CLIMATE CHANCE

In partnership with:

FINANCE FOR TOMORROW by Paris Europlace

Annual Report of Global Observatory of Non-State Climate Action

1st Edition 2018

The report of the Observatory: what is it?

✓Report in figures

Close to **1 000** referenced sources

+500 initiatives and observed actions

+ 100 territories studied

24 sectorial analyses and country focuses

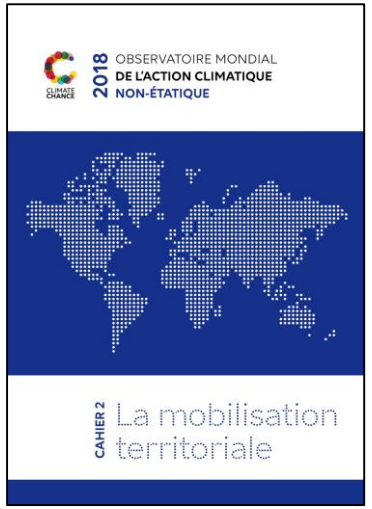
23 cities and regions case studies

A cover of the main sectors of emission

- **An original synthesis on effective climate action**
- **A narrative** to understanding the evolution of greenhouse gas emissions, by crossing national policies and initiatives of non-state actors
- **A scalable toolbox** to inspire national and local policy makers, both public and private.
- **A collaboration with sectoral experts** in all phases of the project's execution
- **A Steering Committee** made up of non-state organization, associating the focal points of the climate negociation process.
- **An « à-la-carte » distribution of the report**

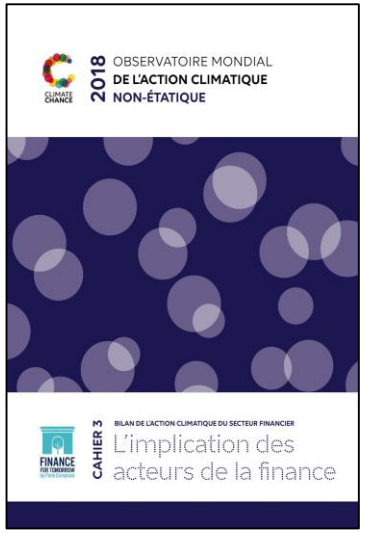
Book 1 – Sector-Based Action

- 24 sectorial and country-focused papers of analysis
- 3 major sectors studied: Energy, Transport, LULUCF



Book 2 – The mobilisation of local and subnational governments

- Progress from global initiatives
- 23 cities and regions case studies
- 80 good practices over 10 sectors



Book 3 – Bringing Finance on Board

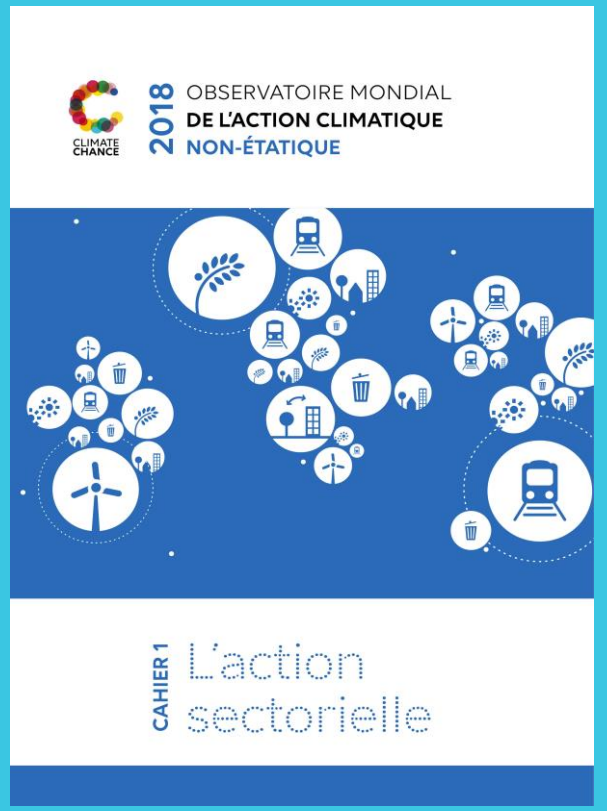
- Actors strategies, market innovations, public policies
- 1 dashboard reporting indicators of evolution

