

GEF-8 REQUEST FOR MSP (1-STEP) APPROVAL

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General Project Information

Project Information

Project Title:

Global environmental benefits calculator

Region:

Global

GEF Project ID:

12258

Country(ies):

Global

Type of Project:

MSP

GEF Agency(ies):

UNIDO

GEF Agency Project ID:

250299

Project Executing Entity(s):

UNIDO

Project Executing Type:

GEF Agency

GEF Focal Area (s):

Chemicals and Waste

Submission Date:

12/22/2025

Type of Trust Fund:

GET

Project Duration (Months):

30

GEF Project Grant: (a)

3,500,000.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

332,500.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

3,832,500.00

Total Co-financing

12,080,000.00

PPG Amount: (e)

150,000.00

PPG Agency Fee(s): (f)

14,250.00

PPG total amount: (e+f)

164,250.00

Total GEF Resources: (a+b+c+d+e+f)

3,996,750.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No

Project Sector (CCM Only):

Mixed & Others

Taxonomy:

Chemicals and Waste, Focal Areas, Emissions, Industrial Emissions, Persistent Organic Pollutants, Waste Management, Green Chemistry, Mercury, Pesticides, Sound Management of chemicals and waste, Best Available Technology / Best Environmental Practices, Eco-Efficiency, Stakeholders, Beneficiaries, Civil Society, Capacity, Knowledge and Research, Capacity Development, Innovation, Enabling Activities, Knowledge Generation, Targeted Research, Knowledge Exchange, Training, Learning, Indicators to measure change, Adaptive management, Theory of change

Rio Markers

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
No Contribution 0	No Contribution 0	Significant Objective 1	Significant Objective 1

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

The project addresses a systemic challenge within the Global Environment Facility (GEF): fragmented, inconsistent, and non-comparable reporting of Global Environmental Benefits (GEBs), particularly under Core Indicator 9 and in the complex focal area of chemicals and waste, including persistent organic pollutants. Variability in methodologies, assumptions, and data sources across implementing agencies and countries has led to risks of weak causal attribution, limited transparency, and reduced credibility of reported results, especially for countries with constrained technical capacity and limited availability of standardized methodologies and technical information.

The project’s objective is to develop and operationalize an AI-enabled Global environmental benefits (GEBs) Calculator that harmonizes methodologies, standardizes data collection and analysis, and improves the accuracy, consistency, comparability, and transparency of GEB reporting across the GEF partnership. The project is transformative in that it shifts the GEF system from fragmented, agency-specific reporting toward an integrated, digital, and intelligence-driven results architecture embedded within the GEF Results Measurement Framework.

The objectives will be achieved through four mutually reinforcing components: (i) alignment of data systems and methodologies with GEF Core Indicators and relevant multilateral environmental agreements; (ii) development of a modular, user-friendly, AI-enabled GEBs Calculator; (iii) extensive stakeholder engagement and capacity building, with particular focus on LDCs and SIDS; and (iv) robust monitoring, evaluation, and learning mechanisms to ensure continuous improvement and institutionalization.

Expected results include strengthened measurement of global environmental benefits, reduced double-counting, improved attribution of impacts, enhanced compliance with international conventions, and increased institutional capacity for results-based management. The project delivers adaptation and system-wide benefits by improving resilience, accountability, and evidence-based decision-making across

the global environmental governance framework, benefiting an estimated 7,759 direct beneficiaries, including 3492 female beneficiaries.

Project Description Overview

Project Objective

Develop and operationalize an AI-enabled Global environmental benefits calculator (GEBs Calculator) that improves the accuracy, consistency, comparability, and transparency of reporting under GEF Core Indicator 9 across the GEF partnership, by harmonizing methodologies, reducing double-counting, strengthening causal attribution, and enhancing capacity for standardized data collection, validation, and analysis in alignment with the GEF Results Management Framework

Project Components

Component 1: Data Systems and Methodological Alignment

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
700,000.00	2,416,000.00

Outcome:

Outcome 1: Integrated Data Systems and Alignment with International Conventions and Implementing Agencies

Output:

Output 1.1: Data on indicators' inventories, metrics, and technical research studies collected for harmonized reporting systems

Output 1.2: Unified Data Architecture and Indicator Logic Aligned with Global Reporting Frameworks

Component 2: GEBs Calculator Tool Development

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,690,740.00	5,835,468.00

Outcome:

Outcome 2: GEBs Calculator Tool Development

Output:

Output 2.1: Development of the GEBs Calculator

Output 2.2: User Guidance, Training Resources, and Pilot Demonstrations

Component 3: Stakeholder Engagement and Capacity Building

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
850,000.00	2,933,715.00

Outcome:

Outcome 3: Stakeholder Involvement and Capacity Building

Output:

Output 3.1: Stakeholder Training Programs and Global Knowledge Exchange Network, with Emphasis on LDCs and SIDS

Output 3.2: Training Tools and Knowledge Resources Developed, Localized, and Disseminated for Scalable Capacity Building

Output 3.3: Stakeholder Engagement, Peer Learning Mechanisms, and Capacity Monitoring Systems Institutionalized

M&E. Component 4: Monitoring and Evaluation

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
97,222.00	335,555.00

Outcome:

Outcome 4: Monitoring and Evaluation

Output:

Output 4.1: Comprehensive Project Monitoring and Results Reporting System Established and Operational

Output 4.2: Learning Integration, Knowledge Sharing Mechanisms, and Independent Evaluations Conducted

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
Component 1: Data Systems and Methodological Alignment	700,000.00	2,416,000.00
Component 2: GEBs Calculator Tool Development	1,690,740.00	5,835,468.00
Component 3: Stakeholder Engagement and Capacity Building	850,000.00	2,933,715.00
M&E. Component 4: Monitoring and Evaluation	97,222.00	335,555.00
Subtotal	3,337,962.00	11,520,738.00
Project Management Cost	162,038.00	559,262.00
Total Project Cost (\$)	3,500,000.00	12,080,000.00

Please provide justification

Not Applicable

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

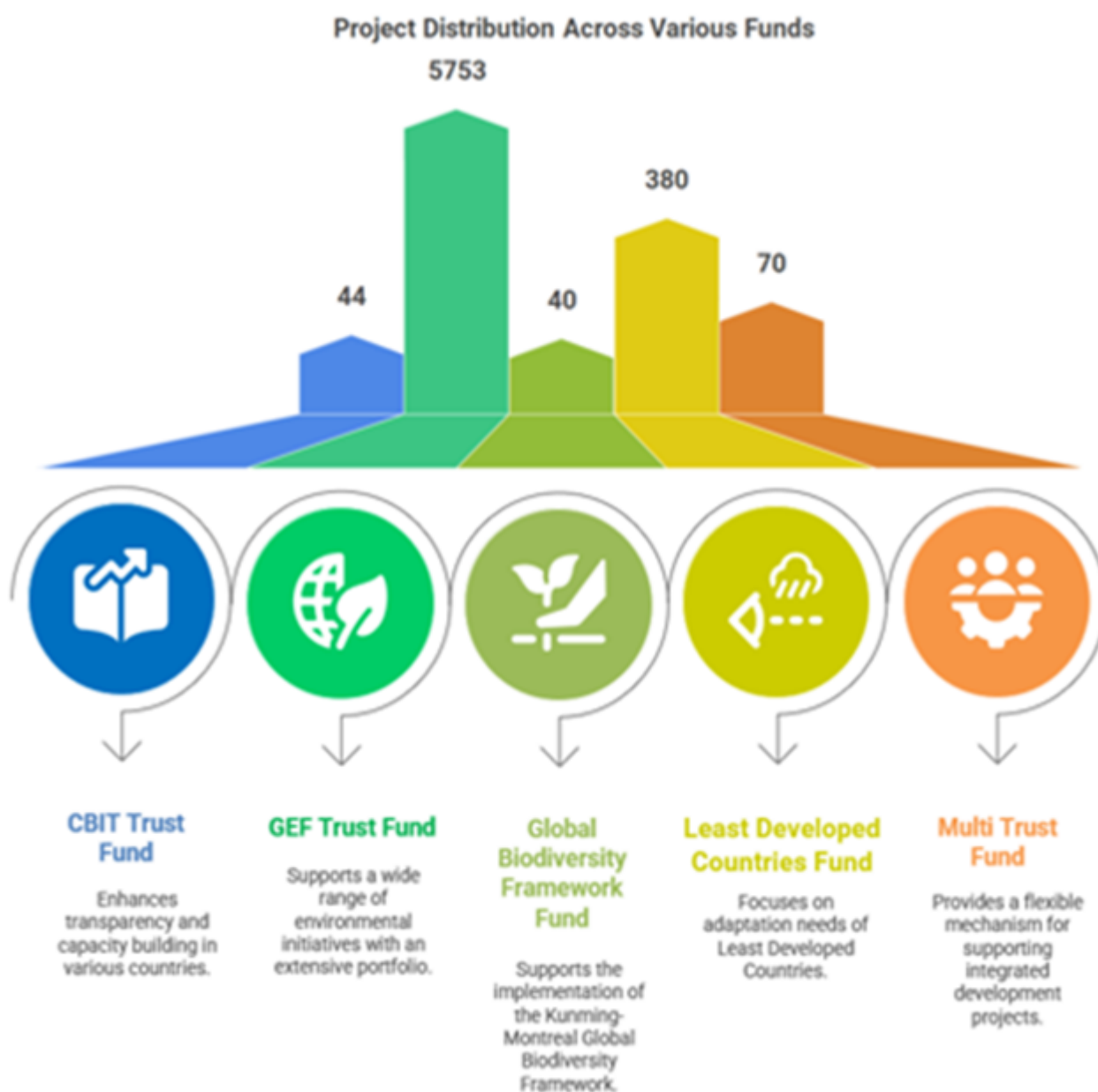
Background of GEF Interventions

Since the initiation of its inaugural replenishment cycle (GEF-1), the Global Environment Facility (GEF) has consistently demonstrated a strategic commitment to mobilizing and allocating financial resources in support of global environmental priorities. Through successive replenishment cycles—most notably the ongoing GEF-8 (2022–2026) and the preparatory phases of GEF-9—the Facility has progressively adapted to the increasing complexity and interconnectedness of environmental challenges, including biodiversity loss, climate change, land degradation, and chemical pollution.

Each replenishment cycle, typically spanning four years, embodies a responsive and dynamic approach to programming and resource allocation.

The GEF channels financing through five dedicated trust funds: the *GEF Trust Fund*, the *CBIT Trust Fund*, the *Global Biodiversity Fund*, the *Least Developed Countries Fund*, and the *Multi-Trust Fund*. Of these, the GEF Trust Fund serves as the primary financial vehicle, supporting over 90% of all GEF-financed projects globally. This structure ensures a coherent alignment between thematic priorities and funding modalities, enabling a comprehensive and responsive allocation of resources across countries and focal areas. Figure 1 illustrates the distribution of GEF-funded projects across the Facility's trust funds.

