

A climate justice perspective on addressing climate change

This note outlines the systemic approach that climate justice movements take to the climate crisis (part 1); it discusses the need for setting a global temperature limit at 1.5 °C (part 2); and converting that limit into an emissions budget (part 3). It proposes how to share that emissions budget between countries based on principles of justice (part 4); and then outlines justice-based policies and approaches to be implemented to meet this budget (part 5). It warns against using the climate crisis as an excuse to adopt false 'solutions' that what exacerbate human suffering (part 6). It concludes that climate change is a grave challenge, but also an opportunity to re-orientate our communities and our societies to live in harmony and solidarity with each other and all creation. (part 7).

Climate justice movements around the world share basic values of the importance of human dignity, solidarity, the need to share and steward the wonder of creation, of taking responsibility for our actions, and of living in harmony with nature.

Climate change is happening, it is undeniable, and it is being driven and exacerbated by human activity,¹ through the dominant industrial model of production and consumption. Its impacts are already being experienced, from the increased frequency and strength of extreme events, such as typhoon Haiyan/Yolanda in the Philippines, to the more insidious long-term threats to lives and livelihoods of temperature rise, sea level rise, desertification, and ocean acidification which will undermine food production and cause untold numbers of climate migrants.²

Climate change is driven by a system that does not value human dignity, that ignores responsibilities and limits, and that is focused on profits instead of the global commons and the sharing of the collective wealth that nature provides for all of us. While individual actions to address climate change are commendable, addressing the problem requires systemic solutions, and cooperation and solidarity at a global level.

Among the largest sectors contributing to greenhouse gas (GHG) emissions are the industrial food system, fossil-fuel based energy production and consumption, and uncontrolled, widespread urbanization. The industrial food system is estimated to directly and indirectly contribute 44 to 57% of total global GHG emissions, from industrial agriculture with synthetic fertilizers and agrochemicals to the global transportation system that delivers it, the unnecessary packaging, refrigeration, and distribution systems at large supermarkets, all of which demand huge energy inputs.³ Paradoxically, this system only provides food for 30% of the global population.⁴

Our current energy system – the way we produce, distribute, and consume energy is not only unsustainable and unjust – it also harms both people and the planet. The energy supply system contributes over 30% of global GHG emissions, yet 1.3 billion people (20% of the world's population) lack access to electricity and 2.6 billion people (close to 40% of the world's population) do not have access to clean cooking facilities. In contrast, central energy generation, especially in industrial countries, wastes up to 2/3 of the initial energy input, in addition to the vast amounts embodied and

¹ IPCC. 2013. Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

² Stabinsky, D. and J. Hoffmaister. 2012. Loss and damage: defining slow onset events. Third World Network Briefing Paper on Loss and Damage #3. www.thirdworldnetwork.net; Reuters. 2015. Prepare for rising migration driven by climate change, governments told. 8 Jan. <http://www.theguardian.com/environment/2015/jan/08/prepare-rising-migration-driven-by-climate-change-governments-told>.

³ La Via Campesina and GRAIN. 2014. The solution to climate change is in our lands. December.

<http://viacampesina.org/en/images/stories/pdf/Food%20and%20climate%20op%20ed%20EN%2007.pdf>

⁴ ETC Group. 2014. Who will feed us? The industrial food chain or the peasant food web? <http://www.etcgroup.org/content/who-will-feed-us-0>

wasted in disposable consumer products. Communities who are often the poorest and most vulnerable also suffer the destructive impacts of the extractive industry, resulting in severe impacts on their lives and livelihoods. Often these communities also suffer human rights violations including severe repression because of their opposition to these extractive industries.

There is a need to set a temperature limit that protects the poorest and most vulnerable

People, scientists, policymakers, and climate diplomats all agree that global average temperature rise above pre-industrial levels should be limited. The reality is that no level of warming is safe, with current levels already reducing sea-ice and glaciers, acidifying the oceans, increasing hot days, reducing crop yields, and redirecting trillions of dollars of public monies to confront related impacts.⁵

Climate diplomats have agreed to a warming limit of 2°C, although many people in developing countries and over 100 of their governments, in particular from small island states and Africa, have called for a limit of 1.5°C, one of the strictest possible limits given 'locked-in' warming from historical emissions.

