Indigenous Environmental Network

CLIMATE JUSTICE ALLIANCE
COMMUNITIES UNITED FOR A JUST TRANSITION
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CARBON PRICING

A Critical Perspective for Community Resistance

Building Solidarity Against the Threat of Linking Global Carbon Markets

It Takes Roots. "Red Line." 2017. JPEG.

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This publication will help communities and organizations articulate crucial points to resist carbon pricing and climate change.

It Takes Roots. "Climate March on Washington D.C." 2017. JPEG.

Main Takea

1. Carbon pricing, including carbon trading, carbon taxes and carbon offsets, are false solutions to climate change that do NOT keep fossil fuels in the ground.

2. Carbon taxes will always be low, will always be evaded, do not cut pollution to the degree needed, and are greenwash.

3. Carbon trading, carbon offsets and REDD+ are fraudulent climate mitigation mechanisms that in fact help corporations and governments keep extracting and burning fossil fuels.

4. Token revenues distributed to environmental justice communities from carbon trading or carbon pricing can never compensate for the destruction wrought by the extraction and pollution that is the source of that revenue.

5. The injustices, racism and colonialism of carbon pricing schemes are international in scope. Our resistance needs to be international as well.

aways

Instead carbon pricing, etc. pretend to remedy the situation ***after the fact.*** Groups resisting climate change must not be distracted and misled by carbon pricing, and need to concentrate first on pushing to keep fossil fuels underground.

Climate movements can better build power and move towards a Just Transition by fighting fossil fuel subsidies. They should beware of being used to legitimize carbon pricing and other "easy outs" for polluters.

Climate movements have been resisting carbon trading for years in the North and South. We must not let changes in the carbon jargon confuse and divide us nor undermine our continued resistance!

Accepting such revenue not only does not compensate for the damage to our air, bodies, environment, and nature, but also implicates the receiver in the extraction, pollution and natural disasters that such pollution causes.

Resisting carbon colonialism is a crucial form of international organizing and international solidarity. We all breathe and share the same air. Domestic regional carbon markets are in the process of merging into a global carbon market. This global carbon market would be a WTO of the Sky. Carbon pricing would be an umbrella for carbon trading, carbon taxes and carbon offsets. We need to globalize our struggle against the privatization of the atmosphere, of nature and all these false solutions to climate change. The Sky is one and so to must be our resistance!

Pozzebom, F.R. Indios da tribo Tucuxi participam do Fórum Social Mundial 1006 FP6469. 2009. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Indios_da_tribo_Tucuxi_participam_do_F%C3%B3rum_Social_Mundial_1006_FP6469.jpg. Digital Photography. 11/2/2017.

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Glossary

Cap and Trade – Legislation that sets a jurisdiction-wide limit or "cap" on emissions while allowing corporations to save money by distributing emissions cuts among themselves to wherever they can be made most cheaply. Under most such schemes, polluters can save even more money by buying extra so-called "reductions" from jurisdictions outside the "cap". These fraudulent "reductions" are called "offsets" (see "Carbon Offset", below). Because the use of offsets inflates the cap, the term "cap and trade" is a misnomer when applied to such hybrid schemes.

Carbon Pricing – Carbon trading or carbon tax programs that result in a monetary value being attached to units of carbon dioxide pollution. These programs include cap and trade, carbon offsets, REDD+, cap and dividend, baseline and credit, baseline and offset and so on.

Carbon Offset – Emissions reduction "equivalent" that corporations or states can purchase as a cheap pollution right allowing them to continue polluting above an agreed-upon cap. Many offset projects have been documented to bring harm to local communities, especially to marginalized communities in the global North and South – people already impacted the most by climate change, including Indigenous Peoples, People of Color, impoverished communities, women and forest dependent communities.

Clean Development Mechanism (CDM) – The largest carbon offsetting program in the world, part of the Kyoto Protocol. The CDM allows industrialized countries with a greenhouse gas reduction commitment to evade it by buying offset credits from projects sited in the global South. The CDM is supervised by the CDM Executive Board (CDM EB) and is under the guidance of the Conference of the Parties (COP/MOP) of the United Nations Framework Convention on Climate Change (UNFCCC). See Section 2 for problems with the CDM.

Certified Emission Reduction (CER) – The emission "reduction" certificate generated by CDM projects.

CH_4 – Methane.

CO_2 Equivalent – An invention that saves corporations regulatory costs by giving them legal permission to continue polluting with carbon dioxide, as long as they sponsor projects that reduce supposedly "climatically equivalent" emissions of other greenhouse gases.

CO_2 – Carbon dioxide.

COP – Conference of the Parties, the annual conference of the parties to the UNFCCC.

Derivative – a contract between two parties to carry out a transaction in the future based on an 'underlying' quantity such as an asset (e.g. carbon permits) or a financial variable (e.g. an interest rate). Derivatives have four basic types: forward, future, option and swap.

EU-ETS – European Union Emissions Trading Scheme. The EU-ETS is the largest GHG carbon trading system in the world (at the time of writing), under which European Union signatories seek to comply with the Kyoto Protocol. The EU ETS involves multiple sectors. Under this scheme, electricity-generating and other industrial installations must obtain CO_2 permits, monitor emissions, and ensure emissions do not exceed the European Union Emissions Allowances (EUAs) that each holds. The system was patterned after the US sulfur dioxide emissions cap and trade program to reduce SO_2 emissions, but, unlike that program, includes offsets. See more on the EU ETS in Section 2.

FVA – Framework for various approaches to enhance mitigation. A UN framework in which to harmonize various emissions trading and verification systems, and set minimum standards. The FVA is currently part of the UN climate change negotiations for an international climate change agreement for the period beyond 2020.

EUA – European Union Emission Allowance

GCF – Green Climate Fund, a fund that was established at the COP 16 in Cancun in 2010 as an operating entity of the financial mechanism of the Convention under Article 11. The GCF claims it will support projects, programs, policies and other activities in developing countries, and can be used to proliferate carbon pricing.

GEF – Global Environment Facility, an independent financial organization that provides funding for environmental projects in developing countries. The GEF is the designated financial operator for various environmental agreements, including the UNFCCC.

GHG – Greenhouse gases, atmospheric gases responsible for causing global warming and climate change. The GHGs recognized under the Kyoto Protocol are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). Climate models from the Intergovernmental Panel on Climate Change, as well as models from other scientific bodies, indicate that global concen-

Glossary

trations of GHGs have been rising steadily over the past 100 years. As atmospheric concentrations of GHGs increase, the greenhouse blanket gets thicker. This causes heat to be trapped in the lower layers of the atmosphere and causes global average temperatures to rise. CO_2, the most common GHF, is assigned an index value = 1. Index values for other gases (CH_4 = 21; NO_2 = 310; HFC-23 = 11,700; PFC = 6,500) are all highly controversial.

Grandfathering – The free allocation of permits to participants in a cap and trade system, based on their historic emissions. Grandfathering gives property rights in the Earth's carbon-cycling capacity to the corporations who have used it the most in the past.

Hedging – the use of derivatives to reduce or protect against risk.

IPCC – International Panel on Climate Change. The scientific body that advises the UNFCCC.

ITMO – Internationally Transferred Mitigation Outcomes, tradeable units in a scheme for exchange that links carbon pricing plans between nation-states. See Section 3.

Kyoto Protocol – The Kyoto Protocol resulted from the United Nations Framework Convention on Climate Change held in Kyoto, Japan in December of 1997. It proposed a process for establishing numerical limits on the emission of greenhouse gases to the Earth's atmosphere. It also contained negotiated commitments by 38 developed countries and countries in transition to reduce emissions 5.2% below 1990 baseline levels for the period 2008-2012. The principle of Common but Differentiated Responsibilities (CBDR) stated that only industrialized countries with historical emissions would be responsible for reduction limits. The Protocol created a process for carbon trading through which an emitting country could meet its emissions reduction requirements by trading with another polluting corporation or another country performing an emissions reduction activity or fabricating an offset (see "Carbon Offset", above). At the Doha meeting of the parties to the UNFCCC on 8 December 2012, the European Union pledged to extend the treaty, binding 27 European Member States, up to the year 2020 pending an internal ratification procedure. Canada and New Zealand pulled out. The Paris Accord in 2015 forced all countries to commit themselves to some form of emissions reductions – undermining the principle of CBDR – based on their Nationally Determined Contributions (NDC). See section 2.

NMM – New Market Mechanism. A further development of the Kyoto Protocol's project-based mechanisms which is currently part of the UN climate change negotiations for a new international climate change agreement for the period beyond 2020.

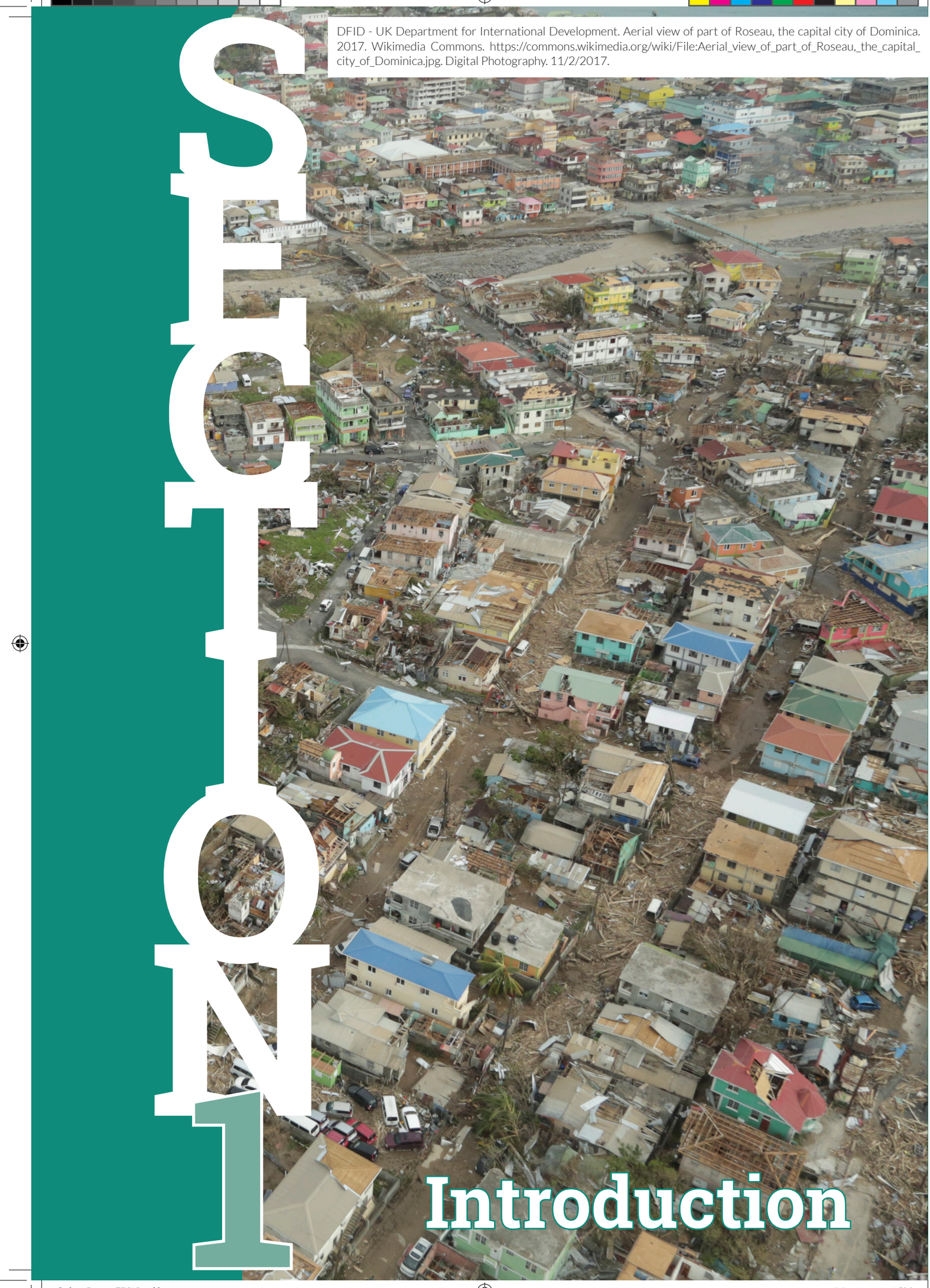
PoA – Programme of Activities, a type of project implemented under the Kyoto Protocol's Clean Development Mechanism and Joint Implementation. The objective is to give industries in the global North outside Eastern Europe an opportunity to continue polluting as long as they pay a minimal cost to sponsor a basket of separate project activities (CPAs) in a Southern or Eastern European country..

REDD+ – Reducing Emissions from Deforestation and forest Degradation, including through conservation, "sustainable management" of forests, and enhancement of forest carbon stocks. Most REDD+ schemes are sited in Southern countries. They are offset programs that claim to maintain forests (or plantations) in one area in order to produce CO_2 pollution rights for industries elsewhere. See section 2. Communities that rely on the forests risk not being able to use their forest after the offset agreements are made.

RGGI – Regional Greenhouse Gas Initiative, a cap and trade program in the US that involves nine Northeastern states (Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont). The first phase of RGGI ran from 2009 to 2015. A 10 percent reduction was expected by 2019. What with the 2008 financial crash, lower gas prices, overallocation of pollution rights by the states involved and other reasons, RGGI has played an insignificant role in climate mitigation efforts in the region.

Tax Avoidance – Legal and semi-legal practices aimed at evading or minimizing taxes. See section 4.

Tax evasion – Illegal non-payment or underpayment of taxes.



DFID - UK Department for International Development. Aerial view of part of Roseau, the capital city of Dominica. 2017. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Aerial_view_of_part_of_Roseau,_the_capital_city_of_Dominica.jpg. Digital Photography. 11/2/2017.

