



Successive droughts in Chad's Bahr el Gazel region have reduced food and pasture. Climate change is set to make survival even more difficult for vulnerable communities. Chad, 2013. Photo: Ella Dickinson/ Oxfam

# LET THEM EAT COAL

## Why the G7 must stop burning coal to tackle climate change and fight hunger

Climate change is already affecting what we all eat, and is the biggest threat to winning the fight against hunger. Coal is the biggest single cause of climate change, yet the G7 countries are still burning huge amounts, despite efficient, affordable, renewable alternatives being available. G7 coal power stations emit twice as much fossil fuel CO<sub>2</sub> as the whole of Africa, and their contribution to global warming will cost Africa alone more than \$43bn per year by the 2080s and \$84bn by 2100, and lead to several million tonnes of staple crops lost worldwide. To set the tone for a successful climate agreement at the UN talks in Paris in December 2015, the G7 must lead the world in setting out clear plans for a just transition away from coal. With the right mix of regulatory and policy measures, some countries can move to coal-free electricity grids within the next decade.

# SUMMARY

This year will see crucial new climate talks in Paris in December. Clear leadership on climate from the G7 at their meeting in Germany could lead to a breakthrough in Paris. Clear leadership from the G7 means concrete plans to reduce their own emissions and to mobilize climate finance.

## Why the G7 must kick their coal habit

Coal is the single biggest driver of catastrophic climate change – responsible for one-third of all CO<sub>2</sub> emissions since the industrial revolution.<sup>1</sup> Moving beyond it is the first acid test of whether we will win the fight against runaway climate change.

Each coal power station can be seen as a weapon of climate destruction – fuelling ruinous weather patterns, devastating harvests, driving food price rises and ultimately leaving more people facing hunger. With these climate impacts falling disproportionately on the most vulnerable and least food-secure people, the burning of coal is further exacerbating inequality. Without urgent action, climate change could put back the fight against hunger by several decades.<sup>2</sup>

Using new modelling from Climate Analytics and the AD-RICE2012 model, Oxfam estimates that on current policies, G7 coal emissions will be responsible for total climate change-related costs in Africa of approximately \$43bn per year by the 2080s and \$84bn per year by the end of the century. This is sixty times what G7 countries give Africa in agricultural and rural development aid and more than three times what G7 countries give Africa in total bilateral aid.<sup>3</sup> Global costs of G7 coal emissions will be \$260bn per year by the 2080s and \$450bn per year by the end of the century.<sup>4</sup>

With current levels of G7 action, G7 coal emissions would reduce yields of staple crops by around 0.5 percent globally and 1 percent in the poorest countries by the 2080s compared with 1980 levels, meaning less food in the context of a rising population. This is equivalent to seven million tonnes of crops lost every year.<sup>5</sup>

While more than half of today's coal consumption is in developing countries, the scale of G7 coal burning is considerable. If G7 coal plants were a single country, it would be the fifth most polluting in the world.<sup>6</sup> G7 coal plants emit twice as much fossil fuel CO<sub>2</sub> as the entire African continent,<sup>7</sup> and ten times as much as the 48 least developed countries.<sup>8</sup>

Five of the G7 countries (including the 2015 Chair, Germany) are actually burning more coal since 2009, the year of the Copenhagen climate summit.<sup>9</sup> G7 countries must switch from a 'do as we say' approach to 'do as we do' by phasing out their own coal pollution.

The best way for the G7 to inspire ambition from others, including from higher-emitting and rapidly growing developing countries, is to make clear that a low-carbon future is a political priority, and demonstrate that it is possible to phase out coal and maintain a healthy economy.

Rich industrialized countries must stop hiding behind countries like China and take the lead in kicking their own coal habit.

*G7 coal emissions could cost Africa \$43bn per year by 2080s and \$84bn by the end of the century. This is sixty times what G7 countries give Africa in agricultural and rural development aid.*

*G7 coal emissions could mean millions of tonnes of crops lost per year by the 2080s.*

*Five G7 countries have been burning more coal since 2009, the year of the Copenhagen climate summit.*

## How the G7 can kick their coal habit

Current G7 policies, like emissions trading schemes and carbon pricing, have so far failed to dent coal emissions in G7 countries. It is not enough to assume that coal will be edged out through renewable energy targets or overall emission reduction targets. As can be seen in Germany and the UK, without direct government action targeted at coal in particular, it remains a stubborn problem, with persistent coal emissions threatening to undermine existing climate targets.<sup>10</sup>

*With the right national coal phase-out plans, some countries can move to coal-free electricity grids in the next decade.*

Oxfam commissioned the think-tank E3G to review the current coal situation in all G7 countries, identifying the market dynamics and policy measures in place and the timelines under which coal use could feasibly be ended. With the political will to confront the vested interests in the fossil fuel industry, and concrete plans, it is clear that this transition can be made quickly – some countries can move to coal-free electricity grids within the next decade.

