

Green is the Color of Money:

The EU ETS failure
as a model for the
“green economy”

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1. Executive Summary

The EU ETS has failed to achieve its own objectives. It has not reduced greenhouse gas emissions while consistently giving generous allocations of free permits to industrial polluters. It has allowed offset credits to be used and has created a broad range of financial products. However, the EU ETS, with its second phase finalizing at the end of 2012, is still the cornerstone policy to tackle climate change and is constantly being used as a blueprint for other carbon and environmental markets.

The first two phases of the EU ETS (2005-2007, 2008-2012) allocated free permits according to historical emissions; a practice known as ‘grandfathering’ that has acted as a *de facto* subsidy for the biggest polluters. Given the over-allocation, permit prices were volatile and low, allowing polluters to buy their way out of reducing emissions and to do it very cheaply. By the end of 2007, the price of a carbon permits bottomed out at €0.02, down from an average €20 to €30 one year before. Offset credits have also fared badly since the UN continues to issue new credits, confirming their status in 2011 as the “world’s worst performing commodity”. Further, because permits from the second phase can be carried over to the third phase, prices will likely be low in the future.

Electricity producers, for example, have passed on the ‘opportunity cost’ of the permits to consumers. By increasing electricity prices according to the price of the (free) permits, utilities gained an estimated €23 to €71 billion during the second phase. The third phase (2013-2020) will still see significant subsidies paid to industry.

Permits for the third phase are set to be fully auctioned for power producers. However, even though the cost of permits can be easily passed on to consumers, the electricity industry, with the support of the oil industry, managed to receive a subsidy from the auction of 300 million permits from the New Entrants Reserve (for new companies that join the EU ETS) to use in ‘clean energy’ projects. These include the risky technology of Carbon Capture and Storage projects (CCS) and agrofuels, which lock-in the use of fossil fuels and high energy consumption.

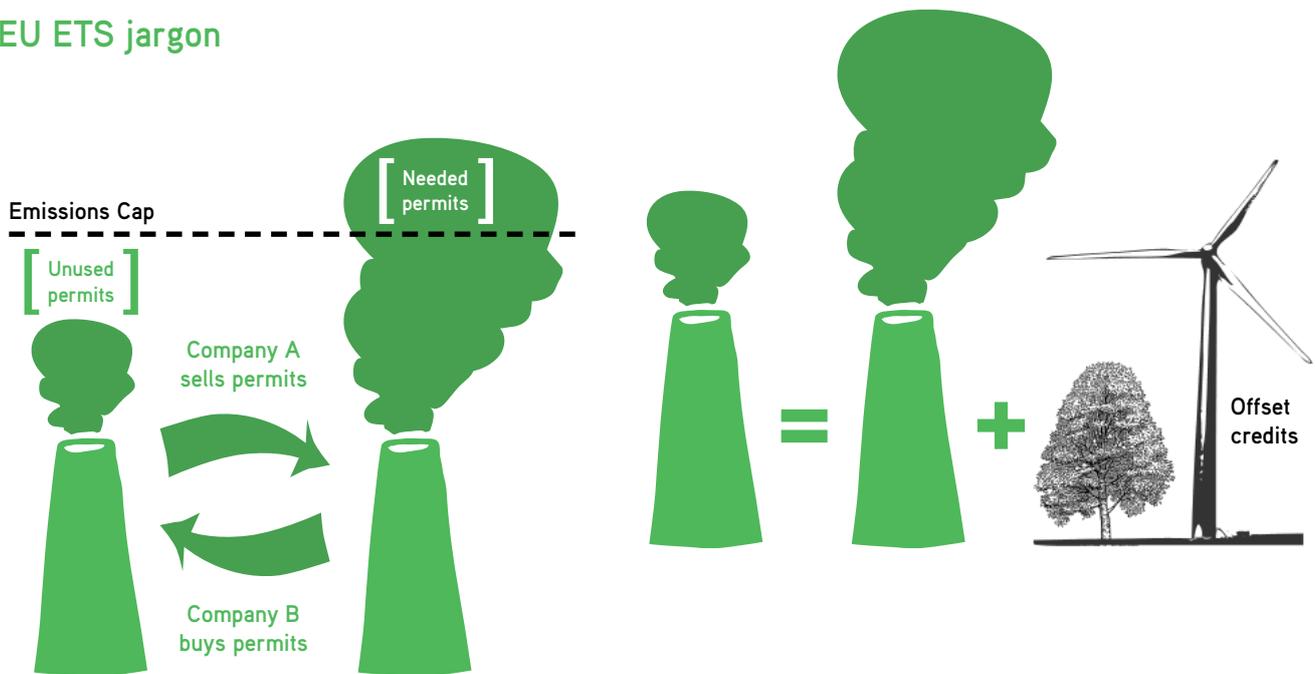
The European Commission is both the supplier and the regulator of the EU ETS, a situation which has made the scheme particularly susceptible to corporate lobbies and rent-seeking behavior. This should come as no surprise, since the history of carbon trading is littered with evidence that companies and governments use the market to pre-empt and delay the structural changes necessary to address climate change.

Some proponents of carbon markets suggest that the main flaws are rules that have been designed inadequately or have been badly applied, and therefore the EU ETS could be reformed. Some proposals on the table for the third phase include the use of benchmarking instead of ‘grandfathering’, the inclusion of aviation, new sectoral carbon markets and price management. These proposals, however, are all embedded in the idea of expanding carbon markets. This report aims, thus, to show how the failings of the EU ETS are structural.

2. Failure as a model

The European Union Emissions Trading System (EU ETS), implemented in 2005, is the main instrument for climate action in the European Union. It was created following the approval of the Kyoto Protocol, which gave industrialized countries the right to exceed their binding greenhouse gas emissions targets. The EU ETS functions through two mechanisms: one allows installations under the scheme to trade allotted carbon permits with other participating installations, referred to as 'cap and trade'; and the second allows installations to buy carbon credits generated from 'emissions saving' projects implemented in other countries, primarily in the Global South, referred to as 'offsets'. Other entities, such as banks, investment funds and brokers can also trade permits and credits similarly to other financial instruments trading, including a range of derivatives.¹

EU ETS jargon



In the EU ETS jargon, carbon permits are given to companies within the EU ETS and carbon credits are generating through offset projects. Each permit or credit equals one tonne of carbon dioxide equivalent (CO₂e) and have different names:

Unit	Acronym	Description
European Unit Allowance	EUA's	Permits. Allocated to installations under the EU ETS according to each National Allocation Plans.
Certified Emissions Reductions	CER's	Credits. Generated by offset projects under the Clean Development Mechanism (CDM), implemented in Southern countries.
Emission Reduction Units	ERU's	Credits. Generated by offset projects under the Joint Implementation (JI), implemented in 'economies in transition' in Northern countries, mostly in Eastern Europe.
Assigned Amount Units	AAU's	Permits. Allocated to industrialized countries under the Kyoto protocol.

Under the first commitment period of the Kyoto Protocol (2008-2012), the EU agreed to reduce emissions by eight per cent below 1990 levels. This collective target was translated into differentiated national emissions targets for each Member State according to the 'burden-sharing' agreement. The EU ETS was set up as the main framework for achieving these reductions and sets emissions targets for seven energy-intensive industrial sectors and energy producers.² Each Member State however is responsible for their Kyoto targets, which cover other sectors, either by reducing emissions at source or by buying credits from offset projects.

Industrial sectors covered under the EU ETS

Power generation
Oil refining
Iron and steel
Cement and lime
Ceramic industry
Glass
Paper and pulp

Diffuse sectors covered under the Kyoto Protocol targets (not the EU ETS)

Transport
Residential, commercial and institutional
Agriculture
Waste
Fluorinated gasses

The AOSIS (Alliance of Small Island States) countries ‘could be our best allies’ given their need for financing”

Connie Hedegaard,
EU Commissioner for
Climate Action

Covering 30 countries, about 12,000 industrial installations and about half of the EU’s CO₂ accounted emissions, the EU ETS has gone beyond the primary trade market of permits and credits, entering into a broad range of financial products.³ Each year, a fortune of dozens of billions of euros is traded in this financial market, offering financial intermediaries like traders, bankers, exchanges and consultancies an important and attractive source of profit.⁴

Besides the evident failure of the scheme to achieve its stated objectives, the EU ETS has been consistently used as a blueprint to create other carbon markets, namely in Australia and South Korea.⁵ As well as for expanding the markets into other nature’s capacities, such as biodiversity, water or soils.