Figure 1. Distribution of GEF-Funded Projects across Trust Funds



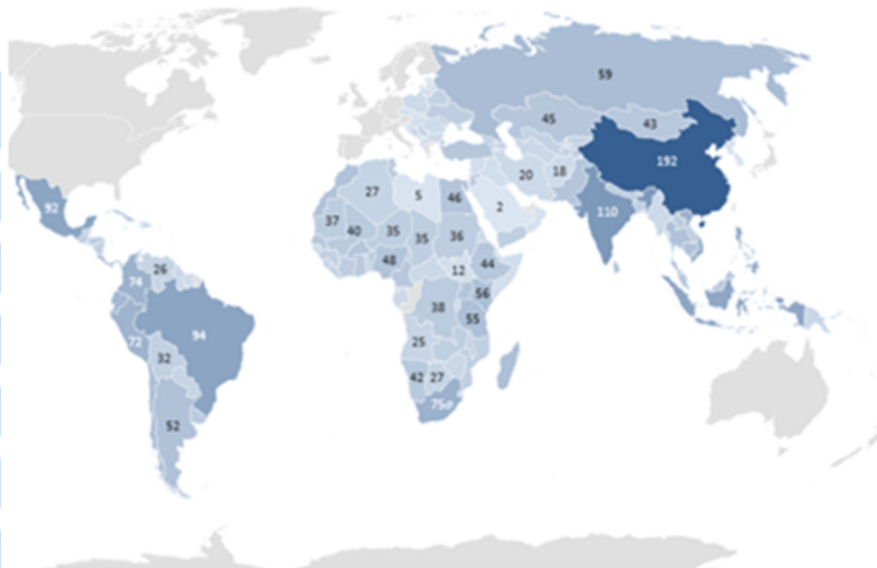
Additionally, funding decisions are informed by thematic and geographic strategies across various focal areas, including *Biodiversity, Climate Change, Chemicals and Waste, Land Degradation, International Waters, Multi-Focal Areas, Ozone-Depleting Substances, and Persistent Organic Pollutants (POPs)*. In this case, this project will focus exclusively on the Chemicals and Waste Focal Area.

The Global Environment Facility (GEF) turns international environmental goals into real on-the-ground results. As mentioned before, the GEF's project portfolio is carefully divided among key focal areas potentially with referential contributions as follows: Climate Change (28.4%), Biodiversity (26.5%), Multi-Focal Areas (14.8%), Land Degradation (11.1%), and Chemicals and Waste (8.7%), International Waters (5.8%), POPs (4.3%), and minor contributions for the Ozone Depleting Substances (0.4%)^[1]. Looking ahead to GEF-9, future plans focus on climate resilience, shifting to a circular economy, and conserving biodiversity.

The GEF has funded over 735 regional and 555 global projects at the geographic level, plus country-level projects, totaling more than 6000 projects. Key participating countries include China, Indonesia, Kenya, South Africa, Brazil, the Philippines, India, Mexico, Viet Nam, Colombia, Peru, the Russian Federation, Ecuador, Tanzania, and Chile. Among the implementing agencies, the United Nations Development Programme (UNDP) accounts for 40% of the projects, making it the leading agency, followed by the United Nations Environment Programme (UNEP) at 19%, the World Bank at 15%, the United Nations Industrial Development Organization (UNIDO) at 7%, and the Food and Agriculture Organization (FAO) also at 7%. A total of 18 agencies are currently accredited by the GEF, several of them with past, ongoing, and future interventions in the Chemical and Waste Focal Area. Figure 2 presents the global distribution of GEF-funded projects by focal area and geographic coverage.

Figure 2. Global Distribution of GEF-Funded Projects by Focal Area

GEF Focal Areas and Project Count



The list of current implementing agencies from the GEF is:

1. African Development Bank (AfDB)
2. Asian Development Bank (ADB)
3. European Bank for Reconstruction and Development (EBRD)
4. Inter-American Development Bank (IDB)
5. Food and Agriculture Organization of the United Nations (FAO)
6. International Fund for Agricultural Development (IFAD)
7. United Nations Development Programme (UNDP)
8. United Nations Environment Programme (UNEP)
9. United Nations Industrial Development Organization (UNIDO)
10. The World Bank Group (WBG)
11. Conservation International (CI)
12. World Wildlife Fund (WWF-US)
13. International Union for Conservation of Nature (IUCN)

14. Brazilian Biodiversity Fund (FUNBIO)
15. Development Bank of Latin America (CAF)
16. Development Bank of Southern Africa (DBSA)
17. West African Development Bank (BOAD)
18. Foreign Economic Cooperation Office, Ministry of Environmental Protection of China (FECO)

Background on Establishing Indicators for Global Environmental Benefits

Since GEF-6, the Global Environment Facility has progressively strengthened and standardized the definition, measurement, and reporting of Global Environmental Benefits (GEBs) across all projects. GEF-6 (2014–2018) marked the turning point: for the first time, the GEF introduced a mandatory, harmonized set of Core Indicators designed to quantify outcomes such as biodiversity conserved, emissions reduced, land restored, and other global benefits. This shift replaced earlier, fragmented results-tracking systems and required all projects—new and ongoing—upon their next approval point to align with the latest indicators. In GEF-7, the system was refined with clearer methodologies, additional sub-indicators, and stronger links to impact programs. By GEF-8, the Results Measurement Framework (RMF) had become the central backbone of the GEF’s results architecture, emphasizing integrated approaches, consistent reporting across Agencies, and aggregation of environmental benefits at the portfolio level. Across these cycles, the introduction and evolution of GEB reporting has transformed the GEF’s ability to demonstrate measurable, comparable global impact.

Thus, the Results Measurement Framework (RMF) ensures rigorous assessment and consistent monitoring of project performance, accompanied by detailed guidance to promote the systematic application of performance indicators by implementing agencies, recipient countries, and the GEF Secretariat. The RMF supports the comparability, reliability, and clarity of environmental results, serving as a foundation for performance-based learning and strategic decision-making. In the GEF 8 cycle, the RMF was organized into two levels, with Tier 1 dedicated to measuring direct project and program outcomes that contribute to Global Environmental Benefits (GEBs). These results are reported using a set of Core Indicators aligned with 11 key indicators required at various project stages (*Guidelines on the implementation of the GEF-8 results measurement framework. 62nd GEF Council Meeting June 21-23, 2022. Washington, D.C. GEF/C.62/Inf. 12/Rev.01. June 30, 2022*), from the Project Identification Form and CEO Endorsement to Mid-Term Review and Terminal Evaluation, requiring consistent performance tracking over time.

Indicators were designed in alignment with the SMART criteria—Specific, Measurable, Achievable, Relevant, and Time-bound—to ensure the relevance and validity of reported outcomes. The use of Sub-Indicators further provides context and specificity, distinguishing between component indicators that roll up into Core Indicators and contextual indicators that provide supplementary insights.

Problem Context

According to the Guidelines for implementing the GEF-8 results measurement framework, GEF-funded projects must clearly outline and document their assumptions, data sources, and causal pathways that support expected outcomes. Data reporting responsibilities are shared among the GEF Secretariat, Implementing Agencies, Executing Entities, and recipient countries, creating a collaborative accountability framework. This setup aims to ensure accurate environmental progress monitoring, support adaptive management, and build stakeholder trust in the GEF's effectiveness.

While current GEF guidelines offer a foundational framework, Implementing Agencies retain significant discretion in justifying result levels, selecting methodological approaches, and articulating logic models or causal pathways. This includes addressing factors such as barriers, enabling conditions, risks, assumptions, and reporting on Global Environmental Benefits (GEBs) in a similar manner. In practice, the consistent and uniform application of these elements across all GEF projects remains limited. Variability is evident not only within projects managed by the same Agency but also across the broader network of Implementing Agencies, numerous Executing Agencies, and more than 100 recipient countries.

Agency specialization offers expertise but can also hinder reporting on project components outside core competencies, leading to inconsistencies or gaps in complex, cross-sectoral projects. Consequently, inconsistent use of assumptions, data sources, and methodological justifications hampers the coherence and comparability of reported GEBs, weakening performance measurement and reliability. This presents an opportunity to strengthen the GEF's collaborative accountability framework by promoting more standardized, evidence-based, and methodologically sound approaches for measuring and attributing environmental results across the partnership.

The *Global Environmental Benefits (GEBs) Calculator Project (GEBs Calculator)* has emerged as a transformative initiative to address longstanding challenges in environmental data integration across the GEF Core Indicator 9, especially in complex areas like Chemicals and Waste, and POPs. The tool aims to fill gaps in countries' capacities to report on international conventions such as the Stockholm, Basel, Rotterdam, and Montreal Protocol, with a focus on avoiding double-counting.

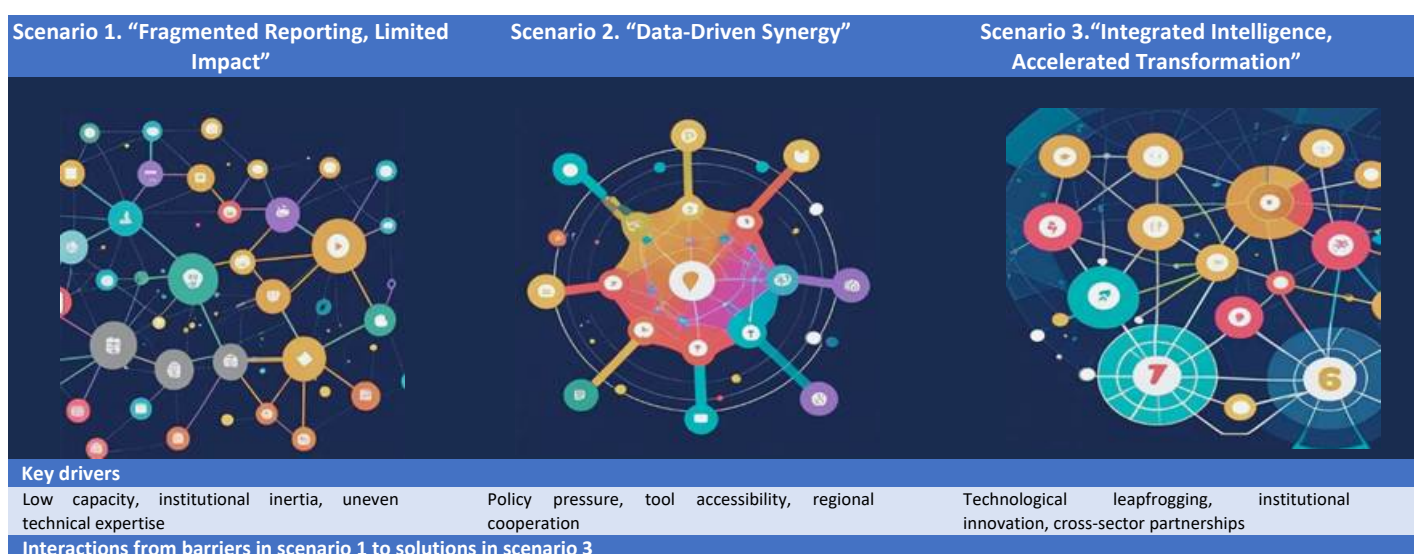
Without this tool, especially for developing countries and executing agencies with limited technical or sector-specific capacity, issues like fragmented data systems, invalidated methodologies, limited expertise, and weak links to peer-reviewed academic material and direct data from the private sector experience could impede compliance, transparency, and evidence-based decision-making. The future success of environmental reporting depends on how the GEF and partners adopt the GEBs Calculator to improve harmonization in complex areas of the Core Indicator 9. The tool will enhance the credibility of environmental data globally. Based on STAP guidance on exploring uncertain futures, three scenarios are presented to illustrate how different trends and interactions might influence the GEF's accountability and reporting system, emphasizing plausible paths based on current trends, drivers, barriers, and feedback mechanisms loops. Figure 3 visually compares the three reporting and data integration scenarios, highlighting key drivers, barriers, and expected outcomes across the GEF system.

