a view to achieving progressively the full realization of the right recognized in the present article. In this regard, particular account shall be taken of the needs of developing countries.
- Article 24, UN Convention on the Rights of the Child (1989)

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INTRODUCTION

It would be hard to find anyone who would disagree with the statement that we should do no harm to children. And most people would hope that the next generation inherits a world in better shape than the one they themselves inherited, or at least in no worse shape. Such basic ideas of intergenerational responsibility are an accepted norm across most cultures.

Yet when we examine our own choices, behaviours and lifestyles, as individuals and as societies, in the light of climate change, it is clear that we fundamentally and repeatedly fail to act on these principles. The principle of intergenerational justice has fundamental implications for how we tackle climate change. Are we going to invest in or erode our children's future?

UNICEF has highlighted that children in developing countries are already bearing the brunt of climate change, and this burden will only increase over time.¹ The geographical injustice of climate change is well known: those least responsible for the problem – especially in least developed countries – are the most affected by climate change and have the fewest resources to cope with its impacts. But the injustice between generations – say, between a child of 5 and an adult of 55, or between adults alive now and children yet to be born – is less well understood.

It is now widely accepted that we must make significant reductions in global emissions within the next decade – a conclusion premised on projected impacts on people alive up to 100 years from now. The problem is that concrete decisions on climate change are influenced by short-term political cycles and narrow assessments of national interest, while the consequences still lie for the most part in the future – beyond the time horizon of current decision makers. We know that today's adult generation will determine, on an unprecedented scale, the world that later generations will inherit. But are we taking this responsibility seriously?

The idea of intergenerational responsibility is not yet reflected in policies or debate at the international, national or local level. The focus remains on the immediate costs of emissions reduction and climate-related harms, compared with the immediate benefits of a carbon-intensive economic growth model. Framing the debate this way not only ignores the rights of future generations; it also misses the future benefits of an early transition to a low-carbon economy, greater energy security, improved air quality and greater health and well-being.

Child rights

This discussion paper focuses on child rights, not because children are the only group vulnerable to climate change, but because they are receiving insufficient attention in the policy debate. Asserting the entitlements and obligations of children born today compels us to reflect on their futures, and the futures of children yet to be born. Child rights can offer both a normative judgement of value and a legal framework of obligations and entitlements as we make the decisions that will define the future of all children.

This paper discusses emerging thinking on this issue, and makes the case why we should conceptualise climate change not just as an environmental management issue, but also as a question of child rights.

1. UNICEF UK, Our Climate, Our Children, Our Responsibility, Catherine Cameron and Emma Back, 2008.
UNICEF Innocenti Research Centre, Climate Change and Children: A Human Security Challenge, 2008.

1. CLIMATE CHANGE AND THE RIGHTS OF CHILDREN NOW

Human rights and environmental law have been connected for many decades. The 1972 Stockholm Declaration linked environmental protection and human rights, and the 1992 Rio Declaration acknowledged the right of all people to a healthy and productive life in harmony with nature, as well as to participation in and information on environmental management decisions. But apart from academic writing and a few court cases, little attention has been paid to the human rights or child rights aspects of climate change.

This neglect stems in large part from the difficulty of fitting climate change within our usual models of applied rights. The nature of climate change makes it impossible to establish a direct causal link between the historical emissions of a particular country or organisation and a specific climate change-related consequence. It is also difficult to determine whether a given effect, such as an extreme weather event, has been caused by climate change or by other factors. Finally, human rights violations are usually established after the harm has occurred, whereas many of the harms from climate change are still in the future.

