

THE ROLE OF CARBON MARKETS IN COUNTERING CLIMATE CHANGE

Carbon markets have failed to deliver significantly reduced emissions or supply investment funds for clean energy. But Christian Aid believes the potential is there for them to play a pivotal role in encouraging constructive behaviours.

Carbon markets are claimed to be a vital solution to climate change because creating a market and putting a price on carbon emissions will deliver emissions cuts more efficiently than direct regulation. The UK government suggests that a global carbon market could reduce the cost of mitigation by between a third and two-thirds.¹

So far, however, carbon markets have not delivered change on the scale needed. Indeed, they have often been an excuse to avoid painful decisions. They have also failed people living in poverty in developing countries, who urgently need major investment in clean energy, infrastructure and adaptation projects to help them survive a warmer world as well as emerge from poverty.

Christian Aid argues that a mechanism such as carbon markets must play a role in tackling climate change because prices are a major influence on the behaviour of individuals, companies and other polluters. They will only achieve their potential, however, if politicians establish them on the right terms.

Even when carbon markets meet their potential, significant public investment and regulation to achieve climate change objectives in a just and sustainable way will also still be needed.

The United Nations (UN) climate change meeting in Copenhagen in December must create a global agreement that closes the loopholes in existing carbon markets and raises overall ambition.

Decision-makers must also understand that carbon markets are not a panacea. They are capable of achieving deep cuts in emissions but must be complemented with much

wider government action to protect poor people and ensure that the global response to climate change is fair and effective.

What's the use of carbon markets?

Intervention is needed to change prices, from barriers to progress on climate change into incentives for action.

Economies must be restructured to tackle climate change. At present, prices tend not to reflect the full cost of goods and services because they ignore environmental and social damage such as the impacts of climate change. As a result, we often make choices – such as building new airports and coal-fired power stations – that will send us into climate chaos in the longer-run.

Prices are not the only things that shape the behaviour of individuals and companies. For example, actions like insulating a home or switching to low-energy light bulbs in the UK pay for themselves and start to save money very quickly, but many people still don't do either. A mixture of policy measures – including publicity campaigns, government regulation, investment and others – will also often be required to achieve social and environmental goals. But intervention to make low-carbon choices more economically viable is a valuable part of the mix of government actions.

Carbon markets – or 'cap-and-trade' systems – involve the emissions of a group of organisations (usually businesses) being subjected to an overall limit on what they may emit. Regulators determine the overall limit by issuing permits that allow a certain level of pollution.

Participants then have to surrender their

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permits, often known as carbon credits, for any emissions they make. Permits can be traded with other companies so those who want to emit more can buy them from those who can afford to emit less.

By creating a market in the ability to emit carbon, and putting a price on it, economic theory suggests that emissions reductions will be achieved in the cheapest, most efficient possible way. To the extent that well-regulated markets can deliver more efficient outcomes without undermining social objectives, they are a valuable instrument.

Another important aspect of carbon markets is as a source of finance. Auctioning carbon credits, as the European Union (EU) does, or levying a tax on carbon-credit-creating activities, as in the Clean Development Mechanism (CDM), can raise significant funds that could be used to tackle climate change or promote sustainable development.²

Limitations of the market

Market solutions need to be regulated and accompanied with other measures to guarantee a response to the climate challenge that works for people living in poverty.

The analysis above ignores the wider social impacts of markets, particularly on poor and vulnerable communities. The costs of market action still have to be paid and are usually financed from the purchase of goods and services (for instance, through energy bills) instead of taxes. If the carbon market is not accompanied by redistributive measures, then it may unfairly penalise people living in poverty. For example, a flat increase in energy bills is likely to hit poor people harder. In rich countries, social security and other targeted benefits are usually available, but such a remedy may not be available to countries with high populations of people living in poverty.

Using a cap-and-trade scheme rather than a more directly government-controlled intervention like a tax could also lead to greater variability in prices, which poor people may be less able to cope with.

Leaving investment decisions to the market alone also has a social impact, as has been seen from examples of service privatisation in developing countries. Services and investments provided according to market principles are unlikely to be delivered to the poorest communities unless there is government intervention through subsidies or regulation to ensure this happens.

Another key concern is the scale and urgency of action required on climate

change – developed countries must reduce their fossil-fuel emissions to virtually zero by the middle of this century or sooner. While carbon markets have the potential to drive emissions reductions on a dramatic scale, they will do so only if politicians have the courage to create the necessary base conditions.

