



NATIONAL REPORT BY FRANCE – SEPTEMBER 2015

Enhanced Black Carbon and Methane Emissions
Reductions– an Arctic Council Framework for Action



**Ministry of Foreign Affairs and International
Development**

Legal Affairs Directorate

*Sub-Directorate for the Law of the Sea, River
Law and polar affairs*

**Ministry of Ecology, Sustainable
Development and Energy**

General Directorate for Energy and Climate

Greenhouse gas Unit

**French national report on Black Carbon and Methane emissions
to the Arctic Council Secretariat**



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Foreword

The reduction of Black Carbon and Methane Emissions in the Arctic is of critical importance to tackle Climate change in the region. In this regard, France welcomes and supports the Arctic Councils' initiatives on Black Carbon and Methane Emissions Reductions, and as an Observer State wishes to engage with Arctic States on this important issue. Indeed, Carbon and Methane emissions away from the Arctic are also considered as short live climate forcers which have an influence on the Arctic. In the perspective of UNFCCC COP21 in Paris in December, France believes that it is a shared responsibility of Arctic Council Observers to reduce their emissions in order to reduce the effects of Climate change all over the world, and especially in the Arctic. Thus, France is pleased to share its data with the Arctic Council through this submission to the Secretariat.

The following report is submitted by the French Ministry of Foreign Affairs and International development and has been drafted with the contribution of the French Ministry of Ecology, Sustainable Development and Energy.

1. Summary of current black carbon emissions to CLRTAP, where appropriate, and if available, future projections

The emissions of black carbon (BC) are calculated annually by CITEPA (financed by French ministry of ecology) since 2012 and are submitted voluntarily in the framework of the Convention on Transboundary Air Pollution on Long Distance (CLRTAP) adopted under the auspices of the Economic Commission for Europe of the United Nations (UNECE). The definition of the methods and the QA/QC of the calculation are part of a national system for inventories called SNIEBA, (see NIR 2014, http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php). To find explanations on the methodology used for black carbon calculation, see the report sent to UNECE : <http://www.citepa.org/fr/activites/inventaires-des-emissions/cee-nu>.

The figure 1 represents Black carbon emissions since 1990. We can see that the emissions of black carbon decreased by 48 % since 1990.

