

Carbon Finance for Cities

A source of revenue and way to leverage action for cleaner cities



By presenting three carbon finance tools mobilized by cities, this leaflet explores the functionalities and major challenges facing this new financing mechanism.

1 . Climate Change Adaptation Funds

Why?

These funds are implemented to support initiatives in favour of sustainable development that might not be able to be implemented without this specific funding support.

How does it work?

Funds are a pool of money but there is a great diversity among them. They can be distinguished on the basis of three characteristics: their provisioning (return of all or part of earlier investments, taxes, donations, state or non-state grants – public or private, etc.); their governance (by a trust, a state, etc.); and the allocation of funds (grants, guarantees, investment,

specialization by sector like climate change for instance).

Climate change adaptation funds are, therefore, specialised funds exclusively allocated to projects that foster to such adaptation.

Challenges

There is currently no international climate adaptation fund specifically for cities. The principal adaptation funds implemented by the United Nations Framework Convention on Climate Change include: the *Special Climate Change Fund (SCCF)*; the *Least Developed Countries Fund (LDCF)*; the *Adaptation Fund (AF)*; and the *Pilot Programme for Climate Resilience (PPCR)*. They are

meant to be used by central governments and therefore do not address the cities' needs. Nonetheless, there are examples of funds set up

locally such as the Green Municipal Fund, implemented by the Federation of Canadian Municipalities (see references).

2. Carbon Tax

Why?

The principle of a carbon tax is to make polluters pay for “the cost of pollution”. Air pollution, equated with CO₂ emissions, is a negative externality, which is to say that this cost is not taken into account in the production process. This tax attempts to include this cost by “internalizing the externality.”

How does it work?

In practice, this tax pushes the polluter to reduce its CO₂ emissions. Since the polluters have to pay the tax proportionally to their emissions, they

have a strong incentive to decrease them, as long as the cost to achieve reductions remain relatively cheaper or equivalent to the savings of not paying the carbon tax.

Challenges

One of the weaknesses of this tax is its lack of coherence at the international level. Each government can set the price of this tax (in equivalent tons of CO₂) and hence, a competition can arise between governments to attract companies by relaxing the legislation. Setting a common price thus seems desirable.

Case Study: The First Local Carbon Tax with Citizen Support

City: Boulder, Colorado

Website: <https://bouldercolorado.gov/>

The city of Boulder, Colorado is the first in the world to have implemented a local carbon tax. Unlike the United States federal government, Boulder has signed the Kyoto Protocol and has been historically involved in climate change issues. Hence, the city's progressive university is a hub for climate research in the U.S. with several atmospheric laboratories and the largest concentration of climate experts in the world. This particular context has created fertile ground for the establishment of a carbon tax, supported by 60% of citizens.

This tax has sought to ensure a stable income used to finance the climate plan of the city. Because the majority of electricity power is produced by coal and gas power plants, the tax has been levied on electricity bills. Nevertheless, energy consumers are free to shift to renewable energy sources, in which case their energy bill is no longer subject to the carbon tax.

Since its creation, the tax has allowed the city to gain one million dollars per year. This new revenue enabled the city to launch a campaign of replacement of conventional light bulbs by energy saving ones, and to fund awareness and educational workshops on environmental issues. The carbon tax was also used to provide loans for investment in clean energy, which, thanks to private participation, had been able to create a leverage effect to boost the sector. Concerning the environmental impact of this initiative, CO₂ emissions have started to drop since 2008, contrasting with the systematic increase witnessed in the previous years.

3. The Carbon Market and the Clean Development Mechanism (CDM)

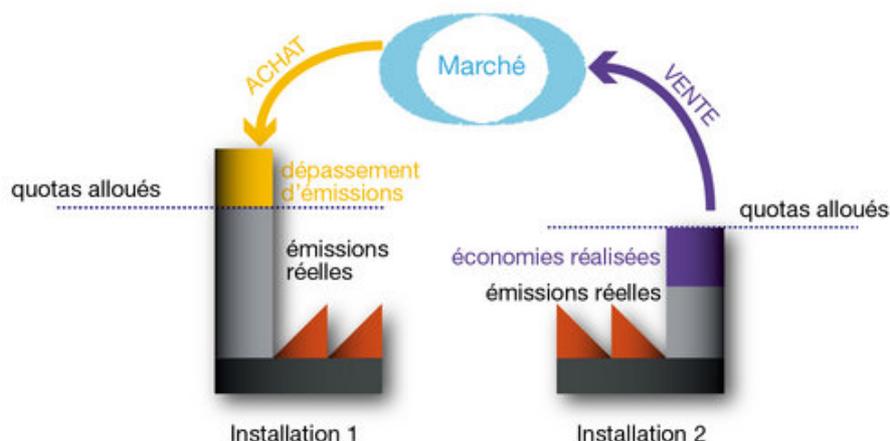
Why?

The idea of a carbon market or “carbon stock markets” rely on the supply and demand mechanism to reduce CO₂ emissions. The principle is to decrease efficiently emissions: the companies that can more easily reduce emissions have incentives to do so.

How does it work?

CO₂ emissions, expressed in tons of carbon, are transformed into carbon credits or “polluting rights.” A regulatory authority determines a

certain emission threshold for each company that is below its actual level of CO₂ emission. Through the carbon markets, enterprises can buy and sell their rights to pollute. Company A, which can easily reduce its emissions, obtains rights to pollute that can be sold to Company B, for whom it is more expensive to change production methods than to purchase such rights. All in all, Company A reduces its emissions and Company B maintains its level of emissions. The total level of emissions decreases due to reliance on the companies that can easily achieve reductions.



Challenges

The carbon exchange system is effective if adequate quotas are set by the regulator. Shortly after the establishment of this market, certain dysfunctions were observed, namely that emission quotas allocated to companies were soon revealed to be over-valued. Companies were able to reduce their emissions to a greater extent than expected and, as a result, many polluting rights were sold, making prices drop at the same time. It became, therefore, less interesting to reduce emissions since polluting rights were so cheap and easily affordable for the most polluting companies.

Carbon markets are a way to finance urban services, for instance waste services. If a city manages to make waste collection and treatment more environmentally friendly, it can gain an income from these improvements to help finance the service. However, it should be noted that the Clean Development Mechanism (see References) that assesses the emissions avoided is a complicated and expensive one, and thus remains so far reserved for projects with enough financing capacity to afford a certification, which is the only way to sell carbon credits.

References:

United Nations Framework Convention on Climate Change (ENG)

http://unfccc.int/portal_francophone/essential_background/feeling_the_heat/items/3297.php

Federation of Canadian Municipalities Website on the Green Municipal Fund (ENG)

<http://www.fcm.ca/home/programs/green-municipal-fund.htm>

City of Boulder, Colorado Website (ENG)

<https://bouldercolorado.gov/>

CDC Climat Website (FR)

<http://www.cdcclimat.com/S-adapter,93.html?lang=fr>

REolutions to Fund Cities

This "Economic Solution" has been produced within the context of FMDV's **REolutions** program. *REolutions*, a four-year international program, offers an invitation to all urban actors to **Rethink Economic solutions** that operationalize sustainable, efficient, and resilient local development.

Initiated by a consortium of local authority networks, *REolutions* concentrates on identifying, analyzing, transferring and pilot-implementing economic and financial strategies and mechanisms that have improved the impact and performance of local urban development policies.

Anchored and articulated at the regional level in a multi-actor setting, *REolutions* seeks to equip local authorities with the tools to integrate and operationalize a wide variety of financial resources for the endogenous development of their cities.

For more information, please visit <http://www.fmdv.net/index.php?id=10&L=2>.