- **Scenario 1: "Fragmented Reporting, Limited Impact"** highlights persistent issues with low adoption of harmonization tools. Despite ongoing investments, the lack of a standard, system-wide measurement approach hampers coherent project reporting. Agencies focus on sectoral

expertise but use different methods and assumptions. Reporting remains siloed, especially in complex areas like Chemicals, Waste, and POPs. Developing countries with limited capacity face challenges in meeting reporting obligations, affecting credibility and future funding. The GEF's collaborative framework weakens as stakeholders doubt report comparability, making global impact assessment and resource allocation more difficult.

- Scenario 2: “Data-Driven Synergy”** involves gradual alignment and credibility gains through reform and targeted tool adoption. A refined GEBs Calculator supports key areas, with agencies like UNEP, UNDP, FAO, UNIDO, and the World Bank adopting it into workflows. This promotes a community focused on harmonized indicator reporting for issues like pollution, biodiversity, and emissions. Countries receive clearer guidance and training, leading to consistent, transparent data. Donor confidence and co-financing increase as results become more comparable and traceable. Despite challenges in specialized sectors, methodological consistency improves, reducing double-counting and strengthening causal pathway documentation.
- Scenario 3: “Integrated Intelligence, Accelerated Transformation”**. The GEF invests in expanding the GEBs Calculator as a digital public good, embedding it in institutions and agency systems. It becomes the default tool for measuring results under the RMF. Agencies co-develop sector-specific modules, enabling specificity and integration. AI and geospatial data improve reporting, reduce burdens, and enhance verification. Countries benefit from capacity-building with the private sector and academia. The GEF system gains global recognition for environmental accountability. Co-financing and impact investments rise due to transparency and outcomes.

Figure 3. Alternative Scenarios for GEF Reporting and Data Integration





Consequences

Data and methodology inconsistencies across projects weaken the GEF's results framework by making performance data unreliable, which hampers accountability, reduces trust among stakeholders, and leads to fragmented, siloed approaches that worsen reporting coherence.

Improved alignment among agencies, standards, and methods leads to higher-quality, consistent data, enabling clearer outcome attribution and stronger environmental measurement. As evidence-based results emerge, they boost GEF's credibility and stakeholder confidence. This positive cycle promotes broader adoption of harmonized tools and practices, amplifying the impact of GEF initiatives.

Integrating data across projects enhances real-time environmental understanding, helping institutions track progress, identify gaps, and improve interventions. As benefits are recognized, standardized tools are adopted system-wide—spanning agencies, partners, and countries—driving institutional change. This embeds data-driven accountability, collaboration, and learning into the GEF partnership's core operations.

The conception of the GEBs calculator, supported by UNIDO, will allow the GEF to jump directly into Scenario 3, "Integrated Intelligence, Accelerated Transformation."

Baseline in *the* Absence of the GEBs Calculator Project

Without the GEBs Calculator project, the GEF portfolio mostly faces a fragmented reporting environment. The GEBs Calculator offers a cost-effective, practical way to automate environmental reporting, unify data systems, and engage field-level stakeholders. It allows users to input assumptions, validate data, and participate in training using a consistent, standardized tool. UNIDO understands that most countries and implementing agencies currently operate in a mix of Scenario 1 (fragmented reporting) and Scenario 2 (partial alignment), with Scenario 1 being predominant. To reach Scenario 3, the Calculator will be built based on artificial intelligence tools, platforms, and software, enabling a common platform that is accessible, well-known, and standardized.

A partnership with Clearya^[2] enables automation of repetitive tasks, customization, user-friendly interfaces, and event-driven functions, directly using AI and web-based platforms. This choice keeps costs low, avoids the complexities of manual technical assessments. In today's digital age, it plays a vital role in collecting millions of input data and assumptions needed for standardized GEB estimations, supporting consistent methodologies and clear logic models of the core indicator 9.

A key strength of the project is its collaborative approach, involving implementing agencies, sampling governments, partners, and both governmental and non-governmental entities. Important collaborators include academic institutions, implementing agencies, private companies like Clearya, academic publishers, civil society groups, and international organizations such as the BRS Secretariat, the Minamata Convention, and the Montreal Protocol. These stakeholders will help develop, test, promote, and

institutionalize the Calculator, ensuring it is scientifically robust, policy-oriented, and practically applicable at all levels. Designed for both GEF and non-GEF projects, the Calculator supports broader initiatives in chemicals, waste management, pollution control, and data modernization worldwide.

Lessons from past projects guide its usability, cost-effectiveness, and scalability, making it a tool for capacity building and environmental governance. Building on existing investments, it addresses data silos and methodological inconsistencies, thereby improving the RMF by standardizing sector and agency reporting, particularly in complex areas such as chemicals and waste. Though not an official Non-Grant Instrument, the GEBs Calculator tackles key barriers to financial sustainability, such as funding for updates, outreach, and ESG training, and serves as a risk mitigation tool for ESG reporting by clarifying environmental and social impacts. Offering a standardized, adaptable, and affordable reporting framework, the Calculator fosters cross-sector integration and maximizes the value of investments for both public and private stakeholders, positioning it as a core element of GEF's results-based approach. Secured co-financing from the leading chemical-credible private sector ensures broad access and sustainability. Partnerships with implementation agencies and user networks enhance its scalability and resilience, making it a durable, effective mechanism for consistent global measurement, monitoring, and reporting of environmental and social impacts.

Desired outcomes

The project's intended outcomes include standardizing methodologies for defining the concentration of chemicals in specific substances or products, improving consistency in the use of assumptions and causal logic, and preventing double-counting, particularly for quantitative data reported in chemicals and waste. It also aims to build institutional capacity, enabling first implementing agencies and later on countries to meet comparable reporting indicators under multilateral environmental agreements (MEAs). Ultimately, the project aims to enhance the reliability and traceability of reported results, promote a community of practice centered on harmonized reporting, and increase stakeholder confidence in the GEF's measurement of environmental outcomes.

Barriers to achieving these outcomes

Several barriers may hinder the realization of these outcomes. These include institutional resistance to adopting new tools, particularly among agencies with existing internal methodologies; limited sector-oriented technical capacity in focal areas attended by different sector-oriented executing agencies; technical capacity gaps especially in LDCs, SIDS, and vulnerable groups; variation in reporting practices across the implementing agencies; and a lack of a unified initiative in charge of shifting harmonized methodologies from established practices in the GEF partnership.

Enablers of success

Despite the described problem, the project is supported by important enabling factors. Its alignment with the GEF RMF ensures strategic relevance, while its AI-based source makes it scalable and accessible to a wide range of intergenerational users. Partnerships with academic institutions, private companies, and

civil society will support its validation, adaptation, and field-level integration. Furthermore, strong endorsement from leading agencies—such as UNIDO, UNDP, UNEP, and FAO—can accelerate uptake and foster early momentum. The AI-source platform minimizes development costs and avoids additional technical consultancy fees, enabling a faster dissemination and near-future impact worldwide.

Primacy over other alternatives

The GEBs Calculator, a simple yet powerful user-friendly interface built with Clearya’s dashboards, has been chosen over alternative solutions due to its flexibility, global accessibility, and technical robustness, which enables it to be prepared with academic and industrial sector-specific support. Unlike complex platforms or country-specific systems, the calculator will be simple to use, easy to deploy, and broadly adaptable across focal areas. Its modular structure allows for future customization without losing interfaces, consistency, emission factors, or programming results. Most importantly, it supports the strategic objective of harmonizing reporting on global environmental benefits (Core Indicator 9) across all GEF-funded projects.

Face of Future Uncertainty

The outcomes of this project are expected to endure in the face of future uncertainties. In a scenario where fragmentation persists (scenario 1), the calculator offers a foundational tool to restore consistency and data quality. In a moderately reformed landscape (scenario 2), it can become an accessible platform for building methodological alignment and donor trust. In a transformative scenario (scenario 3) where digital integration and real-time data define performance systems, the calculator can evolve into an interoperable tool enhanced with AI and even geospatial capabilities. Its resilience lies not only in its technical design but also in its capacity to adapt to different institutional environments and support long-term accountability for GEF investments.

Key stakeholders

Stakeholders play a central role in the project’s success. Key stakeholders include UN implementing agencies, which provide legitimacy and early adoption (UNIDO, UNEP, UNDP, FAO, World Bank, and other implementing agencies), executing agencies, national governments, and academia^{[\[3\]](#)}, private sector actors like Clearya and academic publishers (such as Elsevier, Clarivate, Springer, Digital Science, EBSCO, OpenAlex, and Google Scholar), Civil Society Organizations (CSOs), and international convention secretariats. UN agencies will champion the adoption of this tool, integrate it into their workflows, and drive consistency. Governments and executing agencies will be selected for testing the tool to fulfill their international reporting obligations and enhance institutional capacity. Academic institutions ensure scientific credibility and sustainability through methodological validation and innovation. The private sector contributes technical expertise and co-financing to support scalability and accelerated transformation. CSOs help with grassroots training and uptake, while international secretariats ensure the tool aligns with MEAs requirements.

Co-financing from the private sector partners ensures long-term viability. Its modular structure and scientific integration support future adaptation, while its affordability, accessibility, and pathway for software scalability make it suitable for countries with constrained resources, ensuring broader and sustained adoption across the GEF partnership. National governments institutionalize the tool for MEA compliance; academia and Implementing Agencies support long-term training and development; private sector actors ensure technological and financial sustainability; and CSOs promote capacity-building. Each partner plays a complementary role in scaling the tool, ensuring methodological consistency, and strengthening environmental accountability. Their collaboration is vital for achieving the project's objective of harmonized, credible, and transparent GEB reporting.

Project objective and goal

The GEBs Calculator Project aims to create a global calculator that improves the accuracy, comparability, and consistency of reporting Global Environmental Benefits (GEBs) from the GEF Core Indicator 9, within the GEF partnership. It focuses on creating, sharing, and establishing an AI-sourced tool for harmonization. The project enhances methodological consistency, minimizes double-counting, promotes clear causal links, and builds capacity to track results reliably, especially in complex areas such as chemicals and waste and POPs. By enabling standardized data collection, validation, and analysis in line with the GEF's RMF, the GEBs Calculator aims to increase transparency, credibility, and the overall effectiveness of the GEF's environmental investments.

Project Justification

While the GEF's comprehensive Results Measurement Framework (RMF) provides a strong foundation for results-based reporting, there remains an opportunity to further improve consistency, methodological rigor, and harmonization across projects. This is especially important in complex focal areas that require multidisciplinary approaches, where implementing agencies may use diverse methodologies, assumptions, and logic models. Strengthening alignment in these areas will enhance the coherence and comparability of reported outcomes, boost the reliability of GEBs-Indicator 9 attribution, and increase stakeholder confidence in the GEF's accountability framework.