Proponents of carbon trading claim that it delivers emissions reductions in an efficient way, by concentrating the investments where it is cheapest to reduce emissions. However, it cannot deliver the changes in our economies and societies that is needed to overcome fossil fuel dependence or to address over-production and consumption, especially in the Global North. Commodifying pollution does not address the problem where it is more environmentally effective and socially just because it does not deal with the causes that led to the climate crisis in the first place. This report aims to explore the failures associated with the EU ETS and reinforce the notion that carbon market logic fails because it is designed to fail.⁶

3. Leader of what? The role of the EU in the UN climate negotiations

The official narrative claims that the international climate negotiations are stalled mainly due to disagreements between the EU and the US, with the former trying to position itself as an environmental leader and the latter trying to delay any type of climate regulation. But the story is much more complicated and with more actors in play. Historically, the EU has a record of following the US’s demands, while ‘leadership’ can be traced not just to governments but to industrial lobbies.

Starting at the beginning of the international climate negotiations which approved the United Nations Framework Convention on Climate Change (UNFCCC) during the first Earth Summit in Rio de Janeiro, Brazil, in 1992, both the US and the EU opposed binding emissions targets, so the convention merely *recommended* the stabilization of emissions at 1990 levels by 2000. In the end, the US failed spectacularly, having registered a 15 per cent increase in emissions in the 1990-2000 period, while the EU-15 reported a three and a half per cent decrease.⁷

The negotiations over the Kyoto Protocol, however, brought a confrontation between the EU and the US. While the EU favored coordinated measures and more ambitious emissions targets, the US favored unrestricted carbon trading and offsetting as market-based instruments for compliance and weak emissions reduction targets. In the following years, though, the EU conceded on everything, despite generalized opposition from governments in the Global South to carbon trading and offsetting. When the US abandoned the negotiations in 2001, following the election of George W. Bush, the EU was already an enthusiast of carbon trading. The amazingly rapid *volte-face* can be traced to industry lobbying for carbon markets and against a proposed carbon tax, as well as a shift in EC’s Directorate General for the Environment composition that made emissions trading enthusiasts more prominent.⁸

The 2009 COP-15, in Copenhagen, Denmark, was initially presented as the ‘last chance’ to come out with an ambitious agreement to commit industrialized countries to reduce emissions by 2020 to the second commitment period of the Kyoto Protocol.⁹ However, the first day was marked by the *The Guardian* leaking of a secret document, known as the ‘Danish text’. The weak and non-binding agreement was being orchestrated behind closed doors by a small group of industrialized countries, including the US, the UK and Denmark, to be imposed during the negotiations on the rest of the world.¹⁰

This secret text ended up being the basis for the ‘Copenhagen Accord’, a non-binding agreement negotiated between the US and the BASIC bloc (Brazil, South Africa, India and China), to which the EU promptly adhered.¹¹ The Accord was rejected by many countries from the South, including Bolivia and Tuvalu. The following months were marked by intense pressure from the US to coerce the rest of the participating parties.¹² The EU was keen to participate. As a leaked diplomatic cable shows, Connie Hedegaard, the chair of the COP-15 and the actual EU Climate Commissioner, even suggested to Jonathan Pershing, the main negotiator for the US at the conference, that “the AOSIS (Alliance of Small Island States) countries ‘could be our best allies’ given their need for financing.”¹³

The UN climate negotiations in Cancún, Mexico, in 2010, and in Durban, South Africa in 2011, continued to reflect the tension between the Global South, pushing for a new and binding commitment period under Kyoto, and industrialized countries, pushing for a weaker agreement than even Kyoto.¹⁴ In the end, the COP-16, in 2010, merely ended with a ‘copy-paste’ document from Copenhagen, while COP-17, in 2011, allowed the expansion of carbon markets weakening the targets as the Kyoto Protocol was superseded by a new round of negotiations for a post-2020 treaty.¹⁵ In these negotiations, the EU used its political and economic power to assure that carbon trading will continue and even expand, regardless of the fate of Kyoto.

Box Carbon trading: subsidizing polluters since 2005

One can be sure that a climate policy is ineffective when major polluters not only create it but also lobby for its approval. This is what happened with carbon trading in the EU, which was supported from the beginning by many of the most powerful industrial lobbies.

The clearest example of lobbying for carbon trading came from the oil giants. After leaving the climate denialist lobby group Global Climate Coalition, BP launched in 2000 a huge marketing campaign to rebrand itself as “Beyond Petroleum”. The British oil company had in the previous year created its own internal carbon trading scheme, a move replicated by Shell in 2000. Both oil giants repositioned themselves as companies engaged in the transition to a post-oil economy, while expanding their oil extracting infrastructure.

The BP internal emissions trading scheme was used as a model for the voluntary carbon market implemented in the UK, from 2002 to 2006.¹⁶ The UK emissions trading scheme was presented as an instrument to prepare polluters for the EU ETS, in an attempt to disguise its lack of success inducing emissions reductions.¹⁷ What the UK government did not explain is why it gave a £215 million ‘incentive’ to participating firms just to teach them how carbon trading works.¹⁸

Like a Russian Matryoshka doll, the UK emissions trading scheme was, in turn, used as a model for the EU ETS. This move was supported by powerful industrial lobbies, including the Union of Industrial and Employers Confederations of Europe (UNICE, known as BUSINESSEUROPE since 2007), the Union of the Electricity Industry (EURELECTRIC) and the European Petroleum Industry Association (EUROPIA).¹⁹

The support for carbon trading gave industrial lobbies yet more leverage to make their voices heard when the EU ETS was being designed. Clear evidence of lobbying influence can be seen when comparing the positions taken during the consultation of ‘stakeholders’ (industrial lobbies and NGO’s) regarding the design of the EU ETS in 2000 with the final directive regulating the scheme.²⁰ Industrial lobbies representing the largest polluters were highly rewarded during the process, as they got their permits for free and largely overallocated while at the same time could also use offset credits according to lax restrictions decided by governments.

Climate Action Network (CAN), representing pro-emissions trading environmental NGOs, lobbied for full auctioning of permits and tighter restrictions on the use of credits as well as emissions reductions to be achieved domestically at the EU level, however they lost on all fronts.²¹ The only demand made by the big polluters that was left unattended was the adhering to the EU ETS on a ‘voluntary’ basis.

	Voluntary vs Mandatory	Allocation method	Flexibility mechanisms (CDM and JI)
Industry	Voluntary	Grandfathering	Included
CAN	Mandatory	Auctioning	Only admissible if very restricted and supplemental to domestic action.
EU ETS design	Mandatory	Grandfathering	Included with no major restrictions.

Now that the third phase is about to begin, industrial lobbies are set to make sure they continue to receive overallocations from the EU ETS, while doing nothing to change their corporate environmental behavior.

4. The EU ETS: Failing by its own standards

The support for carbon trading in the European Commission (EC) was fundamental in framing of the EU ETS as the main instrument of EU climate policy. However, the structure of the scheme is designed to benefit polluters, avoid regulations and expand environmental damage.