In assessing the appropriateness of 2°C vs. 1.5°C as a reasonable limit, many scientists, such as Kevin Anderson of the Tyndall Centre for Climate Change Research, warn that "the impacts of 2°C are more serious than previously thought. More recent impact analysis suggests 2°C represents the threshold between dangerous and **extremely** dangerous, rather than between acceptable and dangerous climate change."⁶

Other scientists, such as James Hansen, argue that given "there is a risk of crossing thresholds or tipping points in the climate system, which are hard to predict but would cause rapid global climate change if they were to occur,"⁷ we require a lower target of 1.5°C or even 1°C.

Indeed, as tropical regions are likely to pass acceptable temperature limits before temperate regions, and as large land masses will warm at rates much greater than global averages, we can expect impacts in regions such as Africa and the Indian sub-continent to be much greater and happen much sooner than in temperate areas. Impacts associated with a temperature rise of 2°C will be much less in the global North than in the global South.⁸

The most recent IPCC findings show high risk at 1.5°C for a number of key impacts that climate change will have on the lives and livelihoods of the poorest and most vulnerable, including:

- "Risk of death, injury, ill-health, or disrupted livelihoods in low-lying coastal zones and small island developing states and other small islands, due to storm surges, coastal flooding, and sea level rise;
- Risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings;

⁵ Friedrich, T., et al. 2012. Detecting regional anthropogenic trends in ocean acidification against natural variability. *Nature Climate Change* 2, 167–171; NOAA. 2012. State of the Climate Global Snow & Ice. National Oceanic and Atmospheric Administration National Climatic Data Center; Lobell, D.B., et al. 2011. Climate trends and global crop production since 1980. *Science* 333, 616–620; DARA. 2012. Climate Vulnerability Monitor 2012: A guide to the cold calculus of a hot planet. Climate Vulnerable Forum. www.daraint.org.

⁶ Anderson, K. and A. Bows. 2011. Beyond 'dangerous' climate change: emission scenarios for a new world. *Philosophical Transactions of the Royal Society A* 369: 20-44. See also Anderson, K. 2012. Climate change going beyond dangerous – brutal numbers and tenuous hope. *Development Dialogue* 61: 16-40

⁷ See discussion in Raupach, M. R., I.N. Harman, and J.G. Canadell. 2011. "Global climate goals for temperature, concentrations, emissions and cumulative emissions " in CAWCR Technical Report No. 042, September (Australia: CSIRO), 9.

⁸ IPCC. 2007. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007 M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds) Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 435.

- Risk of loss of rural livelihoods and income due to insufficient access to drinking and irrigation water and reduced agricultural productivity, particularly for farmers and pastoralists with minimal capital in semi-arid regions;
- Risk of loss of marine and coastal ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for coastal livelihoods, especially for fishing communities in the tropics and the Arctic.”⁹

A global emissions budget related to the temperature goal must be established

Any temperature limit can be roughly correlated with a ‘global emissions budget’ – the cumulative quantity of greenhouse gases that can be emitted into the atmosphere before a particular temperature limit is likely to be exceeded.¹⁰

Emissions budgets do not just consider future emissions. In fact, it is cumulative emissions that matter, as many greenhouse gases have long residence times in the atmosphere. The **remaining** global emissions budget (sometimes referred to as ‘atmospheric space’) is directly dependent on the amount of greenhouse gases that have already been **historically emitted** since the Industrial Revolution and the beginning of combustion of fossil fuels.

Atmospheric space has historically been correlated with development space – the consumption and use of fossil fuels for energy was used to sustain the industrial model of development, which benefited the already-wealthy countries in the global North. Developing countries still have crucial development needs, often high levels of poverty, and limited access to energy by the poorest. Rich countries pursued their development based on cheap fossil fuels, taking up a huge amount of the global atmospheric commons with their emissions. This inequitable historical overconsumption of the global emissions budget has also contributed to disparities in countries’ broader capacities, and will continue to undermine the right to sustainable development. Because of the historical emissions of the global North, and the severe constraints of the remaining emissions budget for the world if we are to limit warming to well below 2°C, the option of following the carbon-intensive development path of the past is now closed, even to the three billion people on this planet without access to enough energy.