Impact on children's rights

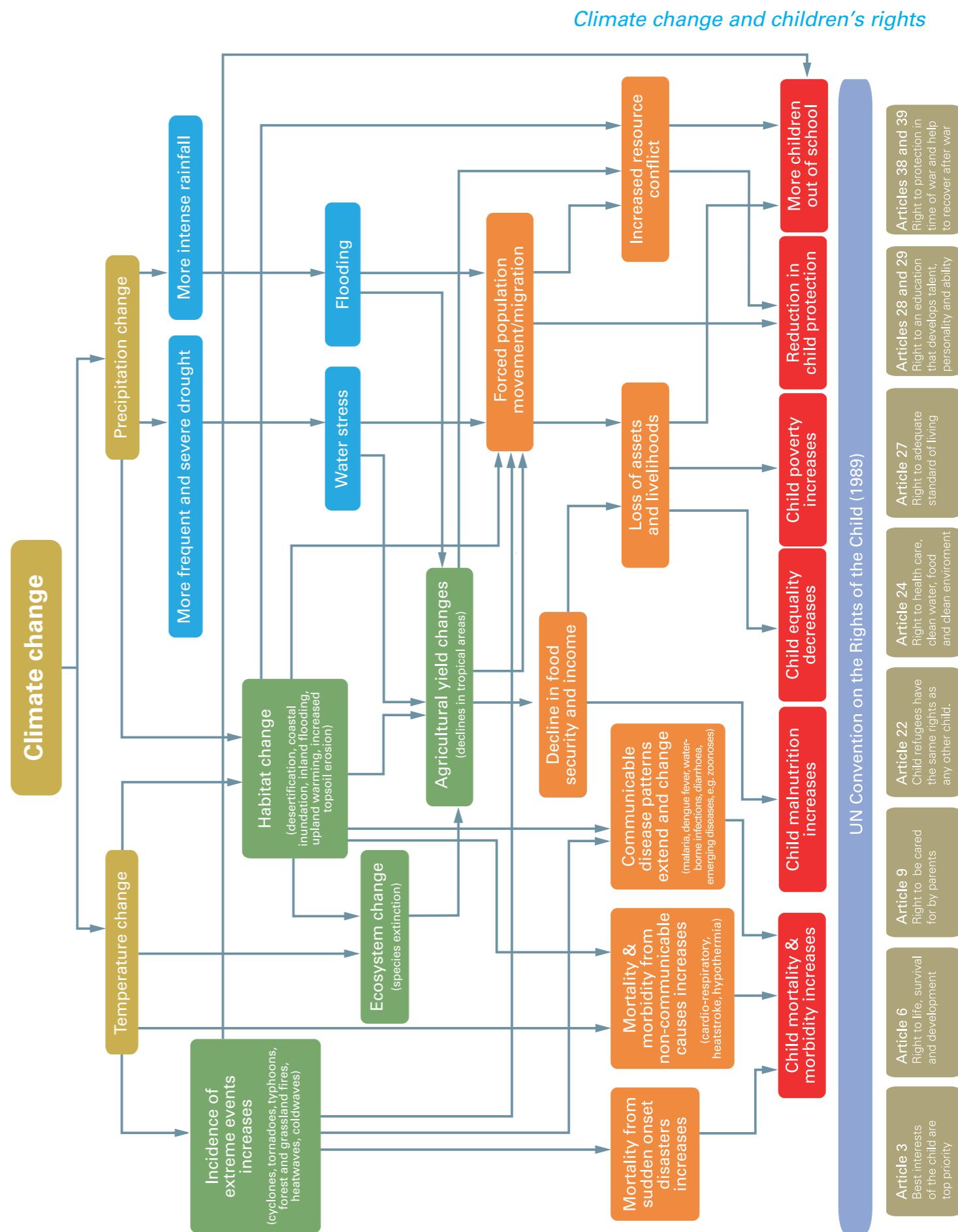
Nevertheless, this situation is beginning to change, as more attention is drawn to the human rights implications of climate change. In 2008, the United Nations Human Rights Council published a resolution stating that “climate change poses an immediate and far-reaching threat to people and communities around the world and has implications for the full enjoyment of human rights.”² This Resolution was followed by a detailed analysis of the impact of climate change on human rights by the Office of the United Nations High Commissioner for Human Rights.³

Both of these UN analyses demonstrate that climate change is already preventing the realisation of a broad range of human rights, both directly and indirectly, for large numbers of people. They confirm UNICEF’s concern about the impact of climate change on children’s rights. While children share many of the same rights as adults, the violations are experienced with greater severity due to the physiological and psychological vulnerabilities of children. In addition, children have a number of additional rights, such as the right to childhood (for example, to play), to primary education and to protection – all of which are particularly vulnerable to the effects of climate change. This amounts to a compelling case for action in the face of climate change threats.

The impact of climate change on the realisation of child rights is summarised in the diagram opposite, which shows the multiple knock-on effects of climate change on basic rights such as water, food and health for children in countries vulnerable to temperature and precipitation change. For example, a child in Kenya may be less able to enjoy an adequate standard of living, education and health, due to loss of livelihoods and food security resulting from increased water stress and habitat changes. In Bangladesh where natural disasters are becoming more frequent and intense, a child is at high risk of disrupted education, injury, forced migration and death. In many other countries vulnerable to climate change, existing social inequalities are being further exacerbated by climate change, and will become ever more severe unless action is taken to reduce the causes (emissions) and help communities adapt to the consequences.

2. UN Human Rights Council, Resolution 7/3, 27 March 2008

3. Report of the United Nations High Commissioner for Human Rights on the Relationship between Climate Change and Human Rights. A/HRC/10/61. See www2.ohchr.org/english/issues/climatechange/study.htm



Rights-based approach

Reframing climate change in terms of child rights has important implications. It situates these impacts within a discourse of obligation and entitlement, rather than one of charity. Because human rights are reinforced by internationally binding legal frameworks, removing the barriers to their fulfilment is a matter of obligation, rather than philanthropy or sympathy. Human rights norms make it clear that we must reduce greenhouse gas emissions and support the adaptation of vulnerable communities because it is our legal duty to our fellow human beings to do so.

This human rights approach also changes our focus from generalised, remote forms of damage – such as average temperature increases or greenhouse gas emissions – to specific, immediate and ongoing harm inflicted on individuals and communities. Since all people have the same rights and responsibilities, no matter where they are born, particular attention must be paid to the individuals and communities who are most vulnerable, socially or economically, to ensure that their rights are adequately protected. Applied to children, this principle means that a child's rights to survival, development and protection in a changing climate must be ensured through appropriate adaptation and mitigation policies, in a manner that encompasses all children globally (principle of equality).

Legal cases

Courts are becoming more inclined to draw linkages between climate change and human rights. In 2005, a groundbreaking petition was brought to the Inter-American Commission of Human Rights (IACHR) on this issue. The petitioners, an alliance of Inuit from Canada and the United States, asserted that the US government's failure to reduce greenhouse gas emissions had led to violations of their rights to culture, health, life, security, means of subsistence, residence and enjoyment of their traditional lands. While the petition was ultimately unsuccessful, the IACHR did agree to hold a hearing to address the matters it raised, drawing public attention to the linkages between climate change and human rights. This was the first high-profile attempt to highlight the imbalance between those with historic responsibility for climate change and those suffering its impacts, in this case the Inuit, whose contribution to greenhouse gas emissions has been negligible.