The GEBs Calculator addresses this systemic challenge by offering a user-friendly platform that will be cost-effective, accessible, and flexible. Its modular structure by chemical substance will allow future customization and integration with real-time data sources, including other AI platforms and AI-enabled reporting systems.

Moreover, the justification for this project aligns with GEF-9 priorities, such as increased private sector engagement, digital transformation, circular economy initiatives, and results-based management. The tool serves as an entry point for leveraging co-financing from academic institutions and private-sector partners, improves institutional capacity for data-driven decision-making, and helps countries meet their international environmental obligations.

Then, in a context marked by growing environmental challenges and rising demands for transparent, high-quality data, the GEBs Calculator offers a strategic, scalable, and sustainable solution to fill key gaps in performance measurement and environmental accountability within the GEF framework.

[1] Percentages of contributions among focal areas were estimated from past project allocations, based on the database of projects freely accessible through the GEF website; these estimates may change. Therefore, percentages are only approximate.

[2] Clearya is a platform designed to continuously aggregate, harmonize, and validate data on chemicals, materials, and products across markets and geographies. Its core system, Clearya Insights, integrates regulatory inventories, chemical disclosures, product documentation, scientific literature, and compliance data into a unified, continuously updated data architecture. This enables systematic analysis of chemical use patterns, exposure risks, and concentration profiles across sectors and countries, providing exactly the type of intelligence required to operationalize Core Indicator 9 with comparability and rigor.

Clearya's platform has been adopted by leading regulatory agencies, including the California Department of Public Health and the California Department of Toxic Substances Control, and is actively used in environmental-justice and exposure-mapping programs in partnership with WE ACT for Environmental Justice. In 2024, Clearya received the Environmental Justice Innovator Award from the U.S. Department of Health & Human Services. Its methods are referenced in scientific contexts and international regulatory forums, including work with the Natural Resources Defense Council, the Silent Spring Institute, and Breast Cancer Prevention Partners. This institutional track record demonstrates both operational credibility and technical maturity.

[3] Academy, such as 1. Harvard University (USA) – Environmental health and policy leadership, 2. University of Oxford (UK) – Interdisciplinary research on climate, chemicals, and global governance, 3. ETH Zurich (Switzerland) – Innovation in environmental engineering and life-cycle analysis, 4. Tsinghua University (China) – Expertise in pollution monitoring and policy, 5. University of Cape Town (South Africa) – Regional hub for chemical safety and environmental justice in Africa, 6. Pontificia Universidad Católica de Chile – Research in mercury, mining impacts, and local remediation, 7. University of Nairobi (Kenya) – Capacity building in hazardous waste and GEF partnerships, 8. Universidad Nacional Autónoma de México (UNAM) – POPs and e-waste research leadership in Latin America, 9. The University of Tokyo (Japan) – researching and developing biodegradable plastics, efficient waste treatment systems, and pathways to net-zero emissions for the chemical industry.

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

The GEBs Calculator Project was conceived in response to a persistent challenge undermining the integrity of global environmental reporting: fragmented, inconsistent, and siloed data across the GEF cycles portfolio, especially in the chemicals and waste focal area. Many GEF-funded projects lack a unified methodology for reporting on GEBs, particularly in complex focal areas such as Chemicals, Waste, and Persistent Organic Pollutants (POPs). These inconsistencies stem from the absence of standardized tools and methodologies, leading to variations in assumptions, causal logic, and reporting formats. Consequently, the credibility, transparency, and comparability of reported outcomes are weakened, which, in turn, affect strategic planning, global compliance, and the ability to make informed investment decisions.

The Theory of Change underlying the GEBs Calculator Project is based on several foundational assumptions. It presumes that agencies and countries will be more willing to adopt harmonized tools if these tools are affordable, accessible, and user-friendly. The use of the AI-source platform scripting supports this assumption, providing a globally recognized and credible platform that enables real, internationally available information. Capacity building and stakeholder engagement—particularly through training and integration with UN implementing agencies and academic systems—are expected to drive institutional buy-in. A key assumption is also that strong endorsement from leading agencies will catalyze broader adoption. In turn, the standardized tool will improve reporting consistency, reduce double-counting, and enhance the traceability of GEBs' impact.

On the other hand, despite the assumptions and enabling conditions expected such as *co-financing from private sector, strong partnerships with implementing agencies and academia, use of digital available platforms, and inclusion of key stakeholders to test the tool effectiveness*, the project faces significant barriers described below in detail and that must be addressed, including institutional resistance from agencies accustomed to their internal methodologies, limited cross-sectoral technical capacity, and pronounced gaps in expertise and infrastructure in Least Developed Countries (LDCs) and Small Island Developing States (SIDS). Moreover, inconsistencies in reporting practices across the 18 implementing agencies and the absence of a centralized initiative to enforce methodological harmonization pose additional challenges. These barriers can undermine the collective effort to standardize reporting unless proactively managed through inclusive engagement, modular tool design, and strong institutional partnerships.

These challenges translate into a set of structural and operational barriers that may hinder the effective adoption and scaling of the proposed GEBs Calculator, as outlined below.

- **Barrier 1: Institutional Resistance to Adopting New Tools**

A significant barrier to the adoption of the GEBs Calculator is institutional inertia. Many implementing agencies have established internal methodologies and systems that they have refined over time and are reluctant to abandon. This resistance is often fueled by concerns about duplicating efforts, disruptions to current workflows, and the perceived complexity of transitioning to a new platform.

Additionally, there may be little institutional incentive to change established practices, especially in the absence of detailed performance-based mandates. The result is a slow or partial adoption of the GEBs Calculator, reducing its potential for widespread harmonization.

To overcome this, the project must actively engage agencies early in the design phase, ensuring the tool complements existing systems. Clear communication of the benefits—such as improved efficiency, visibility in performance reporting, and alignment with donor expectations—can also serve to motivate adoption. Showcasing successful early adopters and providing targeted GEF institutional mandates will further reduce resistance.

- **Barrier 2: Limited Sector-Oriented Technical Capacity**

National executing agencies under the GEF projects often focus on specific environmental sectors such as biodiversity, water, or chemicals. While this specialization enhances sectoral expertise, it can also hinder the ability to implement cross-cutting tools, such as the total GEBs calculation, which require multi-disciplinary knowledge and integrative approaches.

In projects that span multiple focal areas, staff from executing or implementing agencies may lack the training or technical comfort to apply generalized methodologies or tools beyond their domain. This can lead to inconsistent data usage, affecting the comparability and quality of data across sectors.

Addressing this barrier will require the development of modules (by sub-indicators of the Core Indicator 9) within the Calculator to ensure relevance, along with the delivery of interdisciplinary training programs. Collaborative development with sector technical experts and structured partnerships between specialized agencies will promote adoption and improve tool utility in multifaceted projects.

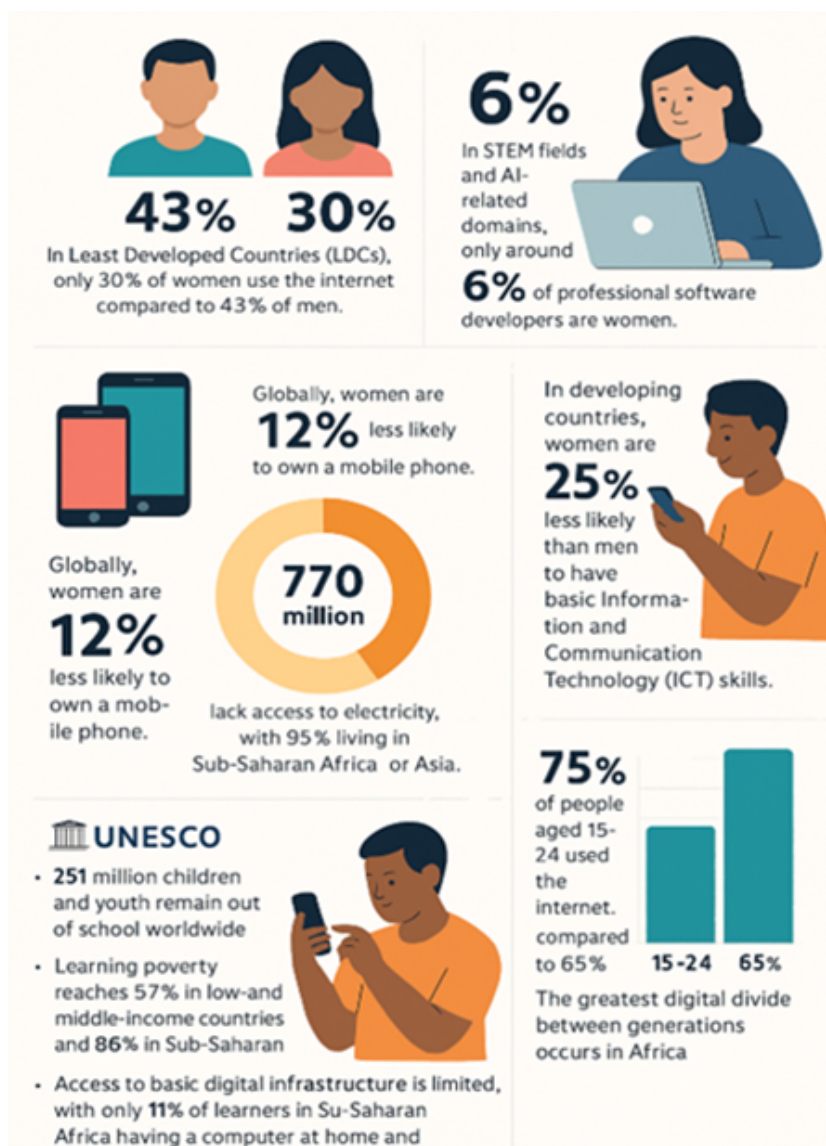
- **Barrier 3: Technical Capacity Gaps in Least Developed Countries (LDCs) and Small Island Developing States (SIDS)**

Least Developed Countries face a combination of infrastructural and institutional challenges that make the adoption of a standardized reporting of GEBs particularly difficult. These include limited access to qualified personnel, inconsistent power and internet supply, and insufficient financial resources to support new technical systems.

Also, based on evidence from the UN and international reports on the systemic barriers that vulnerable groups, particularly women and girls in Least Developed Countries (LDCs) and Small Island Developing States (SIDS), face in accessing AI, technology, the internet, and energy. These disparities are critical considerations for ensuring inclusive access to digital reporting tools such as the GEBs Calculator.

In Least Developed Countries (LDCs), only 30% of women use the internet compared to 43% of men^{[1]⁴}—a 13-point gap that reflects entrenched digital exclusion. Globally, women are 12% less likely to own a mobile phone, and the gender gap in internet access has increased, with a 43% gap in LDCs between 2013 and 2019^{[2]⁵}. In Sub-Saharan Africa, 33.8% of men have internet access compared to only 22.6% of women—a gap of over 11 percentage points^{[3]⁶}. In SIDS, the main barriers to female internet access include affordability, lower digital literacy, safety concerns, and societal norms, especially in rural and marginalized communities^{[4]⁷}. Figure 4 summarizes key gender gaps in digital access, skills, and participation in STEM and ICT-related fields, particularly in developing countries and SIDS.

