



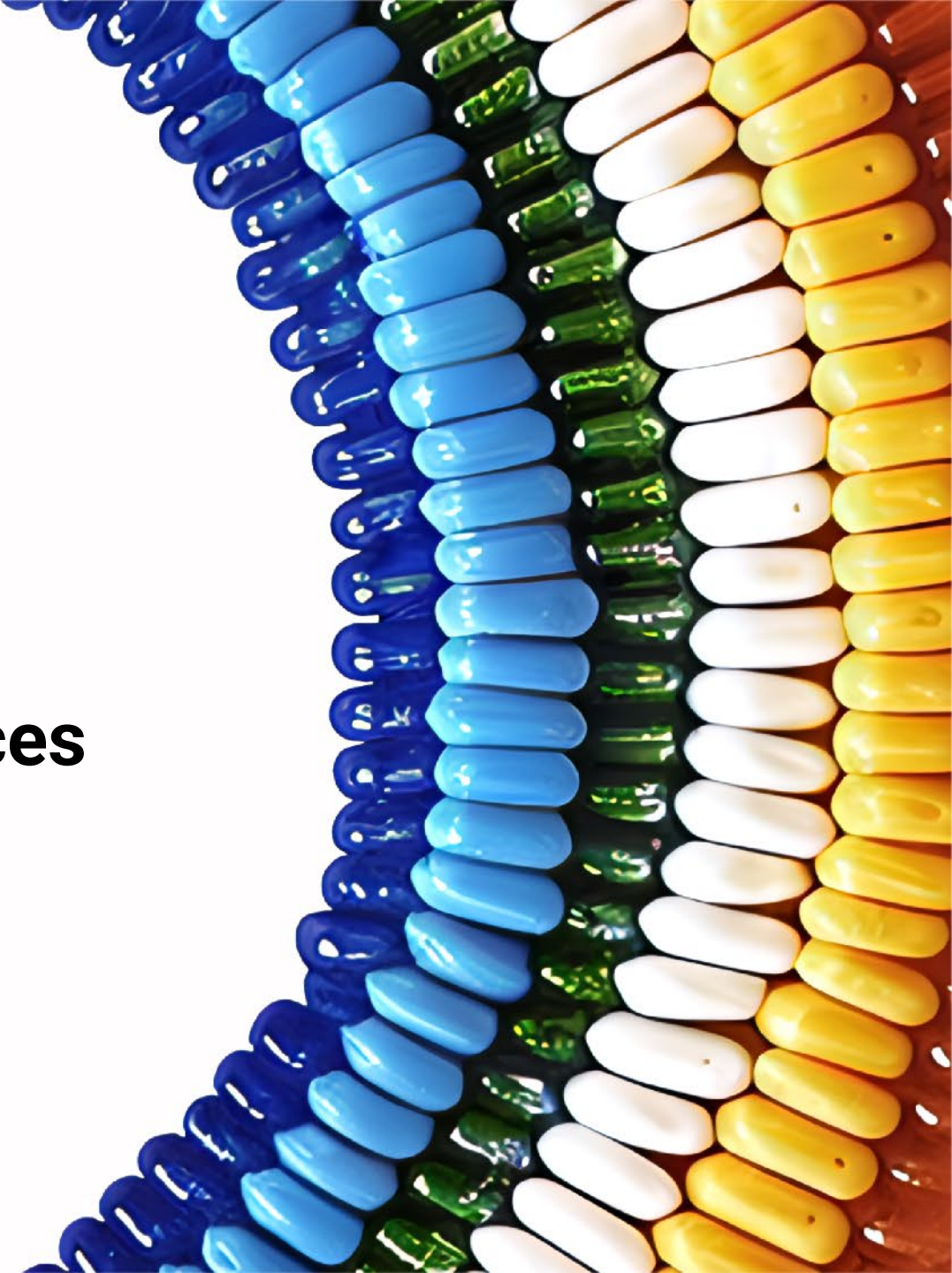
OEWG46

8–12 July 2024
Montréal

Agenda item 5

**Enhancing the global and regional
atmospheric monitoring of substances
controlled by the Montreal Protocol**

Decision XXXV/14 (b)