Sharing of the remaining carbon budget should be based on responsibility and capability

Addressing the climate challenge in an equitable and just way requires both the setting of limits and the fair dividing up of the remaining carbon budget so that the effort to stay within it can be achieved, without harming the dignity of the majority of humanity.

When developed countries say they can only reduce their emissions by small and insufficient amounts,¹¹ which unfairly and inequitably shifts the rest of the burden of reductions onto the rest, the majority of the people in the South. By not first quantifying the size of the resource – the

⁹ IPCC. 2014. Summary for policymakers. In: Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L.White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1-32.

¹⁰ The IPCC uses representative concentration pathways (RCPs), correlated with cumulative atmospheric CO₂-equivalent concentrations, from which global average temperature increase can be estimated. The Stockholm Environment Institute, based on the ‘budgets’ developed by the IPCC, uses three mitigation pathways – the strong 2°C pathway, the weak 2°C pathway, and the G8 pathway – to compare emission budgets that have high, low, or minimal probabilities of maintaining global average temperature rise below 2°C. Note that pathways for 1.5°C are not explicitly provided for due to the data basis of the IPCC not providing for it; Baer, P., T. Athanasiou, and S. Kartha. 2014. Three salient global mitigation pathways assessed in light of the IPCC carbon budgets. Stockholm Environment Institute discussion brief.

¹¹ For example: -4% on 1990 levels in 2020 by the United States; -5% on 1990 levels in 2020 by Australia; -20% in 2020 by the European Union (which is the same as 2012 emissions).

remaining atmospheric space – which would allow an evaluation of the fairness of the emissions burdens that countries are taking on, developed countries *de facto* claim more than their fair share. They also succeed in avoiding consideration of historical responsibility. The right to development requires a fair sharing of the emissions reduction (=mitigation) burden.

Well-thought-out proposals have been put forward with frameworks for how to divide up the remaining atmospheric space fairly and equitably amongst all people.¹² A climate justice approach to dividing up the remaining budget uses a “fair share” methodology, based on science, historical responsibility (how much of the current carbon budget the country has already taken up, based on cumulative per capita emissions), and capacity (based on size and spread of its wealth and national income), without loopholes and offsets.¹³

The analysis behind such proposals show that for industrialised countries of the North, their accumulated excessive GHG emissions are so huge that even extremely ambitious domestic actions will not be enough to fulfil their fair share of the emission-reduction effort, if we are to avert the worst of climate change. Therefore it is necessary to deliver adequate, additional climate finance and technology that will make it possible to still take responsibility for the remainder of what should be their mitigation obligations, to be undertaken in the South.

Thus far, Southern or "developing" countries bear far less and for many, like the Least Developed Countries, hardly any historical responsibility for the climate crisis. However, the business-as-usual projections of governments of developing countries show that *all* will reach a point of exceeding their fair share of the global emissions budget as emissions continue to rise. As outlined above, because there is only so much mitigation that developed countries can achieve even with extremely ambitious domestic actions, developing countries will be compelled to assume part of the mitigation obligations of developed countries. Because our peoples are the first to suffer and suffer the worst of the impacts of lack of action, Southern governments must not waver in demanding climate finance and technology from developed country governments in order to undertake mitigation actions with just transition, over and beyond what a straight assessment might say is just.

Responses to climate change must be rooted in solidarity and justice

Climate change puts limits on us all. However we live in a very unequal world, where transnational companies and wealthy countries consume far more than their fair share of global resources, and poverty still exists on a massive scale in the developing world (recognizing also the great inequalities that also exist within countries, North and South). Insufficient mitigation by developed countries places an additional burden on peoples, communities, and developing country governments to reorient their resources away from the most important priorities of sustainable development and poverty alleviation and towards adaptation to impacts of climate change.

Global solidarity to address climate change will not result in abstract solutions but rather in clear responses rooted in just access to, and the distribution of resources required to live lives of dignity. Rather than neoliberal, market-oriented solutions designed to maintain the status quo, **these responses must reflect peoples’ demands** – demands that are focused on **a global energy transformation**, on defending their **food sovereignty**, and **guaranteeing their rights and needs** without succumbing to false ‘solutions’.

To address climate change justly, we must establish systems of global solidarity that will allow *all* to live with dignity in harmony with nature and within the limits set for us by climate change.

