

Background information and Template for the submission of

Examples/Good practices of air pollution related policies, strategies and measures

- Prepared by the CLRTAP secretariat, in cooperation with the Chair of WGSR -

I. Background

1. The Executive Body, at its thirty-second session, adopted **decision 2013/2** on Reporting on strategies, policies, and other measures to implement obligations under the Convention and its Protocols. This decision stipulates that *“the Working Group on Strategies and Review shall continue to devote time each year for policy discussions related to the design and implementation of different regulatory, voluntary, economic or other measures relating to air pollution”*. It *“shall, annually in advance of a session, invite Parties to report at the session on strategies, policies, and measures employed to implement obligations under any of the Protocols to the Convention”*.

2. In this document, background information is provided on the obligations to report on strategies, policies and measures for the respective Protocols. The enclosed template has been developed to facilitate the submission by Parties of examples/good practices of different regulatory, voluntary, economic and other measures relating to air pollution in advance of WGSR’s fifty-second session, 30 June – 3 July 2014.

3. Heads of Delegations and other participants in the fifty-second session of the Working Group on Strategies and Review, 30 June – 3 July 2014, are invited to submit to the secretariat case studies/examples which can be considered a good practice and could be of interest to other countries and thus to the policy discussion at the WGSR session. **In order to facilitate the preparation of the policy discussion on the basis of the examples submitted, please send your examples to Franziska.Ilg@unece.org by 14 March 2014.**

4. **Examples could comprise, amongst others, economic measures such as financial incentives or disincentives (such as taxes, subsidies, set prices or caps/ceilings, payments, rebates), voluntary measures (such as voluntary agreements, programmes or contracts), regulatory or legislative measures or other measures (such as educational or informational measures).** They can include policies, strategies and measures emanating from different sectors with positive effects on air pollution abatement (such as acts/laws on sustainable transport, sustainable agriculture/farming, green building, biodiversity conservation and enhancement). As this will be an ongoing part of future WGSR meetings it is important to just give selective examples at any on meeting. What could be of most use to other Parties is the fullness of your experience with a particular measure including such items as:

- a.) A measure that was less effective than you anticipated and why;
- b) Similarly, a measure that was actually more effective than you predicted;

- c.) A measure that had particular implementation challenges – what were they and how you addressed them;
- d.) A measure that was either less expensive or more expensive than you had estimated. What caused the increased or decreased costs?
- e.) Goals that were set and were met by innovative strategies.

5. A first collection of selected examples of different policies, strategies and measures beneficial for air pollution abatement from throughout the ECE region had been presented at the fifty-first session of the Working Group on Strategies and Policies by Parties¹. Additional examples had been compiled in the background document prepared for the 51st session (ECE/EB.AIR/WG.5/2013/4). On the basis of this background information, a Chair's summary has been prepared which WGSR took note of (ECE/EB.AIR/WG.5/110, para 22 and Annex 2).

6. In accordance with Decision 2013/2, *“the Working Group on Strategies and Review shall include in its annual report to the Executive Body a summary of the reports of Parties and the policy discussions held in furtherance of this decision. The secretariat shall continue to maintain the electronic archive of responses to the questionnaires completed by Parties pursuant to the decisions of the Executive Body². The Executive Body shall evaluate, at its 34th session, the effectiveness of this decision in facilitating and encouraging exchange of information and implementation of obligations to report on strategies, policies, and measures.”*

II. Obligations under the Protocols to the CLRTAP Convention to report on strategies, policies and measures

II.1 Reporting on strategies, policies and measures under the 1994 Sulphur, Heavy Metals, POPs and Gothenburg Protocols

7. In accordance with Decision 2013/2 adopted by the Executive Body at its thirty-second session, *“the sessions of the Working Group on Strategies and Review shall be considered the format for reporting on strategies, policies, and measures referenced in Article 5.1 of the 1994 Sulphur Protocol, Article 7.2 of the Heavy Metals Protocol, Article 7.2 of the POPs Protocol, and Article 7.2 of the Gothenburg Protocol”*.