Main key takeaways

- All sectors show an increase of GHG emissions
- Global growth is the major factor
- Several national analyses show ongoing mutations and an incredible multiplication of non-state initiatives
- Best results seem to imply fiscal instrument, carbon tax or trade system.
- The issue of biofuels needs to be analyzed in depth
- Territorial dynamics are reinforced : few periodic monitoring available but progress measured is encouraging
- Analyzes of African situations show a lot of positive signs but few stable trends

Book 1: Sector-based Action

Focus on Energy & Transport



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Energy

Global Context

- Electricity & heat production nearly 25% of GHG emissions
- After a period of stability, emissions have gone up again: +2% in 2017
- Increase is linked to consumption, stimulated by:
  - Economic growth of major emerging countries (China, India, etc.)
  - Progress of electrification (India, East Africa, etc.)
- Growth of carbon-free energy is accelerating but not yet enough to offset rising demand, fossil fuel production continues to grow

Some key findings

- Rapid mutation:
  - New private players enter markets (Apple, Tesla…)
  - Local production systems (PAYG, off-grid…)
- Civil society have the will & ability to weigh on energy choices (Netherlands, Germany, Kenya…)
- Local and subnational governments are drivers in climate transition and coordinate action at local scale (USA, Cap Town…)
- Carbon pricing is an efficient tool even beyond State purview:
  - ETS (Chinese cities, Quebec, Ontario…)
  - Carbon pricing (Alberta, British Columbia,
  - Internal pricing in companies (Microsoft, Unilever)

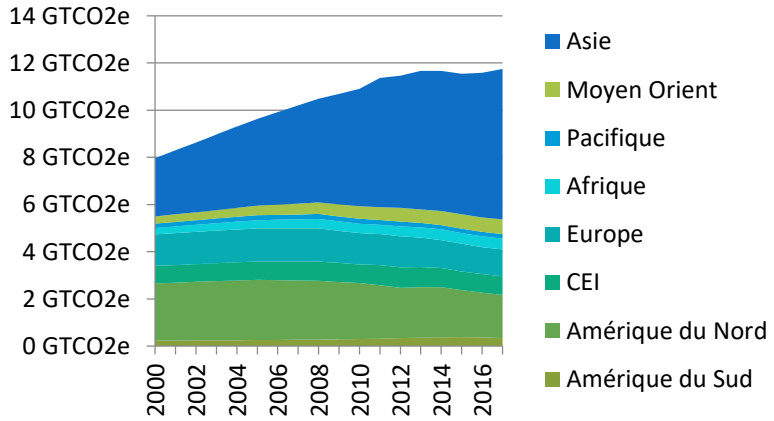


Fig. GHG emissions from electricity and heat generation (Source: Enerdata)

Transport

Global context

- About 15% of global GHGs, 23% of CO2.
- Road transport emissions up 2% /year;
- International aviation has doubled in 25 years;
- Sea freight is increasing (+ 5.5% since 2015);
- Efficiency gains for rail but no favorable modal shift

