STRATEGIES AND POLICIES OF PARTIES AND SIGNATORIES TO THE CONVENTION FOR THE ABATEMENT OF AIR POLLUTION

2010 QUESTIONNAIRE FOR PRIORITY COMPLIANCE REVIEW

PART 2

Answers BELGIUM

Contact person

Peter Meulepas,
Flemish Government
Department Environment, Nature and Energy
e-mail: peter.meulepas@lne.vlaanderen.be
Tel: +32 2 553 11 36

GE.09-24844

I. INSTITUTIONAL, REGULATORY AND STRATEGIC FRAMEWORK

1. **Question 1**: Please describe the division of responsibility within your country for measures to combat air pollution (i.e. the roles of national, provincial, and State authorities).

Answer

The division of responsibility with respect to environmental policy, including measures to combat air pollution, needs to be fitted within the regionalization process in Belgium. The overall competence on protection of the environment (including matters on air pollution) has been assigned to the regions. Some aspects have remained the responsibility of the federal government, of which setting product standards (e.g. fuel quality) or technical control of the vehicles is relevant to mention here.

The regional authorities have the responsibility for developing and implementing air pollution policy except product regulations, energy and fiscality which is federal competence). The Provinces/communities are co-responsible for granting permits. Moreover federal government is compentent for a large part of the energetical policy

L'autorité fédérale est compétente pour les matières dont l'indivisibilité technique et économique requiert une mise en oeuvre homogène sur le plan national, à savoir :
a) Le plan d'équipement national du secteur de l'électricité;
b) Le cycle du combustible nucléaire;
c) Les grandes infrastructures de stockage; le transport et la production de l'énergie;
d) Les tarifs.

2. **Question 2**: Please provide details of your country's ambient air quality and deposition standards, programmes and policies by completing the table below.

Answer

Flemish Region

	Standard (unit) /conditions[1]	**Status[2]/objectives[3]**	**Policy and programme/legislation (ref)**
1. Ambient air quality standards			
Sulphur dioxide	350 µg/m³ (max 24 exeedances in a year) *hour* *01/01/2005*	Limit value, health	NEC-program (see further)/ Flemish legislation Vlarem II
	125 µg/m³ (max 3 ex in a year) *day* *01/01/2005*	Limit value, health	NEC-program (see further)/ Flemish legislation Vlarem II
	20 µg/m³ *Year and winter (01/10 - 31/03)* *19/07/2001*	Limit value, ecosystems	NEC-program (see further)/ Flemish legislation Vlarem II
	500 µg/m³	Alarm, health	NEC-program (see further)/

	3-hour *19/07/2001*		Flemish legislation Vlarem II
Nitrogen dioxide	200 µg/m³ (max 18 ex in a year) *hour* *01/01/2010*	Limit value, health	NEC-program (see further)/ Flemish legislation Vlarem II
	40 µg/m³ *Year* *01/01/2010*	Limit value, health	NEC-program (see further)/ Flemish legislation Vlarem II
	400 µg/m³ *3-hour* *19/07/2001*	Alarm, health	NEC-program (see further)/ Flemish legislation Vlarem II
Nitrogen oxides	30 µg/m³ *Year* *19/07/2001*	Limit value, vegetation	NEC-program (see further)/ Flemish legislation Vlarem II
Ozone	120 µg/m³, max 25 ex Highest 8-hours mean/day, averaged over 3 years 01/01/2010	Target Value, health	NEC-program (see further)/ Flemish legislation Vlarem II
	AOT40 18 000 µg/m³*h, averaged over 5 year, May-July 01/01/2010	Target Value, vegetation	NEC-program (see further)/ Flemish legislation Vlarem II
	120 µg/m³ Highest 8-h average/day, within a year Not defined	Long-term objective, health	NEC-program (see further)/ Flemish legislation Vlarem II
	AOT40 6 000 µg/m³*h, May-july Not defined	Long-term objective, vegetation	NEC-program (see further)/ Flemish legislation Vlarem II
	180 µg/m³ hour Immediately	Information threshold, health	NEC-program (see further)/ Flemish legislation Vlarem II
	240 µg/m³ hour Immediately	Alert threshold, health	NEC-program (see further)/ Flemish legislation Vlarem II
Particulate matter$_{10}$	50 µg/m³ PM_{10} (max 35 ex over a year) *Day* *01/01/2005*	Limit value, health	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm) /Flemish legislation Vlarem II
	40 µg/m³ *Year* *01/01/2005*	Limit value, health	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm) /Flemish legislation Vlarem II
Particulate matter$_{2.5}$	18 µg/m³ or reduction with certain % on basis of the measured conc. *Average over 3 years* *01/01/2020*	Exposure Reduction Target, city background (cities > 100 000 inhabitants), health	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm) /Flemish legislation Vlarem II
	20 µg/m³ *Average over 3 years* *01/01/2015*	Exposure concentration obligation, city background, (cities > 100 000 inhabitants), health	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm) /Flemish legislation Vlarem II
	25 µg/m³ *Year* *01/01/2010*	Target value, health	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm)

			/Flemish legislation Vlarem II
	25 µg/m³ *Year* *01/01/2015*	Limit value, health	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm) /Flemish legislation Vlarem II
Total suspended particulates	/	/	Dustplans (overview see http://ec.europa.eu/environment/air/quality/legislation/time_extensions.htm) /Flemish legislation Vlarem II
Carbon monoxide	10 mg/m³ *Highest 8-hoursaverage/ day* 01/01/2005	Limit value, health	No exceedances
Lead	0,5 µg/m3 *Year* 01/01/2005	Limit value, health	Pb-plan for 1 industrial site (not public yet, in public consultation))
Cadmium	5 ng/m³ (in PM_{10}) Year 31/12/2012	Target value, health	Application of BAT + specific extra measures (beyond BAT) for a few specific industrial sites with exceedances
	30 ng/m³ Year Into force	Limit value, health	Not exceeded
Mercury	/	/	Phase out
Arsenic	6 ng/m³ (in PM_{10}) Year 31/12/2012	Target value, health	Application of BAT + specific extra measures (beyond BAT) for a few specific industrial sites with exceedances
Nickel	20 ng/m³ (in PM_{10}) Year 31/12/2012	Target value, health	Application of BAT + specific extra measures (beyond BAT) for a few specific industrial sites with exceedances
Benzene	5 µg/m³ Year *01/01/2005*	Limit value, health	NEC-program – VOC - (see further)/ Flemish legislation Vlarem II
	50 µg/m³, 98-P of 1 day, average over 1 year	Limit value, health	NEC-program – VOC - (see further)/ Flemish legislation Vlarem II
Benzo(a)pyrene	1 ng/m³(in PM_{10})	Target value, health	No exceedances
Dioxins/furans	/	/	/
Other:			
Chlorine, HCl, monovinylchlorine, HF, Asbestos		Limit value, health	No exceedances
2. Deposition standards			
Acidification	/	/	NEC-program – VOC - (see further)/ Flemish legislation Vlarem II
Eutrophication	/	/	NEC-program – VOC - (see further)/ Flemish legislation Vlarem II
Heavy metals:			
Pb	3000 µg Pb/m^2/dag Year Into force	Limit value, health	No exceedances
	250 µg Pb/m^2/dag Year Into force	Target value, health	No exceedances
Cd	20 µg Cd/m^2/dag	Target value, health	No exceedances

	Year Into force		
Tl	10 µg Tl/m^2/dag Year Into force	Target value, health	No exceedances
Persistent organic pollutants (POPs)	/	/	/
Other:			
Not dangerous dust			No exceedances

Walloon Region

	Standard (unit) /conditions[1]	**Status[2]/objectives[3]**	**Policy and programme/legislation (ref)**
1. Ambient air quality standards			
Sulphur dioxide	350 µg/m³, à ne pas dépasser plus de 24 fois par année civile/ 1heure	Valeur limite horaire pour la protection de la santé humaine	AGW du 23/06/2000
	125 µg/m³, à ne pas dépasser plus de 3 fois par année civile	Valeur limite journalière pour la protection de la santé humaine	
	20 µg/m³ Moyenne annuelle	Valeur limite pour la protection des éco-systèmes	
Nitorgen dioxide-nitrogen oxides	200 µg/m³ NO_2 à ne pas dépasser plus de 18 fois par année civile	Valeur limite horaire pour la protection de la santé humaine	AGW du 23/06/2000
	40 µg/m³ NO_2 Moyenne annuelle	Valeur limite annuelle pour la protection de la santé humaine	
	30 µg/m³ NO_2 Moyenne annuelle	Valeur limite pour la protection de la végétation	
Ozone	120 µg/m³ valeur à ne pas dépasser plus de 25 jours par année civile moyenne calculée sur 3 ans	Valeur cible pour la protection humaine	AGW du 23/06/2000
	Valeur cible pour la protection de la végétation	AOT 18 000 µg/m^3.h (moyenne calculée sur 5 ans	
Particulate $matter_{10}$	50 µg/m³ PM10, à ne pas dépasser plus de 35 fois par année civile	Valeur limite journalière pour la protection de la santé humaine	AGW du 23/06/2000
	40 µg/m³ PM10 Moyenne annuelle	Valeur limite annuelle pour la protection de la santé humaine	
Particulate $matter_{2.5}$			
Total suspended particulates			