More recently, in the UK, six Greenpeace protestors were acquitted after causing an estimated £30,000 of property damage to the Kingsnorth power station in Kent. The protestors broke into the station and painted the word "Gordon" on the smokestack. The jury determined that the protestors' actions were legally justified because they had been trying to prevent climate change from causing even greater damage to property elsewhere around the world. This case is the first in which preventing property damage caused by climate change has formed part of a 'lawful excuse' defence.

Principles and standards

It is inevitable that climate change litigation will continue in the future, and with increasing success if official inaction continues in the face of mounting evidence of harm. Yet human rights not only provide a basis for litigation *ex post facto*; they also set out a strong moral framework and guiding principles that resonate across different cultures and value systems. Although there is always room for debate over their application, human rights principles are internationally agreed (under the United Nations) and oblige decision makers to consider the impact of their actions (and inaction) on vulnerable individuals and communities. This has been described as 'thresholds of minimal acceptability'⁴, which aims to provide minimum standards across all cultures.

When it comes to children, the principle of "Do No Harm" is particularly applicable. This principle is incorporated into the Convention on the Rights of the Child, which sets out basic standards and duties towards children. As of 2009, the Convention has been ratified by almost every country in the world.⁵ This means that each of these states has guaranteed the rights of children within its own jurisdiction, and has agreed to be accountable to the international community.

If we were fully to respect the rights of children in climate change policy, measures to tackle climate change would be happening at a very different pace and scale. A rights-based approach to climate change policy would accelerate greenhouse gas reduction and clean technology development, while increasing adaptation support for the most vulnerable children and communities.

Generational inequality

Bringing child rights to bear on climate change also makes us reflect on the issue of rights, responsibilities and equality between ages or generations.

Intergenerational inequality comes in different forms. First, there is synchronic inequality – that is, inequality between people of different ages at any given moment in time. Climate change means that a 5-year-old in 2009 has a very different package of challenges and opportunities than those enjoyed by a 55-year-old. This inequality is amplified when viewed globally – a 5-year-old in Bangladesh will suffer far more from the impact of climate change than a 55-year-old in the UK, who has benefited from 55 years of polluting energy without bearing the real cost in social, economic or environmental terms.

Second, there is diachronic inequality. The accumulation of greenhouse gases over time⁶ results in progressively greater ecosystem stress in each passing year. As a result, child survival in developing countries will become harder to guarantee over time. Children born in industrialised countries must also adapt to the changes caused by their parents' and grandparents' generations, limiting their choices. This imbalance between current and future generations also has clear financial implications, with the costs of reducing emissions and adapting to climate change set to impose a heavy fiscal burden on governments of the future.

In summary, we know that past and present generations have caused an accumulation of greenhouse gases, while future generations will bear the brunt of the impacts. By highlighting the issue of equity between generations, we can widen our perspective to view climate change not only as an environmental problem, but as an issue of child rights – perhaps the greatest of our time. Responses to climate change must reflect the rights of all children, including those yet to be born.

4. Caney, Simon, "Human rights, climate change and discounting", *Environmental Politics*, 17:4, 536–555.

2. THE RIGHTS OF FUTURE GENERATIONS

If we accept that climate change is a child rights issue, and that its harms are spread unequally across generations, then it is only a small step to acknowledge that the rights of future generations are also at stake. Indeed, if we agree that people currently alive have a right to be protected from the dangerous impacts of climate change, then the interests of those not yet born should be given no less value since, as fellow human beings, they have equal rights and responsibilities.

While electoral cycles of four to five years have resulted in many short-sighted policies, the fact that serious discussion among heads of state is now taking place under the United Nations Framework Convention on Climate Change (UNFCCC) to reduce long-term carbon emissions indicates that today's political discourse is beginning to recognise the rights of future generations. Indeed, at the end of 2008, the UK Government passed legislation binding future governments to reduce emissions by 80 per cent by 2050. The politicians who passed the Climate Change Act clearly placed a value on the well-being of individuals alive in 2050 and beyond. Nevertheless, exactly how much value should be placed on future generations remains a contentious question.

The Stern Review

The most substantial and high-profile contribution to the argument for action on behalf of future generations was presented by Lord Stern in the recommendations from the *Stern Review of the Economics of Climate Change* (2006), and again in his *Blueprint for a Safer Planet* (2009). Stern argued, that:

"questions of intra- and inter-generational equity are central. Climate change will have serious impacts within the lifetime of most of those alive today. Future generations will be even more strongly affected, yet they lack representation in present-day decisions."

Conventionally, when economists are undertaking cost-benefit analysis of large-scale social investments, they discount future costs and benefits, reflecting our preference for immediate results and the higher opportunity costs of immediate spending. The 'discount rate' represents the return on investment required to justify the expenditure of scarce social resources. Applying a positive discount rate means that the rights of future generations should be afforded less protection than the rights of contemporaries.⁷ Stern argued that discounting of future costs and benefits are inappropriate for policy decisions that entail dramatically different trajectories with "very long-term and large inter-generational impacts."⁸ The *Stern Review* therefore took a simple approach: future generations have the same claim on our ethical attention as current generations. The welfare of future generations must therefore be treated on a par with our own, resulting in a discount rate of close to zero. The *Review* went on to argue that:

"Our actions over the coming few decades could create risks of major disruption to economic and social activity, later in this century and in the next, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century. And it will be difficult or impossible to reverse these changes. Tackling climate change is the pro-growth strategy for the longer term and it can be done in a way that does not cap the aspirations for growth of rich or poor countries."⁹