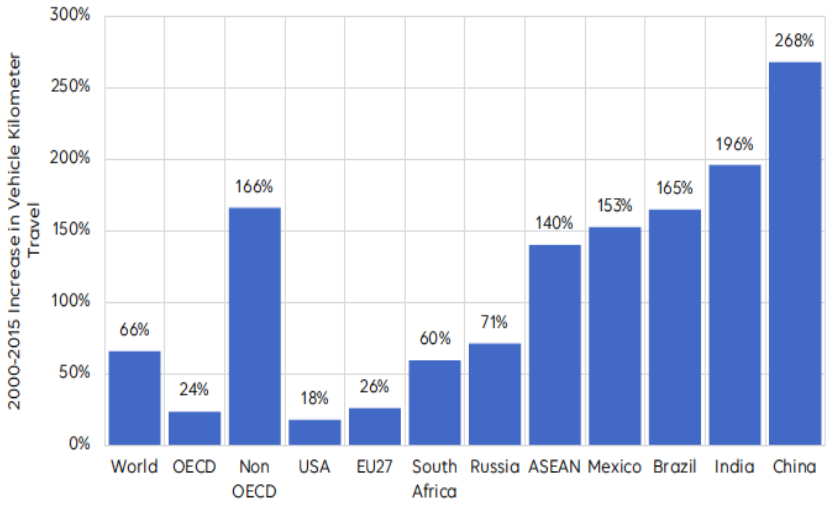


FIGURE 3. AUGMENTATION DE LA DISTANCE PARCOURUE PAR VÉHICULE

Axes of political and financial investment

- **Organize the modal shift**
  - Demand for motorized individual mobility increased overall especially in emerging countries
  - Success of bike share systems (>1700 in the world)
  - Unfavorable dynamics to rail despite major projects (TGV in Morocco, metros in Abuja, BRT) and technical progress from manufacturers
  - Standards and Taxes: several tools to orientate users and producers has been deployed: In Sweden, the 1st global civil aviation tax has favored inland rail; VZE standard in Quebec; urban tolls

- **Develop alternative fuels & efficiency**
  - Drop in diesel, slow dynamic for electric engines despite some successes (Shenzhen, Delhi, Renault) and debates around biofuel and deforestation
  - Rail and maritime bet on hydrogen & LNG
  - International aviation and maritime industries (OACI & IMO) take hold of decarbonizing their sectors

Land Uses & Forests (LULUCF)

1° No sign that deforestation is slowing down

2° Civil society actors and local communities get more and more recognition

3° African actors of wood sector are quickly evolving, not always in favour of transparency

4° Valorization and reforestation: the world shows encouraging signals, particularly in Asia

Industries

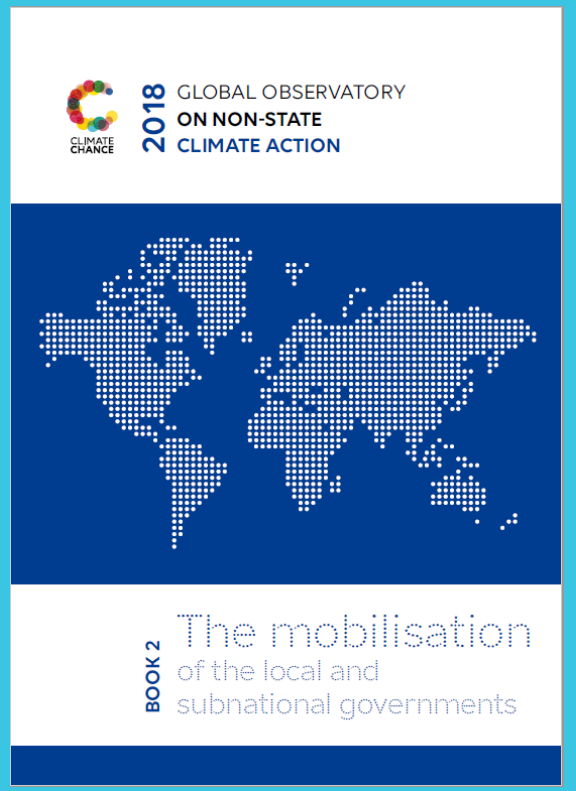
1° Data are fragmentary and generally only available for industrialized countries: China and India absent.

2° Emissions process : Emissions during the downstream phases (use and end of life) vary greatly.