Decision XXXV/14: Enhancing the global and regional atmospheric monitoring of substances controlled by the Montreal Protocol

Requested the Ozone Secretariat, in consultation with the Multilateral Fund secretariat and relevant experts from the Ozone Research Managers, the Scientific Assessment Panel and the Technology and Economic Assessment Panel to provide to this meeting:

- (a) An update of the information provided under decision XXXIII/4, including refining, to the extent possible, the cost estimates associated with enhancing atmospheric monitoring, and a list of potential monitoring station locations
- (b) Options for sustainable funding to establish new regional monitoring capacities, including an assessment of their advantages and disadvantages, of potential implementation options, and a description of the administrative processes required to operationalize any potential funding options, taking into account the discussion at the 35th Meeting of the Parties



Decision XXXV/14 (a): Refining cost estimates

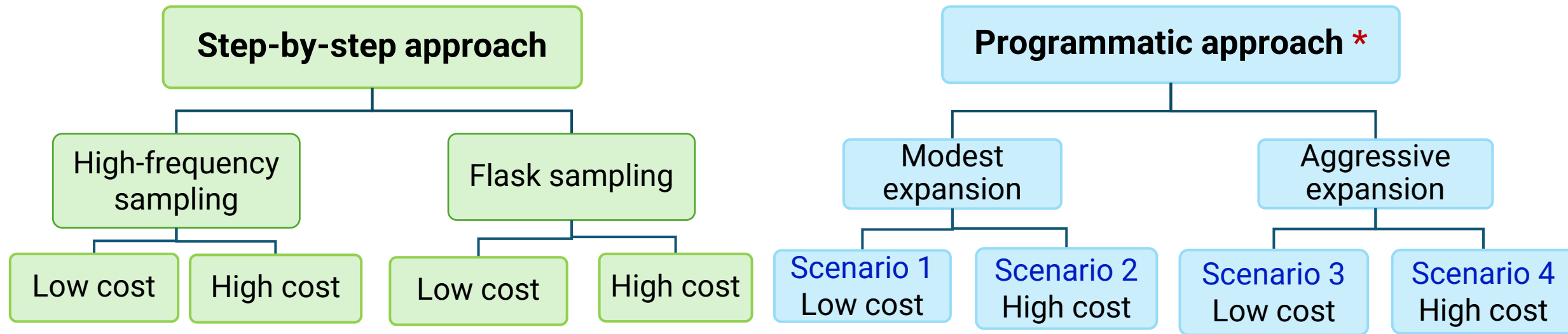
- An online expert workshop was organized on 23 February 2024 to assist in refining the annual cost estimates of setting up a new station for monitoring controlled substances
- The workshop outcomes were endorsed by the Ozone Research Managers at their twelfth meeting (24-26 April 2024)

Station type	Ranges of estimated annual costs (<i>capital & operating only</i>)
High-frequency station	US\$ 456 000 – 1 245 000 (sampling every 2 hours)
Flask sampling station	US\$ 50 000 – 1 245 000 (weekly to daily sampling)

- Low-cost estimates assume adapting existing infrastructure at zero or modest costs
- High-cost estimates include costs for new infrastructure

Costs related to a monitoring expansion strategy

- Based on the workshop outcomes, the Secretariat, with the assistance of a financial expert, estimated approximate costs for:
 - **A step-by-step approach:** One high-frequency or flask sampling station operating for 5 years
 - **A programmatic approach:** A mix of high frequency and flask sampling stations operating for 5 years (4 scenarios examined)



* Modest expansion: 2 high-frequency and 3 flask-based daily sampling sites
Aggressive expansion: 4 high-frequency and 6 flask-based daily sampling sites



Cost ranges for a 5-year step-by-step and a programmatic approach

(in US dollars)