Carbon monoxide	10 mg/m^3 Maximum journalier de la moyenne sur 8 heures	Valeur limite pour la protection de la santé humaine	AGW du 23/06/2000
Lead	0,5 µg/m³ Moyenne annuelle	Valeur limite annuelle pour la protection de la santé humaine	AGW du 23/06/2000
Cadmium	5 ng/m³ Moyenne annuelle	Valeur cible	AGW du 23/06/2000
Mercury		Faire des mesures	AGW du 23/06/2000
Arsenic	6 ng/m³ Moyenne annuelle	Valeur cible	AGW du 23/06/2000
Nickel	20 ng/m³ Moyenne annuelle	Valeur cible	AGW du 23/06/2000
Benzene	5 µg/m^3 Moyenne annuelle	Valeur limite pour la protection de la santé humaine	AGW du 23/06/2000
Benzo(a)pyrene	1 ng/m³ Moyenne annuelle	Valeur cible	AGW du 23/06/2000
Dioxins/furans			
Other			
2. Deposition standards			
Acidification			
Eutrophication			
Heavy metals			
Persistent organic pollutants (POPs)			
Other			

3. **Question 3**:

(a) Does your country apply a multi-pollutant management approach? If so, please describe this;

(b) Are climate change and air pollution policies integrated in your country? Please give specific examples of programmes or technologies that address the co-benefits of reducing air pollution and greenhouse gases;

Answer

Federal Government

a)
Yes
Le gouvernement fédéral contribue dans le cadre de ces competences à la lutte contre la pollution de l'air par une politique multi polluant multi effets. Les politiques sont planifiée et reprise dans le documents suivant :
https://portal.health.fgov.be/pls/portal/docs/PAGE/INTERNET_PG/HOMEPAGE_MENU/MILIEU1_MENU/AIRETCHANGEMENTCLIMATIQUE1_MENU/OZONE1_MENU/WATDOETBELGIE1_MENU/WATDOETBELGIE1_DOCS/CONTRIBUTION%20F%C3%89D%C3%89RALE%20AIR%20FINAL.PDF.

L'action fédérale doit compléter celle des Régions afin d'obtenir un corpus national cohérent en matière de qualité de l'air ambiant.

Ce plan constitue le quatrième plan d'action fédéral concernant la lutte contre la pollution atmosphérique, après ceux de 1996-1999, 2000-2003 et 2004-2007 qui étaient spécifiquement consacrés à l'ozone et l'acidification.

Le plan d'action 2009-2012 est le premier plan intégré multi-polluants, multi-effets et multi-sources diffuses et mobiles, couvrant à la fois les préoccupations de qualité de l'air extérieur et de qualité de l'air intérieur. C'est la première fois que les particules et les pollutions de l'air intérieur sont appréhendées, au niveau fédéral, de manière structurelle et intégrée.

Les polluants de l'air auxquels le Fédéral a décidé de s'attaquer sont ceux qui émanent de sources mobiles ou meubles telles les véhicules, les combustibles, les matériaux de construction, les bombes aérosols, etc., qu'ils se présentent sous forme de gaz, émanations, poussières, composés volatils, contaminants chimiques toxiques ou autres. En ce sens, ce plan d'action est le troisième volet d'un triptyque portant sur les modes de production et de consommation durables. Il est donc conçu en cohérence avec les deux autres volets qu'il complète et consolide : le plan produits et le plan marchés publics durables.

Le plan se divise en deux parties : les polluants et leurs sources mobiles de l'air extérieur et ceux et celles de l'air intérieur, sachant que les composés organiques volatiles (COV) sont principalement abordés dans le plan par ce dernier biais.

L'air extérieur

Les sources « meubles » ou mobiles, émettrices ou susceptibles d'émettre des polluants dans l'air extérieur, proviennent principalement des secteurs du transport, de l'habitat, chauffage compris (chaudières et appareils de chauffage) et de l'énergie.

Le secteur du transport met sur le marché des véhicules et équipements mobiles routiers, ferroviaires et navigables. Les différents types de carburant (diesel, essence, LPG, carburants alternatifs) émettent, à des degrés divers, des polluants, tels le soufre, les oxydes d'azote, le benzène, etc.

Le secteur de l'habitat/chauffage comporte un nombre très important à la fois de sources et de polluants toxiques (oxydes d'azote, COV, particules, etc.).

Enfin, le secteur de l'énergie fait actuellement l'objet d'une diversification importante en matière de combustibles, notamment suite à l'arrivée sur le marché des énergies renouvelables issues de la biomasse (biocarburants, pellets, bois, etc.) ou du charbon dans un segment très étroit (poêles à charbon) mais réel.

L'air intérieur

L'air intérieur est le parent pauvre de la législation. Ainsi, si 95 % de la législation européenne relative à l'air couvrent l'extérieur, le citoyen passe actuellement 80 % de son temps à l'intérieur. Il est donc nécessaire et urgent de rétablir un équilibre qui touche

fondamentalement à la santé, au bien-être au quotidien et au droit de vivre dans un environnement sain.

Les actions relatives aux sources meubles émettant des polluants intérieurs concernent trois grands domaines : les matériaux de construction et d'ameublement, les appareils de chauffage domestiques et les produits ménagers. Ils tombent sous l'application du présent plan lors de leur mise sur le marché.
Les COV ont comme sources principales, parmi les produits, les peintures, les détergents et les cosmétiques.

Ils sont déjà considérés et réglementés comme polluants de l'air extérieur responsables d'ozone troposphérique, mais les COV polluent également l'air intérieur. Certaines substances de la famille des COV peuvent avoir des conséquences sérieuses sur la santé à moyen ou à long terme.

b)
OUI

En ce qui concerne les objectifs chiffrés repris dans le plan mentionnés en a, il sont fixés en complément des objectifs climatique de réduction de la consommation d'énergie. C'est égalemnt en ce sens que notre attention est dirigé vers l'air intérieur car une isolation accrue doit s'accompagné d'une vigilance accrue au niveau des sources de pollution de l'air intérieur

La structure fédérale implique que les objectifs de réduction de 7,5 % (par rapport aux niveaux d'émission de 1990) ne peuvent être atteints que via un partage de la charge entre le pouvoir fédéral et les pouvoirs régionaux.

Outre les mesures "internes" sur le territoire national, le pouvoir fédéral s'attache également à atteindre les objectifs nationaux de réduction par l'achat de droits d'émissions en investissant à l'étranger (ce que l'on appelle les projets MOC/MDP).

Un système réglementé (et obligatoire) de rapportage permet d'évaluer et de recadrer la politique belge en matière de climat.

Flemish Region

a)
Emission reduction policy is for a large part determined by European legislation, like the NEC-directive. This NEC-directive was based on modelling integrating acidification and tropospheric ozone. Current modelling, leading to a.o. a review of the NEC-directive, also takes into account particulate matter.
To get a view on possible emission reduction measures, an extensive study programme was drawn up (see Q. 9); in these sectoral studies, also other pollutants than the Goteborg pollutants have been studied if relevant.

b)
The integration of air pollution policy and climate change policy up to now has been rather limited: although climate change policy has been taken into account when calculation emission projections for air pollutants, there was no actual integration. Attention for this

subject has grown the last few years and has lead to concrete actions:

- The models for calculating emission projections and cost curves are being integrated into one model, that will allow for optimisations for air pollutants and greenhouse gasses simultaneously (Milieukostenmodel)
- A major point of attention is the stimulation of small CHP-installation. Though beneficial for climate change policy, these small installations running on liquid fuels often have very high specific NO_x emissions. The energy department and the air pollution department are developing a strategy that avoids these negative side effects.
- The same goes for PM emissions from biomass burning: both departments work together to see how green energy can be stimulated without negative effects on the air quality.

Walloon Region

a)
Notre Région applique un programme multi-polluants. Celui-ci intègre l'air et les changements climatiques. En pratique, c'est la composante "changements climatiques" qui est prise en compte en premier lieu. Les réductions nécessaires pour atteindre les objectifs d'émission des autres polluants sont basées sur des scénarios "avec politique climatique".
Le plan wallon Air Climat peut-être consulté à l'adresse suivante:
http://airclimat.wallonie.be/spip/-Plan-Air-Climat-.html

b)
Comme expliqué ci-avant, les scénarios de réduction incluent la politique climatique. Une des raisons essentielles à cela est que la politique climatique est principalement axée sur des mesures "primaires", alors que les réductions de poussières, oxydes de soufre... sont en général obtenues par des mesures "secondaires".

Brussels-Capital Region

a)
A integrated multi pollutant approach is adopted in Brussels to limit the pollution and respect the European directive in terms of concentrations (directive 2008/50/CE) and emissions within the NEC directive (2001/81/CE).
Being an urban region, the major sources of pollution are linked to energy consumption. Furthermore, there is no real "major polluting activity" in the Brussels-Capital Region but a multitude of minor sources, often spread all over the city, and sometimes located in the centre of a residential district.
Therefore, the region has been adopted an air-climate plan 2002-2010 to reduce the pollution . Since then, complementary plans have been adopted to reduce emissions in all the sectors responsible of emissions (where needed).

b)
The Brussels-Capital Region adopted an integrated plan for air quality improvement and global warming abatement in 2002 ("Air-Climate Regional Plan 2002-2010"). The plan brings together measures to improve ambient air quality and to reduce greenhouse gas (GHG) emissions by 2010. For air quality, the main objectives are to reduce emissions of ozone

precursors (VOCs and NO_x), benzene (linked to petrol), fine particulates (PM_{10} and $PM_{2.5}$) and polycyclic aromatic hydrocarbons (PAHs) (linked to diesel and heating oil). Quantified emission reduction targets are included. The transport side of the above mentioned plan has been strengthened thanks to the implementation of the "Bruxell'Air program" which involve both the Environment and transport ministers. Since then, in reducing the energy consumption (see the "Plan d'action en matière d'efficacité énergétique de la Région de Bruxelles-Capitale"[1]) the waste quantity (see the waste plan[2]) and the volume of traffic (see the mobility plan IRIS I [3]), the emissions of pollutants (greenhouse gas and air quality pollutants) are decreasing.
In addition to the regional planning policies, to practise their activities, companies need to have several authorizations and administrative declarations including the Environmental Permit. The Environmental Permit is essentially an administrative authorization, which contains the technical dispositions to be followed. The use of the Environmental Permit is included in a global integrated policy to prevent harmful effects, improve the environmental performances of the companies settled in the city and integrate the economical activities in the Brussels-Capital Region. The Environmental Permit gives to the companies guidelines for their development in order to respect the environment and the quality of life of the people.
An integrated air-climate-energy plan is foreseen for the period after 2010.