Critics of Stern's choice of discount rate argue that future generations can take care of themselves, and will be better equipped than we are (due to economic and technological progress) to deal with climate change. They also argue against the creation of entitlements for people not yet born. Other critics object to the intrusion of a 'purely' ethical stance into economic analysis. But as Stern points out, "*climate change is the greatest market failure the world has ever seen*"; the scale of the challenge is such that any economic decisions we make today are also inevitably ethical choices. According to Stern, inter- and intra-generational value judgements cannot be avoided, and so must be conscientiously confronted.¹¹

So far, arguments founded on human rights and equity have unfortunately had little effect on policies and behaviours around climate change. But major shifts in public attitudes may well be underway. Societal norms have shifted dramatically over the last 100 years in many OECD countries, including those surrounding child labour, gender equality, racial discrimination and environmental standards. More recently, there have been changes in attitudes towards smoking and other health and safety issues such as seat belts and safety in the workplace. As public concern over climate change has grown and the impacts become more visible, action and advocacy based on a clear legal and moral framework could have a major impact on public values and the incentives facing our political leaders.

11. Blueprint for a Safer Planet, Stern 2009.

7. *Stern Review: The Economics of Climate Change*, Ch. 2, "Economics, ethics and climate change", HM Treasury, 2006.

8. Caney, p. 540.

9. *Stern Review*

10. *Stern Review*

3. FOUR ROUTES FOR ADVOCACY AND ACTION

So what practical options do we have for using a children's rights approach to change the terms of the debate on climate change? In this section of the paper, we explore four different routes for advocacy and action: the political system, regulatory approaches, litigation and changing social norms.

A. THE POLITICAL ROUTE: INCREASING ACCOUNTABILITY AND TRANSPARENCY

What can we do to create political incentives for our leaders to take into account the rights of current and future children in their policies on climate change? While it is hard to generalise about routes to political change, it is notable that the countries with historic responsibility for greenhouse gas emissions (highly industrialised, developed countries) are also those with well-established democratic systems of government. In these systems, there are numerous checks and balances that protect against radical policy shifts, resulting in the continuity of laws and policies that economic growth demands. In democratic systems, political parties are broadly responsive to changes in public values and attitudes. However, major policy changes involving significant shifts in resources inevitably generate opposition, and can take considerable time to accomplish. Furthermore, the short-term nature of the electoral cycle makes political leaders reluctant to sacrifice immediate benefits in favour of long-term welfare. Given these tendencies, the risk is that the policy response to climate change will be slow and cautious, with high costs for future generations.

In such a political system, what options do we have to increase the political incentives for swift and decisive action? Although this question merits a thorough investigation beyond the scope of this paper, here we explore a number of options, including shifting political values, expanding political representation and other procedural devices to advance the rights of children within debates on climate change.

i. Political values

Currently in the UK, all three main political parties, and some of the smaller ones, agree on the need for strong action on climate change, although they differ on how to go about it. Each party accepts in principle that climate change is a moral issue of intergenerational consequence. However, they are yet to face the implications of this for their policies on exploitation of natural resources. The assumption that growth at all costs is the ultimate goal of economic policy remains unchallenged.¹²

The current UK Government passed the world's first climate change law, committing future governments to reducing greenhouse gas emissions in line with climate change targets (80 per cent by 2050). This was an important measure to protect future generations by bringing future economic planning within a 'carbon budget'. However, the policies required to support these targets, in areas such as energy, transport and consumer behaviour, have not consistently reflected this long-term thinking. For example, the justification for expanding aviation continues to privilege short-term economic benefit over long-term environmental impact. These examples illustrate that a rhetorical commitment to intergenerational equity and protection of children is one thing, but it is far harder, and more important, to turn this into applied practice. This political discourse is only likely to change if there

is demonstrable public support for those values and policies. And so perhaps what is needed are visible advocates to make the case and a method to generate strong public support, not just on the principles but also in the application of intergenerational justice to climate change solutions.

ii. Commissioner for Future Generations

Effective political representation of all interest groups, from business to women and ethnic minorities, is a corner-stone of a functioning democracy. But one group that has no chance to participate in the political process is future generations. Giving future generations a voice in decision making is one way of protecting intergenerational justice. Israel and Hungary have both used this approach for ensuring that the long-term interests of the nation are taken into account by decision makers.

In Israel, the Commission for Future Generations was established in 2001 to review government decision making in the light of long-term impacts, including on the environment. This Commission had few legal powers, and was disbanded in 2007. However, it did raise public understanding of the idea of intergenerational justice.

The Hungarian Parliament created a Commissioner for Future Generations in 2007, to serve as an ombudsman¹³ on environmental issues and their effects on future generations. This office was vested with the authority to call a halt to harmful government decisions. The first Commissioner was appointed in May 2008, so it is a little early to judge the effectiveness.

Having a Commissioner for Future Generations is one method of giving a 'voice' to future generations. Another is to expand the remit of existing institutions. The ministry responsible for children, usually in the context of education, could be given responsibility for child rights more broadly. Alternatively, just as climate change has been mainstreamed across departments, intergenerational justice could be made the responsibility of every department, under the oversight of one ministerial responsibility. Remember that it was a piece of economic analysis commissioned by HM Treasury, namely the *Stern Review*, that led to the first major breakthrough on climate change policy.