¹² John Vidal. 2014. Scientists reveal “fair system” for countries to tackle climate change. *The Guardian* 21 September. <http://www.theguardian.com/global-development/2014/sep/21/scientists-calculations-fair-system-climate-change>

¹³ Climatefairshares.org; National fair shares: the mitigation gap – domestic action and international support. A Climate Equity Reference Project report. EcoEquity and Stockholm Environment Institute.

Responses should recognize basic human rights by ensuring a global temperature goal that minimises harms and impacts, and compensates the innocent and vulnerable who suffer such impacts. International approaches should cement the rights of participation and consultation of peoples in determining locally appropriate responses.¹⁴ Together we must also acknowledge that the transition will be hard, and could impact the most vulnerable amongst us. Social protections and solidarity support will be more important than ever.¹⁵

Finance: Developed countries – those responsible for the current climate crisis we are facing – must assume their legal and moral responsibility for providing the finance needed for adaptation and mitigation internationally. Levels needed are far beyond the \$10 billion (or \$2.5 billion per year over four years) that has been pledged to the Green Climate Fund. Sources for this funding can come from the subsidies of harmful energy and big corporations, taxing speculative financial activities, and reducing our spending on armaments and weapons of war.

Loss and damage: There are very real limits to adaptation. When rising seas inundate croplands, when the rains fail year after year, when ocean acidification destroys coral reefs and shellfish populations, there will be no possibility for adaptation. There is only loss. A just climate regime will contain a mechanism for addressing unpreventable loss and damage.

Energy solutions: Just solutions to climate change will require a radical transformation in our energy systems towards community-controlled, safe, renewable energy. Any energy solution must prioritise energy access, affordability, and democratic community control. First and foremost, this transformation must lead to decentralized systems that can provide energy for the billions currently without. There must be a just transition, sparked by policy and incentives directed by states, away from individualised, profit-driven fossil fuel economies based on extractivism. This will include prohibiting and outlawing energy sources that harm people and the climate, limiting the excessive and unnecessary consumption by some, and ensuring that clean and renewable energy reaches those who need it. Just energy solutions will stop subsidized handouts to the wealthy and the powerful, and redirect those resources to real energy solutions for the poor. Transformed energy systems will allow us to reconnect as communities around decentralised energy systems controlled by us for us.

Food solutions: Climate change is caused in large part by the industrial food system, and at the same time, climate change gravely threatens our ability to produce and harvest food from our fields, forests, rivers, lakes, and oceans. Fundamental to protecting our food sovereignty and our right to food is a temperature threshold of 1.5°C. Higher temperatures will certainly lead to severe impacts on the lives and livelihoods of small food producers across the developing world. Also essential to the ability to weather the impacts of climate change is the recognition and enforcement of human rights to land, to water, and to seeds.

Small-scale food producers should be recognized and supported for their contribution to feeding 70% of the world population, mostly using agroecological practices that do not contribute to global warming, as they are not based on massive inputs of synthetic nitrogen fertilizers (leading to significant emissions of nitrous oxide, a greenhouse gas) but instead the natural cycling of nutrients. Such practices sequester, rather than release, carbon, also contributing to cooling the planet.¹⁶

Responses cannot be based on false solutions

¹⁴ See, for example, the open letter to the Green Climate Fund from Civil Society Groups across the world - http://www.ips-dc.org/civil_society_to_green_climate_fund_dont_shut_us_out_gcf/

¹⁵ See Anabella Rosenberg. 2010. Building a just transition: the links between climate change and employment. *International Journal of Labor Research* 2(2): 128.

¹⁶ La Via Campesina and GRAIN. 2014. The solution to climate change is in our lands. December. <http://viacampesina.org/en/images/stories/pdf/Food%20and%20climate%20op%20ed%20EN%2007.pdf>; La Via Campesina. 2009. Small scale sustainable farmers are cooling down the earth. December. <http://viacampesina.org/downloads/pdf/en/EN-paper5.pdf>

Many solutions to climate change have been proposed by those who wish to profit from the crisis, or who wish to maintain current systems of production, consumption, and greenhouse gas emissions while appearing to be taking action to stop climate change.

Geo-engineering/climate manipulation: Some governments and companies, particularly those who carry the largest responsibility for GHG emissions, are pushing for technological ways to manipulate the global climate to disguise the worst symptoms of climate chaos, such as warming, and to avoid making commitments on real reductions.