4. **Question 4**:

(a) To what extent does your country's air pollution policy address other (environmental) policies and other environmental media (e.g. fresh water, sea water, soil, waste, indoor air)? Please provide details;
(b) To what extent do other policies take air pollution into account (e.g. industrial development, nature policy, spatial planning, financial policy, toxic substances policy)?.

Answer

Flemish Region

New legislation in Flanders is often based on BAT-studies (either European or Flemish). In determining BAT, cross media effects are taken into account, thus making sure that more stringent legislation for one medium doesn't have negative side effects on other media.
When applying for a (new) environmental permit, major (industrial) plants or projects have to include an environmental effects report. This report investigates the impact of the plant, and of possible new installations, on the different media.

Walloon Region

a)
En ce qui concerne les installations industrielles, les permis sont intégrés dans un seul et même

[1] http://ec.europa.eu/energy/demand/legislation/doc/neeap/belgium_bruxelles_capitale_fr.pdf
[2] http://www.bruxellesenvironnement.be/uploadedFiles/News/Projet_PLAN%20dechets_FR.pdf?langtype=2060
[3] http://www.iris2.irisnet.be/Files/media/iris2-plan-proj-FR.pdf

acte. Dès lors, le fonctionnaire technique, lorsqu'il traite un dossier, est amené à examiner ensemble les différent impacts sur le milieu récepteur.

b)
On observe de plus en plus de transversalité dans les politiques et mesures. Par exemple, la fiscalité automobile wallonne (taxe de mise en circulation) se fonde actuellement sur des aspects environnementaux (bonus/malus en fonction du caractère polluant du véhicule).

The Brussels Capital Region

The obligation to produce an environmental impact report for each environmental plan ensure that the impact of the proposed environmental policy evaluates the impact on the air quality and emissions and vice versa. This obligation is set in the « Ordonnance du 18 mars 2004 relative à l'évaluation des incidences de certains plans et programmes sur l'environnement (MB du 30 mars 2004) ». For example, the indoor air quality is included in the energy policy in considering the using of environmental and healthy friendly materials and good ventilation. The air-climate plan is linked with the urbanization and then with the development of green space and water management.
To define the technical dispositions in the Environmental Permit, all the aspects of the environmental legislation concerning the air, water, noise, the protection of nature, the industrial sectors are checked by the administration.

II. INDUSTRIAL SECTOR

5. **Question 5**: Please provide information on non-technical measures in your country for addressing the control of emissions from the industrial sector:

(a) Please describe the programmes and measures (whether mandatory or voluntary) that are in place in your country to address emissions from the industrial sector, including their potential impacts and positive or negative effects. These could include programmes to promote energy efficiency, renewable energy and energy conservation, programmes for reducing emissions from existing sources, financial assistance schemes, labelling schemes, classification of environmental preferability, product substitution, etc.;

(b) Does your country have in place any economic instruments for this sector? If so, please describe your country's most important economic instruments (e.g. tax incentives, fees, charges, subsidies, credit guarantees and low interest loans) and market-based programmes (e.g. emission trading programmes);

(c) What innovative and alternative approaches, if any, are you using to control emissions from this sector?

Answer

Flemish Region

a)
With its decision of 29 November 2002, the Flemish government approved a voluntary agreement with the large, energy intensive industrial companies (yearly consumption of at least 0,5PJ, extended to all installations under the European directive on emissions trading) to enhance the energy-efficiency by benchmarking the relevant installations against the best performing, similar installations in the world. The companies involved (182 in November 2009) aim to be among the best performing, similar installations in the world by 2012 at the latest. The energy-efficiency is expected to increase with 7.2% in 2012 compared to 2002 (under the assumption of constant production levels). The benchmarking covenant relates to 80% of total primary industrial energy use in Flanders (including refineries and cokes production).
At the end of 2005, the medium-sized, energy-intensive companies (yearly consumption between 0,1PJ and 0,5PJ) which do not fall under the European directive on emissions trading, could sign the audit covenant. By doing so the companies involved (223 in December 2009) undertake the obligation to determine their energy savings potential and to carry out all measures and investments which allow for a minimum profitability defined in the covenant. In the first round, the investments for which the pay back period is approximately five years or less (IRR of at least 15%) must be carried out. During the second round, the investments with an IRR of at least 13.5% must be carried out. The companies are expected to decrease their primary energy use with 10% by end 2010 compared to 2005 (under the assumption of constant production levels) with the investments under the first round.

RUE was also made obligatory in the Flemish environmental legislation (Vlarem) in March 2004. This legislation also includes sectorial conditions and specific sectorial emission limit values for a number of industrial sectors.

The electricity grid managers are obliged to implement RUE-actions towards the electricity consumers. Their used to be separate targets for domestic and non-domestic (amongst which the industry) users, but as of 2010 the electricity grid managers have one target for both groups together, without separate targets for domestic and non-domestic users:

- Energy grid managers with at least 2 500 consumers must meet a target of 3.5%.
- Energy grid managers with at less than 2 500 consumers must meet a target of 2.5%.

The last three years Flanders conducted a total of one thousand eco-efficiency scans in small and medium-sized enterprises (SMEs). The SMEs got advice on how they can improve their eco-efficiency in several arias amongst which their energy consumption. With the experience from these 1000 scans, an anonymous online eco-efficiency scan program was created for SMEs.

b)
The Flemish government supports the development of sustainable industrial zones ("Greenfields"). Sustainable industrial zones are considered CO_2-neutral because either their electricity comes from the use/production of renewable energy or they compensate the emissions from the electricity production for the electricity they use with emission allowances. The support amounts to 30% of the costs if a new Greenfield is developed, and to 60% if an existing industry zone is remodelled into a Greenfield.

The Flemish government gives subsidies to sector federations for the employment of energy consultants to help companies with a yearly energy consumption below 0,1PJ to save energy.

Flemish companies can apply for ecology support for investments in environment, energy-efficiency, renewable energy and combined heat and power production. The ecology support amounts to 20% for large companies and 40% for SMEs. The maximum amount for an individual application amounts to € 1 750 000. The subsidy is calculated on the ecological additional cost of the investment. In 2009 the available budget amounted to € 120 million. Three project tenders for € 40 million each were organised. The same amount and number of tenders is foreseen for 2010.
Companies that are part of the target group for the benchmarking covenant (see question 5a above) can only apply for ecology support if they sign in to the covenant.

As Belgium is a member of the European Union, the Flemish region also takes part in the European Emissions Trading Scheme, aimed at the reduction of greenhouse gas emissions by the industry.

Walloon region

Sur base de la législation en matière d'expansion économique, une prime aux entreprises de 20% maximum du montant d'un investissement permettant de respecter des normes plus rigoureuses que celles imposées par la Région, l'Etat ou l'Union européenne peut être octroyée (le taux est modulé en fonction de l'intensité des efforts déployés pour dépasser les normes usuelles). Une prime forfaitaire de 15% peut être octroyée aux entreprises qui assainissent un site pollué.

Des déductions fiscales majorées peuvent être octroyées pour des investissement en recherche et développement concernant des produits nouveaux ou des technologies nouvelles qui minimisent ou n'ont pas d'incidence sur l'environnement.
http://energie.wallonie.be/fr/entreprises-independants-professions-liberales.html?IDC=6316

Un autre programme Recherche et Développement octroie des subventions ou avances récupérables (entre 50 et 70 %) pour des programmes portant sur la prévention des pollutions industrielles, le recyclage ou le traitement des effluents, le contrôle des émissions et les méthodes d'intervention à l'égard de pollution effectives d'origines industrielles.

En outre, tout régime d'aide octroyé en RW, qui concerne un investissement qui à priori n'a rien à voir avec l'environnement, impose le respect des législations sociales, fiscales et environnementales. Il arrive que certaines banques soumettent l'octroi de leur aide à l'attestation de respect de la législation environnementale.

Brussels Capital Region (see Questionnaire 2006, answer to Q.52)

a)
Here are several measures operated in the industrial sectors (more details in the Plan d'Actions en matière d'Efficacité Energétique PAEE) :

- Companies need to obtain an environmental permit: it comprises environmental emissions obligations and energy obligations.
- Inspection of companies to control the respect of the environmental regulation
- IPPC permits according to BAT: The IPPC companies have to respect several prescriptions to have their Environmental Permit ; the regional license necessary to work on. In this permit, the limit values of the emissions and the conditions are determined considering the Best Available Technology (BAT) and have to integrate the criteria of Rational Use of Energy. The Environmental Permit integrates also the obligations on the energy and the waste of the IPPC directive. For example, a filter was added on the regional incinerator (IPPC) in 2006 (De-Sox and De-Nox systems)
- Use of the environmental permit to decrease the number of parking for companies

b)
Economic instruments (regional law concerning the economic development, it provides firms economic incentives in relation with investments for the protection of the environment)

III. TRANSPORT SECTOR

6. **Question 6**: Please provide information on non-technical measures in your country for addressing the control of emissions from the transport sector.