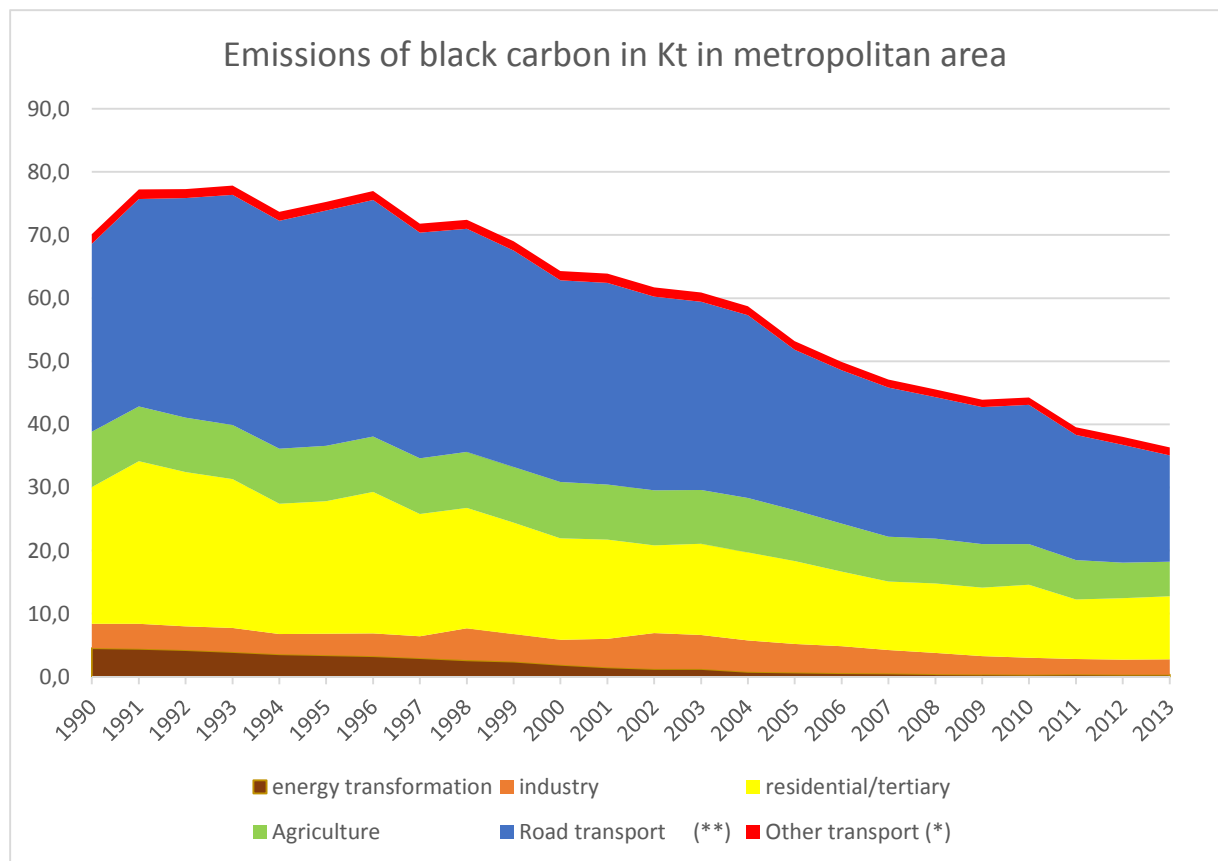


Figure 1 : Emissions of black carbon since 1990 in kt per year for metropolitan area

(*)perimeter of UNECE - emissions outside national totals are: international maritime emissions, emissions of the cruise phase (≥ 1000 m) of domestic and international air traffic, and emissions of biotic sources of agriculture and forestry and emissions non-anthropogenic sources.

(**) Emissions from exhaust and wears

No projections of Black carbon emissions are done by France until now.

2. Summary of current methane emissions to UNFCCC and, if available, future projections

Emissions of CH₄ :

Emissions of methane are calculated annually for the climate change convention. Methodologies are presented in the NIR submitted each year to UNFCCC:

http://unfccc.int/national_reports/annex_i_ghg_inventories/national_inventories_submissions/items/8108.php) and in the national report on methodology OMINEA which can be found here: <http://www.citepa.org/fr/activites/inventaires-des-emissions/ominea>.

CH₄ emissions trend is presented here in the figure 2 for metropolitan area. We can see that the emissions decreased by 14 % since 1990.

