

# The limits of free-market logic

Kevin Smith

*China Dialogue*

19 September 2007

**Carbon trading, its backers claim, brings emissions reductions and supports sustainable development in the global south. But, argues Kevin Smith, it may do neither, and is harming efforts to create a low-carbon economy.**

"This enormous sum of money generated by these Kyoto-style trading schemes has not gone to the companies and communities who are taking action on clean energy and energy-reduction projects"

If, as their proponents claim, carbon markets are wonderful tools for bringing about emissions reductions and provide economic support for clean technologies in the global south, then we should ask one question: why have they been met with a mounting chorus of criticism from civil-society organisations, social movements and journalists around the world?

Plans are being made, through processes like the G8+5 Climate Dialogue for countries like China (ie countries currently without commitments under the Kyoto Protocol) to adopt carbon trading as part of their climate policy, and there needs to be an assessment of whether such schemes really work in reducing atmospheric carbon – or if they are simply a means for polluting industries to profitably avoid the issue of making emissions cuts.

## Cap and trade

The free-market logic behind the scheme looks simple on paper. Countries taking part in “cap and trade” schemes like the European Union Emissions Trading Scheme (EU-ETS) have a limit set on the amount of carbon they can emit in a given time period (the “cap”). This allotted amount of carbon is carved up and allocated between different industrial locations in the country. If, for example, a cement factory goes over its allocated portion of carbon emissions, it has to purchase spare emissions from another market participant, for example, a power station that has emitted less than its allocation, and can therefore sell profitably sell them on (the “trade”).

The problem lies in the fact that carbon trading is designed with the express purpose of providing an opportunity for rich countries to delay making costly, structural changes towards low-carbon technologies. This isn't a malfunction of the market or an unexpected by-product: this is what the market was designed to do. The economist

John Kay wrote in the *Financial Times*: “when a market is created through political action rather than emerging spontaneously from the needs of buyers and sellers, business will seek to influence market design for commercial advantage.” In terms of climate change and carbon trading, the “commercial advantage” (at least in the short term) lies in avoiding the costly structural changes, and industry has influenced every stage of the design and implementation of the carbon market to this end.

Businesses and industries in the global north have avoided making these infrastructural changes by ensuring that the price of carbon permits is kept absurdly low. It is much cheaper for industry to purchase cheap carbon credits to make up any emissions short-falls than to implement the technologies that would actually bring about real emissions reductions at source.

The low price of carbon permits was ensured in the first round of the EU-ETS by governments handing many more emissions permits to industry than was necessary; the majority of industrial locations had more emissions permits than they needed. When news of this massive over-allocation was revealed, it caused the price of carbon to drop dramatically. Economists estimate that carbon permits should be priced at around 30 to 50 euros per tonne in order to create sufficient incentives for low-carbon technologies. Towards the end of the first round of the EU-ETS the price of permits was regularly dipping below one euro per tonne.

Market enthusiasts argue that the “cap” will be tightened in the second round, causing the price of carbon to rise. But in order to prevent this happening, business has lobbied for a means of importing more cheap credits into the system, generated in countries like China, through the Clean Development Mechanism.

### **Clean development?**

Instead of trading with other market participants in Europe, another option for our cement factory would be to purchase “carbon credits” that have been generated outside of the trading scheme, through a project in a developing country that supposedly reduces or avoids emissions. An example would be a hydro-electric power station in China that has sold its supposed emissions reductions to companies from rich countries as part of the Clean Development Mechanism (CDM). China has been the world leader in this market, generating some 60% of all CDM credits in 2006.

The CDM has had some bad publicity in the last six months. An article in *The Guardian* newspaper in June 2007, said: “[the CDM] has been contaminated by gross incompetence, rule-breaking and possible fraud by companies in the developing world, according to UN paperwork, an unpublished expert report and alarming feedback from projects on the ground.”

Despite the regulatory framework that surrounds the CDM, there is both the incentive and the opportunity for project developers to distort key information, so as to make a project appear more effective and generate more credits – or gloss over any local resistance to the project.