(a) Please describe the programmes and measures (whether mandatory or voluntary) that are in place in your country to address emissions from the transport sector including their potential impacts and positive or negative effects. These could include financial assistance schemes to promote public transport, labelling schemes, traffic management schemes, use of electrical vehicles, cleaner fuels, etc.;

(b) Does your country have in place any economic instruments for this sector? If so, please describe your country's primary economic instruments (e.g. tax incentives, fees, charges, subsidies, credit guarantees and low interest loans) and market-based programmes (e.g. road pricing programmes);

(c) What innovative and alternative approaches, if any, are you using to control emissions from the transport sector?.

Answer

Federal Government

Transport is a major source of greenhouse gas and air pollutant emissions and plays an important role in their evolution. Transport emissions are closely monitored and their future evolution is integrated into the Federal Plan Bureau transport model, PLANET. The two other studied models are the PRIMES model and the TREMOVE model..

In 2007, transport emitted 27% more greenhouse gases than in 1990. Transport was responsible for 19% of the greenhouse gas emissions in Belgium. While total CO2 emissions in Belgium decreased by 8% between 1990 and 2007, emissions by transport increased by 26%. Over the 2005-2030 period, the growth of CO2 emissions should slow down. The scenarios

give a different evolution of CO2 emissions that should range between a decrease of 2% and an increase of 18%. These differences can be explained by different assumptions on transport demand growth, the evolution of average fuel consumption by cars and the share of biofuels.

Gasoline cars are the main source of transport emissions of NMVOC and CO. Emissions of these air pollutants more than halved between 1990 and 2007. The decline of NMVOC and CO transport emissions is the combined effect of the growing share of diesel cars and more stringent emissions standards. In 2007, transport was responsible for a quarter of NMVOC emissions and a third of CO emissions in Belgium. The scenarios project a growing share of diesel in road transport and a progressive decrease in emission factors for road vehicles. CO and NMVOC emissions should decrease respectively by 40-75% and 50-70%. The magnitude of the reductions mainly depends on the assumed evolution of emission factors for cars and trucks.

Thanks to stricter emission standards, NOx emissions by transport decreased by a third between 1990 and 2007. In 2007, transport accounted for half the emissions in Belgium. The scenarios predict a further decrease in emissions of 40-56% over the period 2005-2030. The projected reductions depend not only on the assumed reduction in emission factors but also on the projected transport growth.

Transport emissions of particle matter (PM) fell by 19% between 2000 and 2007 and were reduced less than the total emissions in Belgium. The scenarios project a further decline in PM emissions of 63-71%. The differences can be explained by different assumptions on the evolution of the emission factors.

The successive reductions of the maximum sulfur content of road fuels forced SO2 emissions down by 86% between 1990 and 2007. In 2007, transport was responsible for 1% of the total emissions in Belgium. In the future, emissions should continue to fall. The projected reductions vary between 27 and 79%, depending on the assumptions for the sulfur content of fuels.

A lot of incentives and fical measure have been planned. See :
https://portal.health.fgov.be/pls/portal/docs/PAGE/INTERNET_PG/HOMEPAGE_MENU/MILIEU1_MENU/AIRETCHANGEMENTCLIMATIQUE1_MENU/OZONE1_MENU/WATDOETBELGIE1_MENU/WATDOETBELGIE1_DOCS/CONTRIBUTION%20F%C3%89D%C3%89RALE%20AIR%20FINAL.PDF

Flemish region

The Flemish transport policy plan aims at reducing road transport and improving public transport and inland shipping and rail for goods transport. This plan aims at reducing kilometers traveled by car with 17% in 2010 (compared to 1998). Public transport will increase with 16%. The transport policy plan aims at shifting transport from road to rail and inland navigation for goods transport. This will result in a reduction of ton kilometers by 7% in 2010 (compared to 1998). The measures are based on reaching different objectives simultaneously: accessibility, safety, amenity and less pressure on nature and environment. The measures are grouped in five measure packets: higher quality of alternative modes,

infrastructure measures, efficient use of vehicles and infrastructure, mentality change and an intelligent, safe and environmental friendly vehicle park. In 2010 a new plan is prepared and will come into force from 2012 on.

Besides efforts carried out to shift transport from road to train and bicycle or train and inland navigation measures are worked out to promote the use of environmental friendly vehicles and introduce energy efficient driving behaviour.
To encourage the use of environmental friendly vehicles the Flemish Region included CO2 and other greenhouse gasses in an overall emission label called ecoscore. This methodology has been implemented on the website www.ecoscore.be (also available in English). For each vehicle, new and older cars the ecoscore can be found, as well as information on CO2 emissions separately, the Euro standard and information on clean vehicles and fuels In January 2008 an eco-score campaign was launched. A radio spot was broadcast and promotion was made at a stand at the European Motor Show. A brochure was also produced as well as newspaper and magazine articles and web banners. The main idea was to give greater publicity to the website www.ecoscore.be.

Several demonstration projects have been carried out by the public transport company. Following the good results of a CRT project, the public transport decided to install these filters on all busses suitable for installation (fulfilling EURO II standards). Euro-III busses are retrofitted with a combined PM-NOx system.

Concerning driving behavior efforts have been done to include energy efficient driving in courses to obtain a driving license. Also some demonstration projects have been carried out introducing energy efficient driving for fleet owners.

In 2002-2004 research has been carried out on the contribution of transport emissions to exceedance of the air quality guidelines in 2010. Hot spots on the transport main road network were identified. As a result the Flemish Government decided to introduce speed limitation on highways close to habitation. The measure is valid in case of peak exceedances, when more than 70 micrograms per m^3 is predicted for two consecutive days – the so-called smog alert. The protocol between the administrations involved has become effective in the summer of 2007.

Since 1996 a system of concluding mobility contracts between the Flemish Region, the local governments and the public transport company ‘De Lijn’ has been implemented. Local mobility plans are developed. Specific modules with agreements on measures to be taken are included in the contracts. The evaluation of the measures is done in a commission representing all partners. The mobility contracts foresee in a specific module to promote public transport. In 2002 transport was included in the environment contracts between the Flemish region and local governments. Municipalities are encouraged to evaluate their local transport plan on environmental issues. They can also apply for subsidies for projects. A project submitted in the mobility contract with an environmental link will also be subsidised through the environment contract.

For the Flemish public administration the action plan on Environmental Management in the fleet of vehicles has been approved by the Flemish Government. Conditions have been entered in the standard specifications for the purchase of vehicles. These conditions are based on the

car's ecoscore.

In 2006 the Flemish Government approved a subsidy scheme for retrofit of particle filters for heavy duty vehicles and subsidies for the purchase of Euro V heavy duty vehicles. In 2009 the Flemish Government also introduced an environmental grant scheme for particle filters for passenger cars.

To promote the use of environmental friendly vehicles a revision of vehicle taxation is carrying on so that vehicle taxation will be based on environmental performances of vehicles instead of fiscal horsepower.

Walloon Region

La fiscalité wallonne a été adaptée afin de tenir compte du caractère polluant des véhicules.
http://ecobonus-wallonie.be/
Des mesures relatives à l'augmentation de l'attractivité des transports en commun et des modes de transport doux sont reprises dans le plan wallon Air Climat (mesures 72 à 90)

Brussels Capital Region

Most of the measures in the transport sector are described in the Regional Mobility plan I (combining land use management, transport policies, …) which set out an objective of decreasing the traffic flow in order to meet the air quality and climate objectives.
Several measures are applied:

- Managing and controlling the parking.
- Support to use more environmental friendly transportation (mobility plan for companies or school with car-sharing). Adoption of an ordinance to develop the mobility plan for companies, school and for event.
- Decreasing the number of parking to increase the space for bikers, walkers and public transport like the RER
- Improvement of the facilities for bikers and walkers (Green network, regional plan for bikers ICR, plan IRIS I&II, integration of the green European network REVER)
- Supervision of the air quality in tunnels with the maintenance of new instruments.
- Increasing the prices of parking in function to the parking duration
- Easy rent of bikes for the public in the street "Villo system"[4] since May 2009
- Car sharing (Cambio)[5]. This system is continuously strengthened.
- Managing the transit of vehicles for freight
- Increase of the number of public transport offer (STIB) of about 35% till 2011 in improving the public transport network (tram, bus, subway, RER, train) with a high quality and a higher frequency
- Development of bus system during night (Noctis)
- Support the using of taxi (Collecto system since September 2008)
- Improving the security on road

[4] www.villo.be
[5] http://www.cambio.be/cms/carsharing/fr/2/cms?cms_knuuid=a77c4fdc-f93c-4313-92b7-58ca9e619583&cms_f4=1

- Particles filter have been added on buses
- Clean vehicle decree of July 2003 which oblige the administration to have 20% quota of clean vehicles of their fleets. Revision of the decree to increase the quota of the clean vehicle in 2009.
- A national website using the écoscore method is operating to give information for the public on environmental impact of the vehicles on climate, air end noise (www.ecoscore.be).
- For enterprise, via the Environmental Permit, the number of parking will be reduced.
- A peak pollution plan was adopted in November 2008 : the speed limit of vehicles is reduced to 50 km/h with an increasing in the number of control.
- Several information event are done every year 'dring dring, Friday bikeday, bicicity…)

IV. ENERGY SECTOR

7. **Question 7**: Please provide information on non-technical measures in your country for addressing the control of emissions from the energy sector.