Alternatively, the UK's Sustainable Development Commission recently suggested that a 'Congress for the Future' could be established to create a political space for debate on issues of long-term, sustainable development. The basic idea, says Sustainable Development Commissioner Lindsey Colbourne, "*is to create a special Congress, convened by Parliament every year, to help build broad agreement and provide direction on long-term questions. One or more issues in need of public debate will be put before each Congress, either by the Government of the day or by MPs in response to public petition. Randomly-selected citizens and stakeholders will then engage with the issues in an informed, deliberative process, supported by a secretariat to monitor progress.*"¹⁴

iii. Implementation of the Convention on the Rights of the Child

Governments that have ratified the Convention on the Rights of the Child (CRC) must periodically report to the UN, explaining what they are doing to advance child rights across all policy areas. The report is then reviewed by the UN committee, and advice is offered to the government on how it could do better. Civil society actors and coalitions often produce their own reports, which highlight where improvements could be made. This reporting process is an important tool for implementing the rights of the child, as no government wants the stigma of having harmed (or failed to prevent harm to) children. It

12. Prosperity without Growth, Professor T. Jackson, Sustainable Development Commission, 2009.

13. An ombudsman, advocate or commissioner is an official with a specific, non party-political remit to advocate: in this case for children's rights and protection. See UNICEF Innocenti Research Centre, www.unicef-irc.org/knowledge_pages/resource_pages/ombuds/o8_summit.html

14. www.sd-commission.org.uk/publications.php?id=972

also reminds governments that they bear the primary responsibility for implementing children's rights, as 'duty bearers' under the Convention.

One option would be to require governments to address the intergenerational effects of climate change in their CRC reporting. They should be asked to state what they are doing to ensure that the impact of climate change on children is minimised (mitigation) and that vulnerable communities at home and abroad are given the support they need to adapt. A July 2009 meeting of Ombudspersons from the G8 countries called for such an approach:

"As we speak children are dying and their futures are seriously compromised because of inaction. We are speaking on behalf of the world's children, as well as G8 children. As independent promoters and protectors of the rights of children we believe that the leaders have the opportunity to make not only a statement, but real change in children's lives."

The Ombudspersons' calls for action included:

"Invest in childhood. This is our duty and moral imperative to fulfil the rights of children globally. Resources allocated now will have immediate and long term benefits to society and the economy. Such investment will result in national and global social benefits ..."

Establish, increase, maintain and reinforce the offices of ombudspersons in more countries and regions. They are the bridge builders and conduit for action and accountability."

This approach would not only require governments to turn their attention to the intergenerational impacts of climate change, but also provide a platform for civil society engagement in the issues, reinforcing accountability.

iv. Procedural rights: voice and participation

Children have no political vote, except through adults. Adults therefore have a duty to reflect the rights of children in their decision-making processes. Furthermore, involving children directly in decision-making processes can help ensure that their particular concerns and ideas are considered, as they may not always be accurately represented by adults. Children's voices can encourage decision makers to reflect on the needs of future generations.

The secretariat for international climate change negotiations, the United Nations Framework Convention on Climate Change, has recognised children and young people, especially those too young to have a vote, as a stakeholder with a right to be heard. Youth campaigners are using the language of intergenerational justice – *How old will you be in 2050?* – to remind politicians involved in the 2009 Copenhagen negotiations of the implications of their decisions.

Many disaster risk reduction and adaptation programmes have adopted a child rights approach, involving children in the design as well as delivery of projects. Early evidence shows that this participatory approach can deliver important benefits, as children are sometimes able to offer insights into the local environment that adults have missed.¹⁵ Educating children on how to deal with the increased risk and uncertainty created by climate change can help the development of the community. If a generation grows up equipped with the knowledge and skills to adapt to climate changes, especially in communities where traditional knowledge is based on predictable weather patterns, this may prevent their communities from sliding into poverty.

15. IDS research with the Children in a Changing Climate coalition.

B. THE ECONOMIC AND REGULATORY ROUTE

The standard economic approach to changing behaviour is to alter 'pricing' (how costs and benefits are valued in society). Thus public 'bads' (for example, alcohol and tobacco) are taxed highly, forcing the consumer to internalise some of the social costs of their consumption, and in turn reducing the overall level of consumption. In London, the congestion charge reduces the level of congestion by raising the costs of driving at peak times. This approach has also been applied to fuel in some countries, for example in the UK with petrol taxes, but not in others such as the US, where high fuel taxes are regarded as an infringement of consumer entitlement. Costa Rica is the first country to have placed an environmental levy on fuel, which goes directly to supporting rainforest protection and enhancement, and has achieved very positive results.

Using this approach, charges on polluting activity can deliver a dual benefit. They can help influence behaviour at the level of individuals and firms, by raising the costs of carbon emissions and creating financial incentives to make lower carbon choices. At the same time, they can deliver revenues that can be channelled into mitigation measures like developing clean technologies. Many businesses and industries are now calling for a global price on carbon to help align their economic incentives with their social responsibilities.¹⁶

There are a range of tools available for influencing economic behaviour, including tax regimes, regulatory systems and trade rules. The legislative framework has changed significantly in the past few years, with the introduction of the UK Climate Change Act with mandatory emission reductions, 5-year carbon budgets and the introduction of the Carbon Reduction Commitment¹⁷ next year. In California, the Low Carbon Fuel Standard was introduced in April 2009. This requires transportation fuels to be 10 per cent lower in greenhouse gas (GHG) emissions by 2020, a decision that will account for 9 per cent of California's GHG reduction by 2020, reduce California's dependence on oil by 20 per cent and accelerate the introduction of 'biofuels'.¹⁸ At the federal level, the carbon cap-and-trade program endorsed by the Obama administration is now slowly progressing through Congress and Senate.