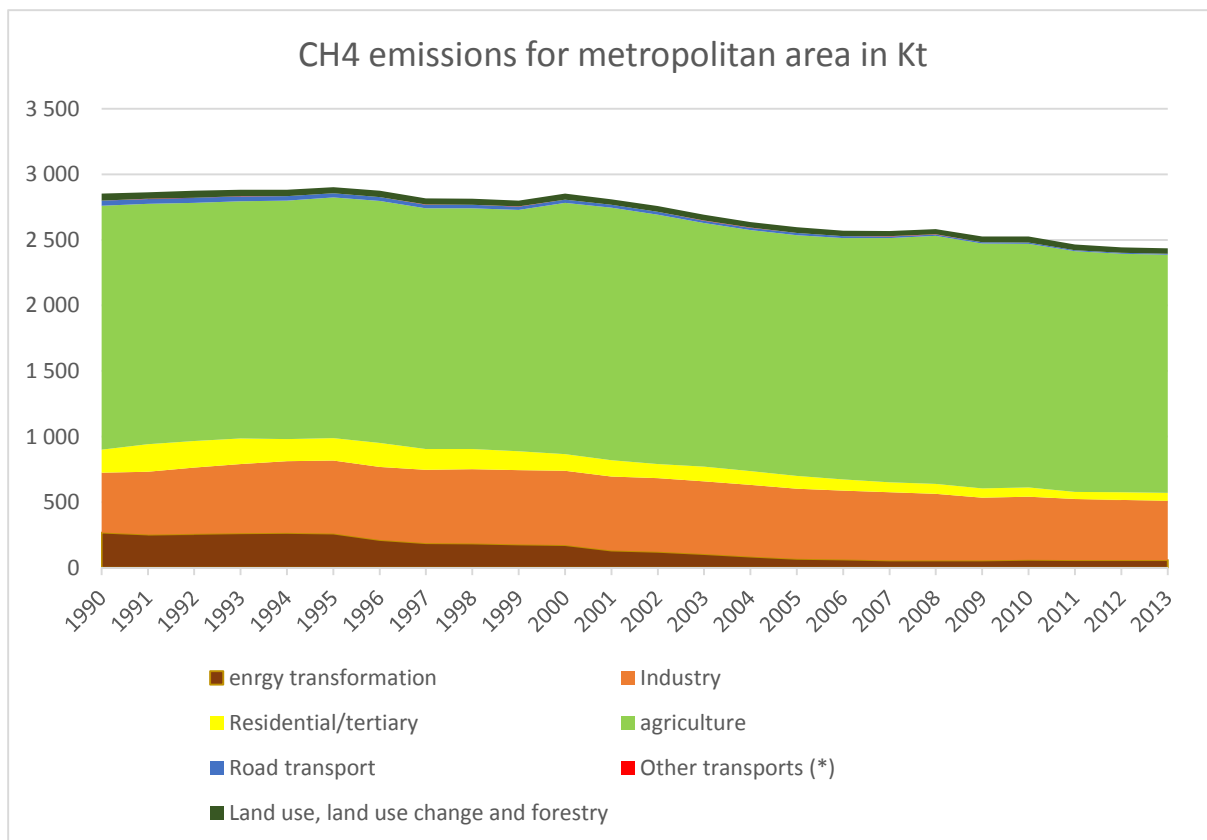


Figure 2: CH4 emissions in metropolitan area in Kt

* according to rules of UNFCCC - international maritime and aviation emissions, and emissions from biogenic sources are not included in this total.

CH4 emissions projections

Projections are calculated every two years for European commission and UNFCCC. Last projections are available in chapter 5 of the 6th national communication:

http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/7742.php) and also in the first biannual report:

http://unfccc.int/national_reports/biennial_reports_and_iar/submitted_biennial_reports/items/7550.php.

For the second biannual report due for the 1st of January 2016, France updated its projections on the basis of new policies and measures put in place or decided until the 1st of January 2014. This scenario called AME gives the results of the table 1.

	2010	2015	2020	2025	2030	2035
CH4 (kt)	2469,53	2333,79	2281,72	2242,23	2220,68	2196,64

Table 1: CH4 emissions projections for scenario AME 2015 for metropolitan area

The description of the scenario will be available with the publication of the second biannual report which will be published in January 2016.

3. Summary of National actions, National actions plans, or mitigation strategies by sector

4.1. for Black Carbon

A first report with emissions reduction action was submitted under the Economic Commission for Europe of the United Nations in 2001 (see http://www.developpement-durable.gouv.fr/IMG/pdf/PREPA_final_1-2.pdf). This plan didn't take into account black carbon which was not so studied 14 years ago. A new action plan called PREPA is under preparation and take into account PM2.5 and PM10. It will be finished in June 2016. Moreover, the law on the energetic transition currently under scrutiny by the Parliament, will require to review and update if necessary this action plan (PREPA) every 5 years.