What is more, a fair and well-planned transition from coal will have economic, health and employment benefits. For example, 650,000 new green jobs would be created in the US, and 430,000 additional green jobs generated in the EU, if a just transition to 100 percent renewable energy were implemented.<sup>11</sup>

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### Recommendations

G7 leaders should:

1. Commit to an urgent transition away from unabated coal. Some countries will be able to do this faster than others, given different energy mixes and starting points. Country-specific plans and policies should ensure this transition is complete in:

- Canada: by 2030
- France: by 2020
- Germany: by 2040
- Italy: by early 2020s
- Japan: by 2035
- UK: by 2023
- US: by 2030

2. Stand by existing commitments to mobilize \$100bn per year by 2020 for tackling climate change in developing countries. G7 countries should commit to a transparent roadmap to significantly scale up public finance before 2020 and increase the proportion of funds flowing to adaptation.

## NOTES

- 1 Coal is responsible for 34% of cumulative CO<sub>2</sub> emissions (fossil fuels, cement and land-use change) from 1750 to 2012. Source: Shrink that Footprint, <http://shrinkthatfootprint.com/carbon-emissions-and-sinks>.
- 2 A study by International Food Policy Research Institute finds price increases as a result of climate change will lead to calorie availability in 2050 being lower than in 2000 throughout the developing world – effectively putting the fight against hunger back by several decades. Extreme weather events will cause prices to spike further on top of this. Oxfam, 'Hot and Hungry – how to stop climate change derailing the fight against hunger' March 2014, <https://www.oxfam.org/sites/www.oxfam.org/files/mb-hot-hungry-food-climate-change-250314-en.pdf>
- 3 G7 countries gave Africa \$1.4bn in bilateral agricultural and rural development Official Development Aid (ODA) and more than \$24bn in total bilateral ODA in 2013. These figures do not include aid channelled through multilateral institutions, as country breakdowns are not available. Source: OECD-DAC reporting, found at <https://stats.oecd.org/Index.aspx?DataSetCode=CRS1>
- 4 Based on new calculations commissioned from Climate Analytics, using their “current policies” scenario, which assumes that all governments implement existing climate policies - leading to global mean warming of 3.7 degrees by 2100. This model was run eliminating emissions from coal power generation in the G7 from 1970 onwards (i.e. assuming coal power plants were replaced by a carbon-neutral technology), to isolate the warming that can be attributed to G7 coal plants. Climate Analytics then calculated the adaptation costs and residual damage costs (together these are total climate change-related economic costs) for the proportion of warming caused by G7 coal plants.
- 5 Ibid. Declines in crop yield, and total tonnes lost for maize and wheat were calculated by Oxfam on the basis of the Climate Analytics modelling and using a recent crop modelling study which shows change in global and regional crop yield by the 2080s relative to a 1980s baseline. Deryng et al, 'Global crop yield response to extreme heat stress under multiple climate change futures', Environmental Research Letters. March 2014 [http://iopscience.iop.org/1748-9326/9/3/034011/pdf/1748-9326\\_9\\_3\\_034011.pdf](http://iopscience.iop.org/1748-9326/9/3/034011/pdf/1748-9326_9_3_034011.pdf)
- 6 G7 coal plants emitted a total of 2.2Gt CO<sub>2</sub> in 2012. Source: International Energy Agency (IEA) (2014b) 'CO<sub>2</sub> Emissions From Fuel Combustion 2014'. Country comparisons are for all GHG emissions including LULUCF in 2011 (the latest year on record). Source: WRI's Climate Analysis Indicators Tool, CAIT, <http://cait2.wri.org/>
- 7 Ibid; the continent of Africa emitted just over 1Gt CO<sub>2</sub> in 2012, source op. cit. IEA 2014b.
- 8 Ibid; LDCs emitted 0.2Gt CO<sub>2</sub> in 2011 (not including LULUCF). Source CAIT, op cit.
- 9 Comparing 2009 coal consumption with 2013 (the latest figures at the time of publication). Figures from BP 'Statistical Review of World Energy', June 2014, p33 <http://www.bp.com/content/dam/bp/pdf/Energy-economics/statistical-review-2014/BP-statistical-review-of-world-energy-2014-full-report.pdf>.
- 10 Oxfam commissioned the think-tank E3G to review the current coal situation in all G7 countries. The full reports for each country are available on the E3G website: <http://e3g.org/>
- 11 New Climate Institute (2015), 'Assessing the missed benefits of countries' national contributions', <https://newclimateinstitute.files.wordpress.com/2015/03/cobenefits-of-indcs-2015-03-30.pdf>

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