As we saw from the *Stern Review*, long-term public investment decisions are rarely driven by balanced ethical judgements on intergenerational priorities. The implications of major investments go well beyond the term of office of any single government. For example, decisions on whether to build a new coal-fired power station or permit the expansion of an airport are not just decisions on the most efficient short-term use of public money, but carry long-term social costs. These kinds of investment decisions are being increasingly challenged by environmental protesters using intergenerational arguments. Governments are finding it more difficult to disregard consequences that are 'Not in My Term of Office'.

Protecting the rights of children in the face of climate change also means transferring resources between different regions of the world. Countries that have contributed little to the causes of climate change but are heavily exposed to its impacts, such as South Asia, Africa, South America and Small Island Developing States, also tend to have lower levels of adaptive capacity. This amounts to a powerful ethical argument in favour of transferring resources from the most polluting/rich countries to the least polluting/climatically vulnerable/poorest countries. This is the crux of current negotiations under the UNFCCC. The UN has estimated that around \$150 billion of funding will be required each year to ensure that the most vulnerable countries can adapt to climate change and develop on a low carbon route.

16. For example: CBI, Climate change, Everyone's Business, 2007.

17. The Carbon Reduction Commitment is the UK Government's mandatory climate change and energy saving scheme for large organisations both public and private. It comes into force in April 2010.

18. Biofuel is an alternative to fossil fuel, made from biomass and so does not produce greenhouse gas emissions that contribute to climate change. Second-generation biofuel sources biomass from more sustainable sources that do not compete with food production and land use, such as waste, algae, straw or wood.

The extent to which rich nations at Copenhagen are willing to commit – and deliver on – these resources is a key measure of their commitment to intergenerational rights, and will determine the extent to which communities, individuals and indeed whole nations are able to adapt, survive and flourish in the face of climate change.

C. THE LEGAL ROUTE

A legal analysis on the applicability of human rights and intergenerational justice to climate change was recently published by the new US-based Climate Legacy Initiative.¹⁹ The report highlights examples of legal tools that could be applied to ensure that intergenerational rights are respected and obligations to future generations are enforced. These tools include enshrining environmental and intergenerational rights in national constitutions, tribal codes, state public trust statutes, federal legislation and international agreements. Other legal methods for safeguarding these rights include mandatory environmental impact reviews and citizen suits under federal environmental statutes. While these tools are still too piecemeal to amount to a coherent enforcement regime for climate change mitigation and adaption, they can help raise the profile of intergenerational issues and point the way for future legal developments.

This section reviews several of these legal tools to demonstrate how intergenerational justice could be asserted in the face of climate change. There are a number of challenges to overcome, including establishing legal standing in cases where causation is diffuse and harm is still in the future, as well as making a case for the protection of future generations using a precautionary principle.

i. Legal standing in the context of climate change

Establishing standing²⁰ to bring suit can be very difficult in the case of climate change harms. In general, in order to show standing, a plaintiff must be able to show injury, a line of causation between that injury and some action or inaction on the part of a defendant, and a way in which the court might redress such injury (redressability). In relation to climate change, these elements are often difficult to demonstrate. Although effects of climate change are already being felt, many of these climate-related harms will only be manifest in the future, and their causes are diffuse and difficult to attribute to any one actor.

In light of these difficulties, *Massachusetts v. EPA* (2007) is a landmark case.²¹ The US Environmental Protection Agency (EPA) had refused to regulate CO₂ emissions under the federal Clean Air Act. The State of Massachusetts launched a complaint on the basis of the risk of global warming to the Massachusetts coastline and the health and welfare of its citizens. The Court determined that Massachusetts had established injury based on a risk of harm that was both actual and imminent, and that the EPA bore responsibility for refusing to regulate greenhouse gas emissions. Furthermore, Massachusetts' claim contained the requisite degree of redressability, since emissions regulation could slow or reduce global warming, even if it could not reverse it.

*"The risk of catastrophic harm, though remote, is nevertheless real. That risk would be reduced to some extent if petitioners received the relief they seek. We therefore hold that petitioners have standing to challenge the EPA's denial of their rulemaking petition."*²²

Thus, the Court ordered the EPA to review a request made by Massachusetts for guidelines on regulating CO₂, ruling that "the unusual importance of the underlying issue" warranted "special solicitude" on the part of the courts, despite the future nature of the harms.

Despite this positive outcome, however, US courts have not been consistent on this point. Generally, courts are more likely to intervene in cases where harms are concrete and already realised.

Courts in other jurisdictions have found that civil society organisations may also have standing to address the harms of climate change. For example, in Canada, public interest standing has been used by NGOs such as Ecojustice and Friends of the Earth to try to enforce emissions reduction targets, gain access to information on harmful polluters and launch class action law suits over environmental harm.

ii. Safeguarding benefits for future generations

Established legal frameworks may provide other options for safeguarding the environment for future generations. For example, in the United States, public trust statutes recognise an enforceable right to a clean environment on the part of all citizens, irrespective of specific environmental standards.²³ The statutes establish a duty on the part of the Government to protect certain public resources for the benefit of future generations. The Government is made a trustee of the resources, with responsibilities that can be enforced by citizens.