II.1.1 Reporting on strategies, policies and measures under the 1994 Sulphur and the Gothenburg Protocol

8. Article 4 of the 1994 Sulphur Protocol requires that *“[each] Party shall, in order to implement its obligations under article 2: (a) adopt national strategies, policies and programmes, no later than six months after the present Protocol enters into force for it; and (b) take and apply national measures to control and reduce its sulphur emissions”*. Article 5 of the 1994 Sulphur Protocol on “Reporting” stipulates that *“each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Executive Body, information on: (a) the*

¹ See presentations at: <http://www.unece.org/index.php?id=31868>

² Responses on the 2010 and previous versions of the questionnaire on strategies and policies for air pollution abatement are available on the CLRTAP homepage at: <http://www.unece.org/environmental-policy/treaties/air-pollution/convention-bodies/implementation-committee/questionnaire-on-strategies-and-policies-for-the-abatement-of-air-pollution.html>

implementation of national strategies, policies, programmes and measures referred to in article 4, paragraph 1;[...] (c) the implementation of other obligations that it has entered into under the present Protocol, in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format and/or content of the information that are to be included in the reports”.

9. The 1994 Sulphur Protocol sets emission ceilings for 2005 and 2010 for some Parties. With the exception of Austria, Canada, Greece, Ireland, Italy, Liechtenstein and Monaco, all Parties to the 1994 Sulphur Protocol have also ratified or acceded to the 1999 Gothenburg Protocol which sets ceilings for 2010.

10. Article 6 of the Gothenburg Protocol stipulates that *“each Party shall, as necessary and on the basis of sound scientific and economic criteria, in order to facilitate the implementation of its obligations under article 3: (a) adopt supporting strategies, policies and programmes without undue delay after the present Protocol enters into force for it;[...]”* Paragraph 1 of Article 7 on “Reporting” stipulates that *“subject to its laws and regulations and in accordance with its obligations under the present Protocol: (a) each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Parties at a session of the Executive Body, information on the measures that it has taken to implement the present Protocol”.* Paragraph 2 stipulates that *“the information to be reported in accordance with paragraph 1 (a) shall be in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format or the content of the information that is to be included in the reports.”*

11. In 2012, amendments to the Gothenburg Protocol and its annexes were adopted by decisions 2012/1, 2012/2 and 2012/3. In addition, Parties adopted decision 2012/4 on the Provisional application of the amendments to the Protocol, which enables Parties to make use of the adjustment procedure under decision 2012/3 immediately.

12. Sulphur as a pollutant is covered by both the Gothenburg Protocol and the 1994 Sulphur Protocol. Moreover, the following pollutions are covered by the Gothenburg Protocol: nitrogen oxides (NO_x), ammonia (NH₃) and volatile organic compounds (VOC).

13. In accordance with Decision 2013/2, Parties to the 1994 Sulphur and Gothenburg Protocol are thus invited to report on the design and implementation of strategies, policies and measures to implement obligations under the 1994 Sulphur Protocol and the Gothenburg Protocol, notably to abate pollution of sulphur, nitrogen oxides, ammonia and volatile organic compounds.

II.1.1 Reporting on strategies, policies and measures under the Protocol on Persistent Organic Pollutants (Protocol on POPs)

14. Article 7 of the Protocol on POPs requires that each Party shall, no later than six months after the date on which this Protocol enters into force for it, develop strategies,

policies and programmes in order to discharge its obligations under the present Protocol. Article 9, paragraph 1 of the Protocol on POPs on “Reporting” stipulates that *“subject to its laws governing the confidentiality of commercial information: (a) each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Parties meeting within the Executive Body, information on the measures that it has taken to implement the present Protocol”*. Furthermore, paragraph 2 of article 9 stipulates that *“the information to be reported in accordance with paragraph 1 (a) above shall be in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format or the content of the information that is to be included in the reports.”*

15. In 2009, amendments to the Protocol on POPs were adopted through decisions 2009/1, 2009/2 and 2009.

16. The pollutants covered by the Protocol on POPs are the following: polycyclic aromatic hydrocarbons (PAH), hexachlorobenzene (HCB), and dioxins/furans.

