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**Montreal Protocol  
on Substances that  
Deplete the Ozone Layer**

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**Open-ended Working Group of the Parties  
to the Montreal Protocol on Substances  
that Deplete the Ozone Layer  
Forty-sixth meeting  
Montreal, 8–12 July 2024  
Item 5 of the provisional agenda\***

## **Enhancing the global and regional atmospheric monitoring of substances controlled by the Montreal Protocol: Report on potential funding sources and administrative issues**

### **Note by the Secretariat**

#### **I. Introduction**

1. The present note provides supplementary information related to item 5 of the provisional agenda of the forty-sixth meeting of the Open-ended Working Group of the Parties to the Montreal Protocol on Substances that Deplete the Ozone Layer, on enhancing the global and regional atmospheric monitoring of substances controlled by the Montreal Protocol, set out in the addendum to the note by the Secretariat (UNEP/OzL.Pro.WG.1/46/2/Add.1). The information relates to paragraph (b) of decision XXXV/14 on other potential funding sources for financing the expansion of the controlled substance monitoring network, focusing in particular on:

(a) External funding and in-kind contribution through collaboration with organizations active in the emissions monitoring space, such as the Global Environment Facility (GEF) and its chemicals and waste focal area, the World Meteorological Organization (WMO), the Green Climate Fund and the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO);

(b) External funding from philanthropic institutions, such as the Bezos Earth Fund and the Gates Foundation.

2. An overview of the above-mentioned potential funding sources is provided in the following subsections, including summaries of the key elements drawn following the discussions held with representatives of various institutions (namely, GEF, WMO and CTBTO) or desk studies (Green Climate Fund, and a few philanthropic institutions).

3. In the limited time that the Secretariat has had to respond to decision XXXV/14, it has not been possible to explore the feasibility of working with some other relevant networks to identify existing facilities (such as stations, laboratories, communication towers and other types

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\* UNEP/OzL.Pro.WG.1/46/1/Rev.1:

of towers) that could be leveraged or used in the monitoring of controlled substances in locations or regions where monitoring gaps exist. These networks include ambient air quality monitoring of the Global Environment Monitoring System of the United Nations Environment Programme (UNEP) and the Geneva Convention on Long-range Transboundary Air Pollution of the European Union (for the Eastern European region in particular, which has been identified by observing system simulation experiments analysis as a gap for monitoring of controlled substances).

**A. External funding and in-kind contribution through collaboration with organizations active in emissions monitoring**

**1. Global Environment Facility**

4. GEF is a multilateral family of funds dedicated to tackling biodiversity loss, climate change and pollution, and supporting land and ocean health. Over the past three decades, GEF has provided more than \$25 billion in financing and mobilized \$145 billion for country-driven priority projects.

5. GEF has actively supported implementation of projects in countries with economies in transition, as those are not eligible for funding under the Multilateral Fund. By 2012, GEF had helped 18 economies in transition to phase out ozone-depleting substances under the Montreal Protocol, investing \$235 million in 29 projects that leveraged another \$247 million from partners and resulted in the phaseout of 29,000 ozone depleting potential tons.

6. In response to the need for integration and synergies among the conventions, the GEF strategy has evolved to accommodate these transitions by moving from supporting separate chemicals focal areas (such as ozone-depleting substances and persistent organic pollutants) to now having one, fully integrated chemicals and waste focal area, including persistent organic pollutants, mercury, ozone-depleting substances, and the Global Framework on Chemicals – for a Planet Free of Harm from Chemicals and Waste, the United Nations policy framework to promote chemical safety around the world.

7. During the eighth GEF replenishment cycle, covering the four-year period 2022–2026, under the Chemicals and Waste focal area, the GEF/UNEP Global Chemicals Monitoring Programme to support implementation of the Stockholm and Minamata conventions was developed, leading to the establishment of a network of monitoring stations in many countries in Latin America, the Caribbean, Asia, Africa, and the Pacific islands, while more countries are to be added in the next phase of the project. There is an opportunity to link with the UNEP/GEF unit to collaborate on elements of programme design, specifically with regard to the mapping of physical and scientific infrastructure such as laboratories. This would happen in the context of the next phase of the project, which is due to be submitted for GEF concept approval in July 2024 and final project approval in July 2025.