Section 1

Introduction

Introduction

The climate is changing faster today than it ever has before in human memory. Hurricanes are bigger, stronger, and more frequent, the sea level is rising, and agriculture is increasingly affected by changing rainfall patterns. Even small changes in the climate can have major effects. Ice ages, which recur around every 50,000 to 100,000 years, tend to happen when the Earth's average temperatures gradually decrease to about 5°C (9° F) cooler than temperature averages in modern times. If the most threatening effects of climate change are to be addressed, research suggests, global temperatures should not rise more than 2°C (3.6° F) above pre-industrial levels (Pachauri et al. 2014). That means leaving in the ground just over 30% of the earth's oil reserves, 50% of the gas reserves and more than 80% of the coal reserves (McGlade and Ekins 2015). The Climate Justice Alliance (CJA) and Indigenous Environmental Network (IEN), along with other US-based members of the social, environmental and climate justice communities and global alliances have platforms calling for leaving 80% of the current totality of fossil fuel reserves under the ground and ocean in order to avoid global temperatures rising to no more than 1.5°C. How will this transition away from fossil fuel extraction be organized within our respective communities? What will the consequences be for people, our communities, humanity, ecosystems, habitat and all life? Issues of climate and environmental injustice and equity cannot be avoided if such questions are to be addressed.

Yet, instead of focusing on how to protect humanity from the threats associated with continued fossil fuel use, most official approaches to climate change are focused on how to protect the use of fossil fules by a broad range of industrial, transport, and service corporations from peoples' concerns about global warming. For almost all of the world's governments, fossil fuels are too important for their power, profits, and paradigms – in creating and disciplining wage labor, increasing its productivity, speeding up global transport, extracting raw materials, encouraging consumption, creating investment opportunities and waging war – even to consider leaving them in the ground (The Corner House 2014). Using them more efficiently – yes. Supplementing them with other energy sources – yes. Rationing them for the use of the wealthy using price systems – yes. Taking over bigger and bigger swathes of land and sea to try to "compensate" for the damage they do – yes. But a post-fossil fuel world? No.

Human-caused climate change is viewed as possibly the most critical environmental problem of the 21st century:

Climate change is already rapidly advancing, according to many local communities and general scientific consensus.

Rapid, catastrophic "flips" in climate occurring in as little as five years are possible, as is shown by ice core samples and other evidence.

Climate change affects women, the poor, Indigenous communities and marginalized first and most. So far, those who have contributed least to climate change have suffered the greatest impacts insofar as they have been less able to build defensive infrastructure, change their livelihoods or move.

As it has always done, this commitment to coal, oil and gas increases the power of the rich while reducing that of the human majority. Communities especially impacted include the frontline communities of peoples living directly alongside fossil-fuel pollution and extraction overwhelmingly: Indigenous Peoples (IPs), Black, Latino, Asian and Pacific Islander communities, working class, poor and peasant communities in the United States, Canada and around the world. These peoples are forced to sacrifice their lives, livelihoods and health for the sake of projects to extract and burn fossil fuels and dump the resulting toxic waste and who have been facing the reality of the climate crisis for decades. In climate disruption and extreme weather events, these communities and indigenous tribal nations are hit first and worse.

It is no coincidence that the US, the world's richest country, is responsible for nearly a third of the excess carbon dioxide in the atmosphere today, and thus bears more historical responsibility for climate change than any other country. Although US elites are quick to blame China for global warming, less than a sixth of historical CO_2 emissions originate from inside China's borders, and the bulk of those are due to industries exporting goods to the global North, including the US (Gillis and Popovich 2017). Carbon pricing is a name for a tool that governments, financial institutions and corporations have adopted in order to try to reconcile their continuing commitment to fossil fuel use with the need to appear to take action on climate change. Carbon pricing includes emissions trading, cap and trade, carbon offset trading, carbon taxes, and penalty and payment schemes.

As it has always done, this commitment to coal, oil and gas increases the power of the rich while reducing that of the human majority.

Carbon pricing has come to dominate the white environmental and climate movements as well as the debate on how to curb climate change. It is with grave concern that the Indigenous Environmental Network and the Climate Justice Alliance have come together to produce this series of publications on carbon pricing in response to the promotion of false solutions that continue to concentrate power, imprison communities, and solely focuses on carbon emissions and not root causes. Although the publication is aimed primarily at a North American audience, we hope that it can also be a useful tool for communities elsewhere who are impacted by – and are resisting – carbon pricing and all of its synonyms as a master strategy for tackling global warming. Highlighting how carbon pricing mechanisms obscure the root causes of climate change, divide communities and organizations, and furthers the impacts of climate change to all, we have included a wide variety of international examples of and perspectives on carbon pricing, while keeping in mind that domestic US climate politics have important international consequences.

It is with grave concern that the Indigenous Environmental Network and the Climate Justice Alliance have come together to produce this series of publications on carbon pricing in response to the promotion of false solutions that continue to concentrate power, imprison communities, and solely focus on carbon emissions and not root causes.

The majority of the tools for mitigating climate change, both within the US and globally, focus on carbon pricing and carbon counting, and continue to exploit people and communities most impacted by climate change, while providing special favors to the very fossil fuel and agricultural industry corporations most responsible for climate change. These tools rely on market-based mechanisms and so-called price signals to influence the behavior of fossil fuel based energy companies and result in making energy more expensive for the poor. They also rely on

offsets that ignore local pollution impacts disproportionately borne by people of color, Indigenous peoples and workers.

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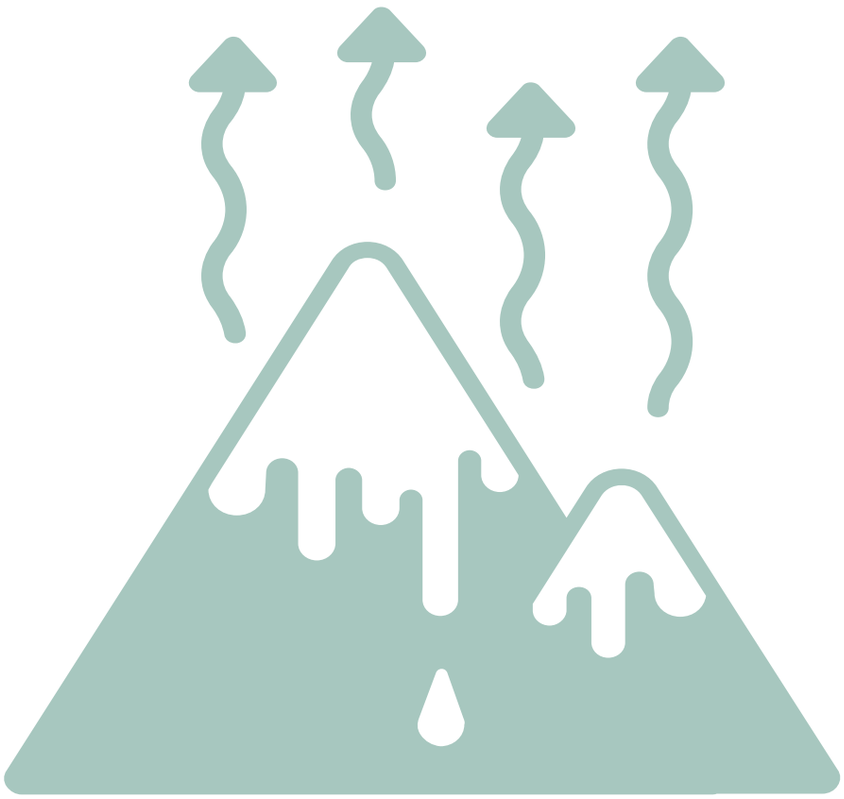
This report - Volume 1 of a series - is divided into five sections. This introduction is followed by an explanation of the principles adopted by the CJA. Section two provides a brief historical summary of carbon trading, which will lay the ground for conceptualizing the contradictions inherent in market-based mechanisms purporting to address climate change. Section three outlines carbon pricing mechanisms, explains some of the key differences among them, and describes some actors and plans for linking various schemes. Section four explains fossil fuel subsidies in greater depth. Section five further critiques carbon pricing and explains why we need holistic and justice-based approaches to address climate change, one of the most pressing problems of our time.



The Climate Justice Alliance

The Climate Justice Alliance (CJA) is an alliance of over 50 community organizations, movement networks, and support organizations on the frontlines of the climate crisis in North America. CJA's constituencies are rooted in Indigenous, African American, Latino, Asian Pacific Islander, and poor white communities. They share legacies of racial and economic oppression, along with rich histories of social justice organizing. CJA believes that in order to effectively confront the climate crisis, we must shift our priorities from global systems of production and consumption that are energy intensive and fossil fuel dependent to more localized systems that are sustainable, resilient and regenerative. To do this will require a long-term transition, which CJA believes is a necessary and meaningful project that can create jobs and promote healthier livelihoods while healing the planet. The transition itself, however, must be just.

Despite limited resources, environmental justice (EJ) communities like those linked by CJA have effectively used grassroots organizing, networking, and direct action strategies to win significant victories against polluting industries. CJA member groups are linked in a growing movement that demands bold action by governments and industry to confront the root causes of climate change, and are organizing a Just Transition on the ground towards sustainable, resilient regenerative economies. CJA is committed to real climate solutions and opposes geoengineering techno-fixes and market-based solutions, including some of the ill-informed "clean energy" legislation currently being proposed at the municipal, state and national levels.

Since its inception, CJA's mandate has been to unite communities to demand a just transition from an economy dependent on fossil fuels, extraction, and dirty industries to a regenerative economy that will reduce greenhouse gas emissions at the source, restore equity, and put decision-making in the hands of communities (CJA 2017). To push toward a sectoral tipping point of the Just Transition, CJA has developed an Energy Democracy Platform that incorporates historical racial, cultural, and economic justice intersections with the energy sector and moves control of energy systems from industry to the people most affected by exploitation of humans and the Earth.

CJA members are strongly united in a shared vision and core values, that includes envisioning a world in which fairness, equity and ecological rootedness are core values for building a society that celebrates and honors the beauty, diversity and the rights of Nature and all life on Earth, and the human rights of all people to realize their full creative potential. CJA believes that the process of transition must be just, centering race, gender and class. It must protect communities and workers that are the most vulnerable to pollution, climate disasters and economic disruptions. And it must create meaningful work and dignified, good-paying jobs. For this reason, urban and rural frontline communities and workers must be in the forefront of shaping the new economy.

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The Indigenous Environmental Network

Established in 1990, IEN was formed by community-based American Indian, Alaska Natives and First Nations of Canada, including youth, women, elders, traditional and spiritual indigenous societies, to address rights of Indigenous peoples and environmental and economic justice issues in North America. IEN uses the term "Indigenous Peoples" and now have networks with Indigenous communities throughout the world. IEN works on environmental protection, environmental health, conservation of natural resources and biodiversity, protection of sacred areas, food sovereignty and promoting sustainable development within Indigenous territories.

Using an organizing narrative of Indigenous Rising, IEN is taking action towards just transition building the cultural, social, economic and political power of Native Nations and its Indigenous peoples to develop action under the principles of self-determination, exercising the principles of Free, Prior and Informed Consent (FPIC), the recognition of the UN Declaration on the Rights of Indigenous Peoples, for energy democracy, food sovereignty and rights of Mother Earth.

The US, Canada and other industrialized countries have an addiction to the high consumption of energy. Mother Earth and nature cannot sustain the consumption and energy production needs of the modern industrialized world and the dominant economic paradigm, which places value on rapid economic growth, the quest for corporate and individual accumulation of wealth, and a never-ending race to exploit natural resources. This non-regenerative production system creates too much waste and toxic pollutants. IEN recognizes the critical need to build alliances of grassroots-led social and indigenous movement for a new economy; governed by the absolute limits and boundaries of social, cultural and ecological sustainability and the carrying capacities of Mother Earth.

IEN campaigns upon the strength of indigenous frontline communities resisting unsustainable energy and extractive industry who are experiencing the effects of global warming and climate change, to be developing strategic plans for Action for Resiliency, Transformation and Change. IEN campaigns with frontline communities to keep fossil fuels in the ground demanding for a moratorium on all new exploration for oil, gas, coal and uranium as a first step towards the full phase-out of fossil fuels, without nuclear power, with a just transition to sustainable jobs, energy and environment.

IEN recognizes the critical need to build alliances of grassroots-led social and indigenous movement for a new economy; governed by the absolute limits and boundaries of social, cultural and ecological sustainability and the carrying capacities of Mother Earth.

Unknown. Barrow AK. 2014. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Barrow_AK.jpg. Digital Photography. 11/2/2017.

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It Takes Roots. "Hurricane Harvey Houston Debris Cleanup." 2017. JPEG.

2 Historical Summary

Historical Background on Market Systems Within Climate Policy

Desperate to avoid or neutralize climate and energy regulation that would affect profits, polluting corporations historically have worked hand-in-hand with governments to develop a dizzying array of false solutions that deepen inequalities in our communities. Wall Street financiers, "green" venture capitalists, large environmental organizations and a host of others have jumped on the bandwagon. These actors have tried to disguise one of the clearest consequences of an unsustainable system – a climate crisis moving toward catastrophe – as a technical problem that can be "efficiently" dealt with by using market-based solutions. This market fundamentalism diverts attention away from the root causes of the problem, encouraging us to imagine a world with price tags on forests and "smart" agriculture, ocean plankton, water, and biodiversity, all in the name of "dealing with the climate crisis."