The EU ETS began in 2005, with its first phase ending in 2007. Currently, the system is in the second phase, which runs from 2008 to 2012. The third phase is planned for 2013 until 2020.

a) Distributing profits to polluters

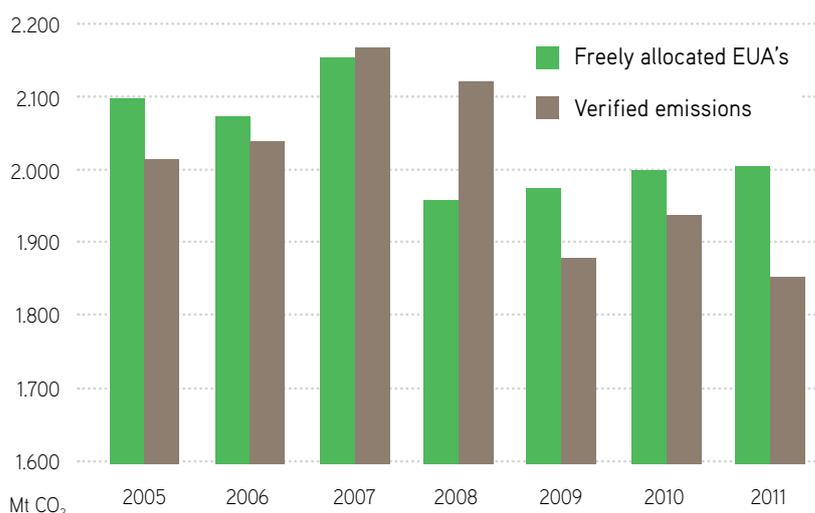
The EU ETS has consistently awarded an excess of free permits to polluting industries. In the first phase, from 2005 to 2007, free permits were allocated according to historical emissions; a practice known as 'grandfathering' that acts as a *de facto* subsidy for the biggest polluters. Given the over-allocation, permit prices were low and emissions rose by about 7.5 per cent.²²

Due to the evident results favouring polluters, the first phase was presented as a 'learning by doing' process, an expression that points to the possibility of fixing the identified flaws in the EU ETS in the second phase.²³ But this was clearly not the case.

Mainly due to the economic crisis, emissions decreased significantly between 2008-2011 by about 12.5 per cent, despite the increase in 2010, which was related mostly to the significant decrease in electricity and industrial goods production, reaching 13.85 per cent by 2009.²⁴

Adding the excess permits from the second phase, which can be carried over to the third phase, to the offset credits that are being banked from CDM and JI projects, the World Bank predicts that by the end of 2012 the surplus will accrue to between 1,300-1,600 million permits and offset credits, representing 42-52 per cent of the expected emissions reductions until 2020 in the EU ETS.²⁵ Further, by adding offset credits industries can buy in the third phase and the 'hot air' from Eastern European countries and Russia, which have accumulated permits due to the deindustrialization that followed the collapse of the USSR, it is possible for the EU to fulfil its target for 2020 (20 per cent emissions reductions, according to the "EU 2020" strategy) without any domestic action.²⁶

EU ETS Emissions and allocation, 2005-2011



The 'grandfathering' of permits has been such a corporate giveaway that it should be called 'godfathering'. On the one hand, energy-intensive industries were given an excess of permits, mainly in the case of the steel and cement sectors, which have been sold for a profit in the first two phases of the EU ETS and can also be banked for future use from the second phase to the third.²⁷ The generous over-allocation was justified by exposure to international competition and the alleged incapacity of passing on the costs of the permits to consumers. Research by CE Delft, however, estimates that almost all of the value of the permits given for free to steel, iron and refineries sectors were passed through to consumers, and suggests that the windfall profits accrued from passing through these 'costs' reached €14 billion between 2005 and 2008.²⁸ A similar conclusion could be extended to the cement sector, since it is also able to pass the 'costs' to consumers.²⁹

It is possible for the EU to fulfill its target for 2020 without any domestic action

On the other hand, electricity producers, which face relatively tighter caps, are free to pass on to the consumers the full 'opportunity cost' of the permits. By increasing electricity prices according to the price of the permits utilities were allotted for free. The power sector may profit anywhere between €23 to €71 billion in the second phase of the EU ETS.³⁰

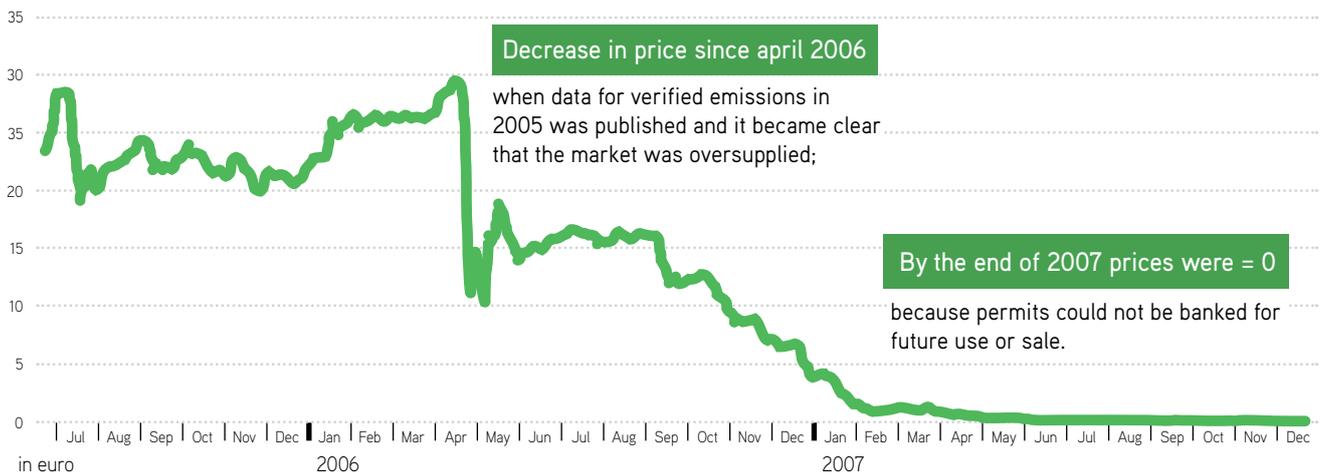
Another source of profits from the EU ETS is swapping credits for permits. The price difference between permits from the EU ETS and credits from CDM reached more than €3.³¹ This means that a company can buy credits, use them for compliance and sell an equivalent amount of permits while earning a profit from a mere accounting trick.

b) Carbon price: an incentive for what?

As a result of the accumulation of unused permits, the permit and credit prices continue to decrease. In the first phase of the EU ETS, permit prices oscillated between €20 to €30, however from April 2006, when it became evident that there was an excess of permits, prices plunged. By the end of 2007, the price of a permit bottomed out at €0.02.³² Offset credits have fared badly since the UN continues to issue new credits, regardless of a widening glut in the EU ETS, and its status was confirmed in 2011 as the “world’s worst performing commodity.”³³

EUA prices, 2005-2007

Source: Bluenext



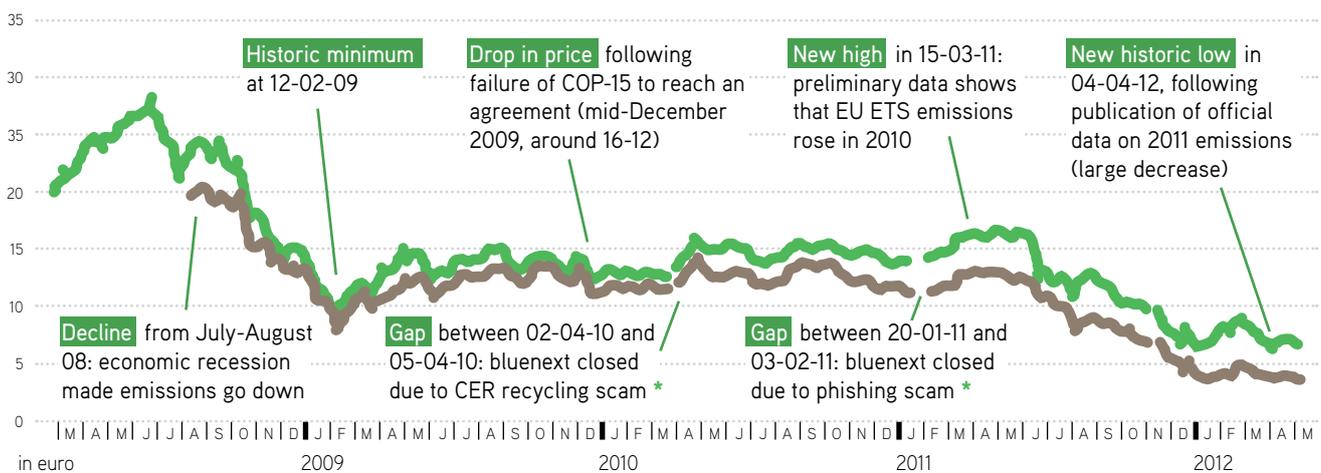
The second phase saw the same pattern of yo-yoing prices, with a clear descending trend from July 2008. The historical minimum was reached on April 4th, 2012 with EUAs selling at €6.04 and CERs selling at €3.48, following the release of 2011 emissions data from the EC, which showed that emissions had again decreased by more than four per cent. It is highly likely that this trend will continue for the next months, with the financial giant UBS estimating that EUA prices will reach a minimum of €3.³⁴