For example, the principle of “additionality” is a pre-requisite for a project to qualify for CDM status: it has to be proved that the project would not have taken place without the funding provided through the CDM; any climate benefits should be additional as a result of the funding. Otherwise, unscrupulous operators could simply claim carbon funding for projects that would have taken place anyway, meaning industries in rich countries could justify further pollution on the false premise of being responsible for emissions reductions elsewhere.

However, many CDM projects under consideration in China involve generating hydro-electricity: there are 248 currently in the pipeline. There are strong grounds to be extremely sceptical over whether these are genuinely additional, given that such projects are very common in China, and have been actively promoted by the government. The question arises over whether they would have been happening had it not been for CDM funding. In 2005, the International Rivers Network submitted a comment to the CDM panel in reference to the Xiaogushan Large Hydroelectric Project in northwest China’s Gansu province, which pointed out that the application for CDM funding was submitted two years after the construction of the dam had begun, and that “project documentation from the Asian Development Bank clearly states that Xiaogushan was the least-cost generation option for Gansu and that revenue from CDM credits was irrelevant to the decision to go ahead with the project.”

It is not well documented whether there is local support for the various hydro-electric projects in China that are being promoted through the CDM, which as a pre-requisite should bring developmental benefits to local communities. Many of the corporate benefactors of CDM money in other countries are the target of sustained local resistance from communities who have to endure the often life-threatening impacts of intensive, industrial pollution.

In 2005, about 10,000 people from social movements, community groups and civil society organisations mobilised in Chhattisgarh, India, to protest the environmental public hearing held for the expansion of Jindal Steel and Power Limited (JSPL) sponge iron plants in the district. The production of sponge iron (an impure form of the metal) is notoriously dirty, and companies involved have been accused of land-grabbing, as well as causing intensive air, soil and water pollution. JSPL runs the largest sponge-iron plant in the world, which is spread over 320 hectares on what used to be the thriving, agricultural village of Patrapali. This plant alone has four separate CDM projects, generating millions of tonnes of supposed carbon reductions that could be imported into the EU-ETS. The inhabitants of three surrounding villages that would be engulfed are resisting a proposed 20 billion rupee (around US\$412 million) expansion. In this case, the CDM is not only providing financial assistance to JSPL in

making the expansion, but also providing them with “green” credibility by putting them at the forefront of the emerging carbon market.

The head of China’s environmental agency, Zhou Shengxian recently attributed the rise in social unrest across the country to pollution scandals and the degradation of the environment. An article in the Guardian newspaper said that his comments “underscore the frustration of state mandarins at local government officials who ignore environmental standards in order to attract investment, jobs and bribes.” Given such circumstances, it is highly possible that the CDM will provide financial support to the sort of environmentally irresponsible power and chemical plants that are increasingly becoming the target of community protest in China.

### **Pollution and power**

The largest share of CDM credits worldwide (30%) has been generated by the destruction of HFC-23. This potent greenhouse gas is created by the manufacture of refrigerant gases. A study in the February 2007 article of *Nature* showed that the value of these credits at current carbon prices was 4.7 billion euros. Not only was this twice the value of the refrigerant gases themselves, but it was also estimated that the cost of implementing the necessary technology to capture and destroy the HFC-23 was less than 100 million euros: something in the region of 4.6 billion euros was being generated in profit for the owners of the plants and the project brokers. In an article in the *Sunday Times*, it was reported that two Chinese companies were set to make around US\$1 billion in 2007 alone as a result of CDM money given for the destruction of HFC-23.

This enormous sum of money generated by these Kyoto-style trading schemes has not gone to the companies and communities who are taking action on clean energy and energy-reduction projects, but rather to big, industrial polluters who are then at liberty to reinvest the profits into the expansion of their operations. Ashish Bharat Ram, the managing director of an Indian company that reported a profit of 87 million euros from the destruction of HFC-23 in 2006 and 2007, told the *Economic Times* that: “Strong income from carbon trading strengthened us financially, and now we are expanding into areas related to our core strength of chemical and technical textiles business.”