Figure 4. Gender Gaps in Digital Access and Digital Skills in Developing Countries



Women in low- and middle-income countries are 1.6 times more likely than men to cite lack of digital skills as a barrier to Internet use. In STEM fields and AI-related domains, only around 6% of professional software developers are women^{[5]⁸}.

In developing countries, women are 25% less likely than men to have basic Information and Communication Technology (ICT) skills, and women globally are roughly four times less likely to possess advanced digital skills like programming^{[6]⁹}. In 2022, there were 259 million more men than women online globally, reflecting systemic digital exclusion^{[7]¹⁰}.

An estimated 770 million people lack access to electricity, with 95% living in Sub-Saharan Africa or Asia. Women and girls are disproportionately affected, often spending hours collecting fuel, limiting their time for education and digital engagement^{[8]¹¹}.

According to UNESCO^{[9]¹²}, 251 million children and youth remain out of school worldwide, with 33% in low-income countries versus just 3% in high-income countries. Learning poverty—the inability to read and understand a simple text by age 10—reaches 57% in low- and middle-income countries and 86% in Sub-Saharan Africa^{[10]¹³}. Access to basic digital infrastructure is limited, with only 11% of learners in Sub-Saharan Africa having a computer at home and just 18% with internet access^{[11]¹⁴}. Infrastructure limitations and a lack of trained educators further restrict digital education in schools across Sub-Saharan Africa^{[12]¹⁵}.

Across the globe, there is a 10% difference in internet usage between people aged 15–24 years old and people aged 25 years or older. According to the International Telecommunication Union (ITU), 75% of people aged 15–24 used the internet in 2022, compared to 65% of people aged 25 years or older^{[13]¹⁶}. The greatest digital divide between generations occurs in Africa, with 55% of the younger age group using the internet compared to 36% of people aged 25 years or older. The digital gap is most pronounced in Africa, with 55% of youth accessing the internet versus 36% of adults. In rural areas, access remains a major issue, and 96% of the 2.9 billion people still offline live in developing countries^{[14]¹⁷}.

Additionally, in many LDCs and SIDS, environmental data management remains underdeveloped, creating a substantial barrier to accurate and consistent GEB reporting. These limitations risk excluding LDCs, SIDS, gender, young people, and vulnerable groups from standardized reporting efforts, thereby weakening the inclusivity and equity of the GEF’s accountability framework.

Mitigation strategies include designing the tool to be usable also offline with minimal technical resource requirements. Dedicated capacity-building programs, long-term academic partnerships, and South-South collaboration will be essential to support technical onboarding and foster sustainable institutional adoption.

- **Barrier 4: Variation in Reporting Practices Across Implementing Agencies**

The GEF's multi-agency structure, encompassing 18 diverse implementing partners, inherently results in varied methodologies, indicators, and reporting protocols. Each agency operates semi-autonomously, often aligning its practices with internal strategic priorities or donor-specific requirements. This lack of harmonization leads to fragmented reporting that challenges the comparability and reliability of results across the GEF portfolio.

Consequently, aggregated analysis, learning, and strategic resource allocation become more difficult. To address this issue, the GEBs Calculator should be positioned as a GEF-endorsed standard and integrated into the design phase of new projects. Encouraging all agencies to align their internal practices with the RMF and conducting coordinated, cross-agency training will ensure that the methodology is consistently applied. Aligning standard reporting templates of GEBs- Core Indicator 9 and technical protocols will further streamline the data harmonization process.

- **Barrier 5: Lack of a Unified Initiative to Drive Methodological Harmonization**

One of the most foundational challenges to systemic change in GEF reporting is the absence of a centralized leadership or initiative to coordinate and enforce methodological harmonization. Without a designated entity to champion standardization, the shift from diverse practices to a unified framework remains slow, fragmented, and voluntary. This lack of strategic direction and alignment dilutes the GEB's impact measurement and delays the harmonized tools' institutionalization across the partnership. To resolve this, UNIDO will lead the calculator project and, jointly with the GEF, should consider establishing a dedicated technical task force or coordination body tasked specifically with overseeing harmonization across agencies and focal areas.

Harmonization requirements should be formally embedded in future project cycles and strategically aligned with GEF-9 priorities. Securing high-level endorsement and sustained support will be crucial to institutionalizing the harmonization agenda and ensuring long-term consistency and comparability in GEBs' reporting.

Theory of Change

The project's causal pathway suggests the need for GEF's budget and other co-financing resources, technical expertise, and baseline data collection, supported by AI, to create the common variables/emission factors/concentrations of chemicals of global concern for consideration under GEF Core indicator 9. Data will be gathered from GEF Projects, implementing agencies, academic institutions, civil society organizations (CSOs), and existing UN knowledge platforms, as well as information analytics companies and academic publishers. The AI-based source platform will be developed through a collaborative process involving stakeholder consultation, verification, and iterative design. Outputs from these activities include inventories of environmental indicators, integration of logic aligned with multilateral environmental agreements (MEAs), and the creation of automated dashboards for calculation.

In the short term (1–12 months), the project will focus on collecting data from all 21 GEF implementing agencies and compiling technical parameters from scientific literature, UN reports, and project documentation for defining the calculation dashboards that need to be automated. The team will establish coordination with MEA secretariats to ensure alignment on GEB reporting and prevent double-counting. During this phase, the calculator's methodological foundation will be defined and validated through consultation with cross-sector stakeholders.

In the medium term (12–18 months), the GEBs Calculator will be finalized in the draft version and piloted among a set of stakeholders. The calculator will include modular components that allow users to apply sector-specific logic and assumptions. Training activities will be launched to embed the tool within institutional workflows, thereby easing adoption and reinforcing capacity to produce consistent, verifiable data.

In the long term (18–24 months), the tool will be institutionalized by national governments and executing agencies. The GEBs Calculator will be recognized as a foundational component of the GEF's Results Measurement Framework (RMF), enabling measurable improvements in the comparability, traceability, and credibility of GEBs-Indicator 9 reporting. Academic institutions and civil society organizations will play a vital role in sustaining tool verification, refining methodologies, and facilitating uptake. The development of a monitoring mechanism will ensure the tool's continuous improvement, with plans to integrate artificial intelligence and geospatial technologies for enhanced performance and scalability.

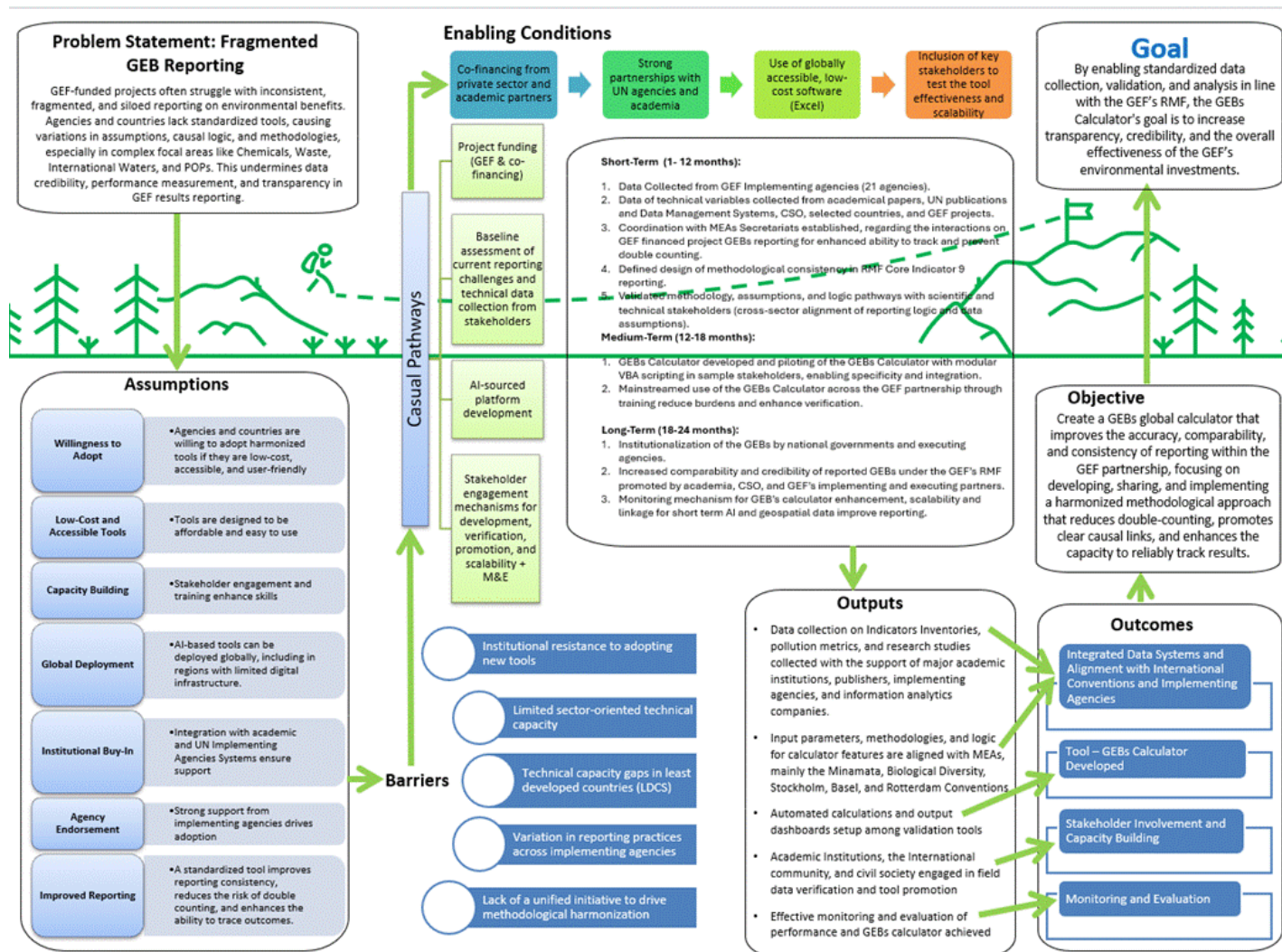
The outcomes of this project are multidimensional. At the system level, the calculator will promote the integration of environmental data systems, alignment with international conventions, and improved coherence across implementing agencies. The project will foster stakeholder ownership through inclusive training and field-level engagement. Monitoring and evaluation protocols will support adaptive learning and evidence-based decision-making. Ultimately, the calculator will serve as a trusted mechanism for donors, promoting increased co-financing and compliance with MEAs such as the Basel, Stockholm, Montreal, and Paris agreements, among others.

In terms of tangible outputs, the project will deliver validated methodologies and logic pathways, automated dashboards for calculations of GEBs, and transparent reporting data supported by global academic and institutional partnerships. These tools will enable stakeholders to quantify metrics, calculate benefits such as emission reductions, and align outputs with international reporting standards. The engagement of academic institutions, the private sector, and CSOs will further enhance the credibility and scalability of the calculator.

The following table compiles the GEF-8 Core Indicators, sub-indicators, the initial conditions for reporting, restrictions, reporting requirements, indicator type, unit of measurement, the disaggregation required, the geospatial data required, the data source or tool required, the frequency of reporting, plus additional criteria such as the SGD alignment, related international guidance, and examples of initial existing interventions.