EUA and CER price, 2008-2012

Source: Bluenext

— EUA — CER

* See section 6, page 16



The price drop indicates how the EU ETS is failing by its own standards. The whole purpose of carbon trading, in theory, is giving a clear price signal to induce emissions reductions. In 2009, Environment Commissioner Stavros Dimas claimed this was the case, as “the EU has a well functioning trading system, with a robust cap, a clear price signal and a liquid market.”³⁵ In 2010, however, the official discourse had to change, as the Climate Action Commissioner Connie Hedegaard admitted, “We should not hide that the recession has significantly weakened the price signal.”³⁶

c) Emissions waves

A historical analysis of the drivers of emissions shows that other factors not related to carbon trading are much more relevant than the existence of a carbon price. Emissions reductions in the 1990s can be attributed to the replacement of coal for gas in power generation, mainly in the UK and Germany, due to economic concerns, as well as to the deindustrialization of the former German Democratic Republic after the fall of the Berlin Wall.³⁷ The large emissions reductions registered after 2008 can be attributed mostly to the economic crisis, which resulted in a considerable decrease in industrial and power production.³⁸

Finally, the delocalization of industrial production to China and other countries in the global South led to a transfer of emissions, as the Kyoto Protocol accounts for emissions from production, not consumption. In other words, the emissions from industrial sectors are attributed to the country where they operate, regardless of whether the production is exported or consumed domestically. One

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study published on the Proceedings of the National Academy of Sciences estimates that in some European countries, more than 30 per cent of consumption-based emissions were imported, while emissions from China's exports represent 22.5 per cent of its total.³⁹

The EC, however, maintains that the EU ETS is giving a strong incentive for industries to reduce emissions, with the Climate Commissioner stating in the most recent press release that, "...the ETS is delivering cost-effective emissions reductions."⁴⁰ Estimates from the EC on the proportion of emissions reductions registered in the second phase of the EU ETS that can be attributed to carbon trading are not available, further bringing into question the validity of the scheme.

d) Gambling with fraud

The World Bank is a key actor in building carbon funds and brokering CDM projects. The Bank mirrors the arguments of the EC, but goes even further presenting a problem of the EU ETS as evidence of its success. In its "State and Trends of the Carbon Market 2010", the Bank argued that the Value-Added Tax (VAT) fraud, that cost European taxpayers more than €5 billion, according to Europol, was a sign that the EU ETS was in good shape, since "Entities don't seek out loopholes in insignificant markets [and] fraudsters do not focus on small businesses...."⁴¹ A surreal twist of a common argument found in pro-emissions trading analysis: a high volume of trading is a sign of climate success.

Possibly the most costly scandal has been hacking into computer systems and selling the allowances on the 'spot' market – the trade for permits in return for cash payments, which is estimated to account for 10-25 per cent of the total market. Stolen permits from a Czech firm in January 2011 forced the European Commission to suspend spot trading in the EU ETS for nearly two weeks. The hackers found a way to sell over €7 million in emissions permits from Blackstone Global Ventures. In Greece, hackers got into the server system of the University of Patras and stole €4 million from the cement company Halyps. Some of the hackers were based in Romania and were later prevented by authorities from selling up to €28 million worth of additional credits.⁴²

Pointing out abstract data on emissions or on volume of trading as criteria for success of a carbon market misses the fundamental point that an effective climate policy is one that drives the economy away from fossil fuel dependence. In this sense, the failure to reduce fossil fuel consumption, as well as EU plans to expand coal and gas burning for electricity generation and other carbon-intensive infrastructure, like airports and highways, is a clear sign that the EU ETS is not an effective instrument to address the climate crisis.⁴³ Moreover, 'carbon neutrality' myths in industries such as biomass-based energy, furthers land-use change emissions and sends the wrong incentives for industries to continue with the same polluting patterns.⁴⁴

5. Changes in the air?

With the second phase of the EU ETS ending in December 2012, there is an intense debate in the EU's governing bodies and corporate halls regarding the rules of the game for the third phase (2013-2020). As each decision made has a deep impact on the profits and losses from the EU ETS to participating firms, industry lobbying is pervasive.

a) Including aviation

The inclusion of aviation in the EU ETS is presented as a starting point to include international transport which was exempted in the first two phases mainly due to strong disagreements over how permits should be allocated. Emissions from flights departing or arriving in EU countries have already been included in the EU ETS from the start of 2012, following a Directive approved in October 2008.⁴⁵

At the end of 2012, airline companies will have to comply with the EU-wide cap, which was set at 97 per cent of the average emissions in the 2004-2006 period. From 2013, this cap will reduce to 95 per cent from the same baseline. As airlines can buy permits and offset credits for compliance, though, real reductions are estimated by an impact assessment carried out for the EC at a mere 2.8 per cent in 2020, which is about equivalent to one year's growth in emissions estimated under a 'business as usual' scenario.⁴⁶ A converging conclusion was reached by a study from the Tyndall Centre, which estimated that a carbon price above €300 would have to be the norm for the EU ETS in order to have a significant impact on aviation emissions.⁴⁷

A further problem is that aviation emissions are calculated based only on CO₂ emissions. This leads to an underestimation of aviation emissions, since it ignores the role of non-CO₂ greenhouse gases and the formation of condensation trails (contrails), which contributes more to global warming than the calculated CO₂.⁴⁸

For compliance purposes, a new type of allowance was created, the European Union Aviation Allowance (EUAA). According to the current rules, 85 per cent of the airline companies' emissions in the EU are covered by EUAA's, which are allotted for free by the national governments. In the third phase this percentage will be reduced to 82 per cent, because three per cent will be given to new entrants or fast-growing operators. The remaining 15 per cent can be covered with permits (EUA's) bought in the EU ETS or with EUAA's bought from other airlines. Airlines can also use offset credits to cover their emissions, up to the limit of 15 per cent. Industrial sectors cannot use EUAA's for compliance.⁴⁹

Airlines have fiercely opposed their inclusion in the EU ETS. Giovanni Bisignani, Director General of the International Aviation Transport Association (IATA), said in 2008 that the cost of this measure would add up to a whopping €3.5 billion, further weakening an industry badly hurt by the increase in oil prices.⁵⁰ US airlines challenged their inclusion in the EU ETS at the EU Court of Justice, a case they lost in 2011.⁵¹

Some governments outside the EU have also used their power to oppose the inclusion of their airlines. In 2011, the US Senate introduced a bill prohibiting US airlines from participating in the EU ETS, which is still being discussed.⁵² India's environment minister, Jayanthi Natarajan, recently threatened a boycott and said that the EU's refusal to exempt non-EU airlines from the EU ETS could derail climate negotiations.⁵³ China's State Council also approved a resolution prohibiting Chinese airlines from participating in the EU ETS, while the government threatens the EU with trade sanctions, namely with the cancellation of future Airbus orders.⁵⁴ This, in turn, led Airbus to join airline companies to lobby against the inclusion of aviation in the EU ETS, to stop "an escalating trade conflict."⁵⁵

This opposition can be interpreted as a sign that airline companies are resisting the implementation of the 'polluter pays principle'. In reality, though, airlines will join the 'polluter gets paid' system that is the EU ETS, since most of their permits will be allocated for free and they can still pass on most or all of the costs of compliance to consumers. Ryanair, for instance, raised air fares by 0.25€ to cover what the company dubbed the "eco-loony ETS tax."⁵⁶ For US companies alone, a recent study estimated that the windfall profits would amount to US\$2.6 billion by 2020.⁵⁷

This is no surprise considering that the International Air Transport Association lobbied the EU institutions to water down the proposals made by the European Parliament, which would make airlines pay for permits and reduce their emissions by 10 per cent. The Parliament also voted to make airlines use only EUAA's for compliance, which would in effect create a separate carbon market for aviation. None of these proposals were integrated into the final directive.⁵⁸

Considering that airlines have managed so far to evade regulations on the pollution generated by airplanes, the opposition to their inclusion in the EU ETS is not surprising. Yet, considering that the EU ETS will distribute windfall profits and allow the continued expansion of air transport, the complaints from the airlines are little more than a smokescreen.