The structure of the CDM is such that it is usually an option reserved for large companies who can provide the capital needed not only to implement the project, but also to go through the long process of accreditation and certification, with all the attendant expenses of carbon consultants, third-party verifiers, ongoing project monitoring and so forth. Larry Lohmann argues in his book “Carbon Trading – A Critical Conversation on Climate Change, Privatisation and Power” that this “reinforces a system in which, ironically, the main entities recognized as being capable of making ‘emissions reductions’ are the corporations most committed to a fossil-fuel burning future... while indigenous communities, environmental

movements and ordinary people acting more constructively to tackle climate change are tacitly excluded, their creativity unrecognized, and their claims suppressed.”

It seems that the only people who are benefiting from the carbon market and CDM projects are the polluting corporations that are involved in both Europe and the global South, as well as the new class of handsomely-salaried carbon technocrats and brokers, which has sprung up to service the needs of the market. There is an urgent need to recognise that the market’s fixation on short-term profit maximisation is not an appropriate instrument to induce the large-scale and costly infrastructural changes that need to take place in all countries in the transition to low-carbon economies.

*Kevin Smith is a London-based researcher with Carbon Trade Watch, which is a project of the Transnational Institute. He is the author of the report “The Carbon Neutral Myth – Offset Indulgences for your Climate Sins” and the co-author of “Hoodwinked in the Hothouse – the G8, Climate Change and Free Market Environmentalism”.*

## 碳贸易：自由贸易逻辑的局限

凯文·史密斯

2007年9月19日

**虽然支持者宣称碳贸易能够促使碳排放量减少，并能促进南半球国家的可持续发展，但凯文·史密斯不但不这么认为，而且还争论说碳贸易对营造一个低碳经济的努力有害。**

“京都议定书式的交易系统产生了巨额资金，然而这些资金并没有投给那些真正采取实际行动对清洁能源和节能有所贡献的公司和社团，相反却给了那些大工业污染者，他们又将从中获得的利润再投资扩建污染工厂。”

假如真如支持者所说，在能促使碳排放量减少和为南半球的清洁技术提供经济支持方面，碳市场是完美的工具的话，那么我们只需提出一个疑问：为什么这项贸易遇到了来自全世界的公民社会组织、社会运动者和新闻工作者的一浪高过一浪的反对热潮？

目前，诸如“全球G8+5气候对话”等类似的组织正在制定计划，向那些不受《京都议定书》约束的国家（如中国）倡导将碳贸易作为本国气候政策的一部分。但我们需要评估这些计划对于减少大气碳排放是否真的有效，或者这只是污染行业避免减排的一个有利回应的策略。

### 限量与贸易

这项计划背后的自由贸易逻辑看似简单。加入诸如“欧盟排放贸易计划”（EU-ETS）这样的“限量与贸易”机制的国家，在一定的时期内有一定的碳排放配额（即“限量”）。一定量碳排放配额能在一国不同的工业区进行分割和分配。假如一家水泥厂将它的碳排放配额用完了，而其他的市场参与者如发电厂，其碳排放量没有达到

配额限制，这家水泥厂就可以向发电厂购买多余的排放量，因而发电厂也从这项“贸易”中获利。

问题的关键在于碳贸易是为发达国家特意设计的，因为采用低碳技术意味着工业的结构性转变，代价颇高，所以他们可以借机拖延。碳贸易引起的问题不是市场运行不正常或者是市场难以预料的作用导致的，而是因为市场是“被设计”的。经济学家约翰·凯恩在《金融时报》里写道：“如果一个市场不是基于买卖双方的需要自发出现的，而是由于政治干预被创造出来的，那么市场交易双方就会为了商业利益而影响市场设计。”谈到气候变化和碳贸易，这一“商业利益”（至少短期内）就存在于以下几个方面：避免代价颇高的结构性转变、工业企业会自始至终影响碳市场的设计和执行的每一个阶段。