Figure 5 presents the project's Theory of Change, illustrating the causal pathways linking project inputs, outputs, outcomes, and long-term impacts under the GEF Results Measurement Framework.

Figure 5. Theory of Change for the GEBs Calculator Project



- In this way, the GEBs Calculator Project articulates a robust theory of change by linking its core activities—including data collection of information related to indicators, tool development, standardization, capacity building, and monitoring—to measurable outcomes such as improved consistency in GEB-Indicator 9 reporting, reduced double-counting, and enhanced transparency. These outcomes are achieved through a set of interconnected causal pathways, each addressing specific systemic barriers and opportunities:

1. Institutional Buy-In Pathway: Leveraging Project Funding and Stakeholder Alignment

The success of the GEBs Calculator hinges on early and inclusive stakeholder engagement. With strong support from the GEF Secretariat, UNIDO can strategically mobilize stakeholders—including those offering in-kind support, cash contributions, parallel financing, or South-South cooperation—during the early design and development phases. This process builds institutional trust, ensures the tool's compatibility with existing systems, and aligns it with the diverse priorities of implementing agencies.

To deepen engagement, the project will showcase early adopters, offering practical evidence of efficiency gains, visibility, and cost savings. High-level GEF endorsement of the Calculator will further legitimize its use, while joint planning sessions with implementing agencies will ensure it fits seamlessly into agency workflows. This pathway ensures ownership, accelerates adoption, and supports systemic integration across the GEF partnership.

2. Data Standardization Pathway: Establishing Scientific and Technical Baselines

This pathway addresses the root challenge of inconsistent and fragmented environmental reporting by promoting scientifically grounded, standardized data practices. The project will begin with a comprehensive baseline assessment of existing reporting frameworks, identifying methodological gaps, redundancies, and capacity limitations. Through collaboration with implementing and executing agencies, academic institutions, international journals, analytics firms, and UN knowledge platforms, the project will build a calculator underpinned by credible, peer-reviewed methods and consistent technical standards. The Calculator will be positioned as a GEF-endorsed standard—not as a replacement for existing tools, but as a complementary system that bridges methodologies and harmonizes data flows of indicators. A centralized technical coordination from UNIDO will oversee implementation and continuous improvement, aligning efforts with GEF-9 strategic priorities such as digital transformation and results-based management. This ensures methodological coherence and future-ready scalability.

3. Scientific Validation and Calculation Pathway: Development of the AI-based Platform

At the heart of the project is the development of a cost-effective, technically robust, and globally accessible AI-based GEBs Calculator. The tool's modular structure will include sector-specific components tailored to the chemicals and waste focal area, ensuring that calculations align with focal area-specific methodologies, harmonized assumptions, and the GEF RMF. Validation will be carried out in partnership with sectoral experts and scientific institutions to ensure credibility and technical soundness. Use cases will be co-developed to demonstrate real-world applications, while integrated project teams will be encouraged to apply the calculator across multiple sectors. This pathway promotes transparency, traceability, and accuracy, establishing the Calculator as a practical and scalable solution for reporting global environmental benefits.

4. Capacity Empowerment Pathway: Stakeholder Engagement for Sustainability and Scale-Up

Long-term sustainability of the Calculator depends on the strength of stakeholder capacity and ownership, particularly in LDCs and SIDS. This pathway focuses on inclusive and iterative engagement, spanning development, field verification, dissemination, and multi-institutional scale-up. Interdisciplinary training materials will be developed in collaboration with academic institutions and civil society organizations, supported by targeted capacity-building programs tailored to the specific needs of LDCs and SIDS. Well-recognized universities will act as regional hubs, providing ongoing support, adaptation, and contextualization of the tool. Joint training across implementing agencies will promote harmonized practices, while South-South cooperation frameworks will facilitate peer learning and knowledge exchange. Additionally, the inclusion of harmonization requirements in new project cycles will institutionalize the tool's application. Together, these efforts ensure that the GEBs Calculator becomes an enduring asset in the global environmental reporting architecture.

The project is designed to be resilient in the face of varying future scenarios. In Scenario 1 described in the previous section, it restores coherence in a fragmented reporting system; in Scenario 2, it promotes methodological alignment and builds stakeholder trust; and in Scenario 3, it evolves into an advanced enabling tool. Its AI-based, modular, and adaptive-capable design ensures scalability and long-term relevance, making it adaptable to institutional, policy, and technological changes while supporting sustainable global environmental reporting on chemicals and waste.

The project includes four main components: 1. Integrated Data Systems and Alignment with International Conventions and Implementing Agencies, 2. GEBs Calculator Tool Development, 3. Stakeholder Involvement and Capacity Building, and 4. Monitoring and Evaluation. The interventions under each component will be grounded in scientific rationale and aim to improve the quality, credibility, and comparability of GEB reporting. Critical risks include institutional resistance, capacity limitations, and a lack of centralized enforcement, which are addressed through the support of the GEF Secretariat and MEAs Secretariats, early engagement of implementing agencies, and a modular, tailored design, assessment, and engagement approach.

The project also proves additionality, since without the GEBs Calculator, GEF reporting risks remaining inconsistent and fragmented. The project adds value by offering a standardized, verifiable method for reporting environmental benefits, thereby increasing data credibility, enabling accurate impact measurement, and enhancing the capacity for international compliance. It facilitates transparent investment decisions and strengthens the GEF's accountability framework, providing adaptation benefits that would not materialize otherwise.

The project involves implementing agencies, governments, academia, private sector partners, and CSOs in its design and implementation. These stakeholders contribute to the development, validation, training, and institutional adoption of the tool. Co-benefits include strengthened national capacities, improved data transparency, and compliance with MEAs. The collaborative model ensures that the GEBs Calculator is widely accepted, locally embedded, and positioned to deliver long-lasting adaptation gains. The following points summarize the respective roles of key stakeholder groups in supporting the development, adoption, and institutionalization of the GEBs Calculator.

- **Implementing agencies** such as UNIDO, UNEP, FAO, and UNDP play a critical role in the tool development, providing information from their operations and encouraging harmonization across their project portfolios. Their advisory and endorsement lend legitimacy to the project and encourage other implementing agencies to follow suit.
- **National governments and executing agencies** must embed the GEBs Calculator into their institutional reporting systems and provide access to national inventories and related data systems. By doing so, they strengthen compliance with international conventions and enhance their ability to access funding by demonstrating transparent and reliable reporting practices.
- **Academic institutions** support the tool's methodology and continuous development. Their involvement ensures that the tool evolves in step with emerging environmental and technological trends.
- **Private sector partners**, particularly those involved in software, laboratories, and publishing, provide the technological backbone and co-financing necessary to scale the solution. Their contributions ensure the use of data analytics, peer-reviewed references, and that the tool remains user-friendly, adaptable, and relevant across sectors.
- **Civil society organizations** ensure that training and tool dissemination reach local and community-level users. Their involvement makes the initiative inclusive, scalable, and responsive to real-world reporting challenges faced in the field. Their collaboration could

also bring to the table the transfer of cultural heritage practices and accountability for ancestral or cultural approaches when estimating benefits.

Regarding knowledge generation and management, the project builds upon existing GEF data and academic knowledge, while developing new standardized methodologies and reporting tools. It ensures knowledge is captured through specific technical variables and formulas of calculation, expressing results in dashboards organized by indicator-related modules, and specific training, all stored in a single accessible live system, with an offline snapshot, and shared via networks and platforms without restrictions. This supports continuous learning, strengthens future project design, and enables broader replication of best practices across countries and sectors.

By observing policy improvements and coherence, the GEBs Calculator aligns project outputs with multilateral environmental agreements, supporting national policy coherence and enhancing cross-sectoral reporting alignment. It offers a model for harmonized data collection and performance measurement, enabling better integration of global commitments into national planning. This contributes to more coherent, evidence-based policymaking and strengthens countries' capacity to meet environmental obligations.

COMPONENT 1. Data Systems and Methodological Alignment

Outcome 1: Integrated Data Systems and Alignment with International Conventions and Implementing Agencies

Currently, GEF-supported portfolios often depend on fragmented and inconsistent reporting methods for GEBs across different agencies and countries. Differences in methodologies, assumptions, and indicators impede comparability, transparency, and accountability. This initiative aims to address these issues by promoting a standardized approach to collecting, analyzing, and reporting data on indicators. It also seeks to develop fully integrated and standardized data systems built on multi-stakeholder technical data collection that meet the technical standards of the GEF RMF and implementing agencies while also satisfying the reporting requirements of key international environmental conventions, thereby preventing double-counting of benefits or impacts.

The international conventions' frameworks related to chemicals and waste management that are to be reviewed for indirect/direct reference, within the scope of this outcome, are detailed in the following table. Table 1 provides an overview of the key multilateral environmental agreements considered under this outcome, grouped by focal area and thematic relevance.

Table 1. Multilateral Environmental Agreements Relevant to Outcome 1

<i>Multilateral Environmental Agreements</i>	
<i>Climate Change</i>	- United Nations Framework Convention on Climate Change (UNFCCC) – 1994 - Kyoto Protocol – 2005 (under UNFCCC) - Paris Agreement – 2016 (under UNFCCC) - Doha Amendment to the Kyoto Protocol – 2020 (entered into force, but limited impact)
<i>Chemicals and Hazardous Waste</i>	- Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal – 1992 - Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade – 2004 - Stockholm Convention on Persistent Organic Pollutants (POPs) – 2004 - Minamata Convention on Mercury – 2017
<i>Atmosphere/Ozone Layer Protection</i>	- Vienna Convention for the Protection of the Ozone Layer – 1988 - Montreal Protocol on Substances that Deplete the Ozone Layer – 1989 - Kigali Amendment – 2019 (for HFCs phase-down)
<i>Marine and Freshwater Environment</i>	- United Nations Convention on the Law of the Sea (UNCLOS) – 1994 - Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR) – 1998 - Convention on the Protection of the Marine Environment of the Baltic Sea Area (Helsinki Convention) – 2000 - International Convention for the Prevention of Pollution from Ships (MARPOL) – 1983 - Convention on Wetlands (Ramsar) – 1975 (also listed under Biodiversity)
<i>Land Degradation and Desertification</i>	United Nations Convention to Combat Desertification (UNCCD) – 1996
<i>Biodiversity</i>	Convention on Biological Diversity – 1992

Under this outcome, the MEAs that will not be considered due to their severe risk and connotation include the conventions related to Nuclear and Industrial Accidents (i.e., *Convention on Early Notification of a Nuclear Accident*, *Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency*, and *Convention on the Transboundary Effects of Industrial Accidents*).

Close collaboration with MEA secretariats will facilitate methodological consistency across international conventions, prevent double-counting of results, and ensure that the reported data meet internationally recognized standards for environmental accountability. This outcome will ultimately support a more transparent, comparable, and credible global environmental reporting system, helped by a unified calculator. The 18 Implementing Agencies will be directly or indirectly included in the assessment and activities of this outcome.

Output 1.1: Data on indicators' inventories, metrics, and technical research studies collected for harmonized reporting systems.

The project requires core environmental data aligned with the Core Indicator 9 - sub-indicators list. These will be sourced from GEF project documentation (e.g., PIFs, CEO Endorsements, Monitoring Evaluations), national reports, and environmental inventory systems identified in GEF Project-related documents to establish a consistent baseline of methodologies used to calculate Global Environmental Benefits.