Pointing out abstract data on emissions or on volume of trading as criteria for success of a carbon market misses the important point that an effective climate policy is one that drives the economy away from fossil fuel dependence

b) From 'grandfathering' to benchmarking and auctioning

The method chosen to allocate emissions permits to polluters so far has been the free distribution of permits according to historical emissions, known as 'grandfathering' (see point 3.a. "Distributing profits among polluters"). Since the early stages of the EU ETS, 'grandfathering' has been seen as a necessary evil to buy consent from the industries. Until now, EU Member States have been free to choose whether to auction permits, up to a limit of five per cent of permits in the first phase and 10 per cent in the second, but this allocation method was rarely chosen. From 2013, this is set to change, as auctioning will become the rule, not the exception. Or so the story goes.⁵⁹

There are two major changes in this aspect scheduled for the third phase. The first is that part of the permits are going to be auctioned, instead of given away for free. Full auctioning however will be reserved only for power producers. But even in this case, there will be exceptions for utilities in Central and Eastern European countries, including those with a high dependence on coal for electricity

generation. Of the ten Member States eligible to give free permits to the power sector, eight have already submitted applications to the EC and three were accepted.⁶⁰ These states will be able to deliver 70 per cent of the relevant permits at no cost to utilities.

Even though power producers can easily pass through the cost of permits to consumers, the industry, represented through the Union of Electric Industry (EURELECTRIC), demanded as a compensation for the auctioning of permits that a part of the revenue be earmarked for Carbon Capture and Storage (CCS) projects. This unproven technology, consisting of capturing CO₂ from stacks using chemicals and pumping it underground, has been criticized by environmental organizations as being risky, expensive, energy intensive and a lock-in incentive to keep on burning fossil fuels.⁶¹ Still, EURELECTRIC got what it wanted, with the support of the oil industry. As a result, the revenue from auctioning 300 million permits from the New Entrants Reserve (for new companies that join the EU ETS) will be reserved in Phase III for “clean energy” projects, which include CCS and agrofuels.

The new measure, called NER300, was drafted with the help of an umbrella group called “Zero Emissions Platform”, which represents among others, utilities and petroleum companies and serves as an advisor to the European Commission on the research, demonstration and deployment of CCS.⁶² Being promoted as ‘clean coal’, CCS raises the spectre of a new generation of coal-fired power stations, which already includes ‘supercritical’ coal power stations. Moreover, this represents a major new subsidy for energy companies on the order of billions of euros.⁶³

Luxembourg Green MEP, Claude Turmes, stated: “It is seriously regrettable that the Commission and the Council headed by the Spanish Presidency have once again caved in to the fossil fuel lobby. The EU will never achieve the necessary reduction in greenhouse gas emissions by 2020 if it continues to support outdated, dirty fossil fuels.”⁶⁴

The second major change affects industry and heating sectors, which will continue to receive permits for free, but according to emissions performance-based benchmarks and not historical emissions. This means that the EC will set standards for emissions per unit of production for 53 product categories, according to what it considers to be an ambitious benchmark. The benchmark is based on the average emissions of the least polluting 10 per cent of installations in each category, for a given baseline. From 2013, installations will receive from 80 to 100 per cent of the benchmark in free permits, depending on whether or not they are considered to be exposed to international competition.⁶⁵

Benchmarking has some apparent advantages. On the one hand, benchmarking does not reward the historically biggest polluters with the largest number of permits. And on the other, benchmarking seems to be a simple way of bringing polluters in line with performance standards, which can be determined using scientific knowledge. But again things are not that simple.

Experience with benchmarking at the EU level shows that the rules are set not according to scientific criteria but rather following the needs of industries. This was clearly the case with the cement industry, as the EC ended up raising the benchmark during the consultations until it was exactly equal to what CEMBUREAU, the cement industry lobby, asked for.⁶⁶ Steel manufacturers also got their way with the lobbying game, as the benchmark became about 25 per cent less stringent. Further, the baseline for the benchmark

was changed to the 2005-2008 period, in which emissions were higher than they are now. In practice, this means that industries will be able to evade reducing emissions until 2020.⁶⁷

Airlines will join the ‘polluter gets paid’ system with the EU ETS, since most of their permits will be allocated for free and they can still pass on most or all of the costs of compliance to consumers. Ryanair, for instance, raised air fares by 0.25€ to cover what the company dubbed the ‘eco-loony ETS tax’.

Industry lobbying was also pervasive in the choice of industrial sectors considered to be at risk of ‘carbon leakage’. What was supposed to be an exceptional measure to protect industries that could be at a comparative disadvantage with international competitors as a result of auctioning became instead a widespread rule, with 169 sectors and sub-sectors being listed as eligible for receiving 100 per cent free allowances in the third phase.⁶⁸ But even for other industrial sectors, the proportion of permits given for free will reach 80 per cent in 2013 and then supposedly gradually reduce to 30 per cent in 2020.⁶⁹

As a result, industrial sectors will continue to receive large windfall profits, estimated at €7 billion annually by researchers at the London School of Economics, as they are able to pass through the ‘opportunity costs’ of the freely allocated permits.⁷⁰ It will be European consumers who will pay the cost of the already weak standards of the EU ETS, while energy-intensive industries will continue business-as-usual activities. This also implies a massive redistribution of income from labor-intensive to energy-intensive industries, which reduces employment and increases pollution.⁷¹

As if this is not enough, state aid measures were recently approved to subsidize industries covered by the EU ETS. A total of 13 sectors and seven sub-sectors will receive state aid from governments, including aluminium, steel, paper and chemicals. This is justified again by the risk (or threat) of ‘carbon leakage’, due to expected increase in electricity prices. This aid, which can reach 85 per cent of the eligible costs from 2013, 80 per cent from 2016 and 75 per cent from 2019, is an added bonus to the free permits. Electricity producers will also be eligible for state aid, as up to 15 per cent of investments with new fossil-fuelled power plants that are ‘CCS-ready’ can be subsidized.⁷²

c) Fixing the unfixable? The carbon market price

As historical price data shows, permit prices in the EU ETS have been volatile and low, meaning not only that polluters can buy their way out of reducing emissions but also that they can do it very cheaply. This is a result of constant over-allocation, as well as the impossibility of revising the already too generous cap in the case of an economic downturn – a problem that benchmarking does not solve. In addition, because permits from the second phase can be carried over the third one, prices will probably continue to be low in the future.

Worries about low prices in the EU ETS led to the emergence of proposals by EU institutions to ‘set-aside’ a part of the permits, thus reducing the excess supply that exists in the market. In December 2011, the Environment Committee of the European Parliament passed a resolution stating that 1.4 billion permits should be permanently removed from the EU ETS.⁷³ However, the European Commission merely considered a set-aside of 500 to 800 million in its draft “Roadmap for moving to a low-carbon economy in 2050”.⁷⁴ This number falls very short according to the UK research group Sandbag, which estimated an excess supply in the EU ETS of 1.7 billion permits.⁷⁵ Even so, in the end the Roadmap did not include any quantitative target for a possible set-aside, falling into the demands of powerful lobbies, such as BUSINESSEUROPE.⁷⁶

The discussion on the EU Energy Efficiency Directive, which aims to deliver an increase of 20 per cent in energy efficiency by 2020, has again raised the possibility that permit prices can further be reduced if the objective is met.⁷⁷ But so far, EU Member States, represented through the European Council, have managed to water down the demands made by the Directive, while opposing the possibility of including a set-aside clause.⁷⁸

EU Climate Change Commissioner, Connie Hedegaard, explained her views on this subject in a recent interview:

“I am also concerned about the too-low price we have for the time being, and we are also considering what to do and what not to do ... But on this discussion on having floor prices and things like that, it’s easy to see the logic behind that. If you start to toy with that idea ... then you will also have a ceiling and very soon you will not have a market-driven system. And we think it’s important to have a market-based system.”⁷⁹