北半球的工商业为避免作出结构性的改变，已作出保证，使碳许可的价格保持在一个非常低的水平。对于工业企业来说，购买便宜的碳信用额弥补排放量不足的限制比执行技术更新成本更低，而后者才能从根本上解决减少碳排放量的问题。

低价格的碳许可已在“欧盟排放贸易计划”（EU-ETS）第一轮磋商中得到保证，与会各国政府给予了超过实际需求的排放许可。最终，这一过量分配的新闻被揭露，从而导致碳价格急剧跌落。经济学家预测碳许可的价格只有保持在每吨大约30~50欧元的时候才能为工业企业引用低碳技术创造动力。直到第一轮磋商接近尾声的时候，每吨的价格仍比往常低了一美元。

市场理想主义者认为在第二轮磋商中应立刻加强对“限量”的管制，以引起碳价格的上升。为了避免这种情况发生，企业已经开始向政府游说，通过“清洁发展机制”向中国等国家进口更便宜的信用额度。

## 清洁发展？

对于上文提到的水泥厂来说，避免同欧洲其他的市场参与者进行碳贸易还有另一种选择，那就是通过与某一发展中国家签订假定减排或者避免减排协议，从交易体制外的国家购买“碳信用额”。作为“清洁发展机制”（CDM）的一份子，中国的一家水力发电厂将它的假定减排量卖给了来自发达国家的公司就是一个例证。中国已经成为了这个世界的领袖，2006年，大约60%的清洁发展机制的信用额度都是由中国产生的。

然而，在最近的6个月里，清洁发展机制出现了一些负面新闻。《卫报》2007年6月的一篇文章报道：“据联合国一个未发表的专家报告以及项目在基层的反馈显示，因为不称职、违反规则、被来自发展中国家的公司欺骗等一些丑闻的影响，清洁发展机制的形象已被污染。”

尽管围绕清洁发展机制存在一些规章制度，但项目制定者仍有动力，也有机会来扭曲关键信息，或者掩盖反对的声音，以使得某一项目看起来更有效从而获得更多的信用额度。

举例来说，“附加”原则是一个项目符合清洁发展机制标准的前提：必须要证明如果没有清洁发展机制的资助，此项目就无法开展；任何气候的受益均是项目资助的结果。如若不是这样，肆无忌惮的项目操作者只是宣称对项目进行了资助，实际情况不得而知，这就意味着发达国家的工业企业能够以从其他地方获得排放消减量许可为理由，为进一步的环境污染制造借口。

然而，在中国目前有包括水力发电厂在内的248个清洁发展机制项目正在考虑中。有鉴于这些项目在中国非常普遍，并受当地政府的积极支持，因此有理由怀疑它们是否真的符合“附加”原则。问题的实质在于如果没有清洁发展机制的资助，这些项目是否能够开展下去。在2005年，“国际河流网络”组织向清洁发

展机制专门小组提交了一份评论。这份评论是有关清洁发展机制是否应该资助位于中国西北甘肃省的小孤山大型水力发电项目的。评论中说大坝建设两年后组织者才向清洁发展机制提交资助申请，而“来自世界银行的项目书里也早已清楚地表明，小孤山项目是甘肃成本最低的项目，而来自清洁发展机制的信用额度的财政支持与这个项目能否开展下去无关”。

虽然促进当地经济的发展是作为清洁发展机制项目开展的先决条件，但这些受资助的名目繁多的水力发电项目是否受当地人欢迎还不得而知。在其他国家，许多清洁发展机制的项目资助者受到当地社区的持续反对，因为他们不得不经常忍受强烈的工业污染的危害，甚至会危及生命。