17. In accordance with Decision 2013/2, Parties to the Protocol on POPs are thus invited to report at the WGSR session on the design and implementation of strategies, policies, and measures employed to implement obligations under the Protocol on POPs, notably to reduce emissions of PAH, HCB and dioxins/furans.

II.1.1 Reporting on strategies, policies and measures under the Protocol on Heavy Metals

18. Article 5 of the Protocol on Heavy Metals stipulates *“each Party shall develop, without undue delay, strategies, policies and programmes to discharge its obligations under the present Protocol.”* Paragraph 1 of Article 7 on “Reporting” requires that *“subject to its laws governing the confidentiality of commercial information: (a) each Party shall report, through the Executive Secretary of the Commission, to the Executive Body, on a periodic basis as determined by the Parties meeting within the Executive Body, information on the measures that it has taken to implement the present Protocol”*. Paragraph 2 stipulates that *“the information to be reported in accordance with paragraph 1 (a) above shall be in conformity with a decision regarding format and content to be adopted by the Parties at a session of the Executive Body. The terms of this decision shall be reviewed as necessary to identify any additional elements regarding the format or the content of the information that is to be included in the reports.”*

19. In 2012, amendments to the Protocol and its annexes were adopted by decisions 2012/5 and 2012/6.

20. The pollutants covered by the Protocol on Heavy Metals are cadmium, lead and mercury.

21. In accordance with Decision 2013/2, Parties to the Protocol on Heavy Metals are invited to report at the WGSR session on the design and implementation of strategies, policies, and measures employed to implement obligations under the Protocol on Heavy Metals, notably to reduce emission of mercury, lead and cadmium.

II.2 Reporting on strategies, policies and measures by Parties to the Protocol concerning the control of Nitrogen Oxides or their transboundary fluxes (Protocol on NO_x) and the Protocol concerning the control of emissions of Volatile Organic Compounds and their transboundary fluxes (Protocol on VOC)

22. In accordance with Decision 2013/2, “Parties to the Protocol on NO_x and the Protocol on VOC may utilize the time set aside during the annual session of the Working Group on Strategies and Review to report on changes or revisions to their policies, strategies, and measures to implement obligations under the respective Protocols in satisfaction of their obligations under Article 8.1 of the Protocol on NO_x and Article 8.2 of the Protocol on VOC”.

23. Article 7 of the 1988 Protocol on NO_x stipulates that “Parties shall develop without undue delay national programmes, policies and strategies to implement the obligations under the present Protocol that shall serve as a means of controlling and reducing emissions of nitrogen oxides or their transboundary fluxes.” Article 8 requires that “Parties shall exchange information by notifying the Executive Body of the national programmes, policies and strategies that they develop in accordance with article 7 and by reporting to it annually on progress achieved under, and any changes to, those programmes, policies and strategies, [...]” Paragraph 2 of article 8 stipulates that “such information shall, as far as possible, be submitted in accordance with a uniform reporting framework.”

24. Article 7 of the 1991 Protocol on VOC stipulates that “Parties shall develop without undue delay national programmes, policies and strategies to implement the obligations under the present Protocol that shall serve as a means of controlling and reducing emissions of VOCs or their transboundary fluxes.” Article 8 on “Information exchange and annual reporting” provides that “Parties shall exchange information by notifying the Executive Body of the national programmes, policies and strategies that they develop in accordance with article 7, and by reporting to it progress achieved under, and any changes to, those programmes, policies and strategies [...]” Paragraph 4 of article 8 stipulates that “such information shall, as far as possible, be submitted in accordance with a uniform reporting framework”.

25. The majority of the Parties to the NO_x and VOC Protocols are also Parties to the Gothenburg Protocol which covers the pollutants covered by the NO_x and VOC Protocols. Parties to the NO_x Protocol not Parties to the Gothenburg Protocol are the following: Albania, Austria, Belarus, Estonia, Greece, Ireland, Italy, Liechtenstein, Russian Federation, Ukraine. Parties to the VOC Protocol not Parties to the Gothenburg Protocol are the following: Austria, Estonia, Italy, Monaco, Liechtenstein. In accordance with Decision 2013/2, the Parties listed above may wish to consider reporting on changes or revisions to their policies, strategies, and measures to implement obligations under the respective NO_x or VOC Protocols.