At the heart of the false solutions being proposed is an attempt to avoid seeing the big picture. False solutions are constructed around the invisible scaffolding that maintains the dominant economic, cultural and political systems—the idea that economic growth is both desirable and inevitable; that progress means industrial development; that Western science and technology can solve any problem; that profits will motivate and the markets will innovate; and that capital accumulation need not be based on a continual process of degrading human and extrahuman nature. Most of us in the global North, whether sensitized to it or not, are participants in and, at times, even take comfort in this world view. Sadly, many find it easier to imagine the end of the world than the end of a globalized economy built upon the unsteady legs of expanding empire, ecological erosion and exploitation of workers and communities. We can take steps, large and small, to stop the climate crisis. What we cannot afford to do is go down the wrong road. So far, governments and polluters have aimed to "manage" public concern about the climate crisis without compromising profits, even if that means exacerbating the same power structures and economic system that got us here. The following is the story of how carbon market systems have come to be.

Sadly, many find it easier to imagine the end of the world than the end of a globalized economy built upon the unsteady legs of expanding empire, ecological erosion and exploitation of workers and communities.

Backdrop

Neoliberalism is thought to have developed in the 1970s in the UK and the US in response to, among other things, declining profit rates, weakening of colonial empires and inflation. State-led programs tried simultaneously to boost the economies of the global North and limit resistance to capitalism in the global South. Developmentalism, the Northern welfare state, and conventional environmental regulation all came under assault. By the late 1970s, international finance institutions such as the World Bank and the International Monetary Fund (IMF) began to implement a wide range of fiscal, monetary, industrial and commercial policies that led to nation-states opening their national economies to the world market by liberalizing trade and financial policy, deregulating businesses, reducing or eliminating nation-state subsidies and social programs and privatizing key domains of the public sphere including state-owned enterprises (Portes 2001, Robinson 2001). Between 1978 and 1992, more than 70 countries underwent 566 stabilization and structural adjustment programs imposed by the World Bank and the IMF (Robinson 2001). These projects have not brought about the prosperity promised, but have instead ushered in more debt, wide-spread impoverishment and social protest (Harvey 2005).

In the 1990s, many factory operations were moved from the global North to the South; new special economic zones were created; large-scale extractivism was expanded in the global South; Southern countries were strong-armed into accepting one-sided debt arrangements by the International Monetary Fund (IMF) and the World Bank; free trade agreements such as the North American Free Trade Agreement (NAFTA) proliferated; and financial markets spread in a way that consolidated power in the global North. All of these practices had consequences far and wide on people and the Earth.

The 1992 United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992 and known as the Earth Summit, tried to link environmental solutions to neoliberal forms of capital accumulation. The Earth Summit's Conference was led by Secretary-General Maurice Strong, a gas and energy entrepreneur and an advisor to the World Bank. He was very influential with the corporate sector, promoted a market-led approach, and mentored Al Gore and the US delegation. The Summit promoted the idea of "sustainable development through trade liberalization", and the "positive" role that transnational corporations could play in linking development and environmental matters (UNCED 1997). Many neoliberal assumptions were reflected in both the Conference's push for an "open economic system" based on endless economic growth, and in the Summit's overall portrayal of multinational corporations as positive agents of ecological change "promoting sustainable development through trade liberalization", in the words of Agenda 21, one of the Declarations agreed at Rio (UNCED 1992).

Out of the Earth Summit emerged several documents and two bodies that would begin to convene regularly, the Convention on Biological Diversity (CBD) and, the Framework Convention on Climate Change (UNFCCC). The UNFCCC provided a basic framework for international decision-making on climate change, and resulted in the Kyoto Protocol in 1997. The Kyoto Protocol was the first international agreement to require countries to reduce their greenhouse gas emissions. However, reflecting the focus on neoliberal market-based policies at the time, the Kyoto Protocol put market-based mechanisms at the center of so-called "climate change mitigation". A brief look into where cap and trade began will help illuminate how carbon pricing has become the focus of climate politics.

Thaller, B. A dying glacier. 2014. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:A_dying_glacier_14776638880_o.jpg. Digital Photography. 11/2/2017.

The Earth Summit resulted in the following documents:

- Rio Declaration on Environment and Development
- Agenda 21
- Convention on Biological Diversity (CBD)
- Forest Principles
- Framework Convention on Climate Change (UNFCCC)

The Origins of Emissions Trading

Early attempts to implement emissions trading schemes include a US Environmental Protection Agency (EPA) baseline-and-credit lead control program in the 1980s and a sulfur dioxide (SO_2) trading scheme set up as part of the US Clean Air Act Amendment in 1990. The US lead trading program was advertised as a method for phasing out leaded gasoline but ended up creating opportunities for all kinds of frauds and in the end actually postponed the phase-out. The SO_2 trading program intended to use emissions trading to make it cheaper to reduce SO_2 emissions (which cause acid rain) by 10 million tons below 1980 levels (Drury et al. 1999). The program focused on emissions from 263 power plants fired by coal, oil and gas. Following previous experiments with water pollution and wetland-credit trading, sulfur dioxide trading set up a financialized market in ecosystem function tokens. As happened in other emissions trading schemes outlined later in this text, the first phase of the SO_2 program gave out more pollution permits to corporations than they needed to comply with reduction requirements.

Yet, even when allowances were auctioned, the revenue was given back to polluters, illustrating how pollution trading grants power to and promotes profiteering for companies that have the power to influence regulation.

At the outset of the program, companies anticipated high compliance costs, resulting in many installing scrubbers to remove SO_2 from their emissions. However, shifts in coal markets lowered the market price of low-sulfur coal, making it cheap to reduce sulfur emissions by other means. The oversupply of pollution permits in the system ballooned still further (Coelho 2009). Much of the surplus was banked or saved for later use in the second phase of the scheme that began in 2000. This surplus helped business delay SO_2 emissions reductions.

Almost all of the SO_2 allowances (that is, pollution rights) created under the Clean Air Act were distributed for free. Yet, even when allowances were auctioned, the revenue was given back to polluters, illustrating how pollution trading grants power to and promotes profiteering for companies that have the power to influence regulation. Companies can lobby for and against regulation just as they can lobby for rights to pollute. In 2008, the US approved further direct regulation, the Clean Air Interstate Rule (CAIR) which, together with additional regulation from US states, led to forcing coal plants to install scrubbers. This, in turn, led to emissions going down significantly, which then led to sulfur credit prices going down to near zero (Coelho 2009). Shifting permits between power plants coupled with overallocation resulted in a net surplus of permits that were banked into the second phase of the scheme that began in 2000. The surplus permits available at the beginning of the second phase (2000-2005) provided an additional opportunity for units to delay SO_2 emissions reductions at source.

Comparing this trading program to other national SO_2 reduction programs highlights the shortcomings of the US SO_2 pollution trading plan. The 29% reduction in SO_2 emissions in the 1990-2000 period does not seem impressive when compared to the 61% reduction achieved in the EU (EEA 2014). Germany cut public power plant sulfur emissions by 90 per cent from the first proposal in 1982 to the completion of its program in 1998, relying on cuts at source, firm regulation and legislation, without a trading scheme of any sort (EEA 2008). In addition, what required 23 years in the US with a trading program, Japan managed to accomplish in ten and China in three with direct regulation (O'Brien 2011).

Furthermore, the US Clean Air Act was already set up to phase out sulfur dioxide

through regulatory means. What reductions the sulfur dioxide scheme did achieve were entirely the result of these legislated limits, not trading itself, whose function was merely to try to make the regulated reductions cheaper for polluting industries. Why only a 40% SO_2 reduction was achieved over almost two decades compared to bigger and faster cuts in other countries using direct regulation may well be linked to interference by the cap and trade system.

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The Kyoto Protocol

Despite the fact that a pollution trading system covering a small number of controlled fixed sources like power plants, such as the one described above, is far less complex than a cap and trade program involving many gases, various kinds of offsets, and multiple jurisdictions, the US began pushing early on in the United Nations Framework Convention on Climate Change (UNFCCC) process for a global greenhouse gas trading scheme. The International Energy Agency (IEA) and the Organization for Economic Cooperation and Development (OECD) guided a UNFCCC Annex 1 Expert Group in developing proposals for industrialized nations within the UN process that created openings for an emissions trading system within the Kyoto Protocol process (Oberthür, Sebastian and Ott 1999). As the process moved forward, the US government began to design a carbon trading proposal, announcing in 1996 that this kind of "flexibility" would be "the key requirement for [the US's] accepting binding targets" (Stowell 2005). In December 1997, the third COP was held in Kyoto, Japan, resulting in a Protocol that was to become the major pillar of international agreement on climate change. Many parties in the UNFCCC insisted that emissions reductions be made without trading, but the US delegation, led by then Vice President Al Gore, again insisted upon "flexibility". The US was very powerful in the international climate change negotiating arena, and in 1997 at the Kyoto Protocol negotiations, the US delegation refused to participate further unless flexible mechanisms were introduced into the plan. Claiming that the sulfur trading scheme had been successful, the US managed to push language into the Kyoto Protocol consistent with the US demands for "flexibility". Companies like Enron, an energy trader, were well positioned to make a profit from the resulting settlement. Under a great deal of pressure from the US, the other parties eventually capitulated to US interests in order to ensure that the planet's biggest historical polluter would back an international agreement on climate change.

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Although Kyoto was agreed upon in 1997, subsequent negotiation processes on subjects like carbon sinks, forests and market-based mechanisms took may years. Yet after years of difficult international compromises to accommodate US bullying, the US pulled out of the Kyoto Protocol in 2001, after its market-based trading language had already been embedded in the Protocol. By that time, the biggest polluting corporations in Europe were fully aware of

The Kyoto Protocol identifies six chemical compounds that have adverse affects on the Earth's atmosphere which are called greenhouse gases (GHGs).

1 2 3 4 5 6

Carbon Dioxide	Methane	Nitrous Oxide	Hydrofluoro-carbons	Perfluoro-carbons	Hydrofluoro-carbons

These six greenhouse gases emitted from industrial, agricultural and consumer sources are; carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluoro-carbons (PFCs), and sulphur hexafluoride (SF_6), and NF_3 (added in the 2012 Doha Amendment to the Kyoto Protocol). Emissions trading under the Kyoto Protocol is based on carbon equivalence, which means that CO_2 is supposedly climatically "equivalent", when multiplied by various factors, to each of the five other gases. Under Kyoto, "carbon trading" actually refers to the trading of all of these greenhouse gases.

It Takes Roots. "Hurricane Harvey Disaster Damage." 2017. JPEG.

the financial opportunity that emissions trading presented, and also saw that it would obviate difficult negotiations over a Europe-wide carbon tax, and the way was paved for what would become the first international carbon trading scheme, worth many billions.

Kyoto was criticized from the outset because it only required 5.2% emissions reductions from industrialized countries, even though the UNFCCCs own scientific advisory council, the Inter-Governmental Panel on Climate Change (IPCC), called for 60 – 80% reduction of CO_2 emissions at source (IPCC 1997). The Kyoto Protocol was further criticized for bringing emissions trading into its regulatory apparatus.

One important aspect of the Kyoto Protocol was its principle of Common but Differentiated Responsibilities (CBDR), the idea that the "the largest share of historical and current global emissions of greenhouse gases has originated in developed countries" (UNFCCC 1992). The Protocol required governments of developed nations (referred to as Annex 1 within the UNFCCC) to commit themselves to an average of just 5.2% GHG reductions below 1990 levels by 2012. Developing nations in the global South were understood by CBDR to be less historically responsible for climate change, and therefore were not required, for the time being, to comply with emissions limits. In addition, economic growth was viewed as necessary in the global South to boost economies and alleviate poverty. Importantly, one of the George W. Bush regime's justifications for ultimately rejecting the Protocol was that it "exempts 80 percent of the world, including major population centers such as China and India, from compliance, would cause serious harm to the U.S. economy" and was "unfair" to the US (Bush 2001). Although the US did not ratify the Kyoto Protocol, the World Bank – deeply influenced by US policy – was, and still is, a leading force behind emissions trading mechanisms.

The European Union Emissions Trading Scheme (EUETS)

The EU gradually strengthened its support for emissions trading and began to design an EU-wide scheme that became the EU ETS, now used as a model for other trading systems. The European Commission first discussed the emissions trading scheme as part of its Kyoto strategy in 1998 (Braun 2008). While some corporate-backed groups led disinformation campaigns to convince the public that climate change was not real, a self-proclaimed "progressive" branch of big business, led by BP, was positioning itself to write the rules of this new trading regime (Lohmann 2006). Big business was at the forefront from the beginning of the EU ETS. In 1999, a number of companies in the UK formed an 'Emissions Trading Group' to develop a voluntary scheme as an alternative to carbon tax proposals in order to develop a non-tax alternative to save industry money. At the same time, Danish and Norwegian power companies ran a prototype for a small national emissions scheme with little success (Braun 2008).

Elsewhere, some companies began to experiment internally with emissions trading. BP and Shell were among the early actors, with BP using its powerful position to set the policy agenda for emissions trading – first in the UK, and then in the EU (Braun 2008). With backing from Environmental Defense, a Washington-based NGO, the company set up an internal trading system for its "non-extractive emissions", emissions other than those from extracting or burning oil. With the full system in operation in 2000, BP's goal of a 1% emissions reduction was easily met. As in almost all cap and trade schemes, an over-optimistic calculation of the

growth of BP's business led to an over-allocation of allowances (Mackenzie 2008). A tighter cap of 10% was put in place for 2001, which was easily achieved largely through reductions in flaring and venting natural gas. BP hailed the scheme while at the same time selling the previously flared gas, generating an additional US$650 million in revenue (Victor and House 2006). BP's corporate influence had a significant impact on how the rules of the EU ETS were ultimately set. By October 2003, the European Emissions Trading Directive was passed into law, with the scheme coming into effect on 1 January 2005. Since then, the EU ETS has become the largest carbon trading market in the world.