These proposed techniques are known as geo-engineering and include so-called Solar Radiation Management (SRM) and Carbon Dioxide Removal (CDR), as well as other interventions aimed to alter earth systems through large-scale changes to air, land, and oceans. According to a growing body of recent scientific research, the techniques would have serious side effects on the most vulnerable peoples and countries. For instance, the proposal to spread large layers of sulphate particles over the Arctic to block solar radiation would impact several parts of the tropics and subtropics with catastrophic effects, unbalancing rain and wind patterns and endangering the food and water supplies for around two billion people in Africa and Asia. The termination of this experiment would provoke a worse warming than the one that existed before, creating a global life-or-death dependency on continued engineering.

Many geo-engineering advocates have stated their intention to move forward with their schemes without the consent of most countries. It is extremely important to demand a ban of geo-engineering and all Earth system global manipulation techniques.

Carbon markets: This approach to emission reductions relies on the further quantification and commercialisation of nature, enriching speculators and traders and leaving little for people, while doing nothing to tackle climate change. Rather than direct government regulation to provide incentives or restrictions to reduce emissions, carbon markets, including emissions-trading and offset schemes, embed further the principle that the market can decide how we are to live.

The collapse of carbon prices in the European Emissions Trading System, along with ongoing problems with environmental and financial integrity, provides clear evidence that cap-and-trade systems have not and will not reduce greenhouse gas emissions.¹⁷ Carbon offsetting is the process where those in the North can buy 'credits' from projects in the South, like the 'indulgences' of old; these credits just move emissions from one place to another, not leading to overall emission reductions, and not leading to an increase in ambition in emission reduction goals. Moreover, shifting emission reductions overseas through offsetting projects in developing countries means that industrialized countries merely continue to lock in their polluting infrastructure. The 2007 Stern review concluded that if we are still using offsets in 2020 we will have failed to avert dangerous climate change.¹⁸

Harmful energy: Not all low-carbon energy sources are equal. The use of mega-dams, particularly across Asia and Latin America, has led to the displacement of people and the destruction of ecosystems. Similarly, a push for 'bio-fuels' and the use of biomass have contributed to 'land grabbing,' particularly in Africa and Southeast Asia, while destroying pre-existing natural ecosystems. Climate change is not an excuse for harmful energy systems that are falsely presented as having lower impact than fossil fuels, but is a reason to transform to energy systems that work for people.

Conclusion

¹⁷ Krukowska, E. 2013. EU carbon permits worthless without change of rules, UBS says. Bloomberg News, Jan 21. <http://www.bloomberg.com/news/2013-01-21/eu-carbon-permits-worthless-without-change-of-rules-ubs-says.html>

¹⁸ Stern, N. 2007. The economics of climate change: the Stern review. Cambridge University Press.

The challenge of climate change is a test for our humanity. It is a test that will allow us to show our sense of responsibility for Mother Earth and each other. It provides us the chance to take responsibility for historical actions, to recognise our solidarity and brother and sisterhood with all of humanity, and to re-orientate our lives away from the domination of profit-hungry corporations that have imposed models of high consumption, accumulation, and extraction.

Climate change threatens our lives, our homes, our food sovereignty and for these reasons we must respond quickly, decisively and collectively. False solutions must be stopped. Geo-engineering must be banned, to prevent the few from seizing control of the Earth's thermostat.

We must come together at international level and agree to strong limits for pollution. We must determine how we will collaborate to fit within this limit, based on the historical and present responsibilities, capacities and acknowledging the billions of people who are not able to live full lives of dignity.

Living in harmony with Mother Earth will require changes. It will require recognition of real causes and solutions to climate change, and the transfer and redistribution of resources to those without. It will require the recognition and support of the people's many small, decentralized solutions, such as peasant agriculture, that are already cooling the Earth. It will require new, diverse, locally adapted forms of energy systems that are gentler on the Earth. It will require new forms of societies that do not base their decisions on what will generate the most profit, but instead what will generate the most good for the well being of all people and nature.

Climate change presents a risk – and some will try and profit from it or promote harmful and untested interference with nature – but above all it provides an opportunity for us to reflect, and to create a world that cares for all people and all creation within it.