26. As it is not possible to cover all of the above in one meeting, **Parties are invited to inform the secretariat of the information they may wish to provide on a particular measure or two at the WGSR session, by submitting the enclosed template by 14 March 2014 by writing to franziska.ilg@unece.org.**

III. Template to facilitate the submission of examples/good practices with regard to strategies, policies, and measures employed to implement obligations under any of the Protocols to the Convention

<p>Country: Ukraine</p>	<p>Sector: agriculture <i>Please indicate the sector (e.g. agriculture, industry, urban planning, environment, etc.), or sectors (if several) for which the strategy, policy or measure has been mainly designed</i></p>
<p>Type of strategy, policy or measure: <i>Please identify the type of strategy, policy or measure – economic e.g. incentive or disincentive (taxes, funds, subsidies, prices or caps/ceilings, payments, rebates, etc); voluntary (agreements, programmes, contracts), regulatory (legislation), or other measures (educational, informational, other)</i></p> <p>Scientific research</p>	<p>Level: <i>Please state at which level (municipal, regional, sub-national, national) the policy, strategy or measure is targeted or implemented</i></p> <p>Measure is targeted at national, regional and municipal level</p>
<p>What is the main objective of the strategy, policy or measure? When has it been implemented/or will be implemented? <i>Please describe briefly what the measure attempts to achieve or what has been the result of its implementation. Please also describe since when it is being employed or for when its implementation is foreseen. Please explain whether implementation is/was immediate or gradual. [150 words max]</i></p> <p>Within the framework of implementation of the Protocol to Abate Acidification, Eutrophication and Ground-level Ozone Government of Ukraine has adopted a concept to Abate Acidification, Eutrophication and Ground-level Ozone. Developed draft Rules of Good Agricultural Practice, which helps to reduce ammonia emissions and utilization of biogas.</p> <p>In order to achieve reducing emission of ammonia during broiler production. A new utilization method of waste from poultry farms with deep-litter systems has been developed aimed to produce organo-mineral fertilizers. At the first stage the poultry farm waste water is coagulated by poly aluminum chloride. organo-mineral fertilizers are produced by mixing organic wastes with a non-toxic organic solvent. Also mineral components are added: calcium oxide, boric acid, sulfates of Mg, Fe, Mn, Cu, Zn, Co, and ammonium molybdate. In order to increase the quality of fertilizers we developed a method for obtaining granulated organic fertilizers by treating poultry droppings with polyethylene glycol compounds (PEG 1500-1600). The components of these organo-mineral fertilizers allow preventing urea decomposition with untimely ammonia emission (Patents of Ukraine No. 45772, 48368, 48369, 55098). Implementation of the results of our studies on the broiler farm helped to arrange the treatment of accumulated wastes and to avoid the discontent of people living in the vicinity of the farm.</p>	
<p>Background and driving forces: <i>Please explain briefly why this strategy, policy or measure was implemented; mention the driving forces for its introduction e.g. policy development, legislation (EU, national), action plans, voluntary, incentive, or other [150 words max]</i></p> <p>Implementation of the results of our studies at municipal level on the broiler farm helped to arrange the treatment of accumulated wastes and to avoid the discontent of people living in the vicinity of the farm. Conducted studies confirmed that development of poultry farming is one of the priorities in Ukraine, but it will result in significant increase of waste volumes from this branch. Implementation of our developments would allow the poultry farms not only to considerably reduce emissions of a complete set of pollutants into the atmosphere, but also to gain some additional profits by selling ecologically safe organo-mineral fertilizers and to avoid the discontent of people living in the vicinity of the poultry farms.</p>	

Description of the strategy, policy or measure:

Please explain briefly how the strategy, policy or measure works and why it has been chosen compared to other policies/measures. Please also explain how its implementation is being monitored. [200 words max]

Development of the Draft Rules of Good Agricultural Practice, which helps to reduce ammonia emissions and utilization of biogas was performed on the instructions of the Ministry of Ecology and Natural Resources of Ukraine

Work on the organo-mineral fertilizers was performed within the research themes of the Ecotoxicology department of Institute of Agroecology and environmental management of NAAS: Environmental safety in animal husbandry.