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The EU ETS covers 30 countries, roughly 12,000 industrial installations and about half of the EU's CO_2 accounted emissions. The EU ETS followed in the footsteps of both the US SO_2 scheme and BP's internal trading scheme. All three programs began by over-allocating free allowances The most polluting corporations made windfall profits in the first phase. For example, ArcelorMittal, the world´s largest steel company, profited immensely through the EU ETS by buying and selling carbon pollution permits while making few or no reductions to its emissions. ArcelorMittal received an a quarter to a third more permits than it would have needed to cover its emissions. The company was reported to have made over 2 billion euros in profits from the EU ETS between 2005 and 2008, with over 500 million of this achieved in 2008 alone – yet it made minimal proactive changes to reduce emissions, and none that were stimulated by the carbon market (CTW 2009). The over-allowance meant that there was no incentive to reduce emissions and as a result, the price of the permits collapsed – ending 2007 at one Euro cent. As in the case of the SO_2 scheme, the EU ETS, allowed for "banking" the permits from its first phase for use in the second phase, which ran from 2008-2012. In the EU ETS, while the years 2005 and 2006 saw brief peaks in EU allowance prices of over €30, average yearly prices fell from above €22 in 2008 to around €4.50 in 2013 and have never approached double-digit figures since (ICIS 2016).

The second phase of the EU ETS was heralded as a major success, but most reductions in emissions were due to the economic crisis that began in 2008. Gloaguen and Alberola (2013) estimated that, during the 2005-2011 period, emissions reductions in EU ETS-covered sectors could be explained almost entirely by a combination of factors not related to the carbon market. These include increased renewable energy production, the economic downturn, improved energy efficiency and fuel switching (from coal to gas), all of which are dependent on EU policies and economic variables external to the carbon market. Emissions decreased by about 12.5%, between 2008-2011 despite an increase in 2010, related mostly to the significant decrease in electricity and industrial goods production, reaching 13.85% by 2009 (Coelho 2012).

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Then the real market crash came. The EU ETS lost a third of its value in 2012 alone, due to overallocation, market saturation and the overall failure inherent in the emissions trading system. At the end of 2012, the sale of 5.58 million permits by the EU netted a mere €6.45 million. Prices were so low that the EU had to come up with a shock treatment (Fioramonti 2014). The surplus of close to 2 billion allowances increased to over 2.1 billion in 2013 (EC 2017). With state intervention necessary to keep the failing market limping along, the EU put forward a plan to temporarily remove 900 million tonnes of carbon allowances from the market in hopes of increasing the price of the permits. The EU voted against this so-called "backloading" plan. But on

the 16th of April 2013, European Emission Allowances (EUAs) lost half their value in a ten-minute market flash, plummeting in price from a sad €5 to a mere €2.63 (Fioramonti 2014). Another vote was held and backloading was implemented. In 2015, the allowance surplus was reduced to around 1.78 billion. Without backloading, the European Commission claimed, the credit surplus would have been almost 40% higher at the end of 2015 (EC 2017). Additionally, a Market Stability Reserve will be implemented after 2021, adjusting the volume of auctioned allowances to reflect the balance between the supply and demand but this will be far from sufficient to end the oversupply of allowances in the market. Although the carbon markets were not reducing emissions and the entire structure was now under question, new carbon markets were being planned and implemented around the world.

Carbon prices have also fallen and stayed low in other carbon markets in New Zealand, California, Shenzhen and Guangdong (ICIS 2016). China's other regional carbon markets have maintained their initial low prices, and while the price of carbon in US Northeast's Regional Greenhouse Gas Initiative (RGGI) program has registered only small increases from extremely low initial price levels, with overallocation insuring that the scheme did not not interfere with the concerns of capital.

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Carbon Offsets

Carbon offsets are projects that are claimed, unverifiably, to save specified amounts of emissions. These supposed savings are treated as if they were equivalent to actual emissions reductions. Because they are designed to be cheaper than actual emissions reductions, they are attractive to businesses that want the cheapest way out of reducing emissions at source. Under the Kyoto Protocol, most offset projects are sited in countries in the global South and are set up to "compensate" for continued and increased pollution in industrialized countries (the Kyoto Protocol's Annex 1). Offset projects are undertaken by companies, international financial institutions and governments. Offsets usually run in parallel with cap and trade schemes in which the cap is supposed to set a limit on pollution. Carbon offsets generate credits which can be sold to polluters to allow them to emit pollution over and above their cap.

Offset projects tend to add to the burdens of risk and injustice that local communities already contending with various hardships have to bear.

Offsets, then, do not reduce emissions. In fact, they do not even compensate for emissions, as they are advertised to do, merely creating an illusion that something is being done about climate change. Instead, they allow emissions to increase and thus exacerbate global warming. Further, as research on offset projects in the global South has demonstrated, they violate human rights of local communities and Indigenous Peoples and result in land grabs. In addition, offset projects tend to add to the burdens of risk and injustice that local communities already contending with various hardships have to bear (Böhm and Dabhi 2009, Cavanagh and Benjaminsen 2014, Gilbertson and Reyes 2009, McAfee 2012, Srang-Iam 2012). In moving the

responsibility for reducing emissions from one location to another, normally from countries in the global North to countries in the South, they not only make climate change worse but also increase global inequality.

The UN's Clean Development Mechanism (CDM) is the world's largest offsetting scheme. All CDM projects are located in Southern countries. Credits sold from offset projects can be exchanged for EU and other allowances, and are even cheaper today than the EU ETS allowances. Factors that keep the price of offsets low include a carnival of innovation that has seen industrial consultants, foresters, oil recovery experts, plantation firms, bankers, UN officials and so on enlist a staggering variety of raw materials in the inexpensive mass "production" of certificates that symbolize supposed climate mitigation increments.

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Prices of the UN's Certified Emissions Reductions, the largest and most regulated class of offsets, dropped from around €12 in 2009-2011 to close to zero in 2013 and after. The total number of such projects reached 7,784 in September 2017 (UNEP DTU 2017). The emissions permits generated by CDM projects have only added to the massive surplus of saleable pollution rights now circulating worldwide. As a result of this market over-saturation, in September 2017, only one additional CDM project was submitted for official UN review. Other UN programs aimed at producing pollution rights through the offset logic are also moribund: in the same month, only one National Appropriate Mitigation Actions (NAMA) and one Programme, of Activities (PoA) were submitted for approval, and no Joint Implementation (JI) offset projects. The CDM has even been forced to institute a voluntary cancellation processes to deal with the oversupply of credits on the market. Back in 2007, over 2,600 CDM projects were awaiting approval CDM. Ten years later, 655 projects were "at validation" and no projects were requesting registration. In 2007, the credits generated by approved schemes were expected to be worth around US$35 billion by 2012 (UNEP DTU 2017). By 2012, a CDM CER was worth only 31 cents.

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Of course, all market-based commodities are subject to boom and bust cycles. But the trend of carbon prices, despite bouts of chaotic volatility, has been relentlessly downward. This fact – and the time-consuming but unsuccessful efforts of the EU and other actors to try to remedy the situation – amount to good news for fossil fuel-dependent corporations. At the same time, however, the illusion that carbon markets are environmentally viable and can help curb global warming has been proven false.

REDD & REDD+

One controversial and particularly colonialist and climate-damaging type of carbon offset scheme goes under the name of REDD (Reducing Emissions from Deforestation and forest Degradation). In 2010, REDD was expanded to REDD+, which purported to include forest conservation, "sustainable forest management" and "enhancement of forest carbon stocks".

REDD+ aims to make it possible for polluting states and industries in the global North to take control of carbon stocks stored in forests in the global South in order to maintain or increase them as a particularly cheap way of compensating for continued Northern fossil-fuel pollution. Led by the UN and the World Bank, REDD+ proponents aim to provide a further flood of inexpensive pollution rights credits to a class of industrial buyers already spoiled for choice, while at the same time persuading a global public that they are both forest and climate saviors. Since the early 2000s, REDD and REDD+ have been explicitly promoted as among the quickest, cheapest and most cost-effective ways to tackle both deforestation and climate change.

A typical REDD+ project offers economic incentives to a Southern community or state to reduce future emissions from local forested lands by conserving or augmenting the carbon stored there, demanding appropriate guarantees in return. Such projects tend to be accompanied by the claim that deforestation happens because too little economic value is placed on intact forests, and that providing money for conservation to forested countries in the South will help to protect them. This assertion has been challenged by many Indigenous Peoples and forest communities, who warn that putting a price on forests has in fact encouraged further land grabs by carbon traders, large companies and governments (CTW and IEN 2010).

In practice, REDD+ projects tend to follow a divide-and-rule strategy. Indigenous and forest-dependent communities are convinced by slick project organizers that they will receive compensation for not using their forests, or even for just continuing to follow their customary practices unhindered. In fact, however, communities often find themselves subject to new restrictions on their livelihood activities, new accounting burdens, and even overt land grabs and criminalization, while the promised money is often not forthcoming and internal community tensions increase.[1] Very few communities are even informed that the objective of the contract they are being offered is to manufacture pollution rights for faraway industries and business sectors.

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REDD+ and other carbon offsetting schemes, like cap and trade, carbon tax plans and other price-based climate "mitigation" regimes, have been heavily promoted and in large part built by the World Bank at the behest of the biggest polluters on the planet. Since even before the pilot phase of the Kyoto Protocol in the 1990s, the Bank has been an influential force behind neoliberal approaches to global warming followed both inside and outside the UNFCCC.

[1] See REDD-Monitor, www.redd-monitor.org for a huge archive of examples and news on the problems of REDD+.

Back To The Future

As the carbon markets were bottoming out and enthusiasm for the EU ETS and offsets were at an all-time low, the 2009 UNFCCC Conference of the Parties (COP)15, in Copenhagen, Denmark, was presented as the last chance to come up with an agreement that would commit industrialized countries to reduce emissions by 2020 – when the second commitment period of the Kyoto Protocol ends. However, the first day of the conference was marked by a leak of a secret document known as the "Danish text" to The Guardian newspaper. The leaked text turned out to be the basis for a weak and non-binding "Copenhagen Accord" orchestrated behind closed doors by a small group of industrialized countries – including the US, the UK and Denmark – in alliance with the BASIC bloc (Brazil, South Africa, India and China). The agreement, to which the EU promptly adhered, was then presented more or less as a *fait accompli* to representatives from the rest of the world (Vidal 2009). However, the Accord was rejected by many countries from the global South, including Bolivia and Tuvalu, forcing the US to apply intense pressure on the troublesome parties (Carrington 2010). The EU, too, was keen to push through the Accord with enough vague legal language that would allow plans for global emissions trading projects to be protected in the agreement. Efforts to propose a new climate agreement that would supersede the Kyoto Protocol failed. Talks continued into the night for three days after the scheduled final date, resulting in a stalemate, largely because the US and its allies would not support a treaty unless other countries without emissions reductions targets agreed to implement targets.

The UN climate negotiations in Cancún, Mexico, in 2010, and in Durban, South Africa in 2011, continued to reflect tensions between the global South and North. Countries in the global South, deeply impacted by climate change, pushed hard for tough binding emissions targets while industrialized countries fought for even weaker emission reductions and more "flexibility" within the agreement. Ultimately, COP-16 ended with a mere copy-and-paste document from Copenhagen. But at the COP-17 in Durban, South Africa, the parties to the UNFCCC agreed to remove Common but Differentiated Responsibilities (CBDR) from the Durban Agreement. The Durban Agreement also saw the expansion of carbon markets and weakening of targets as the Kyoto Protocol was superseded by a new round of negotiations for a post-2020 treaty (Marien 2011). At the 2014 UNFCCC meeting in Lima, Peru, nations agreed to Nationally Determined Contributions (NDCs) to be reviewed the following year at the Paris climate conference. NDCs consist of a series of answers to questions related to emissions reduction targets for each participating Party of the UNFCCC regardless of GDP, development status, or historical responsibility. Thus, the discourse shifted from problematizing over-consumption and historical fossil fuel use in industrialized countries, to a narrative whereby climate change becomes an equally-shared responsibility of all nations. This essentially whitewashes the root causes of global warming and erases its history and politics.

The IPCC warns that to achieve a fifty-fifty chance of avoiding the most dangerous climate change scenarios, countries will need to cut emissions by at least 40 percent from 2010 levels by the year 2050

Climate change, carbon markets and carbon offsets were all still advancing in 2014 when the Intergovernmental Panel on Climate Change (IPCC) concluded that total "anthropogenic GHG emissions have continued to increase over 1970 to 2010 with larger absolute increases between 2000 and 2010, despite a growing number of climate change mitigation policies." (IPCC 2014, p.5). The report states that only major institutional and technological change will keep the planet below the 1.5°C warming limit. This in turn would require stabilizing greenhouse gas concentrations at 450 parts per million CO_2 equivalent (IPCC 2014). The IPCC warns that to achieve a fifty-fifty chance of avoiding the most dangerous climate change scenarios, countries will need to cut emissions by at least 40 percent from 2010 levels by the year 2050 (IPCC 2014).