EUROFER, the steel lobby industry, praised these declarations, with its director general, Gordon Moffat stating, “We absolutely share Commissioner Connie Hedegaard’s view that any manipulation of the EU’s emissions trading market would destroy the whole idea of a market-based system.”⁸⁰

But this position is not unanimous within the industry. Energy companies, like Shell and E.ON, have been lobbying the EC for an intervention in the market to boost prices.⁸¹ The EC conceded by considering a change in the rules for the third phase of the EU ETS, so that less permits are auctioned in the coming years and more are auctioned near 2020.⁸²

d) Expanding offsets

The inclusion of offset credits in the second phase of the EU ETS became possible after the approval of the Linking Directive, which sets the rules for using project credits for compliance.⁸³ A limit on the use of credits was introduced in each Member State’s National Allocation Plan, subject to the approval of the EC. After consultations, this limit was set at an average of 13.5 per cent of permit allocation, with Slovakia at the lower end (seven per cent) and Germany, Spain, Norway and Lithuania at the upper end (20 per cent).⁸⁴

In essence, industries covered by the EU ETS can comply with mandated ‘reductions’ by purchasing offset credits, from projects with well documented negative social and environmental impacts, instead of reducing emissions at source.⁸⁵ So far, the constant over-allocation of permits has resulted in a low use of credits for compliance, which reached only 21.5 per cent of the maximum allowed for Phase II until 2011.⁸⁶ The demand for credits from the private sector, however, has been much higher, with the World Bank estimating that it could reach more than twice the amount of credits used for compliance by the end of 2012.⁸⁷

The difference between demand and use of credits is the possibility of banking unused credits for use in the third phase of the EU ETS. Surplus credits can be used up to March 2015, as they can be swapped for permits.⁸⁸ The transfer of surplus credits from the second phase to the third in the EU ETS implies, in practice, that the limits on offsets from the two phases are merged.

The third phase will also imply a change in focus regarding offsetting. One major change is the exclusion of CDM credits generated from industrial gas projects, which result from the elimination of hydrofluorocarbons (HFCs) from refrigerant gas producers and nitrous oxide (N₂O) from synthetic fibre producers.⁸⁹ These projects are a cheap and dirty way out for polluters. Even the EU Climate Change Commissioner admitted to *The Guardian* that, “There are too many examples of projects with industrial gases, primarily HFC-23, where if you dig into it you can find there is a total lack of environmental integrity.”⁹⁰

Experience with benchmarking in the EU shows that the rules are set to follow industry’s needs. The baseline for the benchmark was changed to the 2005-2008 period, in which emissions were higher, meaning that industries will be able to evade reductions until 2020

Despite the plans for phasing out offset credits from industrial gas projects, these will continue to swamp the EU ETS in the third phase. In 2010, these credits represented 81 per cent of the total surrendered for compliance in the 2008-2010 period, a figure that reflects an upsurge in the demand in 2010 as a reaction to the EC plans for phasing them out.⁹¹ Due to pressure from industrial lobbies like CEFIC (chemicals) and major power producers like Enel-Endesa, as well as the International Emissions Trading Association (IETA), the date for the phase out was shifted from January 2013 to the end of April 2013.⁹² This gives industries more time to buy these credits and swap them for permits, which can in turn be banked for use in the third phase.

Another change regards the host country of offset credits. In consonance with the position taken in the climate negotiations, the EU has decided that CDM credits are eligible for compliance in the third phase of the EU ETS only if they originate from the Least Developed Countries (LDC). For other countries in the Global South, the EU plans to implement bilateral or international agreements that would generate credits from sectoral market mechanisms. Sectoral market mechanisms have the same logic as the CDM, but instead of generating credits by project, it would generate credits from projects encompassing an entire production sector, thus helping to achieve the EU objective of ultimately establishing a global carbon trading system.⁹³

Offset credits will continue to be abundant in the EU ETS. The limit on the use of credits for each state will be either 11 per cent or the limit established for the second phase, whichever is higher, so the average limit will actually increase. Further, the revision of the EU ETS Directive allows that up to half of the emissions reductions from 2005 levels be replaced by buying offset credits.⁹⁴

European consumers will pay the cost of the already weak standards of the EU ETS, while energy-intensive industries will continue business-as-usual. This implies a redistribution of income from labor-intensive to energy-intensive industries, reducing employment and increasing pollution

6. Where the “Carbon Monopoly” players meet

Most transactions in the EU ETS are mediated by the two largest exchange corporations:

Intercontinental Exchange Futures Europe (ICE) – The US-based financial company Intercontinental Exchange has been the owner of the former European Climate Exchange (ECX) since July 2010, the largest company involved in exchange permits and offset credits futures.⁹⁵

ECX was a part of the group Climate Exchange Plc, founded by Richard Sandor, a US businessman and economist known for his work on financial innovation. In the 1970s, Sandor was the father of financial derivatives, as the chief economist and vice-president of the Chicago Board of Trade. In the 1980s, he made a fortune in Drexel Burnham Lambert, a major investment bank, which went bankrupt in 1990 due to involvement in illegal activities.⁹⁶ This fortune was due mainly to collateralized mortgage obligations; a financial instrument that allow banks to create investment funds from mortgages, now infamous due to its crucial role in the ‘subprime’ market that is a centerpiece of the current financial crisis.⁹⁷ From the 1990s, Sandor became a key architect for emissions trading systems in the US, including the voluntary carbon market within the Chicago Climate Exchange, which ended up being decommissioned at the end of 2010, following the rejection of a mandatory carbon trading system by the US Congress.⁹⁸

After the financial crisis, ICE managed to position itself at the center of the banks’ plans to circumvent new regulations on derivatives, such as futures, that were being discussed in the US. In the fall of 2008, ICE partnered with major banks to create a clearinghouse that would serve as a risk management institution, thus reducing the chance that the fall of a bank and subsequent failure to honor its derivatives contracts would lead to the fall of other banks. This move would supposedly lead to a more transparent market, however this has failed to materialize, since bankers are in control of major committees in ICE’s clearinghouse. In fact, ICE ended up being the center of the bankers cartel in the US, as can be seen by the fact that its offices in New York host an exclusive monthly meeting with nine representatives of Wall Street giants, like JP Morgan Chase and Goldman Sachs, in which they negotiate common rules to trade derivatives.⁹⁹

The ECX has often been targeted by climate justice protesters. In April 2010, during the G20 meeting, activists from the UK Climate Camp pitched tents at its headquarters in the city of London, forcing ECX to close temporarily.¹⁰⁰ Three months later, ECX’s website was shut down by hackers and replaced by a spoof website with the title, “Climate on Sale! Guaranteed profit!”¹⁰¹

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Bluenext – Based in Paris, this exchange represents the biggest spot market. Founded in December 2007 when NYSE Euronext, a Euro-American corporation that operates multiple securities exchanges such as the New York Stock Exchange, and Caisse des Dépôts purchased the carbon exchange from PowerNext. The company also deals in futures and, since 2010, organizes auctions in offset credits.

The Bluenext exchange has been at the center of fraudulent activity in the EU ETS three times. The first occurred in March 2010 when the Hungarian government sold 800 thousand CER credits that had been used for compliance. The government used a legal

loophole that allowed it to sell used credits when an equivalent number of Kyoto allowances (called Assigned Amount Unit, AAU) were withdrawn from the market. Thus a €2 million profit was made out of the price differential between Kyoto allowances and (used) CDM credits. When, days later, the used CER's were again sold to European companies, through Bluenext, panic ensued since these credits could not be used for compliance with the EU ETS. As a result, Bluenext shut down for three days and the EU ETS was in disarray.¹⁰²

Second, cyber-criminals engaged in stealing permits from companies covered by the EU ETS. Through a 'phishing' scam, fraudsters managed to get access to registries from polluters. Afterwards, they transferred permits to another account and immediately sold them in the spot market. In February 2010, this forced the German Emissions Trading Authority to stop trading for a week, after €3 million worth of permits were stolen.¹⁰³ It happened again in January 2011, in several EU member states, forcing the EC to shut down the EU ETS to try to prevent fraudsters from selling their stolen permits. Bluenext then closed for two weeks and still there was no certainties regarding the possibility of the stolen permits, worth more than €7 million.¹⁰⁴

