

# Action Brief



## The construction of a sub-national carbon trading program

Patrick Bigger



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**Author:** Patrick Bigger

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# **The construction of a sub-national carbon trading program**

**Dr. Patrick Bigger**

School of Environment, Education, and Development, University of Manchester

## **Summary of the research**

As a doctoral candidate at the University of Kentucky, the researcher undertook long-term ethnographic fieldwork in the capital of California, Sacramento, to investigate the construction and operation of the state's market-based climate change mitigation policy. In 2006, the state adopted Assembly Bill 32, the California Global Warming Solutions Act, which mandated a return to 1990 levels of greenhouse gas emissions by 2020, with a further imperative to cut overall emissions 80% by 2050. This policy goal is the most ambitious in the United States, as the federal government has thus far failed to create comprehensive climate change policy even though the US has been the most prolific emitter of climate change gases over the past century and the majority of Americans support some form of serious climate policy.

In order to achieve its climate goals, California has implemented a number of policies ranging from quotas on clean energy production to an automobile refrigerant recycling program. The most important of these policies is the development and operation of a cap-and-trade program wherein polluters can buy and sell the rights to emit greenhouse gases similar to the way the conventional commodities markets operate. This program is emblematic of the wider global shift to using market-based mechanisms for achieving all manner of environmental goals, ranging from the use of effluent trading programs in water quality to payments for ecosystems services to cope with problems as diverse as tropical deforestation and soil conservation. Market mechanisms are particularly popular for reducing greenhouse gas emissions, as these programs have been implemented in more than 50 jurisdictions, including the European Union, South Korea, Kazakhstan, and seven pilot markets in China that are poised to be incorporated into a national trading system in 2016. California's program is especially important in the world of carbon trading, because its regulators are committed to making the program the gold standard for cap-and-trade by creating policy that decouples economic growth from increased greenhouse gas emissions and allowing the policy architecture to be exported to other jurisdictions.

The process of implementing this flexible method for emissions reductions has been long and at times contentious, requiring input from a dizzying array of actors

including the policy makers themselves, polluting industry, environmental NGOs and environmental justice organizations, academics, property developers, and the general public. This research helps explain why key parts of the policy have come to be written the way they are and some of the ramifications of policy and implementation decisions

## **Key findings**

### *1. Carbon markets are emblematic of the rise of technical management systems for socio-ecological problems*

While this finding is unlikely to come as a surprise to anyone who has followed the development of environmental policy over the last several decades, it is important enough to bear repeating. This observation is also critical for interpreting the findings below. The key point is that the construction of carbon trading programs is incredibly complicated and heavily dependent on the enrollment of specialists for devising important aspects of the policy in a way that forecloses participation for most people. While the decision to implement market-based mechanisms for environmental goals is usually conducted in the world of politics, the minutiae of program design, where the outcomes of the program are really generated, are determined in workshops and conversation that are nominally open to the public but are so demanding in their specialist knowledge that most people could not hope to take part in a meaningful way. The regulator has done their utmost to remedy this, but the nature of market-based programs is so inherently technocratic that it is a hard to see a way to overcome this challenge.

### *2. Carbon markets largely function as administrative emissions prices rather than conventional financial markets*

One of the most interesting aspects of program design in California is the relationship between the desire to build a financial market through which the rights to emit greenhouse gas emissions can be exchanged between polluters in order to achieve emissions reductions at the lowest society-wide cost on the one hand, and the risks that speculators could damage the operation of the program by gaming the market on the other. This conflict is not specific to California, but takes a highly specific form because of the time period during California was creating the program and the state's recent history with deregulated financial products in energy markets. First, the California program was being implemented during the depths of the financial crisis, when the dangers of allowing speculators to build complex derivatives out of questionable assets became strikingly clear. The other factor was California's electricity crisis in the early 2000s, when energy traders manipulated electricity costs to the detriment of the economy as a whole with tragic results for individuals who were unable to afford power during the hot summer months. The conflict between building a financial market and the risks that financial markets entail has led regulators to substantially restrict the ways that carbon allowances

can be traded, which has had major impacts on prices in concert with myriad other design choices that structure supply and demand for allowances, in concert with myriad other design choices. This has resulted in a low, stable carbon price that acts more like a fee to pollute than a traditional commodity market.