Furthermore, experience of carbon markets such as the EU emissions trading scheme (EU ETS) suggest that, at best, they take several years to establish and stabilise. Given the need for global emissions to peak before the end of the decade, and for industrialised country emissions to be at least 40 per cent below 1990 levels by 2020,³ governments of those countries will need additional regulatory measures to prevent the building and lock-in of high-carbon infrastructure. The same governments should also use targeted investment and regulation to support the development and demonstration of new low-carbon technologies.

Finally, while shifting economic incentives can constitute a valuable and important tool, it is also a blunt one that can undermine wider social and environmental objectives. For example, there is significant literature on CDM projects funded to deliver carbon emissions saving that have also delivered huge social and environmental damage.⁴

Carbon markets in practice – the story so far

Carbon markets – while dominating discussions of mitigation policy – have so far been incomplete in conception and damaging in execution.

The EU, including the UK, along with the US, Australia, New Zealand and others, is promoting carbon markets as a key part of the recipe for a low-carbon future. The EU ETS is up and running, while other countries are developing new emissions trading schemes. The ultimate objective for many is the creation of a single global market for carbon.

In the EU, the ETS is seen as the system that will clean up highly polluting industries such as the energy sector or steel and concrete manufacturers. However, it is not delivering anywhere near enough emissions reductions to prevent climate catastrophe. This is because of serious flaws in the way the market was set up. The EU has failed to set itself sufficiently demanding emissions targets – which in turn meant that the ETS carbon price stayed too low to influence sufficiently companies' decisions.

To make matters worse, far too great a proportion of ETS credits – effectively,

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rights to pollute – are given away free to EU companies rather than sold to the highest bidder. Participating companies are also able to use ‘offset’ credits from outside the EU if EU prices climb too high.

The overall result of these get-out clauses – and the global recession – has been a collapse in the price of such credits, to less than €10 a tonne. Market analysts predict prices will remain low until at least 2012.⁵

Companies have little incentive to invest in low-carbon technologies such as renewable energies, and carbon capture and storage. Instead they are poised to continue building new coal-fired power stations and other dirty infrastructure, locking Europe into a high-carbon future for decades to come.

EU energy companies are upfront about this – for example Paul Golby, head of E.ON UK, has said: ‘As much as I would prefer to see investment in low-carbon energy driven by the carbon prices, we ought to recognise that current market conditions mean that this is not a sufficient incentive at the moment.’⁶

The widespread and growing use of offsetting – where emissions reductions in one country are double-counted against finance for emissions reductions elsewhere – is not only a flaw in the EU ETS but also in other carbon trading schemes, and threatens to undermine the global basis for carbon markets. Offset credits, bought through mechanisms like the CDM, represent projects that take place outside a cap. CDM credits, in theory, represent emissions cuts achieved in developing countries and paid for in developed countries. But because developing countries have no limits on their emissions, it is almost impossible to guarantee that the CDM leads to overall reductions.

In fact, although an expensive industry has emerged to check the ‘additionality’ of such offsets, academic research from the US Stanford University has shown that between one- and two-thirds of all CDM offsets do not represent real, additional emissions cuts.⁷

CDM-funded projects also often cause significant social and environmental damage. For example, Christian Aid partner organisation Paryavaran Mitra has documented pollution and distress caused to local communities by Gujrat Flurochemicals – the first factory in the world to profit from CDM funds.⁸

Fixing what’s broken, finding what’s missing

If carbon markets are to contribute to tackling the climate emergency, developed country governments need

to stop seeing them as a silver-bullet solution and instead address their flaws.

All current and proposed carbon markets are based on a level of **ambition** that is a fraction of what is required. This exacerbates the impact of the numerous other loopholes that weaken the power of carbon markets to protect the climate.

Without a cast-iron commitment to ambition, markets will not deliver the price signals required to trigger necessary early action. A strong political commitment to action requires governments to look at how all their policies contribute to climate-change targets while preserving **equity** and respecting the rights of people living in poverty.

Carbon markets must be seen as part of a comprehensive strategy on climate change that will deliver ambition, equity and urgency of action, and include other key mechanisms such as public spending and regulation.

The most gaping loophole relates to **offsetting or double-counting**. Schemes such as the CDM fundamentally weaken any carbon market by bringing in uncapped credits. Such credits are overly expensive because they are subjected to a difficult and unreliable additionality check, and they trade off ambition in one country against another.