Then fraudsters committed 'carousel fraud', buying permits and credits in countries that do not charge Value-Added Tax (VAT) and selling them in countries that charge VAT. The fraudsters disappeared without paying the government tax charged to buyers, and the EU's taxpayers lost over €5 billion by the end of 2009.¹⁰⁵ For its involvement in the case, Bluenext ended up having to pay €32 million in compensations to the French government.¹⁰⁶

7. Green is the colour of money

The next United Nations Conference on Sustainable Development, dubbed Rio+20, aims to launch a 'green economy', a new catchphrase that complements the 1992 Rio Earth Summit's 'sustainable development'.¹⁰⁷ According to the United Nations Environment Programme (UNEP), "A Green Economy can be defined as one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities."¹⁰⁸ In a recent report on the green economy, UNEP frames the current ecological crisis as a result of a misallocation of capital, away from environmental services and green technologies and into fossil fuels and financial derivatives.¹⁰⁹ The solution involves the use of market-based instruments to put a price on environmental damage, such as permits markets, environmental services markets and taxes.¹¹⁰

The EC fully supports the transition to a green economy, using the EU ETS as an example of how environmental damage can be turned into a business opportunity. In its communication on the Rio+20 conference, the EC claims that "experience shows that market-based approaches such as emissions trading are not only cost effective tools to address environmental problems but are also a source for investment."¹¹¹ The EC also announced that it is going to press for the creation of new regional and national carbon trading schemes, with the aim of creating an international carbon market, noting that these schemes can generate "innovative finance."¹¹²

The enthusiasm for environmental markets does not end with carbon trading. The Reducing Emissions from Deforestation and Forest Degradation (REDD+) proposal, which aims to generate offset credits accounting the carbon 'accumulated' in forests, plantations and soils, and has been strongly supported by the EU in climate negotiations. This market-based instrument will be on the negotiating table again in Rio+20, despite the evidence of land-grabbing affecting peasants, forest-dependent communities and Indigenous Peoples in the Global South.¹¹³

Another idea on the table is the creation of a market for biodiversity offsets, through which companies can buy the right to destroy a natural area by buying credits from projects that preserve 'similar' natural areas. So far, this compensation principle has been applied in the EU only when an investment project deemed to be of public interest results in the destruction of a protected area inserted in the Natura 2000 network, which is the case for the European law mandates as a like-for-like compensation.¹¹⁴

In 2007, however, an EC consultation on market-based instruments for environmental protection opened the door to a habitat banking system in the EU, through which biodiversity credits can be exchanged.¹¹⁵ The idea was supported by industrial lobbies and in 2010, again a study ordered by the EC recommended habitat banking at the EU level.¹¹⁶

These developments show that the EC has consistently failed to recognize the problems inherent to market-based instruments, like the EU ETS, and can be expected to use its power in Rio+20 to support policies that create new markets to commodify nature. In a critique of the green economy, Edgardo Lander, a Venezuelan researcher, puts it, "For the good functioning of the markets, everything must have a price, opening up new spheres for speculation and capital value."¹¹⁷ The current economic crisis has shown dramatically the implications of giving more power to 'innovative finance' and that the EC continues to deliver decision making power to build more nature-based financial markets for polluting industries at the expense of the future of the planet.

The transfer of surplus credits from the second phase to the third in the EU ETS implies, in practice, that the limits on offsets from the two phases are merged

8. Conclusions

Despite all the problems with carbon trading exposed in this report, proponents of the EU ETS continue to argue that these problems can be designed away. However, the problems of this scheme are of a structural nature, refuting the idea that nature will be better preserved by adding a price tag to it. Moreover, as experience has shown, changes in the design of the system were always conducted according to industrial lobbies' demands, which managed to capture the EC, simultaneously the supplier and the regulator of permits. This is hardly surprising, given that carbon trading transfers the power of making decisions and acting on climate action from citizens and governments to polluters and traders.

The supporters also ignore more pressing problems that cannot be designed away, as they relate to how carbon trading, as an instrument that gives an incentive to end-of-pipe solutions in detriment of more ambitious and socially just policies that would facilitate the transition away from fossil fuel dependence.¹¹⁸ By focusing on abstract data of emissions or volume of trading as criteria for success, carbon trading legitimizes the continued use of fossil fuels, the over-production and consumption model, and actually makes the climate and environmental crisis worse.

The revision of the EU ETS Directive allows that up to half of the emissions reductions from 2005 levels be replaced by buying offset credits

Dropping the EU ETS would not imply giving up on policies to address the climate crisis. On the contrary, it would leave the field open to effective, just and democratic climate policies, which are now being blocked by the existence of the EU ETS.¹¹⁹ Insisting on trying to 'fix' a system that is broken from the start deviates attention and resources away from such policies. Insisting on exporting the EU ETS failure to other countries, under the cover of 'leadership', hinders cooperation with the rest of the world.

Communities and climate justice movements all over the world continue to present concrete ideas and proposals to address climate change. By showing how carbon trading is failing, this report contributes to widening space to discuss and implement them.

Alternatives for environmental, social and climate justice

From **Climate Justice Now!**, an international network of movements for climate justice which was launched on the final day of the COP13 in Bali, 2007:¹²⁰

Climate Justice Now! will work to expose the false solutions to the climate crisis promoted by these governments — alongside financial institutions and multinational corporations — such as trade liberalisation, privatisation, forest carbon markets, agrofuels and carbon offsetting. We will take our struggle forward not just in climate talks, but on the ground and in the streets, to promote genuine solutions that include:

- leaving fossil fuels in the ground and investing instead in appropriate energy-efficiency and safe, clean and community-led renewable energy
- radically reducing wasteful consumption, first and foremost in the North, but also by Southern elites.
- huge financial transfers from North to South, based on the repayment of climate debts and subject to democratic control. The costs of adaptation and mitigation should be paid for by redirecting military budgets, innovative taxes and debt cancellation.
- rights-based resource conservation that enforces Indigenous land rights and promotes peoples' sovereignty over energy, forests, land and water.
- sustainable family farming and fishing, and peoples' food sovereignty.

From the **World People's Conference on Climate Change and the Rights of Mother Earth**, called by the Plurinational State of Bolivia, in Cochabamba, Bolivia, 2010:¹²¹

Developed countries, as the main cause of climate change, in assuming their historical responsibility, must recognize and honor their climate debt in all of its dimensions as the basis for a just, effective, and scientific solution to climate change. In this context, we demand that developed countries:

- Restore to developing countries the atmospheric space that is occupied by their greenhouse gas emissions. This implies the decolonization of the atmosphere through the reduction and absorption of their emissions;
- Assume the costs and technology transfer needs of developing countries arising from the loss of development opportunities due to living in a restricted atmospheric space;
- Assume responsibility for the hundreds of millions of people that will be forced to migrate due to the climate change caused by these countries, and eliminate their restrictive immigration policies, offering migrants a decent life with full human rights guarantees in their countries;
- Assume adaptation debt related to the impacts of climate change on developing countries by providing the means to prevent, minimize, and deal with damages arising from their excessive emissions;
- Honor these debts as part of a broader debt to Mother Earth by adopting and implementing the United Nations Universal Declaration on the Rights of Mother Earth.

From the **People's Summit towards Rio+20 for social and environmental justice**, which will take place from 15 to 23 June, 2012, in Rio de Janeiro, Brazil.¹²²

The « Green economy », contrary to what its name suggests, is one more stage of capitalistic accumulation. Nothing in the « Green economy » questions or substitutes the economy based on extraction of fossil fuels, or the models of consumption and industrial production. On the contrary, this economy opens new territories to the economy that exploits people and environment, increasing the myth that unlimited economic growth is possible.

The failed economic model that has been dressed in green, aims at submitting all the vital cycles of nature to the market's rules and to the domination of technology, privatization and commodification of nature and of its vital functions, as well as traditional knowledge, strengthening speculative financial markets through carbon markets, environmental services, compensations for biodiversity and REDD+ mechanism (Reducing Emissions from Deforestation and forest Degradation) (...)

We struggle for a radical change of the current model of production and consumption, strengthening our right to expand with alternative models based on the various realities experienced by the peoples, truly democratic, respecting collective and human rights and in harmony with nature and social and environmental justice.