The idea of a public trust has its origins under common law in the protection of water resources. While courts have been reluctant to extend the common law doctrine to other resources, statutory public trust doctrine holds more promise. As Joseph Sax argued in 1970, this form of protection could be applied more broadly to a vast array of environmental harms, including atmospheric harms.²⁴ Sax assisted in the drafting of a well known 'model' example of this idea – the Michigan Environmental Policy Act (MEPA).²⁵ MEPA's arsenal is threefold. First, the Act recognises the public right to a decent environment as an enforceable legal right. Second, this right is enforceable by private citizens suing in their capacity as members of the public. Finally, the Act specifically does not define environmental quality, pollution or the notion of public trust, allowing the courts to develop a common law approach to the environmental challenges of their day.²⁶

Environmental protection laws in other states have also been modelled on MEPA, including the Minnesota Environmental Rights Act (MERA). While MEPA is not without difficulties, it remains a promising example of the use of public trust doctrine in tackling issues of environmental quality for future generations.

Administrative law may also provide useful avenues. In the UK, climate change campaigners have used judicial review of the administration to oppose infrastructure development that could lock future generations into high-carbon pathways. For example, in April 2009, a coalition of green groups launched a legal challenge to the Government's decision to expand Heathrow Airport, claiming it was irrational and undermined by a flawed consultation process. If the High Court proceeds with judicial review of the decision, it could decide to quash the Government's decision and require it to re-run its consultation process.²⁷ The future impact of increasing emissions from air travel features prominently among the arguments in this case.

Decisions of the European Court of Human Rights (ECHR) have also recognised the need to protect against future harm by mitigating the risks of natural disasters, including those due to climate change.²⁸ As Kalin and Dale note, the case law of the ECHR "allows us to conclude that failing to take feasible measures that would have prevented or mitigated the consequences of foreseeable disasters," whether natural or man-made, "amounts to a violation of the right to life and therefore incurs the responsibility of the state under international law."²⁹ In the Önyıldız case, the Court condemned the failure of local authorities to

19. The Climate Legacy Initiative launched with a publication that examined the legal frameworks that could be used to advocate for human rights and intergenerational justice considerations in the US and the International level. The Weston report, Recalibrating the Laws of Humans with the Laws of Nature: Climate change, Human Rights, and Intergenerational Justice, with information from Klass, Alexandra B., "Modern Public Trust Principles: Recognizing Rights and Integrating Standards", *Notre Dame Law Review*, Vol. 82, p. 699, 2006.

23. Example taken from pp.42–43 of the Weston report, Recalibrating the Laws of Humans with the Laws of Nature: Climate change, Human Rights, and Intergenerational Justice, with information from Klass, Alexandra B., "Modern Public Trust Principles: Recognizing Rights and Integrating Standards", *Notre Dame Law Review*, Vol. 82, p. 699, 2006. Available at <http://ssrn.com/abstract=934819>.

20. Standing or *locus standi* is the term for ability of a party to demonstrate to the court sufficient connection to and harm from the law or action challenged to support that party's participation in the case. This is interpreted differently in different countries. In British administrative law, the applicant needs to have a sufficient interest in the matter to which the application relates. This sufficient interest requirement has been construed liberally by the courts.

24. See Joseph L. Sax, "The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention", *Michigan Law Review*, 68, 471 (1970).

21. Massachusetts v. EPA, 549 U.S. 497, 127 S. Ct. 1438 (2007).

25. Michigan Compiled Laws Annotated, 324, 1701–1706 (West 2005).

22. Massachusetts v. EPA, 549 U.S. 497, 127 S. Ct. 1438 (2007).

26. Klass, Alexandra B., p. 699 at 72.1.

27. www.greenpeace.org.uk/media/press-releases/green-groups-launch-legal-battle-against-heathrow-expansion-20090407

28. Walter Kalin and Claudine Haenni Dale, "Disaster Risk Mitigation - Why Human Rights Matter," October 2008, *Forced Migration Review*, 31, p. 38.

29. *Ibid.*

protect the lives of 39 people killed after a methane gas explosion at a public rubbish dump, and ordered the government to pay substantial compensation to those harmed.³⁰ In the Budayeva case, the Court expanded the duty to protect life beyond the context of risks caused by "dangerous activities" and into the context of natural disasters.³¹

While neither of these cases deals specifically or explicitly with climate change, this case law demonstrates a willingness on the part of the Court to find responsibility where insufficient preventative measures have been taken to ensure the wellbeing of individuals from future, indeterminate harm.

iii. Implementing the Precautionary Principle for the benefit of future generations

The precautionary principle has been codified in both national legislation and international instruments, and is another powerful means by which the interests of future generations might be taken into account. In this context, the precautionary principle suggests that scientific uncertainty must not be used as a justification to delay measures for the protection of the environment.³² The precautionary principle requires that action be taken to prevent environmental harm "*even if there is uncertainty regarding its cause and possible extent.*"³³ While the scientific evidence for global warming is now highly persuasive, assertions of scientific uncertainty are still routinely deployed by those opposed to measures to mitigate climate change. The precautionary principle insists that action to protect the environment be taken even where causal links between emissions and environmental harms have not been established definitively. "*The application of precaution extends the scope of environmental policy from certain and known problems that occur in the present, to future and more uncertain issues.*"³⁴

D. THE SOCIAL ROUTE: CHANGING NORMS AND BEHAVIOUR

Political and legal tools are powerful ways to encourage or oblige change in the behaviour and priorities of a society. With the issue of climate change, legislation is as important to ensure prevention of a continued growth in global greenhouse gas emissions, as much as it may increasingly serve to compensate for the damage done. In this way, legislation can also have an important role in codifying behavioural norms.

