

Committee of the Permanent Representatives
Subcommittee meeting
Nairobi, 9 October 2025
09:00 – 12:00 and 13:00 – 16:00 (GMT+3)
Hybrid meeting
Conference Room 4 (in person)
and Microsoft Teams (online)

Agenda Item 2: Global Environmental Data Strategy.

This note has been prepared by the Secretariat to support discussions under agenda item 2, namely, Global Environmental Data Strategy.

More specifically, it includes two pragmatic options for GEDS implementation in the period 2026–2029, consistent with UNEP’s mandate under UNEA resolution 4/23: option 1 focuses on UNEP’s internal data platforms and targeted assistance to countries; and option 2 builds on this foundation to include a focus on expert exchanges and dialogues between Member States covering data management, quality and interoperability.

Global Environmental Data Strategy

Options paper

Context and rationale

The draft Global Environmental Data Strategy (GEDS) sets out a vision of “A trusted, inclusive, accessible and interoperable environmental data ecosystem that enables collective action at the speed and scale needed to solve the environmental crisis and support sustainable economies and societies worldwide”.

To advance this vision, GEDS identifies a range of actions that would strengthen the environmental data ecosystem (please refer to the figure at the end of this document). In consultations, Member States welcomed this ambition and emphasized the need for a practical and phased approach to implementation that could be pursued within the cycle of the UNEP Medium-Term Strategy 2026–2029.

In response, this paper presents two pragmatic options for GEDS implementation in the period 2026–2029, consistent with UNEP’s mandate under UNEA resolution 4/23. The two options reflect different levels of ambition and resourcing: Option 1 focuses on UNEP’s internal data platforms and targeted assistance to countries; Option 2 builds on this foundation to include a focus on expert exchanges and dialogues between Member States covering data management, quality and interoperability.

Clarification on the nature of GEDS

GEDS is designed as a **voluntary**, enabling framework. It does **not** create new reporting obligations or data collection mechanisms, impose new standards or regulatory frameworks, or promote any proprietary platforms or software. It also does not involve UNEP collecting, holding or processing any additional data from Member States. Instead, it seeks to:

1. **Exchange existing best practices** by bringing together Member State insights, experiences and standards, identifying what works across contexts.
2. **Respect sovereignty and choice**, with all elements remaining voluntary and adaptable to national circumstances.
3. **Help ensure that environmental data are used effectively**, by improving the accessibility, interoperability and management of data that countries already generate.

The aim of GEDS is to reduce fragmentation, lower costs and maximize the value of environmental data, enabling the use of digital tools and AI to tackle environmental challenges.

Option 1: Strengthen WESR, develop global guidance frameworks and deliver country support

Under this option, GEDS principles would be applied primarily to strengthen UNEP's internal data platforms, notably the World Environment Situation Room (WESR). Efforts would focus on improving UNEP's data management and access, enhancing interoperability across its systems and developing a federated data catalogue within WESR.

At the same time, UNEP would develop **Guidance Frameworks for Environmental Data Management and Capacity Building**, offering adaptable templates and tools for Member States to establish or strengthen national capabilities. In addition, UNEP would respond to **requests from Member States**, primarily through pilot projects, to adapt these frameworks to national circumstances and strengthen national environmental data systems. This action would build on UNEP's experience with the GIZ-funded East Africa project on transboundary data flows. Implementation would take the form of country- or region-specific pilots, responding to Member State requests and donor interest.

The estimated funding requirements are **\$6 million over the 4 years (2026-2029)**, covering enhancement of WESR with more interoperable and higher quality data, development of global frameworks and one staff to support in-country implementation. This is broken down as follows: \$1m to further develop WESR, \$1m per year over the 4 years of the MTS for WESR maintenance and management (including staff costs, software licenses, upgrades, and enhancements), and \$1m for developing the global guidance frameworks for capacity building and data management. Each in-country project would require its own funding, which will vary depending on project specifics. Based on the current project in East Africa, **a pilot would cost around \$200,000**.

Expected impact: This option contributes to **actions 1-7** as outlined in the GEDS document (also included at the end of this document), with a strong focus on delivering a strong WESR with federated data access, and **actions 1 and 7** as applied to member states, providing digital solutions and training materials to build capacity within member states.

The impact of this option would be a significantly more robust, interoperable and trusted WESR platform, complemented by guidance frameworks that Member States can adapt to their own needs. While it would not realize the full vision of GEDS, it would be a step in the right direction.

Option 2: Capacity development and global dialogue on data quality and interoperability

Building on Option 1, this option would include additional UNEP-led actions, selected for their feasibility, catalytic value and global relevance. The focus would be on creating platforms to facilitate the dialogue and exchange between experts from Member States, geared towards sharing best practices, and improving environmental quality, provenance and interoperability. These exchanges would aim to identify voluntary approaches that are pragmatic, lightweight and adaptable to diverse national contexts.

The cost for Option 2 is estimated **at \$2 million** over four years. This will be broken down as follows: \$1.2m for the coordination function to convene and manage the expert meetings, all of which are expected to take place in virtual format to reduce costs and carbon footprint, and \$0.8m to cover the

costs of producing, formatting and disseminating the outputs of each group. **Together with Option 1**, this would bring the **total investment to \$8 million**.

Expected impact: In addition to the actions covered by option 1, this options would also address **action 1-4** as applied to member states.

In combination with Option 1, this option would enable all Member States to gain access to a suite of global public goods: federated data access through WESR, guidance on data management, a capability assessment and capacity-building model, and best practices on environmental data quality and interoperability. These tools can be directly adapted for national use, reducing fragmentation, improving comparability and enabling countries to strengthen their own data ecosystems at lower cost.

Proposed approach

The two options presented here provide Member States with complementary approaches to moving from vision to action. Option 1 ensures UNEP applies GEDS internally, develops global frameworks and provides targeted country support. Option 2 builds on this foundation by fostering global dialogue and expert engagement on data management, quality and interoperability.

Option	Indicative budget (2026-2029)
Option 1: Strengthen WESR, global frameworks, and country support	\$6 million
Option 2 (also includes option 1): Global dialogue through expert group on data management, quality and interoperability	\$8 million

Pillar	Challenge	Intervention point	GEDS vision
 Management	Weak and fragmented management leads to inconsistent practices and insufficient safeguards for ethical and sustainable data use.	1. Developing national environmental data strategies and policies.	Global environmental data management is coordinated and transparent, ensuring data sovereignty while enabling effective collaboration.
 Quality and provenance	Environmental data often lacks consistency, documentation and traceability, undermining its reliability for decision-making.	2. Strengthening environmental data quality and trust frameworks. 3. Identifying essential variables and shared scientific standards.	Environmental data are accurate, consistent and fit for purpose, supported by robust processes and validation, and complete metadata.
 Interoperability	Fragmented systems and incompatible standards hinder the integration and comparison of environmental datasets.	4. Improving interoperability of environmental data standards.	Environmental data are discoverable, accessible and reusable with minimal processing, and can be rapidly integrated at low cost to drive innovation and action.
 Accessibility and affordability	High costs and access barriers limit the use of critical environmental data, reinforcing global data inequalities.	5. Delivering federated access to environmental data. 6. Promoting equitable access to essential environmental data.	Access to high-quality data and tools is equitable, sustainable and secure, with strong safeguards for sovereignty and privacy.
 Capacity-building	Many countries and organizations lack the skills, tools and infrastructure to manage and use environmental data effectively.	7. Building needed capacities – human, institutional and technical.	All stakeholders have the skills, infrastructure and tools needed to collect, analyse and use environmental data effectively.