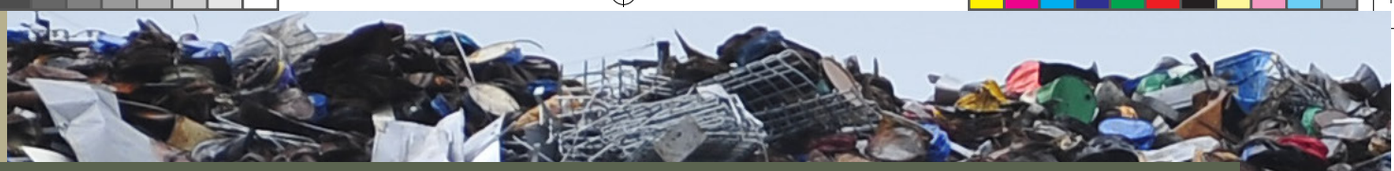
By the 2015 Paris negotiations, all parties had put forward their NDCs, which included each country's commitment to reducing emissions regardless of the degree to which the country might be responsible for, or impacted by, climate change. The result was hailed as a success by the most powerful polluters, including corporations and industrialized countries. But the Paris Agreement was not just a document with no teeth and weak, non-binding reduction proposals. It also pushed countries in the global South to bear the economic burden of climate change. The Paris Agreement allows for, as the World Bank put it, "ways to create incentives for large scale cuts in emissions by widening and deepening carbon markets" (World Bank 2015). Or to put it another way, according to Alberto Salamando (2017), a human rights and Indigenous attorney:

> **"The Paris Agreement is a trade agreement, nothing more. It promises to privatize, commodify and sell forested lands as carbon offsets in fraudulent schemes such as REDD+ projects. These offset schemes provide a financial laundering mechanism for developed countries to launder their carbon pollution on the backs of the global South. Case-in-point, the United States' climate change plan includes 250 million megatons to be absorbed by oceans and forest offset markets. Essentially, those responsible for the climate crisis not only get to buy their way out of compliance but they also get to profit from it as well."**

When the second phase of the Kyoto Protocol ends in 2020, the Paris Agreement, now ratified by 139 out of 165 countries, will take over (UNEP DTU 2017). The Agreement's aspiration of limiting global warming to a 2°C increase has little prospect of being achieved given the voluntary nature of the reductions and the inclusion of false solutions such as carbon markets and offsets. Even before 2009, new plans had been launched in anticipation of a post-Kyoto era, with a new offsetting mechanism based on the CDM as well a Green Climate Fund. The rulebook for implementing the Paris Agreement's Article 6 will now introduce additional international market mechanisms that further undermine any hope of any emissions being reduced in the framework of the Agreement (World Bank 2017).

Outlined in the Paris Agreement's Article 6 are "cooperative approaches" for countries to achieve their NDCs through the use of Internationally Transferred Mitigation Outcomes (ITMO). An ITMO, a new and important acronym in the climate lexicon, can potentially refer to any sort of bilateral, regional or multilateral trading or offset scheme, linked networks of carbon pricing mechanisms (an ETS or a carbon tax), transfers of technology, or possibly the provision of climate finance. An ITMO would involve the negotiated bilateral transfer of some portion of one nation's NDC to another nation's NDC. ITMO-transferring agreements would be only between the countries involved. The parameters for ITMOs and accompanying carbon accounting standards are subject to future UNFCCC rules. As this has been getting set up, the G7 nations have launched a Carbon Market Platform to serve as a body for governments and business to begin developing best practices and criteria for ITMOs.

This is where the two themes of emissions trading markets and UN climate agreements merge. Thus, as emissions trading and offset schemes repeatedly fail, similar schemes with new names are launched and hyped to the public, including carbon taxes, carbon pricing, carbon penalties, carbon sanctions and rebranded variations on cap and trade schemes. As early as 2008, the International Emissions Trading Association (IETA) and the World Bank were anticipating a global carbon market linking highly divergent trading schemes in different regions. With NDCs on the table, the Kyoto Protocol due to end in 2020, and an obscure Paris Agreement set to take its place, the next steps for the proponents of pollution trading seem to be to continue re-spinning and expanding emissions trading and offset schemes to link them across the globe. By crafting new umbrella terms and deceptive jargon to avoid drawing attention to failed emissions trading markets and offset scandals, the UN, nations and corporate polluters continue to mask both inaction on global warming and climate profiteering, threatening our very survival.



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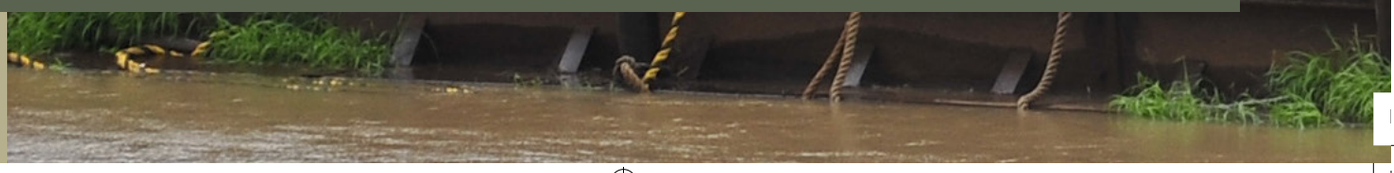

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3 Carbon Pricing

Short-Term Memory or Cognitive Dissonance

In 2014, carbon trading programs were facing deepening scandals and failures. The EU ETS was limping along, not having been helped at all by a state-led backloading program. CDM pollution permits were still nearly worthless despite a new voluntary cancellation program. An Australian carbon tax scheme that would have segued into a carbon market in 2015 was canceled. It seemed to some observers, not for the first time, that the end of carbon trading was nigh.

Data demonstrating the failure of carbon markets to mitigate or reduce emissions were already overwhelming. In addition, carbon trading providing "cheaper regulation" was causing increased delays in taking effective climate action, as unsuccessful efforts to "save" an untenable system went on and on. Yet instead of recognizing the genuine climate solutions being pursued by an expanding spectrum of activists and communities the world over, policy-makers began digging themselves into an even deeper hole.

In September 2014, 74 countries, 23 states, provinces and cities, and over 1,000 businesses and investors with more than $24 trillion in assets met to discuss a series of fresh initiatives to price carbon that had been announced at the UN Secretary-General's Climate Leadership Summit (World Bank 2014). The meeting, hosted by the World Bank Group, the World Economic Forum and a newly-formed We Mean Business Coalition, resulted in a "Put a Price on Carbon" statement signed by California Governor Jerry Brown, Vietnam Prime Minister Nguyễn Tấn Dũng, Quebec Premier Philippe Couillard and polluting giants including Unilever, E.On, Holcim and PG&E, to name a few (World Bank 2014). The World Bank press release stated:

> **"Carbon pricing if expanded to this scale and then globally has the potential to bring down emissions in a way that supports clean energy and low-carbon growth while giving businesses the flexibility to innovate and find the most efficient choices."**

The Vice President of the World Bank Group at the time, Rachel Kyte, went on to state, "We are seeing a shift toward the economic architecture that will be necessary to avoid a 2-degree-warmer world..." (World Bank 2014). The architecture she referred to aimed to link emissions trading and taxes on a global scale in order to preserve and increase the "flexibility" enjoyed by large polluting industries and powerful industrialized states in addressing the climate crisis.

A whole host of emissions markets and carbon pricing systems were already being planned or implemented at the time in British Columbia, California, Chile, China, Colombia, Mexico, Quebec, Kazakhstan and South Korea, together with an international aviation sectoral market, an expansion of REDD+ programs claimed to Reduce Emissions from Deforestation and forest Degradation and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks, and increased funding linked to climate mitigation (read carbon pricing schemes). By 2017, over 46 national and 25 sub-national jurisdictions had implemented carbon pricing initiatives ranging from various types of cap and trade systems, offsets to carbon tax schemes – twice as many as there had been five years before (World Bank 2017a). In 2007, ten carbon pricing initiatives were scheduled or being implemented; 24 in 2012; 46 in 2017 (World Bank 2017b). Not only were climate-damaging carbon markets being made "too big to fail"; carbon tax master plans were also being folded into the mix. It is no surprise then, that the World Bank, which had participated in designing the blueprints for

Shankar Raman, T.R. Logging in Sabah, Malaysian Borneo: tall dipterocarp rainforest trees are most commonly felled. 2010. Wikimedia Commons. https://commons.wikimedia.org/wiki/File:Logs_DSC_9204.JPG. Digital Photography. 11/2/2017.

Multiple Schemes: Means to an End

After much criticism from social movements, new names have been given to various emissions trading schemes (ETS). These schemes have occasionally also been mixed with other types of carbon pricing systems in futile attempts to moderate the ill effects of carbon trading. For example, a baseline-and-credit system is an emissions trading system in which baseline emissions levels are defined for individual installations. Under this type of system, credits are issued to installations that have reduced their emissions below this level and can then be sold to other installations exceeding their baseline emission levels. In a baseline-and-offset system, targets or baseline emission levels are defined for individual emitters, groups of emitters or emitters. Polluters that exceed their baseline emissions are allowed to purchase offsets to meet their compliance obligations. Here, in contrast to a baseline-and-credit system, emitters do not automatically receive credits for the emissions they have reduced below their baseline level (WB CPW 2017).

Another prime example of how carbon markets have been rebranded is the Paris Agreement, which contains a carefully-worded scheme for carbon pricing involving exchangeable units called ITMOs (see section 2). In order to hide criticism and outrage from social movements and other groups, the text that defines ITMOs was strategically written to avoid the words, "trading" and "market" altogether even though it requires a massive new emissions trading infrastructure (see section 2).

There are also several examples of rebranding in REDD+ projects. One REDD+ project in São Félix do Xingu, Brazil set up by The Nature Conservancy (TNC) took the word "REDD+" out of the title. The project received funding from the Vale Fund, Bank of America, the Amazon Fund, USAID, the Norwegian International Climate and Forest Initiative, the British Embassy, the Anne Ray Charitable Trust and the Moore Foundation. A report from CIFOR (the Center for International Forestry Research) on REDD+ projects stated:

> **"According to TNC, the REDD+ nomenclature was misunderstood at the local level. For small farmers, the market-based connotation of REDD+ was of little interest; for large producers it seemed like an opportunity for profit; and for indigenous groups it tapped into anti-REDD+ sentiments (Emphasis added). Because of these misunderstandings, TNC eliminated the term 'REDD+' from the name of the initiative even though actions to reduce deforestation remain at its core (REDD Monitor 2017)."**

emissions trading schemes since the beginning, would repackage the language to include both emissions trading markets and carbon taxes into one overarching global trading plan referred to as carbon pricing.

What is Carbon Pricing?

In 2015, in a letter to Christina Figueras, then Executive Secretary of the UNFCCC, six oil and gas giants, BP, Shell, Eni, Total, Statoil, and BG Group (a big natural gas company that Shell is acquiring), called on the UN to put a price on carbon emissions. The letter, sent just ahead of that year's World Gas Conference, outlined the importance of natural gas for lowering carbon emissions. The companies "called on governments to introduce national and regional carbon-pricing policies where they don't already exist, and to create an international framework to eventually link national programs together" (Geman 2015).

The big oil and gas companies had clearly come to an understanding of how carbon pricing could benefit them, especially when linked across the globe. If the benefits from carbon pricing were to continue, a 'go big or go home' approach linking the programs together would be advantageous. Although corporations like BP had supported carbon trading since the beginning, something was happening below the surface that brought the companies together on carbon pricing. This section aims to outline the main reasons why corporations view carbon pricing as advantageous and how implementing a carbon tax is a key component towards a global linking strategy.

Price Tags on the Earth

The idea of pricing carbon is rooted in orthodox economics, which promotes the ideology that if something is not given a price then it does not have a value, and that if pollution can be treated as a measurable commodity, it can be managed and controlled. Since there is no price on CO_2 or other emissions, according to this logic, then CO_2 has no value and therefore can't be assessed when economic decisions are made. Conversely, according to this argument, putting a price on carbon dioxide should be able to solve the climate crisis because it will give industry incentives to innovate away from fossil fuels and make different long-term infrastructure investment decisions.

As will be explained below, this ideology is based on orthodox economics' misunderstandings about what prices are and what they can achieve. But it is important to note first the specific, internal difficulties of attempting to use this ideology to justify carbon markets. In carbon markets, price signals, being neither straightforward nor predictable nor particularly significant, are unable to do even a minimal part of the work asked of them by market proponents. Put clearly, carbon markets flutter and crash. They do not reduce emissions.

In these markets, unlike most others, both demand and supply are set by nation-states. Governments not only set caps in line with the current relative strength of various lobbies, but also determine available offset supply by setting rules for how to produce them, again largely

Ironically, the unpredictability of price signals in a carbon market is one of the reasons why big fossil-dependent corporations – unlike some actors in the financial sector who welcome volatility – sometimes prefer taxes to carbon trading. They figure taxes will yield the more predictable price signals they want, while being just as susceptible to being set at the insignificant levels that accord with their wishes. So they will be able to make profitable long-term investment decisions more confidently, while remaining equally confident that taxes will never interfere seriously with their fossil fuel extraction, transport and burning.

in accordance with the strength of various lobbies. That makes future demand and supply hard enough to predict, but the uncertainty is increased still further by many other factors that affect pollution permit prices, such as subsidies for renewable energy or fossil fuel extraction. In addition, any price signals that emerge from carbon markets are susceptible to being swamped by broader, often unpredictable, economic fluctuations. This is what happened with the 2008 financial crash (see section 2), but also happens as a result of shifts in prices of fossil fuels, including shifts in the relative prices of coal and gas, which exert much more influence over investment decisions than do carbon prices; most oil and gas traders, for example, pay little attention to carbon prices. Furthermore, because tradeable carbon pollution permits are used mainly to hedge and speculate rather than comply with state-set caps, cap and trade systems will always intrinsically be "unable to set the steady and sustainable carbon price that is theoretically required to drive firms' investments in low-carbon technologies" (Berta, Gautherat and Gun 2016). So perhaps the first question for carbon market advocates who claim that carbon price signals will lead toward climate action and a greener capitalism should be: ***What*** price signal?

