Terms of Reference for a Working Group on technical aspects related to MARPOL Annex VI monitoring activities (MAVI-TWG)

**Background**

1. The MARPOL Annex VI Experts Workshop 2021 (MAVIEWS 21) was held on 2 – 5 February 2021 to develop a common strategy and operational procedures on MARPOL Annex VI monitoring activities in the Bonn Agreement area. The Workshop concluded on a set of recommendations to be further explored through two working groups (WG) dealing with (1) strategic and operational aspects (MAVI-SOWG) and (2) technical aspects (MAVI-TWG) under the umbrella of OTSOPA.
2. As a follow up of the Workshop, Contracting Parties were invited to submit the national representatives of the WGs and the Co-convenors made a first attempt to subdivide the MAVIEWS 21 recommendations for both WG into a subset of actions that, on the one hand, are quick wins and in-kind actions (mainly on info exchange, regular tasks and national operations) that would require limited additional effort, and, on the other hand, actions that would need more resources and therefore a project with external funding.
3. BONN 2021 agreed on the Terms of Reference (ToR) of a WG on technical aspects related to MARPOL Annex VI monitoring activities (MAVI-TWG) as in Annex 8 of BONN 2021 Summary Record. OTSOPA 2022 decided to update the ToR to reflect a tiered approach: the working groups would be activated focusing on the quick -wins first and, in a later stage, the project proposal could be submitted.

**Objective**

1. To address the quick win or in-kind actions on technical aspects related to MARPOL Annex VI monitoring activities in the Bonn Agreement area listed under §9, distributing the workload among the Contracting Parties.
2. To liaise with MAVI-SOWG to address those recommended actions which are both a strategic/operational, and a technical question or challenge (e.g. use of a threshold; standardised reporting; intercomparison and validation efforts, etc.), and imply some degree of coordination.
3. To support the potential project coordinator in delivering the actions which might require external funding listed under §10.

**Participants**

1. The WG will be co-convened by Ward Van Roy from Belgium and Andreas Weigelt from Germany with an active participation of all Contracting Parties to the WG meetings. In addition, the co-convenors of the MAVI-SOWG are invited to join the meetings. Experts can also participate in the WG if requested by Contracting Parties with a justification (BONN 22/12/1 Annex 6).

**Work arrangements**

1. The WG will work via correspondence and hold the following meetings:
	1. monthly online WG meetings in the startup phase and bimonthly afterwards;
	2. an annual physical inter WG meeting (e.g. prior or back to back to OTSOPA) (Belgium is of the opinion that this coordination between both WGs could even be further optimized when needed, by for example bimonthly online inter WG-leader meetings): and
	3. semestrial meetings between the OTSOPA Chair, WG leaders and the (potential) project coordinator.

**Quick wins and in-kind actions**

1. The WG will address the following Quick wins and in-kind actions:
	1. Consider the recent sensor developments, also for drones (e.g. optical/laser sensors).
	2. Take into account national experience, ongoing operations and their recommendations, and the outcome of previous projects such as SCIPPER and COMPMON.
	3. Sharing best practices on NOx measurements and reporting (building upon the experience of Belgium and Germany).

**Actions for which external funding might need to be considered (possible project-based actions)**

1. The WG will support the project coordinator in the delivery of the following actions:
	1. Consider certification/standardization for SOx and NOx measurements (e.g. creation of CEN[[1]](#footnote-1) WG).
	2. Agree on a common methodology for the qualification of errors in measurements:
	* Qualitative approach (flags including the degree of confidence);
	* Quantitative approach (values including uncertainties) .
	1. Define a common approach to calibrate sniffers.
	2. Agree on alert thresholds: Start from IMO thresholds 0,1% and 0,5% plus an additional margin.
	3. Run (regular) validation campaigns combining different sensors at BA level (for both, SOx and NOx) to facilitate sharing of data and methodologies which will help identify commonalities in order to check uncertainties between sensors.
	4. Promote taking NOx remote measurements, building upon the experience of Belgium and Germany.
	5. Define operational procedures to make NOx measurements more reliable (contacting the vessel to get information on type of fuel, specific consumption rate, and power; taking several measurements as for SOx, comparison of measurement results with emission test results).
1. European Committee for Standardization [↑](#footnote-ref-1)