8. For a project to be approved by GEF, it is necessary that it fits within its thematic strategy. As preparations for the ninth replenishment cycle are now under way, this presents an opportunity to add the monitoring of ozone-depleting gases explicitly to the mandate of the Chemicals and Waste focal area. This would require a decision by the Meeting of the Parties as well as detailed prior discussions with GEF to establish whether an expansion of their mandate would be feasible and desirable. GEF is expected to decide on the ninth replenishment in 2025.

*Advantages and disadvantages*

9. An advantage of GEF is that it can fund reasonably large projects. This fund, however, typically requires tangible evidence of significant co-funding and would not necessarily be able fully to fund the programme costs. In particular, it may not be able to fund physical infrastructure, or scientific instruments unless it can be proved that host sites cannot afford these items themselves. On the other hand, it would be able to fund training, capacity-building and the operational costs of monitoring stations.

10. Ensuring that any decision taken by the Meeting of the Parties requesting GEF to consider funding projects on controlled substance monitoring is taken into account in the ninth GEF replenishment cycle will be something of a challenge.

## 2. World Meteorological Organization (WMO)<sup>1</sup>

11. A major WMO programme of relevance to the atmospheric monitoring of controlled substances is its Global Atmosphere Watch Programme,<sup>2</sup> which aims to create a unified understanding of atmospheric composition (including greenhouse gases, reactive gases and aerosols) influencing climate, weather and air pollution. One of its main activities is the coordination of atmospheric composition observations across global to local scales to drive high-quality science and create new research-based products and services.
12. This programme provides accurate scientific information for policymakers and supports international efforts on ozone depletion and climate change. WMO also co-sponsors the Global Climate Observing System (GCOS), which regularly assesses the status of global climate observations and produces guidance for its improvement.<sup>3</sup>
13. Through its work, WMO has a very good sense of the operational challenges that monitoring stations face, such as equipment failures, staffing issues (including recruitment and training), operational costs of running stations and local funding issues.
14. WMO is funded through assessed contributions from member States and from voluntary contributions and project-related funding from international agencies such as the German Agency for International Cooperation, the Swedish International Development Cooperation Agency and the Canadian International Development Agency.
15. The main value of WMO to an expansion of the monitoring network would be as an implementing partner rather than as a funding partner. There would be a strong role for WMO to play in mapping the existing networks and stations to identify specific monitoring gaps and overlaps, identifying and assessing potential sites, identifying potential scientific partners, and assessing the institutional capabilities of site hosts.
16. WMO acts as a broker and an implementing agency for projects related to systematic observation and research under the General Trust Fund for Financing Activities on Research and Systematic Observations relevant to the Vienna Convention. From that Trust Fund, financing is channelled through WMO for the implementation of projects approved by the Advisory Committee of the Trust Fund.
17. WMO would be able to provide support activities and projects related to atmospheric monitoring of controlled substances in areas where it has a clear comparative advantage through its particular skills and experience.

### *Advantages and disadvantages*

18. An advantage of working with WMO would be that it encompasses a strong network of scientists who are already heavily engaged in atmospheric monitoring and are well connected to the scientific community. The organization has a strong sense of its own comparative advantages in managing data and networks. It has had an excellent record of longstanding cooperation with the Ozone Secretariat in the implementation of activities under the General Trust Fund for Financing Activities on Research and Systematic Observations.
19. Routing funding through to WMO from sources other than those held by the Ozone Secretariat may require additional administrative procedures to enable a flow of funds: for example, if funds were to be sourced directly from the Multilateral Fund, WMO would need to be approved as a new Implementing Agency.

## 3. Comprehensive Nuclear-Test-Ban Treaty Organization<sup>4</sup>

20. CTBTO was set up in 1996 with its headquarters in Vienna. It is an interim organization tasked with building up the verification regime of the Comprehensive Nuclear-Test-Ban Treaty, in preparation for the entry into force of the Treaty as well as promoting its universality. CTBTO is financed mainly through assessed contributions by member States. Its budget in 2022 was \$125,920,000.

<sup>1</sup> <https://wmo.int>.

<sup>2</sup> <https://wmo.int/activities/global-atmosphere-watch-programme-gaw>.

<sup>3</sup> <https://gcos.wmo.int/index.php/en/home>; <https://gcos.wmo.int/en/networks/atmospheric>.

<sup>4</sup> <https://www.ctbto.org>.