Observing the GEF Projects statistics and considering that GEBs may have been reported in GEF projects since 2015, UNIDO has outlined a sampling *design* to assess the correct number of projects financed by the GEF from 2015 to the present, representing a total of 530 projects across various project types. To determine the appropriate sample size for assessment with a 95% confidence level and a 2% margin of error. The sampling design uses stratified random sampling based on the proportion of each project type. Table 2 summarizes the stratified sample size by GEF project type used for the analysis.

Table 2. Stratified Sample Size by GEF Project Type

Project Type	Sample Size
<i>Enabling Activities</i>	76
<i>Full-Sized Projects (FSP)</i>	313
<i>Medium-Sized Projects (MSP)</i>	46
<i>Project Framework Documents (PFD)</i>	95

The sample size was determined using the formula for sample size calculation for proportions with finite population correction, with a 95% confidence and a margin of error of 2% (FPC)[\[15\]](#)¹⁸:

$$n = (Z^2 \times p \times (1 - p)) / e^2 \times [N / (N - 1 + (Z^2 \times p \times (1 - p)) / e^2)]$$

Where:

n = required sample size

N = population size (2,217 projects)

Z = Z-score for 95% confidence (1.96)

p = estimated proportion (0.5 for maximum variability)

e = margin of error (0.02)

Substituting values into the formula:

$$n = (1.96^2 \times 0.5 \times 0.5) / 0.02^2 \times [530 / (530 - 1 + (1.96^2 \times 0.5 \times 0.5) / 0.02^2)]$$

$$n \approx 434.31$$

The final sample size, considering rounding, is 435 projects. A stratified random sample of 435 GEF-funded projects across all focal areas will be assessed to ensure a 95% confidence level and 2% margin of error. This approach ensures representative coverage of all project types financed by GEF since 2015.

The distribution of project types in the sample is quite clear: it is dominated by chemicals and waste, and it aligns with the current portfolio project types and the GEF 7 and 8 cycles.

To harmonize methodologies, the project will analyze how the GEF implementing agencies currently collect and report data. This involves reviewing their project's logic models and indicators used to inform the calculator's alignment with the GEF Results Measurement Framework.

Another consideration in data collection is the gathering of Methodological Parameters that ensure transparency and comparability. UNIDO will collect methodological elements, including emission factors, conversion rates, units, and logical models. These will be drawn from authoritative sources, such as UN technical manuals, and peer-reviewed literature obtained from academic publications, as well as through the assessment of internationally accepted calculation methods and capacities.

Furthermore, data specific to the chemicals and waste focus area will be crucial for developing sector modules and establishing a foundation for jointly creating a harmonized indicator framework. Sources will include reports (as applicable and available) from global environmental databases, indicators and indexes, conventions such as Stockholm and Basel, national chemical registries, land-use databases, results on the 23 targets of the Kunming-Montreal Global Biodiversity Framework (GBF), sustainable development and resource-use data, water and marine-environment databases, air-quality and pollution data, and publicly available international online information. These data will be obtained from international platforms and databases accessible online through free versions.

The project will engage with Clearya for the digital design of the calculator, and with at least one major academic publisher and information analytics company such as Clarivate, Elsevier, Springer, Digital Science, EBSCO, OpenAlex, or Google Scholar.

Consequently, data will be gathered from GEF implementing agencies, national governments, MEA secretariats, academic institutions, international databases, analytics firms, and UN knowledge platforms. Each stakeholder plays a critical role in supplying sectoral, methodological, or geospatial data necessary for building a standardized and credible GEBs Calculator (Table 3).

Table 3. Institutional Sources and Types of Data Supporting the GEBs Calculator

Institution / Source	Type of Data Provided
GEF Secretariat	Core Indicators, RMF guidelines, project datasets
Implementing Agencies (UNDP, UNEP, FAO, UNIDO, World Bank, other)	Project-level environmental data, methods, and logic models
National Governments / Environment Ministries/Executing agencies	Country-specific data, national and regional inventories
MEA Secretariats (e.g., Basel, Stockholm, CBD, UNFCCC)	Convention indicators, targets, and results compliance frameworks
Academic Institutions & Publishers	Peer-reviewed methods, emission factors, and logic models
Information Analytics Companies (e.g., Clarivate, Elsevier)	Data repositories, methodologies, citation databases
Clearya	Clearya Insights
UN Knowledge Platforms (UNEP Live, WCMC, GRID-Arendal)	Open-access geospatial and thematic data
CSOs and Field-Based Organizations	Local verification data, field monitoring reports

Following a systematic review of the reporting methods used by the GEF implementing agencies, UNIDO will identify gaps, overlaps, and areas for methodological alignment. This includes aligning with the GEF Results Measurement Framework (RMF) and establishing joint protocols to prevent double-counting. The result is a unified logic model, set of standards, and attribution rules applicable across focal areas and institutions.

Output 1.2: Unified Data Architecture and Indicator Logic Aligned with Global Reporting Frameworks

This output will establish the mechanisms to ensure the long-term operationalization of the harmonized system. It includes the creation of a multi-agency coordination framework with focal points across Implementing Agencies and MEA secretariats to oversee data quality, methodological updates, and future tool maintenance. Additionally, it delivers standardized operational guidance for field-level application, along with compatibility protocols to integrate the GEBs Calculator into international reporting systems, ensuring data interoperability and compliance.

In addition, this output focuses on ensuring that the future foundational structure of the GEBs Calculator—including its input parameters, calculation logic, and methodological assumptions (component 2)—is fully aligned with the technical and reporting requirements of relevant MEAs. Given the GEF's cross-cutting role in supporting global environmental conventions such as the Basel, Stockholm, Biological Diversity, Rotterdam, and Minamata Conventions, it is critical that the tool reflects internationally accepted standards and supports harmonized reporting across focal areas.

To achieve this, the project will systematically review and integrate existing methodologies and guidance documents from MEA secretariats. This includes technical documents, national reporting templates, and sector-specific calculation models already in use. Rather than duplicating or overriding existing tools and frameworks, the GEBs Calculator will build upon them, consolidating and expanding these methodologies into a single, coherent system that aligns with the GEF Results Measurement Framework (RMF) exclusively of the Core Indicator 9.

Close collaboration will be established with MEA technical advisory bodies and the GEF’s own Scientific and Technical Advisory Panel (STAP) for validation and guidance, as well as with the Indigenous and Community Stakeholder Platform Coordination Work Program (ISP-CWP), as necessary and applicable based on the type or reporting methodologies, and also considering the stakeholder coordination mechanism focused on inclusion. These entities will provide expert validation of input assumptions, emission factors, data quality thresholds, country and gender/vulnerable groups inclusion considerations, and calculation models embedded within the tool.

In parallel, the project will conduct a consolidated mapping of environmental metrics to clarify attribution logic and build transparent pathways between MEA indicators and GEF core indicator 9 sub-indicators. This will inform the development of harmonized reporting templates, allowing for consistent formatting, definitions, and units of measure across all sub-indicators of the GEF Core Indicator 9.

Additionally, to ensure ongoing alignment and maintenance, the project will support the creation of dedicated focal points within implementing agencies, convention secretariats, and key stakeholders. These people will be responsible for coordinating updates, validating methodologies, and integrating new MEA requirements into the tool over time. Protocols for joint coordination and data sharing between the GEBs Calculator team and MEA secretariats will be formalized to prevent duplication and support consistent reporting. UNIDO plans to develop one main in-person workshop with all focal points and main stakeholders identified in a three-day working session for validating all GEBs’ logic framework proposals in Vienna, Austria.

Ultimately, this output will result in a Cross-Agency Data Harmonization Framework—anchored in common definitions, standardized data input/output formats, and validated technical methodologies—establishing the GEBs Calculator design as a trusted instrument for integrated, GEF/MEA-compliant environmental reporting.

COMPONENT 2. GEBs Calculator Tool development

Outcome 2: GEBs Calculator Tool Development

This outcome focuses on the design, development, and deployment of a practical and user-friendly Global Environmental Benefits (GEBs) Calculator built using AI-sources. The AI-sourced platform will serve as the central operational tool for harmonizing data collection, calculation logic, and reporting methodologies across all implementing agencies. Its development represents both a technical solution and a strategic vehicle for driving systemic transformation in monitoring and reporting.

After data collection and alignment of agencies and MEA in the previous component, the core of this effort is the development of a unified data architecture built around the GEBs Calculator —a standardized platform design that bridges the gap between diverse project-level data sources, methodological approaches, logic pathways, and overarching global results calculation frameworks, acknowledging the concentration of chemicals in specific substances or products. The calculator will enable the consistent application of methodologies across sectors and regions, fostering coherence in the estimation and reporting of global environmental benefits indicators of the Core Indicator 9. Alignment with the GEF’s RMF ensures that the calculator adheres to a common set of indicators, formats, and logic models.

The choice of Clearya Insights as the foundational platform ensures wide accessibility and low barriers to entry, especially considering gender, intergenerational, internet access, energy availability, and literacy issues in the worldwide population. AI tools or platforms are already used globally, across generations and institutional levels, and require no specialized software knowledge from the users. These features make the tool particularly well-suited to low-resource and offline contexts—especially in LDCs and SIDS—while offering transparency, traceability, and ease of use. AI programming will enable the Calculator to automate workflows, validate inputs, customize sector-specific modules, and generate standardized reports without requiring external software updates. Its logic will remain verifiable and auditable, giving users confidence in the reliability of calculations and clarity in methodological assumptions.

The tool will feature a modular architecture, enabling users to apply tailored logic in chemicals, waste, and POPs. This modularity ensures compatibility with the GEF RMF and MEA requirements. Sector-specific components will be co-developed with technical experts and academic partners to ensure scientific rigor and contextual accuracy. Validation will be undertaken in collaboration with scientific institutions and advisory panels to confirm methodological soundness and field applicability.

The Calculator will be openly accessible, promoting transparency and adaptability. National and project-level users will be encouraged to adjust certain assumptions to reflect local data and conditions within a clearly defined, standardized framework.

Importantly, this outcome lays the technical foundation for future software enhancements. While the AI-sourced platform is ideal for rapid prototyping and early adoption, it is also designed to evolve. The system architecture will allow for future migration to more sophisticated digital environments, supporting multi-user functionality, integration with geospatial or other specific tools, and long-term system scalability upon requirement and licensing processes. In doing so, the project positions the GEBs Calculator not only as a calculating instrument but as a catalyst for deeper institutional alignment, academic engagement, and cultural change in how environmental benefits are measured and communicated globally.

Output 2.1: Development of the GEBs Calculator

This output covers the creation of a fully functional Global Environmental Benefits (GEBs) Calculator and focuses on designing a standardized data system architecture to underpin the GEBs Calculator for Core Indicator 9. It defines logical data flows and system compatibility between project-level data, agency workflows, and global reporting requirements. It also establishes a centralized repository of validated environmental metrics—such as emission factors, conversion rates, and chemical baselines—scientifically vetted and organized by focal area. This ensures consistency, credibility, and traceability in GEB calculations.