	Grand totals *	
	Low cost	High cost
Step-by-step approach		
- One high-frequency station	1 456 000	2 488 000
- One daily flask sampling station	2 039 000	4 002 000
- One weekly flask sampling station	1 026 000	1 936 000
Programmatic approach		
- Modest expansion: 2 high-frequency and 3 daily flask-based sampling stations	9 028 000	16 983 000
- Aggressive expansion: 4 high-frequency and 6 daily flask-based sampling stations	16 006 000	31 916 000

* Including estimated capital and operational costs plus rough estimates of costs associated with preparation and capacity building, contingency, programme management and programme support

Decision XXXV/14 (b): Funding sources explored

- **Existing trust funds for the Vienna Convention and its Montreal Protocol**
 - Trust Fund for the Vienna Convention (VCTF)
 - Trust Fund for the Montreal Protocol (MPTF)
 - General Trust Fund for Financing Activities on Research and Systematic Observations relevant to the Vienna Convention (General Trust Fund)
 - Multilateral Fund for the Implementation of the Montreal Protocol (MLF)
- **External funds from organizations active in emissions monitoring**

Global Environment Facility (GEF), World Meteorological Organization (WMO);
Green Climate Fund (GCF), Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO)
- **Philanthropic institutions:**

Bezos Earth Fund and the Gates Foundation

Potential implementation options (1)

- A simple and quick option could be to use the General Trust Fund for disbursement to projects for the establishment and operation of controlled substance monitoring stations by allocating some specific amounts of funds from the cash balances of the VCTF and the MPTF or from the MLF or even from other sources

[UNEP/OzL.Pro.WG.1/46/2/Add.1 \(paras. 67-69\) and Annex VI](#)

- Another funding option could be to use the MLF by allocating a part of it for monitoring controlled substances or transferring a part of it to the General Trust Fund subject to a policy decision by the parties and disbursement authorization by the Executive Committee

[UNEP/OzL.Pro.WG.1/46/2/Add.1 \(paras. 70-71\) and Annex V](#)



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Potential implementation options (2)

- Possibilities for cooperation under the GEF may exist e.g., with UNEP's GEF Global Chemicals Monitoring Programme that supports implementation of the Stockholm and Minamata Conventions and through possible inclusion of controlled substance monitoring in the ninth replenishment cycle of the GEF (2026-2030)

[UNEP/OzL.Pro.WG.1/46/2/Add.1 \(para. 72\)](#) and [INF/4 \(paras. 4-10\)](#)

- In all the above options, WMO, having been instrumental in implementing projects on ozone and UV monitoring under the General Trust Fund, could also be a key partner in implementing projects on atmospheric monitoring of controlled substances

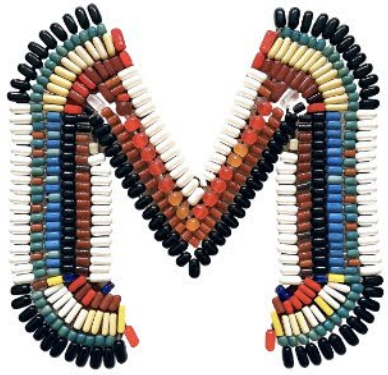
[UNEP/OzL.Pro.WG.1/46/2/Add.1 \(para. 74\)](#) and [INF/4 \(paras. 11-19\)](#)

Potential implementation options (3)

- To reduce costs and exploit synergies with other relevant networks and programmes, it would be important to explore further and map out the existing infrastructure (e.g., stations, laboratories, communication towers and other types of towers) that could be used, such as in the WMO, CTBTO and UNEP/GEF monitoring networks, as well as in ambient air quality monitoring programmes (e.g., the UNEP Global Environmental Monitoring System and the Convention on Long-range Transboundary Air Pollution)

[UNEP/OzL.Pro.WG.1/46/2/Add.1 \(para. 72-74\)](#) and [INF/4 \(paras. 4-23\)](#)

- Additional areas that could be further explored are:
 - The GCF programme on climate information and early warning systems
 - The Bezos Earth Fund



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Thank you