3° Transparency and commitments : About 400 companies in the Science Based target process from different industry : automotive, materials, consumer products, and so forth.

4° Diversity of products, processes and locations of installations, make industry not very accessible to general solutions to reduce GHG emissions

Book 2:
The mobilization of local and subnational governments



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Progress of Global Initiatives (Section I – Book 2) Purpose

- Tracking progress and results

- Figuring out these global initiatives' political and institutional history, functions, dynamics and results

- Providing understanding of the main reporting instruments, practices and methodologies (CDP, carbon*n*® Climate registry, NAZCA, local methodologies)

Progress of Global Initiatives (Section I – Book 2) Key takeaways

- **Similar dynamism of cities and regions, but with geographical disparities**

- From 2015 to 2018 + 100% of cities and regions reporting on CDP and carbon*n*® Climate registry (cCR). Covenant of Mayors in Europe + 1000 action plans to reach 6 100.
- Weak representation of Asian cities
- Regionalization of global initiatives
- Standardization of methodologies

- **Synthesis of the monitoring and evaluation elements: measured progress is encouraging** but not satisfying a 2°C trajectory, except perhaps the Covenant of Mayors (JRC, 2017)

✓Covenant of Mayors in Europe+: - 23 % of GHG on 315 monitoring inventories
✓CDP-Cities: 101 cities registered a decrease, out of 229 cities in 2017
✓C40: 27 reached their emissions peak since 1990
✓110 regions registered in average - 8,5 % of GHG
✓cCR : only 10% of reduction objectives formulated on its platform have chances to be achieved

Stake: Their increasing weight make them more and more essential indicators of the climate action

Territorial results (Section II – Book 2)
23 cities and regions case studies

- **Providing examples of successful local policies**
  - **15 cities & 8 regions** selected
  - **Inspiring policymakers and spreading reproducible good practices**: district heating networks (Copenhagen, Nantes), energy efficiency for public buildings (Jalisco, Helsinki), households (Paris, Seixal) or appliance standards (Hong Kong), transportation, etc.

- **Highlighting good transversal practices**
  - **Innovative tools**: Investment Funds (Paris, Hong Kong), Carbon Trading Systems (Tokyo), Innovation Centers for Green Investments (Cape Town, Izmir)
  - **Consultation of actors and citizens**: Platform of actors in Dakar, Permanent Council of Energy Transition and Climate (COPTEC) in N-A, and sensitization campaigns in Seixal

JAPAN
TOKYO

POPULATION
13,839,323 (2018)
SCOPE
1, 2 AND 3 (WASTE)

GHG TARGETS
-25% IN 2020;
-30% IN 2030
(BASELINE: 2000)

The Impact of the Emissions Trading Scheme

In 2012, Tokyo's emissions rose sharply after the shutdown of nuclear power stations and the recourse of coal. Despite a decrease of 1.6% between 2014 and 2015, the 66.3 $MtCO_2eq$ emitted in 2015 represented a 6.6% increase since 2000, and seems to put the 25% reduction in GHGs by 2020, formulated in the Tokyo Climate Change Strategy by the Tokyo Metropolitan Government (TMG), out of reach. Nevertheless, to consolidate this fall over the long term, special attention is being paid to commercial buildings, accounting for 43% of emissions, ahead of residential buildings (27%), transportation (18%) and industry (7.9%).

• THE RESULTS OF PHASE I OF THE TOKYO-CAP-AND-TRADE PROGRAMME • The Tokyo-Cap-and-Trade Programme, established in 2010, covers about 1,300 commercial and industrial establishments with energy consumption exceeding 1,500 hectolitres toe/year. They account for 20% of Tokyo's emissions and 40% of emissions from the commercial and industrial sector (IETA 2018). The results of Phase I (2010-2014) were particularly encouraging, showing a decrease of 12.7% over this period, i.e. a total cumulative reduction of 12.27 $MtCO_2eq$. The evaluation report shows a reduction of 26% since the baseline year (2002-2007) from 16.50 $MtCO_2eq$/ year to 12.13 $MtCO_2eq$/ year in 2016 (TMG ETS 2018). Phase II is aiming for a reduction of 15 to 17% between 2015 and 2019, but for the moment, has only achieved a 1% decrease between 2015 and 2016.