21. Preliminary discussions have indicated that CTBTO would not be thought to be a funder of projects. It does, however, have access to a network of monitoring stations through the work of its International Monitoring System (IMS) division. Airborne radionuclide testing utilizes tower-based sampling devices and may be a source of physical infrastructure that could be shared.<sup>5</sup> Further discussions with CTBTO would be needed.

*Advantages and disadvantages*

22. An advantage of working with CTBTO is that it does have a network of sampling stations already available, although more detailed mapping would be needed to identify those that are suitable for sampling ozone-depleting substances (20–30 m tower away from urban centres). The CTBTO data network may also be of some value. CTBTO itself is currently reviewing the capital and operating costs of refreshing its monitoring network as the infrastructure is now over 25 years old.

23. A disadvantage of working with CTBTO is that there may be complex security aspects of gaining access to its tower sites. Some financial compensation would probably also be required (all to be determined).

#### 4. Green Climate Fund<sup>6</sup>

24. The Green Climate Fund is an operating entity of the Financial Mechanism of the United Nations Framework Convention on Climate Change. It is the world's largest climate fund, mandated to support developing countries raise and realize their nationally determined contribution (NDC) ambitions towards low-emission, climate-resilient pathways.

25. The Green Climate Fund achieves its goal by investing across four transitions – built environment; energy and industry; human security, livelihoods and well-being; and land-use, forests and ecosystems – and employing a four-pronged approach:<sup>7</sup>

(a) Transformational planning and programming: by promoting integrated strategies, planning and policymaking to maximize the co-benefits between mitigation, adaptation and sustainable development;

(b) Catalysing climate innovation: by investing in new technologies, business models, and practices to establish a proof of concept;

(c) De-risking investment to mobilize finance at scale: by using scarce public resources to improve the risk-reward profile of low emission climate resilient investment and crowd in private finance, notably for adaptation, nature-based solutions, least developed countries and small island developing States;

(d) Mainstreaming climate risks and opportunities into investment decision-making to align finance with sustainable development: by promoting methodologies, standards and practices that foster new norms and values.

*Advantages and disadvantages*

26. Being the world's largest climate fund, the Green Climate Fund has sufficient funds to invest. A preliminary desk study has shown that the funds appear to be aimed at projects with direct and measurable climate impacts, rather than monitoring of impacts.

27. One specific thematic area to be investigated further is that of climate information and early warning systems. The Sectoral Guide on Climate Information and Early Warning Systems<sup>8</sup> gives an overview of the type of work that may be supported. The current focus of work in this area is on three paradigm shifting pathways: strengthening climate information services, promoting impact-based multi-hazard early warning systems, and improving climate impact early warning systems for investment and financial decisions; and four pillars of the Green Climate Fund strategic action plan: transformation planning and programming, catalysing climate innovation, mobilization of finance at scale, and coalitions and knowledge to scale up

<sup>5</sup> Source: interview with a CTBTO representative.

<sup>6</sup> <https://www.greenclimate.fund>.

<sup>7</sup> <https://www.greenclimate.fund/themes-result-areas>.

<sup>8</sup> <https://www.greenclimate.fund/sites/default/files/document/gcf-climate-information-early-warning-systems-sectoral-guide-consultation-version-1.pdf>, Table ES-2

success. To access finance from this Fund, it would be necessary to carefully construct a theory of change linking an expansion of monitoring stations to at least one of the paradigms and at least one of the strategic pillars.

## **B. External funding from philanthropic institutions**

### **1. Bezos Earth Fund<sup>9</sup>**

28. The Bezos Earth Fund focuses on spurring innovation and progress in several key areas that will help to promote a more equitable and sustainable future. It is committed to fighting climate change and protecting nature and has granted over \$2 billion across 7 programmes and over 230 grants. The programme areas cover: conserving and restoring nature; future of food; environmental justice; decarbonizing energy and industry; economics, finance and markets; next technologies; and monitoring, data and accountability.

29. The programme area that is of most interest to emissions monitoring is the one on monitoring, data and accountability,<sup>10</sup> which is based on the belief that science and data are critical to solving the climate crisis and aims at investing in creating world-class data and science to inform priorities, track progress, and hold actors accountable to their promises. The Bezos Earth Fund invests in creating world-class data and science to inform priorities, track progress, and hold actors accountable to their promises. It would be necessary to liaise directly with a representative of this Fund to understand the application process as well as whether or not there is a good alignment between an expansion of the current ground-based monitoring systems and the Fund's strategic priorities.