The United Nations Framework Convention on Climate Change (UNFCCC) should agree a move away from offset mechanisms to a system where financing carbon credits in developing countries is an additional obligation for rich countries, on top of emissions reductions at home.

Another significant issue with carbon markets has been the interest in including widely **different sectors into the same market**. Emissions from the power sector are easy to monitor and measure – 3,300 installations alone are responsible for 95 per cent of the carbon emissions from the sector – about a third of global emissions.⁹

Emissions from forestry or agriculture are far harder to calculate – and more complex to reduce – particularly given the vital need to respect indigenous peoples’ rights as forest dwellers. Even including both heavy industry and power-generating companies in the EU emissions trading scheme has reduced the cost of carbon. The decline in industrial output because of the recession has cut emissions in that sector, easing pressure for a vital reworking of Europe’s energy infrastructure.

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Carbon markets should focus on limited sectors and links between markets should only be created between those that are comparable in type and ambition. In particular, such markets should focus on the power sector in the first instance.

The UNFCCC recognises **the difference between developed and developing countries'** historic responsibilities for climate change and their respective capabilities for responding. Developed – or Annex 1 – countries have legally binding emissions-reduction commitments while developing countries are asked to take sustainable development policies and measures.

Creating a trading arrangement between these different types of actions inevitably weakens the necessary action in developed countries and should be resisted. Carbon markets also potentially pose significant issues for any country in which a large proportion of people lack access to energy because of the social issues associated with market mechanisms. In order to ensure that carbon emissions are not simply relocated to the developing world, developed countries should provide significant finance and technology support to developing countries to ensure their emissions are brought down at the same time.

Poor countries should not be encouraged to set up carbon markets, but be allowed to choose the most appropriate method of controlling their emissions, with support from developed countries.

Carbon trading between developed and developing countries should not be the primary method of providing support to developing countries. Instead public funding should be provided through the UNFCCC to support mitigation and other clean development measures.

Finally, carbon markets have **political weaknesses**. They are difficult to explain, which leads to limited understanding and a lack of transparency and accountability.

Carbon markets are heavily influenced by companies that lobby to ensure that government decisions improve their position in the market. The structure of carbon markets adds an incentive for companies to argue against lower emissions targets. A major example of the influence of companies has been demonstrated by the reluctance of administering governments to charge for or auction emissions rights. Instead they have been allocated to companies for free, a process known as 'grandfathering' and which equates to a significant subsidy for polluting companies.

To ensure robustness, ambition and long-term stability, key decisions in the carbon market, such as the proportion of auctioning, the level of targets and other issues that touch on the scope for ambition, should be taken out of political hands and given to an independent technical body. This body needs to be constituted to take into account the relevant science and the needs of wider stakeholders, not just industry.

Endnotes

1 Department for Energy and Climate Change, *The Road to Copenhagen*, June 2009, p43.

2 For more on this subject see: Alison Doig, *Signpost to Copenhagen 2: Climate Finance: Why, Who For, How Much and Where From?*, Christian Aid, July 2009.

3 Alison Doig, *Signposts to Copenhagen 1: Essential*

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4 See, for example: Barbara Haya, 'Failed mechanism: how the CDM is subsidizing hydro developers and harming the Kyoto Protocol', *International Rivers*, December 2007, or John Vidal, 'Guilt-free sins of emission', *The Guardian*, 3 February, 2005.

5 Tom Young, 'Report warns

EU carbon market will be long through to 2012', *BusinessGreen*, 17 April 2009, www.businessgreen.com/business-green/news/2240529/recession-leads-supply-credits

6 Daniel Fineren, 'New nuclear needs stronger carbon price – utilities', Reuters, 10 June 2009, <http://uk.biz.yahoo.com/10062009/323/new-nuclear-needs-stronger-carbon-price-utilities.html>

7 Michael W. Wara, David G. Victor, *A Realistic Policy on International Carbon Offsets*, Stanford University, April 2008.

8 As documented in: Nadene Ghouri, 'The great carbon credit con: why are we paying the Third World to poison its environment?', *Mail on Sunday*, 1 June 2009.

9 See data quoted in: *Sandbag Position on COP15: Copenhagen 2009*, Sandbag, 2009.

Poverty is an outrage against humanity. It robs people of dignity, freedom and hope, of power over their own lives.

Christian Aid has a vision – an end to poverty – and we believe that vision can become a reality. We urge you to join us.

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