Costs, Funding and Revenue allocation:

Please state how much the implementation of the measure costs including its monitoring and how it is funded (national budget, industry, taxes, etc.) If the measure is creating revenue, please also explain how this revenue is being allocated and collected. [200 words max]

Development of the Draft Rules of Good Agricultural Practice, which helps to reduce ammonia emissions and utilization of biogas was conducted within the grant of the Ministry of Ecology and Natural Resources of Ukraine.

Work on the organo-mineral fertilizers was carried out in the budget financing of topic: Environmental safety in animal husbandry of the Ecotoxicology department of Institute of Agroecology and environmental management of NAAS.

Effect and impacts on air pollution abatement:

Please explain briefly the effect of the policy, strategy or measure and how it has impacted the abatement of air pollution. If impacts are known, please quantify, if possible. Please highlight also other effects of the implementation of the measure e.g. with regard to compliance, the acceptance of the measure or its transposition (e.g. from a voluntary to a regulatory or another type of measure). [150 words max]

Implementation of the results of our work on the organo-mineral fertilizers on the broiler farm helped to arrange the treatment of accumulated wastes and to avoid the discontent of people living in the vicinity of the farm. This farm was successfully examined by the European commission HACCP, which didn't find any violations and confirmed the compliance of all the production processes with the European requirements and guidelines. Now this broiler farm is constructing 10 more broiler departments as a part of its development program.

References/Further information: *Please provide most relevant sources for information such as references for web links, books, other resources.*

1. Environmental pollution of active nitrogen from agricultural sources: problem and solutions // Moklyachuk L., Lukin S., Kozlova, N., Martkoplshvili M. // Agroecological journal. – 2014. – № 1. – P.13-20.
2. Moklyachuk L., Pinchuk V., Martkoplshvili M. Losses of nitrogen in agriculture of Ukraine // Agroecological journal. – 2013. – № 1. –P.19 – 23.
3. Moklyachuk L., Zhukorskyi O., Pinchuk V., Mineralov O., Keivan O., Marchenko O. Agroecological estimation of emission of compounds of active nitrogen in the sector of agriculture of Ukraine // Agroecological journal. – 2012. – № 2. –P.36 – 42.
4. Marchenko A. Poultry farming is a making progress pollutant of air of atmosphere // Agroecological journal. – 2010. – № 3. –P.34 – 48.
5. Patent of Ukraine for useful model. 45772 / Mineralov O, A. Marchenko, Herman V. etc.

- A method of cleaning and disinfection of wastewater. Publ. 25.11.2009. Bull. Number 22.
6. Patent of Ukraine for useful model 48368 / Mineralov OI, A. Marchenko, Herman V. etc. A method of processing stations precipitation treatment facilities. Publ. 10.03.2010. Bull. Number 5.
 7. Patent of Ukraine for useful model 48369. /Mineralov O, A. Marchenko, Herman V. etc. The method for producing organo-mineral fertilizer. Publ. 10.03.2009. Bull. Number 5.
 8. Patent of Ukraine for useful model 55098. Mineralov O, A. Marchenko, Herman V. etc. A method for producing a granular organic fertilizer. Publ. 10.03.2009. Bull. Number 5.

Contact: *Please insert your contact details below.*

Name: Lidiya Moklyachuk

Country: Ukraine

Organization: Institute of Agroecology and Environmental management of Ukrainian Academy of Agrarian Sciences

Address: Metrologichna str., 12, Kyiv, Ukraine, 03143

Telephone: +380445263443

Email: moklyachuk@ukr.net

Additional comments: *Please include any additional information you may wish to provide here.*