In addition, setting a price on pollution, which is the end stage in the processes of extraction, manufacture and territorial expropriation, cannot solve problems that require structural change in so many fundamental areas. It is not the function of price to interfere seriously with capital accumulation; on the contrary, any price that shows signs of doing so will be lowered by one means or another. It follows that price signals will be unable to bring about any change that entails a fundamental challenge to accumulation itself.

Thus, in order to make climate regulation cheap enough for capital's requirements, the price of pollution permits can never be allowed to rise high enough to achieve structural change. It is not an accident, or a flaw in an otherwise well-designed system, that for many important industrial sectors brought into the EU ETS, including steel, chemicals, cement and so on, pollution allowance prices have been zero or negative. Corporations such as Arcelor Mittal have received enormous free handouts of pollution rights from the state that they can treat as cash reserves as needed (Morris 2014) – or, to express it another way, enormous slabs of free "territory" in which they can park their emissions or from which they can extract rent (to handle the trade in which some corporations even opened new departments). Zero or negative prices have also been attached to the allowances granted to national states under the EU ETS's parent Kyoto Protocol, putting off the need for innovation toward less fossil fuel dependence. For those EU ETS allowances that do wind up actually being sold rather than given away free to the rich, prices have always been one or more orders of magnitude too low to serve even as incentives for "fuel switches" among various fossil sources, to say nothing of more structural changes in the fossil economy. Not only are carbon pollution prices not expected to rise to levels significant for investment decisions or to affect fossil fuel prices over the next 15 years; as noted above, they have also exhibited an overall pattern of decline for two decades, as rent-seeking and innovations in production of pollution permits have taken hold.

Corporate and state actors have always been prepared, moreover, simply to abolish any pollution market if the price rose high enough to interfere seriously with the creation or distribution of profit. Indeed, this is precisely what happened in Southern California in 2000 on what appears to be the lone occasion in the last four decades when ecosystem-service prices did rise to such levels. As a result of electricity deregulation and declining power imports from other states, electricity generators covered by the pollution-trading RECLAIM program had to resort to increased production from old gas-fired plants that lacked nitrogen oxides (NOx) emissions controls. As demand for compensatory tradable NOx certificates skyrocketed, prices for "near-term" allowance vintages increased by a factor of 15 to 30, to as much as US$90,000 per ton, exerting upward pressure on wholesale electricity prices and leading generators to breach the legislated cap. The state's response was simply to remove electricity generators from the trading scheme (Ellerman et al. 2003: pp. 23-27). A market based on agreed pollution limits was overthrown merely because market actors happened at some point to "discover" prices that were inconvenient for particular sectors' profit margins. It can be imagined how intolerant states would be of a market whose carbon prices went high enough to affect the creation or distribution of surplus value more broadly across the entire fossil-dependent economy (Tanuro 2017). Hence many designers of cap and trade trading systems are preoccupied with the implementation of a sufficiently "cute" price "collar" that can sustain some kind of market while not interfering with accumulation (Roberts 2017), but have no interest at all in whether the systems actually achieve any progress toward climate goals.

> **When a carbon tax scheme is proclaimed a "success" by journalists or green market enthusiasts, what is actually meant is that the tax legislation just passed is one that corporations are happy with, not that the legislation will actually achieve a reduction in emissions.**

The same point about price-setting applies to carbon taxes. When a carbon tax scheme is proclaimed a "success" by journalists or green market enthusiasts, what is actually meant is that the tax legislation just passed is one that corporations are happy with, not that the legislation will actually achieve a reduction in emissions. The success is assumed without evidence of its effectiveness, and follows on the orthodox economic pricing logic outlined above. Oil prices that already seem "high" to business observers (such as those that followed the 1973 "oil shock") have done nothing to wean industrial societies off oil, and there is little reason to believe that a carbon price can do so either (Lovell 2007).

Carbon Taxes: Key Arguments Against

The search for a business-friendly climate solution that would avoid the catastrophes of carbon trading has brought about a resurgence in the popularity of carbon tax schemes. Yet, increasing evidence shows that carbon taxes, like emissions trading schemes, fail to reduce emissions, much less address the root causes of global warming, and in addition place disproportionate burdens on those who are already oppressed under a heavily fossil-dependent regime. The logic articulated by many proponents of a carbon tax goes something like this: with a tax, the costs of using fossil fuels might someday rise high enough to cause a shift toward renewable energy, which will outcompete fossil fuels; and anyway, even if a tax cannot achieve this, it will surely be better than nothing, or at least better than other market-based mechanisms like carbon trading, and we can put off addressing (or even thinking about) the real problems until later.

Several provinces and countries have carbon tax schemes including Alberta, British Columbia, Chile, Colombia, Mexico, Portugal, while other countries have existing schemes from the 1990s including Denmark, Estonia, Poland, Norway and Sweden.

In the US, carbon taxes sit within an impossible political binary. On one side, carbon taxes are promoted by many on an older left who still regard the welfare state and environmental regulation as the state-of-the-art progressive response to capitalist crisis. Such proponents tend to advocate taxing polluters (and the rich in general), and giving the revenue to the poor. Meanwhile, the US right, insofar as it acknowledges the dangers of runaway climate change at all, insists that taxes on polluters (or the rich in general) are almost always bad for the economy.

Carbon taxes, like carbon subsidies, are intrinsically linked to energy markets that remain inextricably intertwined with brutal extraction, exploitation, colonialism, racism, sexism, and ecological destruction.

What both of these (admittedly caricatured) positions overlook is the reality that modern taxes are never more than one aspect of a larger capitalist price system. Taxes serve capital by moderating its most self-destructive tendencies, but can never rise high enough to reverse those tendencies, because that would undermine their own conditions of existence. Carbon taxes are no different. Carbon taxes can encourage capital to add renewable sources to its energy mix if they are relatively easy to develop. But they cannot force it to choose options that it does not have – for example, to abandon its need to seek ever-new frontiers of cheap labor, resources and fossil fuels to coopt, degrade and exhaust. In particular, carbon taxes could never be allowed to rise high enough to challenge capital's imperative to take all remaining coal, oil and gas out of the ground: the role of fossil fuels in disciplining labor and making it more productive, as well as in guaranteeing ever-faster circulation of goods, is simply too entrenched throughout the networks of businesses and organizations that constitute the tax base. Carbon taxes, like carbon subsidies, are intrinsically linked to energy markets that remain inextricably intertwined with brutal extraction, exploitation, colonialism, racism, sexism, and ecological destruction. Carbon taxes could never, by themselves, set in motion a process of reducing fossil carbon emissions toward zero or address larger structural inequalities. The belief that such a tax-driven process

is possible is dangerous because it distracts attention from the more complex and deep-reaching political changes that are necessary to drastically cut emissions at source.

Historically speaking, taxes have never achieved social transformations of the magnitude required by the climate crisis. Their role is to make smaller adjustments that help stabilize capital accumulation in particular contexts. Despite the incessant soap opera of business complaints about high taxes, as a rule, capital tolerates and even encourages them, and is well-equipped to avoid and cope with them. When faced with land costs, extraction fees, royalties to the state, resource rent tax, corporate income tax, market-based fluctuations in price, or increased shipping expenses, corporations have many options in how to deal with new expenses.

They can, for example, raise the prices of the commodities they produce so that the consumer in effect picks up the tax bill. This is what Australian corporations did when faced with a carbon tax, with the result that the tax was abolished and outraged households had to be reimbursed. They can also lower wages, bust unions, invalidate contracts and increase working hours, affecting workers all along the commodity chain from extraction points to ports to factory floors. Then again, they can move operations to a location with cheaper overhead costs, including lower wage rates, lower taxes, and lax environmental regulations – an increasingly important business strategy since the 1990s' free trade agreements. With respect to carbon taxes in particular, corporations can simply lie about their projected emissions, or commit fraud after the fact, a widespread occurrence in the history of the EU ETS (Wojazer 2017). Finally, businesses can seek or take advantage of tax breaks and subsidies (see more in section 4) in order to counteract any inconvenient taxes. In 2015, global fossil fuel subsidies represented a whopping 6.5% of global GDP (Coady 2015), and a US review estimated that subsidies for the US oil industry alone were close to $4.6 billion per year (US Gov 2015). A 2017 study by researchers at Stockholm Environment Institute published in the journal Nature Energy estimated that nearly half of US oil production would be unprofitable without subsidies (Erickson 2017).

Moreover, a carbon tax is not a "polluter pays" measure. The CEO of a major oil corporation is not going to experience a decrease in ***his*** salary, nor will the corporation see reduced profit because of a carbon tax without the government promulgating the tax being seriously challenged. It is an integral part of a system that integrates capital accumulation with taxation that it will be consumers, workers and local communities who pay, sometimes with their very livelihoods.

This is not to say that polluters should not be held accountable when they commit harm against people and the Earth. But taxes are intrinsically incapable of holding them accountable for more than superficial damage, and indeed are designed to be treated as no more than one more cost of doing business. They are not designed to prevent the takeover and degradation of the basis of people's livelihoods, nor even to prevent future takeovers, nor even to deliver a legal or political verdict that such damages are unacceptable. Hence the "polluter pays" slogan is not applicable to carbon taxation or any other carbon trading or offset program.

When discussing "polluter pays", in addition, it is important to emphasize an important difference between fees and fines. It is one thing for a polluter to pay a fine ex post facto, to acknowledge wrongdoing, and to undertake not to repeat the offense. It is another thing for a polluter to pay a fee that does not acknowledge any wrongdoing and does not entail any promise not to repeat the action. The former is a penalty, a sanction imposed on a firm that has done wrong. The latter is just another cost of doing business. Tax payments – as well as the payments corporations make for pollution permits in carbon trading schemes – fall into the latter category, not the former. In addition, ex post compensations are usually both financial and in kind, so that polluters may both have to pay a fine and have to clean up the damage, provide medical costs for the victims, and so on. The "polluter pays" slogan, if it does not distinguish between fines and fees, may be used to generate the impression that enclosure of the commons is fine as long as it is priced, traded for something else, compensated for, or done in the name of an elite-specified "greater good" – a type of claim that Indigenous Peoples have always had to fight against.

Carbon tax proposals have great potential to divide and undermine communities and social movements. This is especially important for impacted communities, including EJ communities, communities in the global South and Indigenous Peoples. Promises of revenue from the schemes are often used to quell resistance from impacted communities who might otherwise organize against corporate abuses. Carbon tax proposals, like other schemes that promise compensatory revenues, can put impacted communities that are already in difficult situations into impossible ones. There is little evidence to show that groups hoping for such revenues have benefited much, particularly if they have lost their health, livelihoods and lives (see section 5).

It is worth noting that carbon taxes can help set up infrastructure that can later usher in the very carbon trading schemes to which taxes have often been proposed as a supposed alternative. This has happened in Mexico, Colombia, Chile, and Australia, where an emissions trading scheme was the explicit long-term goal of the government's short-lived carbon taxation program (World Bank 2017b). Indeed, the World Bank openly sees carbon taxes and carbon trading as linked in this way.

Carbon tax proposals, like other schemes that promise compensatory revenues, can put impacted communities that are already in difficult situations into impossible ones.

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Section 4

Unknown. Gray Industrial Machine during Golden Hour. Unknown. Pixabay. https://www.pexels.com/photo/gray-industrial-machine-during-golden-hour-162568. Digital Photography. 11/2/2017.

Fossil Fuel Taxes and Subsidies

Fossil Fuel Taxes and Subsidies

As briefly explored in the previous section, fossil fuel industries enjoy a wide range of subsidies and are adept at avoiding or pre-empting any taxes that might interfere with business as usual and increased extractivism. For them, the complexities of subsidy and tax politics constitute a well-trodden terrain mastered over many decades. Together with the other industries that depend on them, they are well-prepared to deploy a whole armory of measures in order to ensure that any carbon tax that might emerge from contemporary climate politics would have little significance compared to the enormous and varied subsidies that they enjoy. They are also in a position to benefit in those cases in which carbon tax schemes are blunted by being transformed into emissions trading schemes.

This section hopes to demonstrate that, indeed, campaigns to remove subsidies from fossil fuel extraction and use are a more practical place to start in addressing climate change than campaigns to institute carbon taxes. Without public subsidies in the form of massive loans and incentives as well as, ultimately, the labor, land and livelihoods of the working class, people of color and impoverished communities, fossil fuel industries would not be viable and the question of carbon taxes would become moot.

Fossil fuels refer to oil, gas and mining – including coal and uranium mining for nuclear power.

Subsidies include, but are not limited to, tax breaks and tax avoidance schemes that encompass both legal instruments and nontransparent semi-legal interpretations of a tax code. In this section, tax avoidance is defined as legal practices aimed at evading or minimizing taxes. These practices range from exploitation of loopholes in existing tax codes to the corporate-assisted drafting of laws that deliberately include, alongside explicit tax cuts for companies, loopholes and gray areas for future use. Tax evasion, meanwhile, is the illegal non-payment or underpayment of taxes – sometimes reinterpreted as tax avoidance in the course of court cases. More direct corporate subsidies include free or low-cost provision of "natural resources" such as land and water, as well as of the unpaid work of women and of the bodies of people of color who have to absorb a disproportionate amount of pollution. Other public subsidies that are particularly important to fossil fuel extraction firms are taxpayer-supported international military interventions, public research and development, state-funded price controls, and loans and guarantees at favorable rates (Oil Change International 2017).

Globally, governments provide an estimated $775 billion to $1 trillion annually in subsidies to fossil fuel corporations. This estimate does not include social costs of climate change, other environmental impacts, armed conflict, and damage to health, all of which are also borne by the public (Oil Change International 2017). When these other so-called "externalities" of fossil fuel exploitation are included, the International Monetary Fund estimated in 2015, the costs of fossil fuel development that have to be paid by the public are closer to US$5.3 trillion annually – an astonishing US$10 million per minute (Coady et. al. 2015).