Hong Kong - GHG Emissions GES ($MtCO_2eq$/an)

The Tokyo strategy also includes a component involving 660,000 small and medium-sized enterprises representing the 60% of emissions from the industrial and commercial sector not included in the trading scheme: a dedicated Carbon Reduction Reporting (CRR) programme. The 23,786 institutions that reported their emissions in 2015 recorded a 1.3% decrease in their emissions between 2010 and 2014 (CDP 2017).

The impact of these programmes can be seen in the evolution of Tokyo's final energy consumption which is decreasing rapidly, by 2.4% between 2014 and 2015 and by 21.1% since 2000, mainly in the industry and transports sectors, which recorded decreases of 40.8% and 41.7%, respectively, during the 2000-2015 period. At the same time, renewables account for more than 1% of final electricity consumption, notably due to the 8.5-fold increase in solar energy production capacity between 2008 and 2015.

• TRANSPORT SPEARHEADS THE REDUCTION IN EMISSIONS AND ENERGY CONSUMPTION • It is in transport that Tokyo is making the most progress with a decrease of 36.1%, or more than 6 $MtCO_2$/ year, between 2000 and 2015. In this area Tokyo has managed to follow its strategy in 2007: public transport, low-carbon vehicles and eco-driving. In 2018, its metro, connected to the largest metropolitan conurbation in the world, was the busiest in the world, with nearly 3.5 billion journeys (UITP 2018). For freight transport, Tokyo has put in place an energy efficiency indicator for 264 road transport companies and more than 10,000 vehicles. The publication and rating of their efforts is information valued by their customers and encourages them to promote eco-driving that has already reduced their emissions by 20%, and could reduce Tokyo's transport emissions by 8% (CDP 2017). Tokyo, however, has been seeking to stimulate more substantial investments, by progressively imposing CO_2 and particle emission standards since 2003, particularly for diesel vehicles, energy efficiency standards for vehicles in circulation, and low-carbon vehicle quotas, on companies based on the size of their fleet (Retrofit program).

MAIN SOURCE:
REPORTS OF THE OFFICE OF THE ENVIRONMENT - METROPOLITAN

Around the World in 80 initiatives (Section III – Book 2)

- 80 short illustrations work in 10 sectors territorial public policies: *urban planning, energy generation, transport, building, circular economy, food, awareness, adaptation and decentralized cooperation*
- Toolbox for local decision-makers, highlighting outstanding projects and global trends
- Fed and feeding by Climate Chance's Cartography for Action

Book 3 – Bringing Finance on Board

REPORT ON CLIMATE ACTION IN THE FINANCIAL SECTOR

FINANCE FOR TOMORROW by Paris Europlace

CLIMATE CHANCE

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Climate action in the financial sector

- A quantitative but also qualitative stocktake
- A dashboard to measure progress year after year
- More than 100 sources
- Patchy and non exhaustive data

→ no aggregation of global flows

The report tries to assess consistency of climate action

By assessing capital reallocation: green finance vs. brown finance

Key findings

Finance actors have made great progress over the last year

- Strategies of financial actors are spreading
- Green financial products and services are developing
- Regulation and supervision are put in place

But there is still a long way to go before capital flows are consistent with the Paris Agreement goals

- Green financing are still weak and brown financing remain high
- Climate related risks are underestimated