(a) Please describe the programmes and measures (whether mandatory or voluntary) that are in place in your country to address emissions from the energy sector including their potential impacts and positive or negative effects. These could include programmes to promote energy efficiency, renewable energy and energy conservation, financial assistance schemes, labelling schemes, energy performance coefficients for buildings and housing, etc.;

(b) Does your country have in place any economic instruments for this sector? If so, please describe your country's primary economic instruments (e.g. tax incentives, fees, charges, subsidies, credit guarantees and low interest loans) and market-based programmes (e.g. emission trading programmes)?;

(c) What innovative and alternative approaches, if any, are you using to control emissions from the energy sector?

Answer

Flemish region

a)
With its decision of 29 November 2002, the Flemish government approved a voluntary agreement with the large, energy intensive industrial companies (yearly consumption of at least 0,5PJ, extended to all installations under the European directive on emissions trading) to enhance the energy-efficiency by benchmarking the relevant installations against the best performing, similar installations in the world. The companies involved (182 in November 2009) aim to be among the best performing, similar installations in the world by 2012 at the latest. The energy-efficiency is expected to increase with 7.2% in 2012 compared to 2002 (under the assumption of constant production levels). The benchmarking covenant relates to 80% of total primary industrial energy use in Flanders (including refineries and cokes production).
At the end of 2005, the medium-sized, energy-intensive companies (yearly consumption between 0,1PJ and 0,5PJ) which do not fall under the European directive on emissions

trading, could sign the audit covenant. By doing so the companies involved (223 in December 2009) undertake the obligation to determine their energy savings potential and to carry out all measures and investments which allow for a minimum profitability defined in the covenant. In the first round, the investments for which the pay back period is approximately five years or less (IRR of at least 15%) must be carried out. During the second round, the investments with an IRR of at least 13.5% must be carried out. The companies are expected to decrease their primary energy use with 10% by end 2010 compared to 2005 (under the assumption of constant production levels) with the investments under the first round.
RUE was also made obligatory in the Flemish environmental legislation (Vlarem) in March 2004.

The electricity grid managers are obliged to implement RUE-actions towards the electricity consumers. There used to be separate targets (% reduction of primary energy use) for domestic and non-domestic users, but as of 2010 the electricity grid managers have one target for both groups together:

- Energy grid managers with at least 2 500 consumers must meet a yearly target of 3.5%.
- Energy grid managers with less than 2 500 consumers must meet a yearly target of 2.5%.

The grid managers are obliged to take actions to limit energy consumption by both groups.

The last three years Flanders conducted a total of one thousand eco-efficiency scans in small and medium-sized enterprises (SMEs). The SMEs got advice on how they can improve their eco-efficiency in several arias amongst which their energy consumption. With the experience from these 1000 scans, an anonymous online eco-efficiency scan program was created for SMEs.

The action plan for buildings focuses on the implementation of the EU directive on the energy performance of buildings (EPBD). From 1 January 2006 on, minimum energy performance requirements for new and refurbished buildings for which an application for an urban development license must be submitted, were introduced. These requirements were partially tightened as of the first of January 2010. New and refurbished residential buildings now have to meet an energy performance level of at least E80. The Flemish government also introduced an energy performance certificate to inform building owners and users by means of an energy label on the energy performance of their buildings and on the low-cost energy saving measures. The energy performance certificate was phased in from 1 January 2006 on: new buildings had to have a certificate from 1 January 2006 on, public buildings from 1 January 2009, residential buildings being sold from 1 November 2008 and residential buildings put op for renting from 1 January 2009. The legislation for the introduction of an energy performance certificate for non-residential buildings (tertiary and industrial buildings) was approved in December 2009. It will come into force as soon as the certification software is available.

Communication campaigns on RUE go on all year through, with recommendations and information available on the website of the energy administration (www.energiesparen.be). There are also two yearly campaigns:

- “Thick-sweater-day” (‘dikketruiendag’): this event was first organised on February 16th 2005, the day the Kyotoprotocol went into force, and has since been repeated every year. It puts a focus on climate policy and the link with energy efficiency by urging schools,

businesses and people at home to put their heating 1°C lower than usual and to put on a 'thick sweater'.

- Each year, October is declared as 'the Month of Energy Saving' when awareness-rising activities are intensified.

There are also specific programmes for several groups such as primary and secondary schools (MOS or environmental care at school), universities (Ecocampus), youth movements (JeROM or Youth, Space, Surroundings and Environment), social-cultural organisations, the underprivileged …
The Flemish government also approved a voluntary cooperation agreement on sustainable development with the local authorities in Flanders. Energy is one of the key issues of this agreement. The first commitment period ran from 2002 to 2007. The current and second period runs from 2008 till 2013. During this period all the participating authorities (all provinces and 9 out of 10 municipalities) have to reach a basic level for all 10 issues of the agreement. For energy they have to keep an energy accounting for their buildings (as the cornerstone for their energy management system), fill in the energy performance databank and organize awareness-rising activities towards their inhabitants. When they have achieved this basic level, they can sign in to various voluntary measures that go further. The participating local authorities get subsidies when they achieve the basic level, and further subsidies when they take part in several additional measures.
Off course, the Flemish government itself also keeps an energy accounting for its buildings; invest in RUE and renewable energy (all the energy used by the Flemish administration comes from renewables) …

b)

The Flemish government supports the development of sustainable industrial zones ("Greenfields"). Sustainable industrial zones are considered CO_2-neutral because either their electricity comes from the use/production of renewable energy or they compensate the emissions from the electricity production for the electricity they use with emission allowances. The support amounts to 30% of the costs if a new Greenfield is developed, and to 60% if an existing industry zone is remodelled into a Greenfield.

The Flemish government gives subsidies to sector federations for the employment of energy consultants to help companies with a yearly energy consumption below 0,1PJ to save energy.

Flemish companies can apply for ecology support for investments in environment, energy-efficiency, renewable energy and combined heat and power production. The ecology support amounts to 20% for large companies and 40% for SMEs. The maximum amount for an individual application amounts to € 1 750 000. The subsidy is calculated on the ecological additional cost of the investment. In 2009 the available budget amounted to € 120 million. Three project tenders for € 40 million each were organised. The same amount and number of tenders is foreseen for 2010.
Companies that are part of the target group for the benchmarking covenant (see question 5a above) can only apply for ecology support if they sign in to the covenant.

The local authorities that take part in the voluntary cooperation agreement on sustainable development with the Flemish government (see question 5a above) receive subsidies as well. They get subsidies when they reach the basic level of the agreement, and further subsidies when they take part in several additional – voluntary – measures.

The Flemish government also has a wide range of subsidies available for investments in energy-efficiency and RUE, such as:

- Subsidies for roof insulation (additional subsidy to the federal subsidy/tax cut).
- Free energy scans of dwellings with identification of low cost energy-efficiency investments and related subsidies (considering that not everyone can afford the more elaborate/detailed energy audit).
- Subsidies for RUE in schools.
- Subsidy of 30% of the cost with a maximum of €10 000 for people with a limited income.
- Subsidies for the fast replacement of central heating boilers into high efficiency boilers and single glazing into high efficiency glazing in public housing.
- Subsidy for those who can't (or only partially) benefit from the federal governments tax cut.
- Subsidies for energy reducing investments by public housing companies. These companies rent houses on the market to sublet them at a relatively low rent to the underprivileged.
- Subsidies for RUE in sheltered en social workshops.

On top of these subsidies by the Flemish government, there is also a wide range of subsidies/tax cuts available from the federal government, the municipalities, the provinces and the electricity grid managers.

Apart from the subsidies there is also a tax incentive. As of 2009, builders of new low energy buildings get a reduction on their property taxes during a 10 year period:

- Residential buildings:
  - Energy efficiency level between E60 and E41: tax reduction of 20% a year.
  - Energy efficiency level of E40 and lower: tax reduction of 40% a year.
- Non-residential buildings:
  - Energy efficiency level between E70 and E41: tax reduction of 20% a year.
  - Energy efficiency level of E40 and lower: tax reduction of 40% a year.

All electricity suppliers are obliged to obtain a minimum percentage of their sold electricity from renewable sources. That minimum percentage amounts to 6% in 2010 and increases to 13% in 2020. Their compliance with this obligation is controlled through the use of Green Power Certificates. One of these certificates corresponds with a green electricity production of 1 000 kWh. Each year the electricity suppliers have to hand in a certain number of Green Power Certificates to the government to prove they met the quota. They can either produce the green electricity themselves, or they can purchase the certificates on the market at market prices (in other words, this system is similar to the EU ETS for companies). (Home owners and businesses that put solar panels on their roof also receive a Green Power Certificate for each 1 000 kWh those panels produce. This is a form of subsidy for solar power generation. These certificates can than be bought by the electricity producers to meet their quota.) Those that do not meet their quota are fined and the money is deposited into a fund to support renewable energy sources.

A similar system as the one for green electricity production exists for combined heat and power generation (CHP). All electricity producers are obliged to hand in a certain number of

CHP-certificates. Each of these CHP-certificates corresponds with an energy saving of 1 000 kWh compared to the separate generation of heat and electricity. The quota started out with 1.19% of their sold electricity in 2005, increases up to 5.23% in 2012 and will continue to rise afterwards. The same market system as for the Green Power Certificates exists. If they do not meet their quota, they are fined.