Ultimately, if we are to tackle climate change in a manner that values intergenerational justice, this will only happen when social and personal values prioritise long-term sustainability. This is not in fact such a novelty. Different cultural attitudes towards children will often converge on the desire to make sacrifices as parents, grandparents, elders, for the sake of the next generation. Pension schemes or retirement plans, for example, are based on the commonly accepted practice of sacrificing part of your earnings during your working years, in order to receive payment during retirement from work. Saving for a pension means sacrificing benefits in the short term in order to accrue support in the future. National heritage schemes, areas of national interest, public parks and protected coastal areas are all examples of measures taken in order to protect long-term public interests.

Parents and children often negotiate informal social contracts. More formal social contracts, for example between an employee and employer, or producer and consumer, are commonly used to balance different interests and for the weaker actor to cede power in return for something (such as protection). In the same way, perhaps we need to revise the informal social contract that articulates the legal rights and responsibilities of adults and children within the context of climate change?

Case study: Philippines, intergenerational justice in practice

The Philippines was losing 100,000 hectares every year to deforestation until a case was brought against the policy allowing this logging, on the grounds that it was negating the right of children and future generations to a healthy environment and a balanced ecology. The case was brought against the Government of the Philippines by 43 children representing generations yet unborn.

Initially dismissed by the Government on the grounds that the petitioners, as children, did not have legal standing to sue in a court of law, this was overturned in 1992 by the Supreme Court, which stated:

We find no difficulty in ruling that they (petitioners-children) can, for themselves, for others in their generations, file a class suit... based on the concept of inter-generational responsibility... (to make the natural resources) equitably accessible to the present as well as to future generations.

It went on to say,

Such a right (to a balanced ecology) belongs to a different category of rights altogether for they concern nothing less than self-preservation and self-perpetuation, the advancement of which may even be said to predate all governments and constitutions. As a matter of fact, these basic rights need not even be written in the Constitution for they are assumed to exist from the inception of humankind. If they are now explicitly mentioned in the fundamental charter, it is because of the well-founded fear of its framers that unless these rights are mandated by the Constitution itself... the day would not be too far when all else would be lost not only for the present generation, but also for those to come – generations which stand to inherit nothing but parched earth incapable of sustaining life.

While the court case dealt only with the question of standing, while it was on appeal a new law was passed in 1992 declaring the remaining virgin forests to be part of the national integrated protected areas reserved for perpetual protection for the benefit of present and future generations not yet born.

Antonio Oposa, In Defence of Future Generations, Generational Justice, *Foundation for the Rights of Future Generations*, Issue 3/2002, November 2002.

Understanding scarcity of natural resources and valuing heritage are examples of cultural norms that have perhaps become less commonly experienced in an age of high consumption that implies abundance and values novelty. An essential element to ensure that intergenerational equity becomes a demonstrable social norm, particularly in the context of climate change and natural resource exploitation, will be education and understanding of sustainability.

Political and legal tools are not the only way in which social and personal norms can be changed. Communications, marketing, formal and informal education can all influence the decisions that people make as consumers and citizens. 'Social marketing'³⁵ uses commercial marketing tools to persuade behaviour change, such as driving and shopping habits, rather than specific product marketing. Influential public figures and peer influence can bring about shifts in trends and habits as powerfully as a change in law.

In many ways, climate change is a symptom of a greater issue, that of unsustainable forms of development. Tackling climate change is not just about managing an unfortunate polluting by-product of an otherwise benign system. The urgency of climate change is a great focusing of minds on the need to understand the importance of sustainable development in a manner that genuinely puts children at its heart, ensuring intergenerational equity across all cultures.

There will always be trade-offs between current needs and future interests, and climate change impacts are not just on individuals but whole communities. A first step would be to make these trade-offs explicit so that we can be more honest about the difference between rhetoric and practice. Political, legal and social marketing are just some of the ways in which governments, business and citizens collectively may start to tackle this challenge and move towards more sustainable forms of living: forms that actively value the rights of children.

CONCLUSIONS

This paper attempts to pull together some of the ideas to put the moral principles of intergenerational justice into practice in the context of climate change, using economic and social policy, cultural values, and legislative frameworks. It aims at starting a discussion. What seems clear is that although there are many precedents and ideas, the statutory frameworks are currently weak. So whilst the ethical imperative behind an intergenerational approach to climate change may be compelling, adequate mechanisms are not yet deployed.

Some of the possible ways to overcome this include:

- The implementation of a global deal on climate change will be made at national, regional and local levels. Policy-making and fiscal decisions at those levels should fully reflect the need to invest in long-term solutions that ensure the full rights of future generations are met.
- Policy-makers at the international, national and local levels need to apply a cost-benefit analysis that values future quality of life.
- On the basis of intergenerational equity, national governments should adhere to the Intergovernmental Panel on Climate Change (IPCC) recommendation for a reduction of greenhouse gas emissions of between 25 and 40 per cent by 2020 as a minimum for developed countries.
- Adherence to the Convention on the Rights of the Child could require that national government policy-makers, especially those in developed countries, ensure the fair representation of children and young people and that children's specific needs are given due consideration in adaptation and mitigation policy. A Minister or Ombudsperson responsible for climate change and intergenerational issues could also be responsible for delivering this.
- Reporting against climate change and child rights could be included under existing reporting commitments by governments that have ratified the Convention on the Rights of the Child.

Investing in tackling climate change now will not just protect current and future generations from the worst case scenarios of global warming, but will also invest in a healthier, more equitable and sustainable future.

We have an unprecedented opportunity to decide the future climate we want to see. Whilst adapting to climate change means living with greater uncertainty, we have now, within our power, the ability literally to shape the future world as we change the biosphere. Investing in low carbon development now is a huge opportunity to meaningfully implement the rights of the child and to improve intergenerational justice.

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