Green Finance dashboard 2018

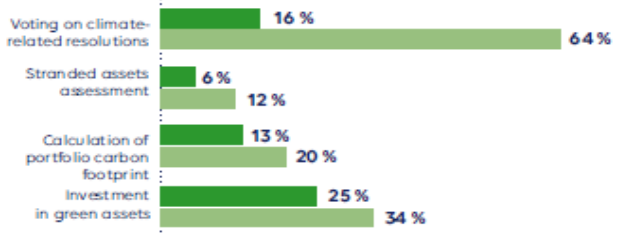
TCFD SUPPORTERS
(Taskforce on Climate related Financial Disclosure)
287
FINANCIAL INSTITUTIONS

1 INVESTORS

Climate strategy

ASSET OWNERS — ASSET MANAGERS

Implementation policies



Share of low carbon investments in portfolios

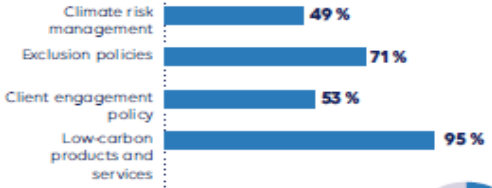
0,5 % ASSET OWNERS — 0,2 % ASSET MANAGERS

2 BANKING

Climate strategy

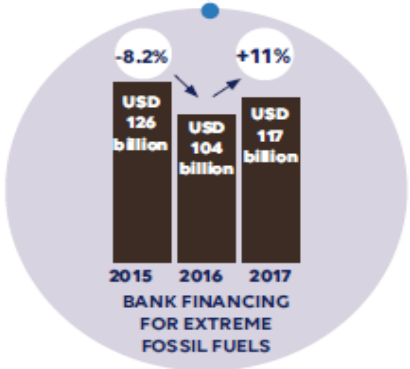
58 %

Implementation policies



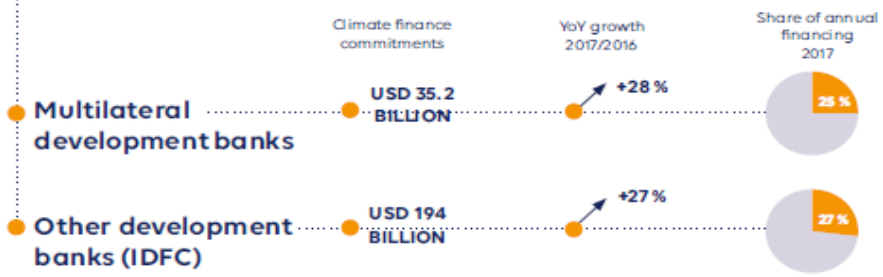
Green financing

15 % OF ALL SYNDICATED LOANS



BANK FINANCING FOR EXTREME FOSSIL FUELS

3 DEVELOPMENT BANKS

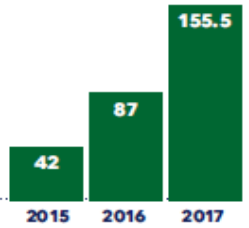


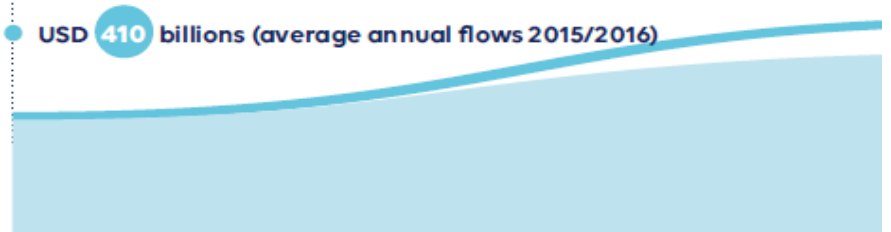
4 THE GREEN CLIMAT FUND

- USD **4.6** billion in direct investment (Oct 2018)
- USD **158** million of disbursements (Feb 2018)
- **93** projects approved (Oct 2018)

5 GREEN BONDS

Total issuance in USD billion



6 CLIMATE FINANCING FLOWS

USD **410** billions (average annual flows 2015/2016)