Convention on Long-range Transboundary Air Pollution
61st session of the working group on strategies and review

Comments by Canada on the "Policy brief and guidance on the co-mitigation of methane and ammonia emissions from agricultural sources"
(ECE/EB.AIR/WG.5/2023/5)

August 25, 2023

Canada thanks the Task Force on Reactive Nitrogen for their work in preparing this policy brief and guidance on the co-mitigation of methane and ammonia emissions from agricultural sources. Canada has the following comments:

The consideration of the greenhouse gas (GHG) effects along with the local and transboundary air pollution impacts of methane and ammonia is valuable and timely considering the attention that GHGs receive compared to how little attention air pollution has received in the recent past (besides wildfire smoke).

Linking air pollutants to GHGs, where appropriate, is a good way to bring more attention to agriculture's contribution to air quality issues and builds a good narrative for advancing GHG mitigation measures further. Canada would recommend that these links be strengthened and further highlighted.

Practices such as using dual fertilizer inhibitors (nitrification + urease inhibitors) could be presented as an example of a beneficial management practice that can reduce ammonia emissions (and nitrous oxide) from synthetic fertilizer use without affecting methane.

While 'composting may lead to increased methane emissions' may be true (page 4, paragraph 1), the literature is not entirely clear on this since aerated compost may emit less methane than a static pile. In addition, composting will tend to increase ammonia emissions due to the turning and aeration compared to static piles.

The discussion of aeration systems leading to lower methane but higher ammonia and "deliberate loss of N" is important as these systems are becoming more popular in Canada.

The authors may wish to also add that there is a big opportunity to combine anaerobic digestion with nutrient recovery and ammonia abatement technology. As an example, anaerobic digestion can reduce methane emissions through biogas production and collection, and the resulting digestate can be applied to soils as an organic fertilizer to reduce ammonia emissions relative to mineral fertilizers.