The costs of fossil fuel development that have to be paid by the public are closer to US $5.3 trillion annually – an astonishing *US $10 million per minute.*

This calculation should include the public costs of corporate tax avoidance, which is part of the day-to-day operations of fossil fuel corporations. Decades of experience have made fossil fuel corporations experts in shifting their tax burdens onto the public's shoulders. Even trying to track this tax avoidance is extremely difficult for outsiders, due partly to the complexity and volume of the financial data that the corporations produce as well as the use of sophisticated strategies to avoid disclosure, such as the use of tax havens.

All these subsidies perform the important function of lowering costs of production and raising profits. This section will mainly focus on tax rates, tax breaks, and tax avoidance. It will highlight how vulnerable carbon pricing initiatives, both carbon taxes and emissions trading schemes, are to being "loopholed", subsumed in spreadsheets, or evaded altogether.

The Major Players

How has it come about that subsidies for fossil fuel corporations are not only high but also increasing? As outlined in section 2, when neoliberal globalization was taking a foothold, extractive industries expanded in the global South as so-called "free" trade was ushered in and new markets emerged. Neoliberal reforms included a number of corporate tax breaks, new openings for manipulation of exchange rates, and tax reforms in various forms and countries. Although material resources have been exploited in the global South since the beginning of colonialism, new global financialized markets provided new ways of safeguarding the profits of large corporations through a multitude of reduced tax rates, tax breaks and systematic tax avoidance.

Designing and promoting tax avoidance schemes is common practice throughout an increasingly streamlined tax advisory industry, including small "boutique" firms, banks and the Big Four transnational accounting firms, which consolidated their position after the 2001 Enron Scandal. The Big Four are Deloitte Touche Tohmatsu (US), PwC (PricewaterhouseCoopers until 2010, UK), EY (Ernst and Young until 2013, UK), and KPMG (Netherlands).

As Christensen (2016) puts it:

> **"As the forces of globalization have increased the market dominance of TNCs [Transnational Corporations], the tax advisory industry has also concentrated into a few dominant law practices and accounting firms whose global span provides them with detailed knowledge of national tax regimes, international guidelines for taxing TNCs, and the treaty networks between countries that can be used to exploit every possible avenue for tax avoidance (Christensen 2016, p.74). "**

The Big Four major players provide expertise to government officials and enjoy access to decision-makers at both national and international levels. They help promulgate "tax policies that fulfill the tax-minimizing objectives of their clients, while also maximizing the fee incomes earned from devising and implementing complex tax-avoidance schemes" (Christensen 2016, p. 74).

No comprehensive treatment of taxes and subsidies can afford to ignore the fact that world structures of power are still in many senses colonialist. Fossil-fuelled industries are mostly based in the global North or in export enclaves of the South, while extraction occurs in the global South. Land and territories tend to be defined by legal measures heavily influenced by multinational corporations and the tax advisory industry. Subsidies are legitimized by legal but essentially colonialist practices of administration and management.

Unknown. 130107-F-FR084-018. 2013. Flickr. https://www.flickr.com/photos/arcticwarrior/8363536618/in/photostream/. Digital Photography. 11/2/2017.

Although the terms global North and global South are used to indicate a broad socio-economic, power and political divide, we recognize that the global South also exists in the North. In general, the global North includes the United States, Canada, Western Europe, and developed parts of Asia, Japan and Israel as well as Australia and New Zealand – which are not actually located in the Northern Hemisphere but have benefited from economic and colonial histories similar to those of other countries in the global North. The global South generally refers to Africa, Latin America, and developing Asia, including the Middle East. The global North is home to all of the members of the G8 and World Bank headquarters. In the global North, Indigenous, People of Color, Environmental Justice (EJ) and frontline communities continue to experience the inequities of colonial structures that manifest as environmental injustice.

All the same, subsidies and tax avoidance are sometimes challenged. In Gabon, for example, the government has demanded that Total Oil (France) pay US$805 million in taxes still owed from 2008-2010. In Bolivia and Ecuador, Repsol Oil (Spain) is under scrutiny for tax avoidance. In Ecuador and Brazil, Chevron (US) is under scrutiny for the same reasons (Dabany 2014). There are a host of other examples that are too numerous to cover in this publication.

The rest of this section hopes to demystify some of the ways that tax avoidance and fraud function.

> **When land and territories are defined through legal reforms led by multinational corporations and the tax advisory industry, subsidies are placed inside a hegemonic logic legitimized by 'legal' practices of administration and management.**

Tax Rates

Taxes are the cut that governments claim from corporate revenue. Extractive industries often have different tax rates than other businesses. They may have to make royalty payments, pay corporate income tax, or pay a resource rent tax. The contracts that the corporation sign at the outset of a project will determine what percentage goes to taxes. After the tax rate is agreed upon, it is difficult for a government to go back and adjust the percentages.

One of the methods through which fossil fuel corporations can work around the established tax rate is by built-in tax breaks. A tax break included in most contracts is based on something called "accelerated depreciation". For extractive industries, initial capital costs are very high and revenue may not begin to outweigh initial capital costs for a decade or more, creating a lock-in affect or dependence on fossil fuels. On paper, the costs of a capital asset can be deducted against revenues over a period of time. Accelerated depreciation in the form of a government tax break may allow companies to pay no income taxes for many years, even after the project becomes profitable.

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Another way that companies can avoid paying tax is through treaty-shopping. Several countries have bilateral agreements to prevent companies from being taxed twice, called double taxation agreements (DTAs). Multinational corporations that have a home base in one country but operate in another are entitled to take advantage of DTAs. But that is only the beginning. Multinational corporations also often "treaty-shop" by creating subsidiaries and shell corporations in jurisdictions that have reduced tax rates, such as Jersey, Ireland, The Netherlands, Switzerland and the US (Tax Justice Network 2015). That way, companies can shift earnings from extraction to a subsidiary corporation in a country with reduced taxes and pay little or no tax in the country in which they are actually operating and polluting. A corporation can pay little or no tax by claiming withholding taxes on the repatriation of interest and dividend payments, or management fees and capital gains on the sale of resource rights (Hubert 2017).

Subsidy Blindness: A Few Examples

Mainstream environmentalists and ecomodernizers sometimes talk as if it would be coherent to promote carbon taxes before getting rid of fossil fuel subsidies. Greens who promote "free trade" treaties and who claim to be against fossil fuel subsidies, meanwhile, often pay insufficient attention to subsidies hidden in the form of tax avoidance. The World Bank, too, presents itself as being opposed to market-distorting subsidies, but in reality promotes large-scale state subsidization of the corporate sector under cover of anodyne terms like "infrastructure investment" and "reform of legal codes".

Tax Base

The tax base is the total taxable assets, income, and assessed value of property of a corporation within the tax jurisdiction of a government. All of these are used to assess the tax rate of a corporation, but how the tax base is determined is based on how the tax base is reported. It is often easy for corporations to avoid taxes simply by under-reporting revenues and over-reporting costs. They can under-report the quality or quantity of the fossil fuel extracted, "forget" to declare valuable by-products, and under-report the market value of the commodity. By selling the fossil fuel at a highly reduced price to a subsidiary company, the company can claim that it is less valuable, thus reducing the tax payment. The subsidiary can later raise the price and sell at a high profit.

Companies can also inflate costs by reporting the same cost more than once, falsifying invoices, exaggerating costs of transactions with subsidiary companies, recording excessive marketing fees, inflating transportation costs, and distorting head-office overhead costs. Debt financing is yet another way to inflate costs. Intra-firm financing can result in the shifting of recorded profits from a high-tax to a low-tax jurisdiction. In addition, interest rates on debts may be exaggerated, allowing inflated deductions against taxable income.

In addition, multinational companies can avoid taxes by moving the location where profits are reported among their complex networks of subsidiaries and shells, from countries with higher tax rates to countries with lower ones. Intra-firm financing is another way to shift recorded profits from a high-tax to a low-tax jurisdiction. A different strategy is to report high costs in the books with the country with the higher tax rates, sometimes where extraction is occurring, to take advantage of deductions that are offered against the tax rate.

Intra-firm financing can result in the shifting of recorded profits from a high-tax to a low-tax jurisdiction.

While petroleum and coal tend to have relatively clear international market prices, costs of natural gas are easier to inflate, both because gas transport is more complex than that of oil or coal and because gas may require higher capital investment and longer-term sales agreements. In order to manage price volatility in the market, companies can hedge, or engage in forward sales, by selling the commodity at a predetermined price in the future. When a corporation hedges a sale at a reduced cost to an affiliated subsidiary, this leads to under-reporting of revenue, and ultimately less tax paid. For example, Sasol, the South African energy giant, sold natural gas at a reduced price where gas was extracted in Mozambique to an affiliate in South Africa, and so was able to pay less tax with a hedged price to the government of Mozambique (CIP 2013).

Fossil Fuel Corporations Support Carbon Pricing Mechanisms

Extraction and production of fossil fuels is an incredibly highly capital-intensive activity. If fossil fuel industries had to pay for the initial capital output in addition to impacts on human and non-human health and well-being that they caused, and did not benefit from taxpayer subsidies, they would not be able to turn a profit in the short term (Cardoso 2015, Coady et. al. 2015). Even when carbon is assigned a separate price, subsidies and tax breaks to fossil-fuel companies lead to what is in effect a negative carbon price, reducing the cost of the impacts of fossil fuel development. The costs of climate, environmental, resource, land and health impacts are shifted to affected communities, as is common in the history of fossil fuel enclaves, while the companies continue to be paid through tax incentives and direct subsidies. Crucially, state subsidies for fossil fuels shift public financing away from clean energy projects, social spending, economic reform, small-scale grassroots energy projects, healthcare and measures that would promote a transition away from large-scale fossil-fuel dependence.

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In British Columbia, a carbon tax was implemented in 2008. Yet data released by its government show that from 2011 to 2014, the total taxed greenhouse gas emissions rose by 5.3 percent. Meanwhile, total untaxed emissions decreased by 2.5 percent, and the annual average growth for taxed emissions rose by 1.7 percent annually, exceeding that of untaxed emissions (Food and Water Watch 2016). The authors of the report added that the "oil and gas industry is throwing its support behind carbon taxes, rather than strong regulations to limit emissions, arguing that market solutions are the best way to address climate change" (Food and Water Watch 2016).

By controlling the narrative, influencing international policy and using tried and true methods of avoiding responsibility, the largest polluters on the planet can continue business-as-usual and make billions by cooking the carbon-pricing books.

It is easy to see why fossil fuel industries support carbon pricing mechanisms: They know that government officials responsible for setting prices will capitulate to polluting corporations and the tax advisory industry. Indeed, due to the proverbial revolving door, officials, their advisers, and corporate leaders may even sometimes be the same people. By controlling the narrative, influencing international policy and using tried and true methods of avoiding responsibility, the largest polluters on the planet can continue business-as-usual and make billions by cooking the carbon-pricing books.

An Opening

It is meaningless to discuss carbon taxes without addressing subsidies – the two topics are in fact one. Carbon taxes can easily be shifted, evaded, and kept permanently low. Indeed, they would have to be kept permanently low in order to preserve the base from which they are drawn, which is dependent on continuing extraction of fossil fuels and degradation of human and nonhuman nature.

To put it another way, carbon taxes could never be allowed to rise to a level at which they would prevent remaining fossil fuels from being taken out of the ground, nor "cover" other losses connected with their extraction and burning. They are merely one component of a larger capitalist structure of prices whose point is to maintain, at the broadest possible scale, a system of production in which each commodity, hour of labor, or unit of "natural resources" constitutes a composite and unstable entity. One necessary component of each such entity is a commons undergoing a continual process of being coopted, degraded, exhausted, and set aside in favor of new commons found along fresh frontiers. What is taxed under any carbon tax scheme is, in fact, a continually-rebooting process of "maxing out" the Earth – a process that is now threatening human survival itself (Moore 2015). No carbon tax scheme could threaten that process without eliminating itself.