At national level, The "Plan particules" (particulate program) was implemented in July 2010 in accordance with the application of Article 37 of the Grenelle Law n°2009-967 (Program Law on the Protection of the Environment)

It includes measures to achieve a 30% reduction of particulate matter (PM2.5) in 2015 in the sectors of industry and services, domestic heating, transport, agriculture and in case of peak pollution. It also aims to improve the knowledge on the subject (<http://www.developpement-durable.gouv.fr/Plan-particules.html>).

At regional level, regions have to put in place what France calls PPA for protection plan for atmosphere for cities of more than 100,000 inhabitants. These plans can be consulted in web site of regional administrations (for example for the region Ile de France (Paris Metropolitan Region): <http://www.driee.ile-de-france.developpement-durable.gouv.fr/ppa-2013-r563.html>)

4.2. for CH4

The description of the policies and measures for CH4 emissions reduction are reported every two years to the European Commission and to the secretariat of the United Nations Framework for Convention on Climate Change. The last reports available are the first biannual report submitted in December 2013 by France:

http://unfccc.int/national_reports/biennial_reports_and_iar/submitted_biennial_reports/items/7550.php and the 6th national communication (see chapter 4: http://unfccc.int/national_reports/annex_i_natcom/submitted_natcom/items/7742.php).

A new biannual report is under preparation for the first January 2016. Inside new policies and measures will be presented in detail.

4. Highlights of best practices or lessons learned for key sectors

In the French national communication and in the French biannual report aforementioned, the policies and measures are classified by sectors and we can find best practices and lessons learned by sector.

5. Projects relevant for the Arctic

Since January 1992, the French Polar institute (IPEV) has been an essential player in the sphere of polar research in France, by providing funding to implement research projects in

Polar Regions. Along with the Alfred Wegener Institute, the IPEV manages the AWIPEV French-German Station in Ny-Ålesund, Svalbard.

The IPEV allocates 25% of its funds to the Arctic, which amounts to €1.3 million per year. Of these programs, 23 involved earth sciences, 13 life sciences and 9 human and social sciences. In 2013/2014, IPEV funded 94 persons on the field representing a total of 2.466 days of in situ research.

IPEV operates the GRAAM Project. Since 2007, a continuous atmospheric monitoring station has been set up in Ivittuut, Greenland, to monitor carbon dioxide, methane, oxygen and water vapor isotopic composition. The station acquires unique data sets regarding air masses origin and regional carbon balance.

The AWIPEV Station is used as a scientific infrastructure by many European projects: Global Earth Observation and Monitoring (GEOMON), Climate impacts of short-lived pollutants in the Polar Regions (CLIMSLIP) which, among others, contributed to the EUROPOLAR ERA-NET consortium. The European Project on Ocean Acidification (EPOCA) should also be mentioned. The IPEV is involved in the Svalbard Integrated Earth Observing System (SIOS) project, which intends to join the Sustainable Arctic Observation Network (SAON), made up of representatives from the Arctic Council.

The CNRS (the national Center for Scientific Research) is widely involved in the publications, generally in partnership with universities and other French research bodies. The French scientific community working on the Arctic is composed of around about 500 scientists whose work is either fully or partly related to Arctic research.

More specifically, Dr Kathy Law is a CNRS Directeur of Research at LATMOS/CNRS and is involved in the AMAP Expert Group on SLCF and BC since the IPY. She was one of the coordinators of the POLARCAT project on the study of long-range transport of pollutants to the Arctic.

The ocean, the climate, sea ice, ecology and anthropology are the fields in which the French scientific community is particularly active. More recently, studies have been conducted on the continental surfaces, in particular permafrost and peatlands. Remote sensing and modelling are the preferred means of observation and analysis.

The French scientific community has joined together under the French Arctic Initiative, which was established by the Ministry of Higher Education and Research. The aim of the French Arctic Initiative is to coordinate and structure Arctic research in order to make it clearer and raise its profile internationally.