Since 2005, the Flemish government makes a yearly action plan to remove the obstacles to environmentally friendly energy production. This plan consists of a section on green electricity and a section on combined heat and power production (CHP). A part of the section on CHP is the introduction of a subsidy of 20% for the installation of micro-CHP-systems for non-commercial organizations and artificial persons in public law.

Walloon Region

En terme de production d'électricité, l'objectif est de produire grâce aux énergies vertes **12 %** de la consommation finale de l'électricité en 2010. La Région wallonne étudie aussi un objectif de production de chaleur à partir des énergies renouvelables à l'horizon 2010, notamment par la mise en place de son Plan « Bois-Energie ».
La stimulation de ces technologies est subordonnée à leur efficacité énergétique, environnementale et économique.

Plusieurs mécanismes sont prévus pour développer les unités de production d'électricité verte en Wallonie. Les principaux sont les certificats verts et l'aide à la production.

Certificats verts
Un système de « certificats verts » est actuellement mis en place. Les fournisseurs doivent acheter aux producteurs d'électricité verte un certain quota de certificats, ou produire eux-mêmes de l'électricité verte satisfaisant à ces quotas. En cas de non-respect du quota, une pénalité est appliquée. Les certificats verts obtiennent dès lors une valeur marchande et constituent une recette supplémentaire (en plus de la vente d'électricité au prix du marché) pour le producteur.

Le quota à respecter par les fournisseurs a été déterminé par le Gouvernement wallon en fonction du potentiel réaliste d'électricité qui peut être généré à partir des énergies renouvelables et de la cogénération de qualité.

Aide à la production
La Région wallonne pourra octroyer une aide à la production. Le producteur pourra choisir, de façon réversible, entre le système d'aide à la production et la procédure de certificats verts. Cette aide sera garantie pour la durée d'amortissement de l'installation avec un maximum de dix ans à partir de la mise en service.

Les mesures relatives à l'énergie sont reprises dans le plan wallon Air Climat. Ce sont les mesures 95 à 99.

Le plan de développement rural ainsi que divers arrêtés en cours d'adoption ou d'adoption récente ont pour objet la limitation des apports d'engrais, la liaison au sol et la pratique d'une agriculture raisonnée.

Federal Government

La loi du 05/05/97 relative à la coordination de la politique fédérale de développement durable prévoit l'établissement d'un plan fédéral pour le développement durable tous les 4 ans. Le plan détermine les mesures à prendre au niveau du fédéral en vue de la réalisation des objectifs de développement durable dans une perspective d'intégration, d'efficacité et de cohérence interne de la politique en cette matière. Il contient un plan d'actions fixant ses modalités de mise en œuvre. Le premier plan sera finalisé en 2000 ; il comprendra des actions dans les secteurs des transports, de l'énergie, de l'agriculture, des modes de consommations et de production, ... ayant une incidence sur la réduction de la pollution atmosphérique.

Brussels Capital Region

In the energy sector, measures are applied (for more details see the PAEE "Plan d'Amélioration d'Efficacité Energétique ») ***:***

- Check point to inform the public about energy saving (Guichet de l'Energie) in using efficient heating, good isolation, solar heating…) Formation of energy experts to give technical advice about energy in the housing sector Communication actions about rational use of energy, meetings about RUE (since 2003) in the housing sector and in the tertiary sector
- Formation on energy with energetic audit (since 2004)
- Annual communication on the environmental challenge (Day of the Environnement)
- Formation of people in charge of energy for big complex of houses (since 2004)
- Better knowledge of the energy situation in the residential sector and in the tertiary sector (2009)
- Supporting actions for saving energy for the individual (défi Energie) and within the housing code
- Development of the label "enterprise Ecodynamique" since 1999, which is strengthened in 2008 in enlarging the importance to the energy part.
- The region gives advice to manager of building or for collective housing via "facilitators" to reduce their consumption (since 2008)
- Primes for the private housing sector to isolate the roof, outside walls, ground, High efficiency windows, ventilation, passive house, solar protection, high efficiency heating, instantaneous gas heating, thermal regulation, ...)
- Financial support with primes in the tertiary sector or to invest saving energy installations in the industrial sector
- Primes for collective (since 2006)
- Support of the renewable energy and cogeneration with the green certificate (since 2005)
- Tools to inform school about energy saving
- Recycling the energy from the purification station
- Support the low budget people to save energy in organizing the "Guidance Sociale Energetique (since 2006)
- Guidebook about energy for the collective housing and the tertiary sector
- Project PLAGE to stimulate owner of large public, school or private buildings to

decrease their consumption of energy (since 2007)
- Promotion of passive building and demonstrative buildings (since 2005)
- Application of the EPB directive (Environmental performance of buildings) : Control of the heating system ; Apply and Strengthening of the thermal legislation in the residential and tertiary sectors ; Energetic certificate ;
- Development of energetic certificate in the tertiary sector

V. AGRICULTURAL SECTOR

8. **Question 8**: Please provide information on non-technical measures in your country for addressing the control of emissions from the agricultural sector.

(a) Please describe the programmes and measures (whether mandatory or voluntary) that are in place in your country to address emissions from the agriculture sector including their potential impacts and positive or negative effects. These could include good agricultural practices, programmes to promote energy efficiency (greenhouses), renewable energy and energy conservation, programmes for reducing emissions from stables, financial assistance schemes, labelling schemes, etc.;

(b) Does your country have in place any economic instruments for this sector? If so, please describe your country's primary economic instruments (e.g. tax incentives, fees, charges, subsidies, credit guarantees and low interest loans) and market-based programmes (e.g. emission trading programmes);

(c) Are there any programmes in your country that promote organic farming or consuming products from organic farming?;

(d) What innovative and alternative approaches, if any, are you using to control emissions from the agriculture sector?.

Answer

Flemish Region

The Flemish Ammonia Reduction Program is part of the Flemish Environmental Policy Plan and the Flemish NEC reduction Programme. The ammonia emission reduction measures listed in this Program are integrated in different parts of the Flemish legislation. Measures on low-emission application of animal manure (Art. 22) and manure storage (Art. 9) are mandatory and integrated as such in the Manure Decree. The obligation (since September 2003) to build new poultry and pig stables as low-emission housing is taken up in VLAREM II, the Flemish legislation on Permit Regulation regarding general and sector-specific conditions concerning environmental hygiene (Art. 5.9.1bis). VLAREM II also sets out the obligation for sealing of outside slurry storage.

The Flemish Ammonia Reduction Program consists of 5 cornerstones:
- Control of livestock numbers: Since the new Manure Decree (22 December 2006), animal numbers are further controlled by the issuing of tradable Nutrient Emission Rights.
- low-emission application of manure – see Q62-part 1

- low-emission housing – see Q66-part1 and covering of manure storage – see Q64&65-part1. For the building of low-emission housing, livestock farmers can apply for investment subsidies under certain conditions (http://lv.vlaanderen.be – subsidies – VLIF-steun)
- appropriate feeding strategies: reduction of the N-excretion by pigs and poultry through the proper use of certain feeding strategies and the use of low-protein feed reduces ammonia emissions from manure application and to some extent from the housing/storage. Only if farmers use feed provided by pig and poultry feed producers that have subscribed the "Low-protein-covenant" (this is a voluntary agreement between the producers and the Flemish Minister of Environment), they can benefit from the advantages (lowered excretion figures).
- manure processing: because of the very intensive character of the Flemish livestock production, more nutrients (N and P from manure) are produced than can/may be applied to agricultural land. Processing of manure with minimal ammonia losses during the processing itself and exporting the processed product outside of Flanders, avoids the loss of ammonia during the application of the manure and thus contributes to the ammonia reduction.

Financial Assistance programs for organic Farming
The Ministry of the Flemish Community has developed an Action Plan For Organic Farming which contains 18 different action points. Three of them specifically focus on financial assistance, namely:

- investment support for organic production methods (housing, weed control, …);
- financial support for farm reconversion planning and guidance;
- direct support (per hectare) for farmers starting or continuing organic farming (5-year commitment period)

Federal Government

La loi du 05/05/97 relative à la coordination de la politique fédérale de développement durable prévoit l'établissement d'un plan fédéral pour le développement durable tous les 4 ans. Le plan détermine les mesures à prendre au niveau du fédéral en vue de la réalisation des objectifs de développement durable dans une perspective d'intégration, d'efficacité et de cohérence interne de la politique en cette matière. Il contient un plan d'actions fixant ses modalités de mise en œuvre. Le premier plan sera finalisé en 2000 ; il comprendra des actions dans les secteurs des transports, de l'énergie, de l'agriculture, des modes de consommations et de production, ... ayant une incidence sur la réduction de la pollution atmosphérique.

Walloon Region

Les mesures relatives à l'agriculture sont reprises dans le plan wallon AirClimat (measures 25 à 31).

Brussels Capital Region

In the Brussels Capital Region, no emissions are coming locally from the agricultural sector. Some importation of pollutant (NH_3) are observed from the other parts of Belgium.

VI. RESEARCH, DEVELOPMENT AND MONITORING

9. **Question 9**: Please provide information related to air pollution in your country on research, development and monitoring; on the exchange of technology; and on information to the general public. Provide websites where relevant documentation is available.

(a) Please provide information on activities undertaken with a view to encouraging research, development and monitoring;
(b) To what extend is your research, development and monitoring activities linked to international activities?;
(c) In what language is the information on research, development and monitoring available?

Answer

Federal Government

La Belgique tient un inventaire des quantités de pesticides mises sur le marché. D'autre part, la Belgique applique le programme d'harmonisation des données des produits contaminés par des PCB dans le cadre du programme HarpHaz de OSPAR.