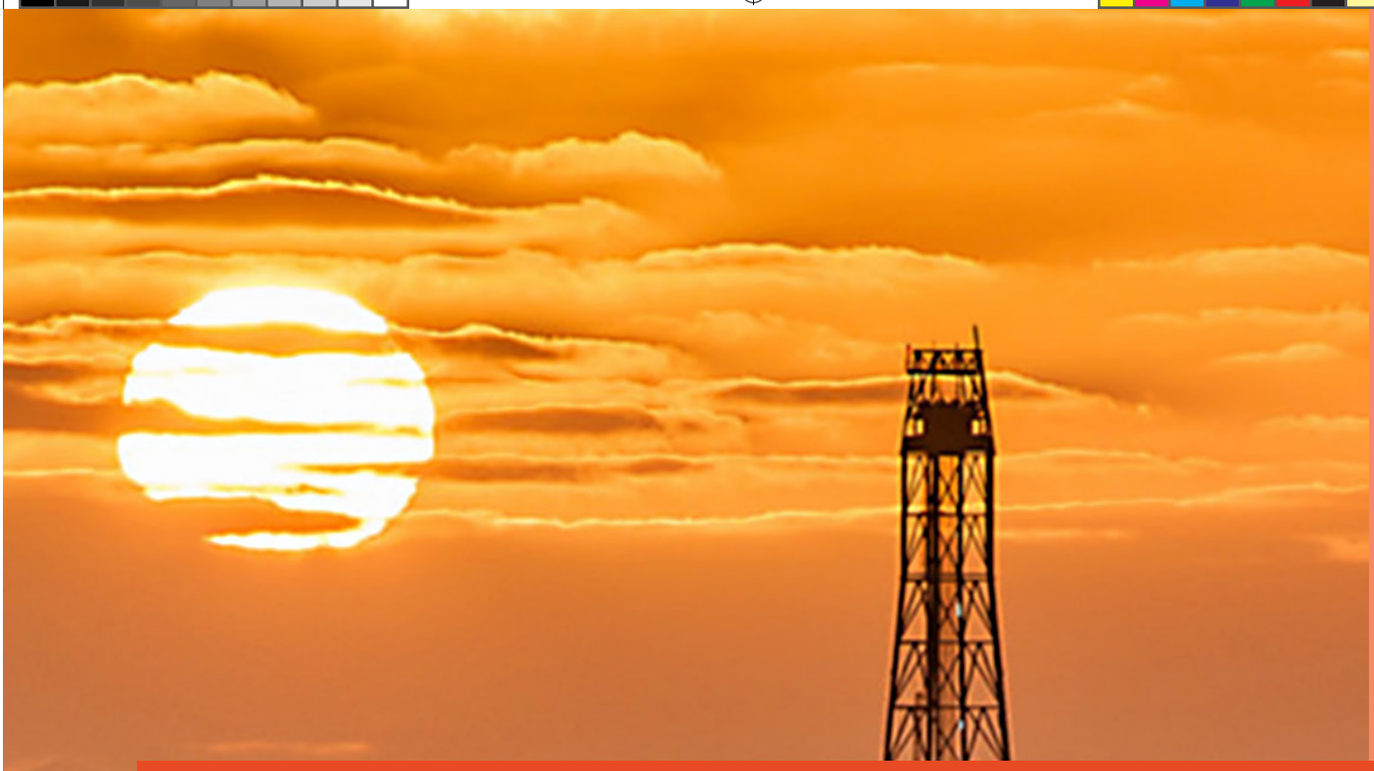
Removing public subsidies for fossil fuel extraction, on the other hand, could effectively challenge that process of ever-renewing degradation. Without subsidies, fossil fuel industries would be unable to accumulate profits and, therefore, unable to continue taking fossil fuels out of the ground. With respect to climate change, movements to remove subsidies for fossil fuels thus have an immense long-term practical advantage over carbon tax movements.

One necessary component of each such entity is a commons undergoing a continual process of being coopted, degraded, exhausted, and set aside in favor of new commons found along fresh frontiers.

The flip side of this contrast is that movements to remove subsidies require different alliances from carbon tax movements. Carbon tax proponents have no choice but to commit themselves to promoting continued capital accumulation and fossil fuel extraction and consumption, which, in a neoliberal era, tends to imply ever more violent and abrupt swindles and types of plunder of humans and nonhumans. That is the source of the tax revenues they hope to use for good causes. Thus carbon tax proponents cannot avoid the tasks of building and maintaining good relations not only with legislators but also with an exploitative corporate sector as a whole, ultimately at the expense of good relations with the communities whose lives and livelihoods are undermined and taken away by the activities of those corporations.

Carbon tax proponents have no choice but to commit themselves to promoting continued capital accumulation and fossil fuel extraction and consumption, which, in a neoliberal era, tends to imply ever more violent and abrupt swindles and types of plunder of humans and nonhumans.

Movements to remove subsidies to fossil fuels are under no such obligation. They are free to seek alliances not only among fossil-fuel devastated communities and campaigners to keep fossil fuels in the ground, but also among all those disempowered and damaged by climate change and the exaggerated processes of degradation intrinsic to the operations of neoliberal capital, from workers on zero-hours contracts to cancer victims unable to find treatment under new regimes of austerity. Cultivating such alliances will be a challenge, especially in view of the ability of carbon-pricing schemes to distribute some level of payoff to a certain spectrum of social groups over the short term. But the possibility of building such alliances constitutes an opening that, ultimately, will be unavailable to carbon pricing campaigns and will actually effect real change.



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5 Conclusion

An Ending, A Beginning

The severity of the climate crisis, with a multiplicity of weather changes, indicate that the planet is changing – a planet that Indigenous Peoples call Mother Earth. Communities within our CJA and IEN alliances and networks understand that the dominant economy, the capitalist system, has exploited and abused nature, pushing the planet, Mother Earth, to its limits. The current dominant economy fails to sustain and regenerate life because it is built on flawed foundations of:

1. An endless industrial extraction and pollution of natural systems and functions.

2. The privatization, commodification and legalized enslavement of nature as human and corporate property, which places a price on nature and creates new derivative markets that increase inequality and expedite the destruction of ecosystems.

3. A prevailing world-view that places humans above nature, and with dominion over nature (anthropocentrism).

4. A worldview and economic system that demands expansion, consumption, profit and economic growth above all other values, without recognition the limits of the planet and its ecosystems.

5. Legal systems that ennoble private property at the expense of community, ecology and equity, and that directly serve the concentration of extreme wealth in few hands.

This publication has tried to raise awareness about carbon pricing within the UN climate negotiations and about nation-states' promotion of a financialized green economy that separates and quantifies the Earth's cycles and functions – such as carbon, water, forests, fauna and biodiversity – in order to turn them into "units" to be sold in financial and other markets. The many false solutions that form part of the Paris Agreement are linked to the free-market economy by emissions trading, carbon offsets including Clean Development Mechanism (CDM) projects, payments for ecological services, and carbon taxes – all emerging under the rubric of carbon pricing to allow polluters to profit while the impacts of climate change and the livelihoods of small farmers, forest dependent communities, people of color communities in cities and rural areas and Indigenous Peoples worsen.

Through these new processes of commodifying nature and collecting rent, Mother Earth's ability and capacity to support a climate conducive to life and human societies is now passing into the same corporate hands that are destroying the climate and magnifying social inequities in many ways. Within the minds and hearts of the Indigenous Peoples networking with IEN, it has been said, "It is a violation of the sacred." A fundamental characteristic of carbon pricing is its tendency to perpetuate and aggravate these environmental injustices. Carbon pricing is about trading regimes, not about cutting emissions at source, still less about addressing the root causes of the climate crisis.

We need to pause and ask why Fortune 500 companies such as Monsanto, BP, Chevron, Dupont, Dow Chemical, Wells Fargo, Walmart, Conoco Phillips, Shell, Exxon Mobil and Cloud Peak Energy among others advocate staying within the Paris Agreement. What are the profits that they are expecting to receive from such a deal? Who benefits? Who really pays?

The six million people in the US that live within three miles of coal-fired power plants earn an average per capita income of US$18,400, and close to 40% of this population are people of color (NAACP 2012). On average, it is estimated, people of color in the US, including Indigenous Peoples, breathe 40% more pollution than whites. In California, Latinos make up 60 percent of the 350,000 children living near active oil and gas drilling facilities (NAACP 2012). They are at the frontline of the climate crisis, suffering from the effects of carbon emissions along with the many co-pollutants that the fossil fuel industry emits. There is no shortage of statistical or empirical data that demonstrate the disproportionate impact of environmental destruction and climate change's adverse impacts on people of color, Indigenous Peoples and the poor all over the world.

Carbon pricing divides us. The revenue is seductive to communities of color, women and the poor needing more support. But Indigenous Peoples' Organizations (IPOs) in particular situate the current dominant economy by calling out historically-constituted practices of exclusion – practices frequently justified in racial terms (Goldtooth 2010). Indigenous conceptions of territory foreground the importance of colonial control over land, together with questions of racism and dispossession, land tenure and rights (Carbon Trade Watch 2013). Structures of power are still organized in a colonial framework whereby alternative knowledges are dispensable according to the logic of capital. Peoples regarding nature as a source of life and all its intricate relations are sidelined. Land and territories are reduced to something defined through legal reforms, titling and demarcation and structured through a hegemonic logic that empowers oppressive practices of administration, management and bureaucracy. Using local communities' expectations as instruments for their own purposes, carbon pricing schemes expand the (il)logic according to which the only importance attached to nature is its financial value.

Racialized others, especially women and the poor, already have a deep understanding of what it means to be priced as nature. Capitalism is a mode of production based on racialized, sexist, and colonialist economic hierarchies. Indigenous, Women, Black and Brown, Asian-Pacific Islander leaders have historically pointed out the importance of challenging capitalist schemes because capitalism is based on the free (or cheap) labor of underclass peoples or non-citizens (and non-humans), and, as Audre Lorde puts it, needs them as "surplus people" (Lorde 1984, p. 115).

Cap and trade, offsets, cap and dividend, carbon taxes and REDD+ all protect corporate interests and distract people from the core of the climate issue. When social movements call out the injustices inherent in these carbon-pricing schemes, they are often met with attempts to mislead, ever-changing floods of techno-jargon, and a lack of transparency (see section 3).

The impacts of climate change intensify the structural inequalities inherent in a capitalist system. Brushing aside this reality, mainstream economists and white leftists pushing for carbon pricing typically point to voices of "diversity" to legitimize plans that ignore entrenched injustices while doing nothing actually to reduce emissions. Corporate and political actors that emphasize the economic dimensions of climate legislation go to great lengths to enlist communities of color. As Sara Ahmed has noted in other contexts, the focus becomes "getting more

of us, more people of color, to add color to the white faces of organizations" (Ahmed 2009). The racialized experience of living through environmental and climate injustices becomes a tool for interests promoting intersection of neoliberal "equity" and corporate interests. Programs to "share revenue" become bribing and silencing mechanisms. Since both capitalism and climate change rely on the usefulness of the bodies of racialized others, it thus becomes imperative to build alliances with and among the others against the harms of carbon pricing, both physically and ideologically.

To date, there is little evidence to indicate that the revenues derived from carbon pricing schemes genuinely supports communities of color over the long term. On the contrary: there is much evidence to demonstrate the harms produced by carbon pricing schemes. One proponent of the California cap and trade program was asked how, or if, people of color located near Richmond oil and gas industries had benefited from it. The answer was that there was now an additional bus line through the neighborhood[1] – the sort of public service cities and states should be implementing anyway.

Trading and taxing pollution, being ex ante (or after the fact) responses, not only continue to impact communities close to industrial sites. They also constitute a global problem. Carbon trading schemes often include offsets and REDD+ projects that, in addition to increasing net emissions, have negative impacts for communities, especially in the global South (Checker 2009, Gilbertson and Reyes 2009, Böhm and Dabhi 2009) and help lock in an unsustainable global economic system based on fossil fuels. In addition, carbon taxes are often seen as a way to set up infrastructure for future carbon trading schemes (see sections 2 and 3). Linking carbon pricing mechanisms across the globe is a clear goal of organizations like the World Bank Group. Any NIMBY-esque conception of carbon pricing mechanisms hides this bigger historical picture, as well as the need to resist carbon pricing mechanisms as an international act of solidarity.

Carbon taxes evidence the power of inequalities entrenched in carbon pricing. Using taxes, industries and governments, hand in hand with financial institutions, are able to shift costs, under-report pollution and gain profits while legitimizing business as usual. Carbon tax schemes do not address the tax structures that allow corporations to shift impacts to communities (section 4). The revenue generated from a carbon tax is rarely much more than a pittance or a bribe for communities impacted by corporate destruction. It can act as a silencing mechanism. Further, the amount and destination of the revenue depends on political maneuvers dominated by whatever power is in place at the time. A RGGI bureaucrat used the metaphor of "a cookie jar for those in power."[2]

Reducing emissions requires bold, direct regulation and other action to keep fossil fuels underground, based on community-led transitions, organizing, action and political will. This will not come from carbon pricing schemes, whose concepts rely on a continuation of the same old system that created the problem in the first place.

So the question remains, "What is the solution?" We have many solutions!

A Beginning

The search for these fundamental solutions must begin with creating an understanding of how humanity relates to the caring and sacredness of Mother Earth. Humans are nature and the interdependence between humans and nonhuman nature is primary. The laws of nature supersede rights to property. The vital natural cycles of life must be protected for the good of all. Carbon pricing addresses carbon as property and as monetary units in an economic system that has no respect for life. In contrast, the World recognizes that there

[1] Anonymous interview with the author. 23 September 2017.

[2] Anonymous interview with the author. 23 September 2017.

is no separation between how we treat nature and how we treat ourselves. Learning to see nature as the foundation of Life itself, rather than as an inventory of goods and services for humans, a dumping ground for pollution and waste, and as capital for profit, is a crucial part of this process. The climate, environmental, and social justice movements must reject all market-based mechanisms that function on the basis of the quantification and commodification of Earth's natural processes, including what market proponents have rebranded as 'ecosystem services'. The vision is communities becoming true caretakers of the places where they live and this caretaking includes recognizing the rights of local, living ecosystems to maintain their vital cycles and eliminate harmful projects in their midst.

This is the first volume of a set of publications that are designed to expose the history and complexity of carbon pricing mechanisms. We offer this work as a means to support the large-scale movement-building needed to resist carbon pricing schemes that are currently masking the immense damage they cause in contributing to climate change. We want to see 80% of known fossil fuel reserves remain under the soil and beneath the ocean floor, in conjunction with a ban on all new exploration and exploitation of oil, tar sands, oil/gas shale, coal, biofuels, uranium and natural gas, including for transportation infrastructures. Strong regulation and cuts at source as well as renewable energy with no carbon dioxide emissions, and no nuclear energy are what we are demanding. We are working to implement a platform on energy democracy that encompasses sustainable housing, education, community health care, clean energy, and energy efficiency, to be supported and implemented through sustainable community planning. Communities are beginning to unite for a Just Transition to create the deep democracy and cooperation needed to make the shift at the local level toward changing the rules that have historically and disproportionately led to environmental injustices and the climate crisis. This just transition to a regenerative economy has to be one that honors Mother Earth and the sacredness of life itself.

We are committed to making this a reality for Mother Earth and all the generations to come.

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IT TAKES ROOTS TO GROW THE RESISTANCE

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