#### *Advantages and disadvantages*

30. An advantage of the Bezos Earth Fund is the availability of large funds. They are also interested in high-tech, cutting-edge solutions. This, in fact, could be seen as a disadvantage as discussions on expanding the emissions monitoring network seem to suggest a reliance on the existing technology for ground-based monitoring. The Fund may be much more interested in space-based monitoring systems.

31. Another disadvantage is that new trust funds and working procedures would need to be negotiated.

### **2. Gates Foundation<sup>11</sup>**

32. The Gates Foundation works to help all people to lead healthy, productive lives. In developing countries, it focuses on improving people's health and giving them the chance to lift themselves out of hunger and extreme poverty. In the United States of America, it seeks to ensure that all people—especially those with the fewest resources—have access to the opportunities that they need to succeed in school and life. Global grant-making areas include gender equality; a global development programme; a global growth and opportunity programme; a global health programme; and global policy and advocacy.<sup>12</sup>

33. Climate, where appropriate, is included as a point of strategic intersection, such as climate and health or agricultural adaptation. Although climate is important, the current portfolio does not suggest that developing the emissions monitoring network would be a good strategic fit with the existing programmes funded by the Gates Foundation.

#### *Advantages and disadvantages*

34. An obvious advantage of the Gates Foundation is the availability of large funds, which would be able to finance a programme over the medium term. A disadvantage is that there is no obvious strategic fit with their current programme.

<sup>9</sup> <https://www.bezosearthfund.org>.

<sup>10</sup> <https://www.bezosearthfund.org/our-programs/monitoring-data-accountability>.

<sup>11</sup> <https://www.gatesfoundation.org>.

<sup>12</sup> <https://www.gatesfoundation.org/about/foundation-fact-sheet>.

## **C. Administrative considerations**

35. Administrative processes for the operationalization of any potential funding options have been touched upon in the sections addressing the options considered so far. Assuming that the eligibility of potential funding options is established, some general administrative considerations are outlined in the following paragraphs.

### **(a) Oversight and control**

36. There needs to be a clear and single point of management with adequate oversight and control (technical and financial). The management function would need to be funded and staffed. For a step-by-step approach, this may be covered from existing resources. Should a programmatic approach be adopted, however, the scope of the programme, including managing all procedures as well as execution and dissemination, would warrant a dedicated programme manager.

### **(b) Trust fund management**

37. For a step-by-step approach it should be possible to pay for project implementation from a single trust fund. Trust fund eligibility requirements may, however, dictate that multiple trust funds need to be used if, for example, one trust fund could not be used to purchase equipment. In cases like that, careful document chains would be needed to ensure correct allocation of funds to expenses.

38. Raising and managing new funds for a programmatic approach bring additional considerations. If the programme is large, then the financial resources required may entail raising funds from multiple donors, each with different eligibility criteria. In such a case, consideration could be given to creating a new trust fund or ring-fencing a budget allocation within an existing trust fund.

39. Creating a new trust fund may involve some additional initial administrative burden to create the trust fund itself, to document all of the associated business procedures, and to integrate the financial controls with existing systems. Having a single ring-fenced trust fund, however, that can incorporate contributions from multiple sources, would ultimately simplify financial controls and reporting to the donors.

### **(c) Identification of regions to host new monitoring stations**

40. With regard to setting up new monitoring sites, there would need to be a transparent process to identify and approve such sites for funding, for example by observing system simulation experiments analysis and mapping of existing stations, to identify which regions would benefit from new regional monitoring stations. Countries may propose hosting monitoring stations via unsolicited proposals or a solicited call for proposals. In either case, review by an appropriate advisory committee that includes appropriate scientists and experts to ensure objectivity and transparency would be necessary. Funds could be disbursed through an implementing agency or directly to individual projects.

### **(d) Local management issues**

41. In establishing new sites, involving or hiring staff with the right technical background is crucial. During the planning of a detailed strategy for implementation of activities, there are also local administrative issues that need to be reviewed for each project and on a country-by-country basis, such as: staff costs, availability of suitably qualified staff and whether costs would be borne by the host country; legal issues surrounding the transfer of ownership of equipment; land access issues; access to local utilities; and national procurement legislation.