*3. 'Fairness' in program design comes to be a matter of keeping prices low rather than broader justice concerns*

In the development of the rules of California's carbon market, competing claims from a number of policy actors about fair costs in the formulation of the program resulted in a rhetorical inversion: What started as a program with the potential to make 'polluters pay', embodying the economic notion that a substantial carbon cost would drive down emissions of both climate change gases and co-pollutants, was transformed to a situation where 'pay to pollute' became the operating principle. Environmental justice organizations have long feared such an outcome, believing that emissions will not be avoided and that polluters can eschew responsibilities to impacted communities through accounting tactics and the outsourcing of reductions with offsets. From the outset of policy development, fairness was considered a fundamental consideration- the law that facilitated the development of the cap-and-trade program specifically required that the program be developed in a way that was fair. However, because of the highly technical nature of program design, there were many more voices calling for fairness to mean a low price that would not detrimentally impact polluters than other, more broad notions of fairness or justice that might have been considered.

### **Policy implications**

As carbon markets are poised to continue their position as one of the key mechanisms for climate change mitigation, it is important that we learn lessons from the most carefully crafted program to date. It is probably impossible to make the process of marketization any less technocratic, owing to the demanding and diverse forms of expertise required to produce them, which highlights the need for political ecologists and civil society organizations to develop competencies for engaging with the process on its own terms. This does not mean that we must uncritically accept that carbon markets as are the most effective means of reducing greenhouse gases, but that there are many fronts in the struggle against climate change. One way this is true is if we recognize the prices that are attached to emissions reductions are in large part determined by administrative decisions rather than through numerous market transactions. This means that policy makers and other interlocutors could effectively advocate for a much higher carbon price, allowing carbon allowances to act as a true barrier to increased production while also raising much larger revenues for governments to pursue other kinds of climate action. These revenues, in turn, can be used to more directly engage with the wants and needs of environmental justice organizations and marginalized communities

who lack resources to do the day-to-day work of building more climatically just futures.

### *Future research needs*

There are several key needs when it comes to future research on climate finance. First, given that China is preparing to launch a nationwide carbon trading system based on the results of its seven pilot markets, it is critical that these programs be evaluated and we come to an understanding of how design choices were made in those programs. Further, each of these pilots should be compared with existing programs, like California's, in order to understand what design features are enduring and what features tend to fall by the wayside- for example, how is the question of offsets being handled? What sorts of restrictions are being placed on traders to ensure that no financial malfeasance is taking place? How are governments designing their programs (or not!) to ensure even more stringent emissions reductions take place? Each of these questions requires answers urgently, given the severity and speed with which climate change is having impacts.

Secondly, market mechanisms like carbon trading have been relatively well-studied compared to other emerging financial mechanisms related to climate change. Several new products and paradigms are becoming increasingly important, ranging from debt products like climate bonds to the World Bank-backed Green Climate Fund. Given that these mechanisms are taking on an increasingly important role and are constructed in much less transparent circumstances than California's climate market, it is important to critically evaluate these financial technologies by asking similar sets of questions to those asked of carbon markets- namely, what the principles, practices, actors, and ideologies deployed in the creation of other climate financial products, and what are their outcomes? As the climate crisis picks up speed, we must rapidly evaluate the strengths and limitations of tethering our responses to financial practices.

### **Relevant CSO for dissemination**

(Note: Many of these are CSOs already involved in the creation and operation of California's climate program)

- Asia Pacific Environmental Network
- The Environmental Justice Coalition for Water
- Physicians for Social Responsibility
- Urban Releaf
- Association of Irrigated Residents
- Greenlining Institute
- Environmental Defense Fund
- Natural Resources Defense Council
- REDD Monitor