2005年，在印度的切蒂斯格尔邦，来自社会运动组织、社区群体以及公民社会组织的1万多人聚集起来，反对为位于这一地区的JSPL公司海绵铁工厂的扩张计划召开的环境公众听证会。海绵铁（不纯的金属）的生产过程非常的脏，卷入的公司被指控非法侵占土地，并对当地的空气、土壤和水造成了大量的污染。JSPL公司经营着世界上最大的海绵铁工厂，占地320公顷，而这里以前曾是帕卓帕里镇的农作物生长旺盛的农业村。这个工厂有四个独立的清洁发展机制项目，产生数百万吨的假定碳减排量，由EU-ETS相关国家购买。如果这个计划得以实施，工厂周围三个村庄的居民将会被污染所吞没，因此他们联合起来反对这一预计价值20亿卢比（大约4.12亿美元）的扩张计划。在此情况下，清洁发展机制不但为JSPL公司的扩张计划提供经济帮助，而且通过将其置身于正在浮现的碳市场的最前线，来为他们提供“绿色”保证。

中国国家环保总局局长周生贤日前表示，国家不安定因素的增加，部分是由于遍布全国的环境污染丑闻以及环境恶化引起的。《卫报》的一篇文章认为周生贤的评论“强调了地方政府官员为了吸引投资、增加就业机会以及创造受贿条件而忽略了环境质量的做法是一种失败”。考虑到这些因素，清洁发展机制很有可能向那些环境上不负责任的各种势力以及正日益成为所在社区抗议对象的化工厂提供经济上的支持。

## 污染与权利

全世界最大份额（占30%）的清洁发展机制信用额度用在消除三氟甲烷（HFC-23）上。三氟甲烷是一种由于制冷剂的使用所产生的温室气体，威力强大。《自然》杂志2007年2月的一项研究表明，以目前的碳贸易交易价格来计算，这一信用额度的价值应为47亿欧元，不仅两倍于制冷剂本身的价值，而且据估计捕获并消除三氟甲烷所需要的技术成本还不到1亿欧元，因而剩下的46亿欧元成为工厂主和项目经纪人的利润。《星期日泰晤士报》一篇文章也报道了在中国的两家公司仅2007年一年就从消除三氟甲烷所产生的清洁发展机制信用额度中获得了10亿美元的利润。

“京都议定书”式的交易系统产生了巨额资金，然而这些资金并没有投给那些真正采取实际行动对清洁能源和节能有所贡献的公司和社团，相反却给了那些大工业污染者，他们又将从中获得的利润再投资扩建污染工厂。阿希什·巴拉特·拉姆是一家印度公司的总裁，这家公司曾被报道在2006和2007这两年中从消除三氟甲烷气体污染物减排项目中所获得的利润高达870万欧元，他告诉《经济时报》说：“碳贸易收入给了我们极大的经济支持，因此现在我们有能力开展我们的核心业务——精细石油化工了。”

清洁发展机制的运行方式为那些大公司提供了更多的选择余地，有了资金支持就能保证业务顺利开展，当然也得得住繁琐的鉴定和认证程序的考验，虽然半道而来的顾问团、第三方认证以及项目运行监控等等要花去不少钱，但他们游刃有余。难怪拉里·罗曼在他名为“碳贸易——关于气候变化、私有化和权利的批判性对话”的书中写道：“具有讽刺意味的是，这种运作方式使得这样一种体系更加稳固，在这种体系里，被认为有资质进行减排的实体就是那些致力于燃烧化石燃料未来的

公司。……而那些在处理气候变化问题上扮演更具建设性角色的地方社团、环境运动组织乃至普通民众被黑黑地排斥在体系之外，他们的创造力不被认可，他们的呼声遭到镇压。”

唯一从碳市场和清洁发展机制项目中获益的似乎是那些涉足欧洲和南半球碳贸易的污染环境的公司，以及新兴的碳检测技师和碳贸易经纪人阶层。他们薪水丰厚，踊跃地服务于这块市场的需要。当务之急是要认识到将碳贸易市场短期利润最大化不是大规模和投入巨大基础性改造的合适手段。所有向低碳经济转变的国家都需进行这样的改造。

凯文·史密斯是“多国研究所”开展的“碳贸易观察”项目伦敦站的研究员。他是《碳中和的神话——抵消你对气候罪恶的纵容》这篇报道的作者，同时也是《温室中的豪骗——G8，气候变化和自由市场环保主义》一书的合作作者。