Flemish Region

(1) Monitoring of air quality and human exposure

The four pollutants from the Göteborg-protocol are systematically monitored in the region of Flanders, as well as particulate matter (PM_{10} and $PM_{2.5}$) and the following POPs:

- PAHs (10 non-volatile PAHs; also nitro-PAKs) in the air, 16 EPA-PAHs in deposition samples
- dioxins/furans: deposition measurements (also for PCB 126).

A. Measurements for acid deposition:

In 2001 a new monitoring network on acid deposition was started in Flanders. It now consists of 20 sites: on 11 of this sites only NH_3 is measured, on the 9 other sites the wet and dry deposition is measured ((SO_x, NO_y en NH_x). Wet deposition is monitored using wet-only collectors and standard raingauges. Dry deposition is calculated using a theoretical deposition velocity multiplied with the measured concentrations of acidifying substances (by means of passive samplers). A study is going on to improve these measurements in an attempt of measuring the deposition velocities using an inferential method (micrometeorological measurements). This would reduce the uncertainty of the measurements.

B. Measurements for particulate matter:

In 2009 according to the European legislation VMM (Flemish Environmental Agency) started $PM_{2.5}$ measurements at 4 urban background locations for the determination of the AEI. In 2006-2007 a chemical characterisation study for PM_{10} was performed at 6 locations (rural, suburban, urban, rural) in Flanders. This study was repeated in 2009 at some hot spot locations. In 2010 the contribution of wood burning to PM_{10} (levoglucosan, EC/OC) will be investigated.

C. Measurements of (human exposure to) POP's:

From 2010 onwards a new measuring strategy concerning the dioxin and PCB126 deposition was started.
Indicators of human exposure to PAHs and dioxins have been measured from 2000 to 2006. In a large scale biomonitoring project newborns, teenagers and elderly in 8 selected typical area's in Flanders the following indicators for exposure for the following pollutants were measured: dioxinelike substances, PCB's, DDT, Hexachlorobenzene, lead, cadmium, benzene and PAH's. All the results were announced by the end of 2006.

In order to guarantee that the results of the human biomonitoring campaign are translated into a policy response, a phase plan for action was developed. It implies 3 phases in which (1) the seriousness of biomarker anomalies is evaluated and priorities are set; (2) the sources of pollution that are causing the anomalies are traced; and (3) concrete policy measurements are proposed when appropriate. These phases are run through with an expert panel and a jury including local stakeholders and authorities.
In 2008 the action-plan was piloted in practice on the basis of the DDE-results of the human biomonitoring campaign.
Based on the input of the desk research, the expert round and the jury discussions, the Flemish environment and health administrations prepared a policy advice for the Ministers involved.
A final list of thirteen policy action proposals resulted under the two main themes of research and awareness raising/collection. The proposed policy actions were classified on the basis of e.g. following policy criteria: costs (financial and manpower), effectiveness in terms of reduction in exposure to DDT, added value of the action for different age groups and other pollutants of the human biomonitoring programme.
Since some of the listed actions already were dealt with in ongoing policy actions, the main focus of the advice was on two actions. 1) A specific research study on routes of exposure to DDE/DDT by means of a case-control study amongst high and low exposed participants of the biomonitoring in order to get an idea of e.g. (historical) use and gardening practices. 2) A special campaign of awareness raising and collection of DDT and other pesticides for waste disposal.
By the end of 2009 the action plan was completed and resulted in two concrete policy action plans to tackle the 'increased levels of persistent organic pollutants in the rural areas in Flanders' and the 'increased asthma and allergy incidences in Flemish city areas'. The action plans include research activities, sensibilisation initiatives, monitoring.

Currently a second human biomonitoring campaign is being carried out (2007-2011).
One of the new aims is to obtain reference values for the Flemish population, not only for

traditional pollutants (e.g. PAHs, PCBs and dioxins) but also for newer emerging chemicals. The reference values will be the basis for comparison with data from international studies, and for the comparison with data from high risk populations e.g. residents of specific locations (hot spots) within Flanders. A framework for decision was established which will allow the different stakeholders (authorities, scientists, advisory groups, the public, etc.) to be consulted to define and prioritize the needs for specific tailored studies. Selection of biomarkers, study population and number of participants were tailored in response to these specific study demands.
Transparency in the communication on objectives, methodology and results to stakeholders and participants, ethical and privacy issues remain major aspects of the presented program.

(2) Air quality modelling

belEUROS is a chemical transport model originally developed at the RIVM in the Netherlands, and adapted by Vito for Belgium. The model calculates hourly concentrations of O_3 and particulate matter (PM_{10}, $PM_{2.5}$ and their chemical components) and NO_2. These calculations are based on detailed input databases of emissions and meteorological parameters.
The belEUROS model is coupled with a state-of-the-art user interface and is operational at the Interregional Cell for the Environment (IRCEL) in Brussels. The model domain covers nearly the whole of Europe with a spatial resolution of approximately 60 km x 60 km, but a grid refinement procedure allows refinement of the spatial resolution to 15 km x 15 km in certain areas of the model domain, for example in areas where strong concentration gradients occur or in specific regions of interest (e.g. Belgium, Flanders).
During 2008 and 2009 the model was validated by comparing the output with measured concentrations of the Belgian Regional air quality monitoring networks. The validation has a.o. shown that, as expected, belEUROS in general underestimates the PM-concentrations, but that the bias for the most monitoring stations is acceptable.
In 2009 a completely renewed version of the belEUROS model has been made operational.

The OPS air quality model for Operational Priority Substances was originally developed at the RIVM in the Netherlands, and adapted for Flanders by Vito. The model calculates concentrations and depositions of mainly acidifying pollutants with a 1x1 km² resolution. The calculations are based on estimated emissions of SO_2, NO_x en NH_3 and detailed information about meteorology and land use. Also reduction scenarios can be calculated.
In 2006 a comparison between the Dutch and Flemish version was made, as well as a sensitivity and validation study. This has indicated the uncertainties for the calculations. Background concentration maps of SO_2, NO_x en NH_3 were made with the help of the RIO-CORINE interpolation method. These maps make it possible to better calculate the transformation of ammonia to ammonium and to better calculate the wet deposition of SO_2. The emissions outside the Flemish region were better spread with the help of the emission processor E-MAP.
A first comparison of the OPS-output with the concentrations measured in the monitoring stations, has shown that the new OPS-version generates better results for the concentrations of NO_2 en SO_2. For NH3 additional improvements are still feasible.

The RIO-Corine interpolation tool was developed by the Flemish institute for technological research (VITO) in collaboration with the Belgian Interregional Environment Agency

(IRCEL). The goal was to develop a model that was able to (spatially) interpolate the measured air quality at point locations. An important condition was that the technique could incorporate both the regional and local scale of the air pollution phenomenon. The spatial interpolation is based on Ordinary Kriging. Before Kriging is applied, the local character of each sampling value is removed in a so-called "detrending" procedure. For this detrending we rely on quantified relations between land use patterns and air pollution characteristics. For each of the pollutants O_3, NO_2, PM_{10} and SO_2 a land use indicator is defined based on CORINE maps. The indicator is applied to assess a trend function between air pollution characteristics and land use. By removing the trends in the sampling values, all stations are transformed into site-independent sampling sites, suited for application in the Kriging schema. After the Kriging interpolation, each grid value is retransformed with a local bias, corresponding to the land use of the interpolation location. With the RIO-Corine interpolation tool concentration estimates can be calculated on a high resolution grid.

(3) Emissions

An extensive research programme has been done to investigate the possibilities and costs to reduce emissions from different industrial sectors (a.o. iron and steel production, refineries, electricity producers, chemical industry, storage and handling). For each sector, a description of the sector was given, an overview of emissions and emission trends and a description of planned and possible emission reduction measures. These data were used to draw up cost curves per sector for all relevant pollutants, indicating the effects on other pollutants. In these studies, focus was on the Göteborg-pollutants SO_2, NO_x and VOCs, together with particulate matter; other pollutants (POPs, heavy metals) have been investigated when relevant. Finally, in 2005 an intersectoral study has been elaborated to draw up an intersectoral cost curve for SO_2, NO_x and VOCs. These studies were finalised in 2006. All results where used to elaborate a database on emissions and emission reduction technologies, allowing the calculation of emission reductions and cost curves. These data are updated regularly (a.o. based on yearly emission reports)

For all industrial sectors, BAT-studies are done regularly, describing the sector and its environmental impact (to all media) and evaluation possible reduction technologies. If European BAT-studies (BREFs) are available, these are used as a basis.

All major emission sources have to report their emissions yearly in a format (IMJV – integrated environmental report) integrating all reporting obligations (water, air, waste, … for all pollutants) and providing one format for all plants to report in. This format is in line with EPER reporting (pollutants, threshold values, …). For plants that don't have to report their emissions individually, a collective emission is calculated, based on a.o. emission factors and energy consumption data. The methodology to calculate these emissions is reviewed and updated on a regular basis. Emission figures for the Flemish Region are published yearly in a report that is available for everybody and that is presented to the public ("Lozingen in de lucht").

Relevant web-sites

- Flemish Waste Agency: www.ovam.be

- Flemish Environmental Administration: www.mina.be
- Flemish Environmental Administration, section on air policy: www.vlaanderen.be/lucht
- Flemish Environmental Administration, section on environment & health: http://milieuengezondheid.lne.be and http://www.milieu-en-gezondheid.be/English/index.html
- Flemish environmental agency (a.o. responsible for emission inventories): www.vmm.be
- Interregional Cell for the Environment (IRCEL-CELINE): www.irceline.be
- Flemish environmental report: www.mira.be
- Energy and environment information system: www.emis.vito.be: all relevant legislation can be found here, as well as a.o. European and Flemsih BAT-studies.