We affirm the collective construction of new paradigms based on food sovereignty, agro-ecology and non-profit economy, struggle for life and public property, on the affirmation of all threaten rights such as rights to land and territory, the right to the city, the right of nature and future generations, and on the elimination of all forms of colonialism and imperialism.

We appeal to all peoples of the world to support the Brazilian people's struggle against the destruction of one of the most important legal frameworks to protect forests (Forestry Code), which opens the door to increased deforestation in favor of the interests of agribusiness and strengthening of monoculture; also to support the fight against the implementation of Belo Monte mega water project, which affects the survival and life of forest peoples and Amazonian biodiversity."

Notes

- The Kyoto Protocol binds 37 industrialized countries, including those within the EU, with an average reduction of 5.2% in greenhouse gas emissions until 2012 from 1990 levels. The Kyoto Protocol can be found at http://unfccc.int/kyoto_protocol/items/2830.php. For more information on how carbon trading works see Gilbertson, Tamra and Reyes, Oscar (2009) "Carbon Trading: How it Works and Why it Fails", Carbon Trade Watch [<http://www.carbontradewatch.org/publications/carbon-trading-how-it-works-and-why-it-fails.html>].
- The eight per cent is the target assumed by the pre-2004 EU-15 group of EU Member States (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom). Ten of the newer 12 Member States (all except Cyprus and Malta) also have individual targets under the Protocol, but the EU-27 as such does not have a Kyoto target. The ETS now operates in 30 countries (the 27 EU Member States plus Iceland, Liechtenstein and Norway). See European Environment Agency (2010), 'Questions and answers', 4 June, www.eea.europa.eu/pressroom/newsreleases/questions-and-answers-on-key; European Commission Climate Action, http://ec.europa.eu/clima/policies/ets/index_en.htm
The Directive 2003/87/EC, which created the EU ETS, in its Annex I, determines that the sectors covered are: energy production, iron and steel, refining, building materials (ceramic and cement), glass and paper and pulp.
- See the official EU ETS website, at http://ec.europa.eu/clima/policies/ets/index_en.htm. For more on secondary markets and derivatives see Chan, Michelle (2009) "Subprime carbon? Re-thinking the world's largest new derivatives market", Washington DC: Friends of the Earth US, [<http://libcloud.s3.amazonaws.com/93/77/4/452/SubprimeCarbonReport.pdf>].
- According to an estimate from New Energy Finance, the EU ETS might have reached a value of over €86 billion in 2011. See Airlie, Catherine (2011) "Carbon Market to Grow 15% This Year, Bloomberg New Energy Finance Predicts", Bloomberg, January 6, [<http://www.bloomberg.com/news/2011-01-06/carbon-market-to-grow-15-this-year-bloomberg-new-energy-finance-predicts.html>].
- World Bank (2012), pp.73-104.
- For a thorough critique of the assumptions in which carbon trading is based on see Lohmann, Larry (2006) "Carbon Trading. A Critical Conversation on Climate Change, Privatisation and Power", Uppsala: Dag Hammarskjöld Foundation, [<http://www.thecornerhouse.org.uk/sites/thecornerhouse.org.uk/files/carbonDDlow.pdf>].
- Data from the US Environmental Protection Agency, available at <http://www.epa.gov/climatechange/emissions/usgginventory.html>.
- Stephan, Benjamin 2011: The Power in Carbon: A Neo-Gramscian Explanation for the EU's Adoption of Emissions Trading, in Engels, Anita (ed.), Global Transformations towards a Low Carbon Society, 4 (Working Paper Series), Hamburg: University of Hamburg / KlimaCampus, pp. 13-15, [http://www.wiso.uni-hamburg.de/fileadmin/sowi/soziologie/institut/Engels/WPS_No4.pdf].
- In the opening press conference, COP-15 president Connie Hedegaard talked of an unprecedented political will to reach an ambitious agreement, while UNFCCC president Yvo de Boer said that he was convinced that the conference would write history. Video at <http://sciencestage.com/v/38606/cop-15-opening-press-briefing.html>.
- The "Danish text" was leaked on 8 December and can be read at <http://www.guardian.co.uk/environment/2009/dec/08/copenhagen-climate-change>. For more on this, see Vidal, John (2009) "Copenhagen climate summit in disarray after 'Danish text' leak" Guardian, December 8 [<http://www.guardian.co.uk/environment/2009/dec/08/copenhagen-climate-summit-disarray-danish-text>].
- A summary of the polemic around this Accord can be found in Sourcewatch, in http://www.sourcewatch.org/index.php?title=Copenhagen_Accord
- As revealed by the diplomatic cables leaked by Wikileaks. See Carrington, Damian (2010) "WikiLeaks cables reveal how US manipulated climate accord" Guardian, December 3 [<http://www.guardian.co.uk/environment/2010/dec/03/wikileaks-us-manipulated-climate-accord>].
- See point 4 of the cable EO 12958, in <http://www.guardian.co.uk/world/us-embassy-cables-documents/249185>
- Industrialized countries are pushing for a new agreement to replace the Kyoto Protocol, which would impose emissions targets on Southern countries. The Kyoto Protocol was agreed under the UN Framework for the Climate Change Convention (UNFCCC), and, following the 'common but differentiated responsibilities' principle, mandates emissions reductions only for industrialized countries. This is because industrialized countries have the largest share of historical and current emissions of greenhouse gases, while per capita emissions in Southern countries are still relatively low. The principle puts the emphasis on the leading role of industrialized countries to make the necessary changes.
- A recollection of the declarations by social movements on Cancun and Durban can be found at <http://www.climate-justice-now.org/category/events/>. For more on how carbon markets were expanded in the COP-17, see Marien, Nele (2011) "How not to tackle climate change and call it a success: the Durban package" [http://www.nelemarien.info/durban_not_success/].
- Corporate Europe Observatory and PLATFORM (2009) "Putting the Fox in Charge of the Henhouse: How BP'S Emissions Trading

- Scheme was Sold to the EU " [<http://www.corporateeurope.org/publications/bp-extracting-influence-eu>]
- 17 For more on this see ENVIROS Consulting Limited (2006) "Appraisal of Years 1-4 of the UK Emissions Trading Scheme", London: Department for Environment, Food and Rural Affairs [<http://webarchive.nationalarchives.gov.uk/20090908171815/http://www.defra.gov.uk/environment/climatechange/trading/uk/pdf/ukets1-4yr-appraisal.pdf>].
- 18 A House of Commons report noted that in the first two years of the scheme, a subsidy of £111 million was given to the four biggest participating firms (Rhodia, BP, Ineos Fluor and Invista), for reducing emissions to levels they had already achieved before they joined the scheme. House of Commons Public Committee of Public Accounts (2004) "The UK Emissions Trading Scheme: a new way to combat climate change", London: The Stationery Office Limited [<http://www.publications.parliament.uk/pa/cm200304/cmselect/cmpubacc/604/604.pdf>].
- 19 UNICE lobbied for emissions trading and offsetting years before it was approved in the EU. See UNICE (1998) "Principles for Greenhouse Gas Emissions Trading. UNICE Position Paper", available at <http://www.businesseurope.eu>. EURELECTRIC (2000) "Union of the Electricity Industry - EURELECTRIC Position Paper on the Commission's Green Paper on greenhouse gas emissions trading within the EU (COM 87/2000)" [<http://www2.eurelectric.org/docsharenoframe/Common/GetFile.asp?PortalSource=4294&DocID=6342&Stype=SaveAS&mfd=off&pdoc=1>]. EUROPIA (2002) "Position on the Commission's proposal on GHG Emissions Trading within the EU", [<http://europa.com/DocShareNoFrame/Common/GetFile.asp?PortalSource=1418&DocID=8275&mfd=off&pdoc=1>]
- 20 The questions presented to stakeholders, in the "Green Paper on greenhouse gas emissions trading within the European Union", COM (2000) 87 final, as well as the comments received are available at http://ec.europa.eu/environment/docum/0087_en.htm. The rules of the EU ETS were set by the Directive 2003/87/EC, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF>.
- 21 Some of these NGO's have been criticized for supporting and legitimizing polluters' activities, which in turn finance the NGO's. See: Hari, J. (2010), "The wrong kind of green", The Nation, <http://www.thenation.com/article/wrong-kind-green>
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