Brussels-Capital Region

The Brussels Capital Region is in charge of a telemetric network to measure all the problematic pollutants (heavy metals, PM10, PM2.5, COV, NO_2, NO, O_3, SO_2, PAH). The region participates in different research projects : health project (NEHAP, PEOPLE, APHEIS), modelisation (BelEUROS, CHIMERE):

- Support the implementation of air quality monitoring via the telemetric network in order to protect human health (expend the network, develop and communicate with Air quality indices).
- Support the development of an information system and information campaign to raise awareness of the citizen
- Development and implement a methodology to assess health impact of air pollution
- Involve professional in the decision-making process on air pollution and health actions and programs (AgendaLocal21, Brussels healthy city, ordinance AIR, NEHAP)
- Train and raise awareness of medical doctors and health professional on the impact of air pollution on health (NEHAP)
- Develop and implement an intervention tool to support medical diagnosis of health problems related to indoor pollution (CRIPI) (NEHAP)
- Support Information campaign and advises on good practices concerning indoor pollution

VII. EXCHANGE OF TECHNOLOGY

10. **Question 10**: Please provide information on exchange of technology in your country:

(a) Please provide information on measures taken to create favourable conditions to facilitate the exchange of information on technologies and techniques;

(b) How does your country actively promote the exchange of technology internationally?

(c) In what language is the information on exchange of information on technologies and techniques available?.
(**French and/or Dutch**)

Answer

Belgium

Au niveau international la région wallone, la région flamande et la région bruxelloise participent :

- activement au réseau IMPEL de l'Union européenne
- à l'élaboration des Documents de référence pour les BAT (BREFs) dans le cadre de l'application de la directive IPPC de l'UE

In 1998 the 'Mixed Platform' was created for consultation and dissemination of information between the government (Co-ordination Committee of International Environmental Policy) and industry concerning the Belgian position on international environmental topics.

Flemish Region

Different activities have been developed during the past years to improve the exchange of technologies and information. Some examples :

- The Centre for Best Available Techniques, founded in 1994 and operating under VITO, collects information about available pollution prevention techniques and disseminates this information to the Flemish government and industry. The center itself also draws up BAT studies for different industrial sectors. Regulation in Flanders is based on these BAT studies.
- The Energy and Environment Information System (EMIS) collects and provides information on environmental topics to professionals, managers, civil servants and consultants. In addition to information on law, literature, statistics and BAT, there is a databank with profiles that contains information sheets on companies, consultants and administrations. Furthermore, an overview of the current support programmes (to obtain investment support or subsidies for research and development) is available.
- The centre of expertise Rational Use of Energy (VITO) acts as a hub for the dissemination of knowledge and the promotion of cogeneration (or Combined Heat and Power, CHP), as well as a catalyst and objective assessor for the interest groups involved.

Walloon Region

Au niveau régional : un service des « technologies propres » a été mis en place au sein de l'administration wallonne de l'environnement et les agents techniques participant aux travaux de l'IRF sont chargés de collecter et diffuser l'information sur les BAT.

Brussels-Capital Region

Different tools are used to improve the exchange of technologies and information.

a. Bruxelles Environnement News (BEN) : free three monthly information letter addressed to the professionals explaining the environmental legislation and offering advice to better preserve the environment

b. E-News for professionals : monthly free electronic information letter detailing all the the available training courses, seminars, new tools special actions and legislation
c. organisation of seminars and training courses
d. “facilitateurs” : experts offering free expertise the professionals in different energy and environmental matters
e. A database “Autonet” (with several BAT) will be accessible soon for professionals
f. The « Pôle Technologies de l’Environnement » helps entreprises in applying environmental legislations.

VIII. INFORMATION TO THE GENERAL PUBLIC

11. **Question 11:**

(a) Please provide information on the process for public participation in developing legislation and strategies related to air pollution in your country;
(b) Please indicate whether your country has a programme that alerts citizens to days when poor air quality is predicted. If so, please describe it;
(c) Please provide information about the way in which the general public is informed about air pollution policy in your country;
(d) In what languages is the information to the general public available? **(French and/or Dutch)**

Answer

Belgium

The three Belgian regions co-operate in a Interregional Cell for the Environment (IRCEL-CELINE). Among other tasks, the Cell runs an interregional data processing Center (IDPC) where air quality data collected in the regional networks are acquired in real-time mode in order to assure the follow-up during episodes of enhanced air-pollution. According to EU-directive 2002/3/EG the IRCEL-CELINE informs or warns the Belgian population and the responsible Federal and Regional authorities when the EU information or alert thresholds for ozone (summer smog) are exceeded. The three Belgian regions have also setup a warning system for air pollution with enhanced levels of particulate matter (PM_{10} and $PM_{2,5}$) in winter (winter smog). The general population is informed by the written press, radio, TV and the weather forecasters.
Statistical air quality forecast models (eg. SMOGSTOP for ozone, OVL for PM10) and deterministic (eg. CHIMERE for ozone and PM10) models are used to forecast episodes of enhanced air pollution one to three days in advance.
Real-time air quality data is published in a user-friendly way (colored tables, maps, air quality indexes ...) with an hourly update on the website www.irceline.be. Besides real-time air quality data, also exceedances of EU limit values for certain pollutants (eg. Ozone and PM10), yearly reports, FAQ's etc are published on that website.

Flemish Region

When developing new legislation, two advisory councils, the Flemish Social-Economic Council (SERV) and the Council for Environment and Nature (MINA) have to formulate an

advice on this. SERV is the consulting and advisory institution of the Flemish social partners and holds representatives from both employers' and employees' organisations. MINA consists of representatives from nature and environmental organisations and of the social-economic organisations.
All environmental legislation can be found on the EMIS-website (www.emis.vito.be). Recent changes in legislation and other news concerning air pollution policy are listed on the website of the environmental administration (www.lne.be/themas/luchtverontreiniging).

Walloon Region

See above Belgium

Brussels-Capital Region

a)
Each plan proposed by the government (accompanied by its environmental impact report) needs to be presented to the public during 2 months During this public inquiry process, the general public can comment on the proposed plan, these comments have to be addressed by the public authority.

b)
In November 2008, an emergency plan against PM10 and NO_2 was adopted : within this plan, the reduction of traffic and control of speed limit are planned for the level 1. Some actions are planned in the residential sector like decreasing the temperature in the building. The levels 2 and 3 of the plan are operational since winter 2009: within these two further levels, the heavy trucks will have no access to the city during the rush hours, public transport would be free and strengthened, the traffic volume will be decrease by a factor of 2.
Within this plan, the public is informed about the risk of the pollution event and advices are given to reduce the impact of the pollution on their health.

C&d)
The general public is generally informed in french and dutch by :

- Signs in the street
- Each day by television, (pollution index)
- Website of administrations (www.irceline.be, www.ibgebim.be, www.stib.be)

IX. PARTICIPATION IN THE WORK OF THE CONVENTION AND STATUS OF RATIFICATION OF THE PROTOCOLS

12. **Question 12**: Please provide information on your country's current participation in the technical and scientific work under the Convention and the status of ratification of the Protocols, by completing the tables below.

Answer

(a) Participation in the technical and scientific work under the Convention

1. International Cooperative Programmes (ICPs) under Working Group on Effects[1/]	**Participation**
(a) ICP Waters	
(b) ICP Vegetation	
(c) ICP Forests	
(d) ICP Materials	
(e) ICP Integrated Monitoring	
(f) ICP Mapping and Modelling	
2. Technical and scientific groups[2/]	
(a) Task Force on Emission Inventories and Projections	R
(b) Task Force on Measurements and Modelling	O
(c) Task Force on Integrated Assessment Modelling	R
(d) Expert Group on Techno-economic Issues	R
(e) Network of Experts on Benefits and Economic Instruments	O
(f) Task Force on Hemispheric Transport of Air Pollution	O
3. Other task forces and expert groups[2/]	
(a) Task Force on Health	N
(b) Task Force on Reactive Nitrogen	N
(c) Task Force on Heavy Metals	N
(d) Task Force on POPs	N

[1/] Please indicate with A = active, meaning taking part with one or more monitoring sites, or P=passive, meaning taking part without sites, N = not taking part

[2/] Please indicate with R = regularly, O = occasionally or N =never

(b) Ratification of protocols

Protocol	**Ratification**[1/]	**Potential obstacles to ratification and needs for assistance**[2/]	**Timescale for ratification** [3/]
1. EMEP Protocol[4/]	Y		
2. 1985 Sulphur Protocol	Y		
3. Nitrogen Oxides Protocol	Y		
4. Protocol on Volatile Organic Compounds	Y		
5. 1994 Sulphur Protocol	Y		
6. Protocol on Heavy Metals	Y		
7. Protocol on POPs	Y		
8. Gothenburg Protocol[5/]	Y		

[1/] Indicate with **Y** if you have ratified this Protocol or **N** if you have not yet ratified.

[2/] If not yet ratified

[3/] If not yet ratified, please provide details of the timescale within which your country intends to ratify the Protocol

[4/] 1984 Geneva Protocol on Long-term Financing of the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe

[5/] 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone

X. FEEDBACK ON THE QUESTIONNAIRE

13. Question 14: Have you encountered difficulties in answering this questionnaire, whether technical or interpretative? Please use the table below to provide further details.

Table 3: Question 12

Question no.	Problem	Suggestion for improvement