The output includes the programming of automated calculations, embedded logic models, and user-friendly interfaces for input validation and result generation. This also encompasses the development of output dashboards and validation logic to ensure transparency, usability, and broad applicability across GEF implementing agencies. The tool will be designed to accommodate users of varying technical capacity, providing a scalable solution for standardized environmental benefit estimation.

The calculator proposal will include programming provided by the Clearya Company services. This output also focuses on embedding modular components tailored to key GEF chemicals and waste focal area - Core Indicator 9 sub-indicators within the Calculator. Each module will include specific indicators, methodologies, emission factors, and calculation assumptions that are aligned with the GEF RMF and relevant MEA standards. This ensures scientific rigor, cross-sector comparability, and technical consistency in the calculation and attribution of environmental benefits.

Lastly, the output includes the implementation of automated calculation features and output dashboards within the GEBs Calculator. These enhancements include built-in logic checks for input validation, automated computations aligned with GEF indicator 9, and interactive dashboards that visually present key outputs. These built-in features ensure that users are supported not only by guidance and training but also by intuitive, user-friendly functionality that reduces errors, promotes traceability, and improves overall reporting efficiency.

Output 2.2: User Guidance, Training Resources, and Pilot Demonstrations

This output lays the foundation for the widespread, accurate, and sustainable use of the GEBs Calculator. It provides a comprehensive package of user support materials, hands-on pilot testing, and mechanisms for iterative learning. The goal is to equip users—from project teams and national authorities to implementing and executing agencies and technical specialists—with not only a functioning tool but also the knowledge, confidence, and practical experience to apply it consistently and effectively in line with the GEF RMF and international environmental conventions.

The first major activity under this output is developing user guidance and technical documentation. A complete suite of support materials will be created, including a User Manual tailored to users with varying levels of technical expertise, and technical documentation that explains the tool's logic, formulas, assumptions, and links to MEA-aligned methodologies. Standard Operating Procedures (SOPs) will be developed to guide the integration of the tool into project workflows, along with quick-reference materials, FAQs, and visual aids such as flowcharts and metric trees to simplify daily use. These materials will be translated and adapted to diverse institutional and regional contexts, particularly for LDCs and SIDS.

The second major activity involves creating training resources and support modules. These include interactive e-learning content, video tutorials, and hands-on exercises that walk users through sector-specific calculations using real data. Trainer toolkits will support the Training-of-Trainers (ToT) approach detailed in Outcome 3, enabling institutions to scale up training and embed the tool into ongoing operations. All training materials will reflect the standardized data formats and indicator logic established under Outcome 1, ensuring methodological consistency.

To test the tool's real-world utility and refine its features, pilot demonstrations will be conducted in a select group of countries and GEF agencies. These pilots will evaluate usability across different institutional settings, validate automated calculations and indicator logic, and test the calculator's compatibility with existing projects, indicators, and national data systems. Results from the pilots will be used to identify areas for improvement, and findings will be captured in detailed case studies documenting lessons learned, technical adjustments, and institutional readiness. These insights will inform further improvements to the tool's design, interface, and training content.

COMPONENT 3. Stakeholder engagement and capacity building

Outcome 3: Stakeholder Involvement and Capacity Building through stakeholder training to address technical gaps

Open data sharing and stakeholder collaboration will ensure transparency and continuous improvement. Capacity building will play a central role, with user manuals in 3 UN official languages. Testing of the platforms will involve close collaboration with academic institutions of environmental science research for validation purposes. If Academic is engaged in working closely with the GEF, UNIDO, and the BRS Secretariat, this will ensure a steady pipeline of professionals capable of using and updating the tool, while also empowering civil society, executing agencies, and governments to apply it at the field level, fostering grassroots ownership and relevance.

Outcome 3 focuses on ensuring that the tools and systems developed under the project—particularly the GEBs Calculator and the harmonized sub-indicators framework—are effectively adopted, applied, and sustained through robust stakeholder engagement and targeted capacity-building efforts. While Outcomes 1 and 2 address the technical design, data integration, and methodological harmonization of the reporting framework, Outcome 3 centers on the human and institutional dimensions needed to operationalize these tools in practice. This includes bridging capacity gaps—especially in LDCs and SIDS—and equipping stakeholders at all levels with the skills and knowledge to generate, validate, and report environmental data aligned with GEF and MEA standards.

To avoid duplicating the technical activities covered in the other outcomes, Outcome 3 will not focus on designing systems or programming tools, but instead on building the capacity of stakeholders to use them effectively. This will involve hands-on training in using the GEBs Calculator, understanding sector-specific methodologies, inputting data, and interpreting standardized results. Capacity-building programs will be tailored to different user groups, including national environmental authorities, GEF implementing and executing agencies, civil society organizations, academic institutions, and regional organizations. Training material will be developed in formats for online and in-person training sessions.

Special emphasis will be placed on delivering customized training to countries with limited institutional and technical capacity, particularly LDCs and SIDS. International events, including delegations of all GEF projects, will be considered as a point of dissemination of the in-person training of the tool, and a mechanism for implementing the train-the-trainers program will be established for proper dissemination. Context-specific training modules will be developed to address challenges, and partnerships will be established with regional centers of excellence and academic institutions to serve as hubs for ongoing learning. The 'training-of-trainers' (ToT) model will be implemented to build in-country expertise and ensure sustainability, allowing trained focal points and regional experts to continue disseminating knowledge and providing support beyond the life of the project.

In parallel, Outcome 3 will establish a structured stakeholder engagement strategy to build trust, foster ownership, and encourage active participation in the development, testing, and refinement of the GEBs Calculator. This includes mobilizing a diverse range of stakeholders—government agencies, MEA focal points, academia, and civil society—to ensure broad representation and relevance. Feedback loops will be created to incorporate user experiences and insights into future updates of the tool and its methodologies. Also, indirectly, once the calculator is created and institutional capacities strengthened, and technical and knowledge-based roles in environmental monitoring opened up, the project creates new opportunities for women professionals to gain recognition, access new roles, and benefit from knowledge-based services. This includes training in technical areas such as environmental accounting, data analysis, and use of the GEBs Calculator—skills that are transferable and support professional advancement. Furthermore, institutionalizing these practices can contribute to more gender-responsive reporting under GEF and MEA frameworks, indirectly influencing national policy and funding priorities that benefit women.

Finally, the project will implement a monitoring and evaluation system to assess the effectiveness of capacity-building efforts. This will include pre- and post-training assessments, user feedback surveys, and documentation of lessons learned to guide adaptive learning and inform future scaling strategies. By embedding these elements into the project structure, Outcome 3 ensures that the benefits of technical development are translated into meaningful, long-lasting institutional change, particularly in regions where capacity limitations have historically hindered effective environmental reporting.

Output 3.1: Stakeholder Training Programs and Global Knowledge Exchange Network, with Emphasis on LDCs and SIDS

This output delivers a comprehensive and inclusive capacity-building effort designed to equip a broad range of stakeholders—including national governments, GEF implementing and executing agencies, civil society actors, and technical specialists—with the skills and knowledge necessary to apply the GEBs Calculator effectively. Special emphasis will be placed on addressing the unique capacity constraints of LDCs and SIDS to ensure equitable access to training and long-term institutional adoption of the tool.

Training programs will be delivered through a combination of in-person workshops/virtual sessions/hybrid regional events tailored to local needs and varying technical proficiency levels. These sessions will focus on hands-on instruction in operating the GEBs Calculator, understanding input parameters and output dashboards, interpreting results in alignment with the GEF RMF, and meeting technical requirements from MEAs. Sessions will also integrate contextual examples and sector-specific use cases to ensure relevance and real-world applicability. These will be designed with inclusive participation targets, ensuring that women, especially from LDCs and SIDS, and from underrepresented institutions are equally represented in tool development, piloting, and training-of-trainers (ToT) activities. By embedding gender-responsive design in stakeholder selection and institutional capacity-building, the project promotes greater women's leadership in environmental monitoring, planning, and reporting.

To complement direct training efforts, this output will support a link to a global knowledge exchange platform (potentially the GEF website, the BRS Secretariat platforms, or other suitable and accessible)—an open-access digital environment where the GEBs Calculator and all associated support resources, such as user manuals, technical documentation, and training materials, are centrally hosted. This platform will serve as both a

dissemination channel and an interactive learning space for disseminating forums, webinars, regional learning hubs, and live feedback events, allowing users to share implementation experiences, suggest improvements, report technical issues, and contribute new use cases.

By combining high-quality, targeted training with a dynamic and collaborative digital infrastructure, this output ensures that the GEBs Calculator can be widely adopted, continuously improved, and sustained across a growing community of practice. It fosters a culture of shared innovation, local empowerment, and institutional learning, supporting both the immediate capacity-building needs of GEF stakeholders and the long-term evolution of global environmental benefit reporting.

Output 3.2: Training Tools and Knowledge Resources Developed, Localized, and Disseminated for Scalable Capacity Building

This output provides a set of high-quality training tools and learning materials designed to support the long-term integration and independent use of the GEBs Calculator. These resources will be accessible, modular, and adaptable to the diverse technical and linguistic contexts of GEF project stakeholders, with a focus on promoting broad use of the calculator across LDCs, SIDS, and other capacity-limited environments.

The package will include user-focused resources such as step-by-step training manuals, sub-indicator case studies, interactive e-learning, and instructional videos. These materials will guide users through all stages of using the GEBs Calculator—from data entry and selecting methodology to interpreting dashboards and linking results to GEF RMF indicators and MEA reporting frameworks. The content will support various learning modes, including self-paced digital learning and instructor-led sessions. All training tools will be globally contextualized and translated into three UN languages to ensure accessibility and relevance. Additionally, materials will include guidance on integrating the Calculator into national monitoring systems and environmental reporting platforms.

A key feature of this output is the implementation of a Training-of-Trainers (ToT) model, which will identify, train, and qualify a network of trainers embedded within relevant institutions, such as environmental ministries, academic institutions, and implementing agencies. These trainers will be prepared not only to deliver technical training but also to facilitate knowledge transfer and offer technical support locally. This embedded capacity will promote long-term sustainability and scalability, allowing ongoing training beyond the project's life.

To maximize reach and impact, the resources will be integrated into the GEF web page/BRS Secretariat platform/other as feasible, where they will be available for download, reuse, and continuous improvement. Feedback from the calculator pilot demonstrations will guide iterative updates, ensuring that materials stay aligned with updates.

By creating and widely distributing adaptable, relevant training resources, Output 3.2 lays a foundation for sustained capacity development. It empowers institutions and implementing agencies to independently lead training efforts and supports scaling standardized, high-quality environmental reporting practices across the GEF partnership.

Output 3.3: Stakeholder Engagement, Peer Learning Mechanisms, and Capacity Monitoring Systems Institutionalized

This output establishes the long-term foundation for inclusive stakeholder collaboration, continuous learning, and institutional accountability necessary to ensure sustained adoption and application of the GEBs Calculator. It focuses on creating structured engagement platforms and feedback loops that support dynamic knowledge exchange, capacity tracking, and coordinated scale-up, particularly in LDCs and SIDS, where ongoing technical support and institutional reinforcement are critical.

Stakeholder engagement will be promoted through multi-level considerations, including national focal point roundtables and regional peer-learning forums. Over time, the project will build a global user network that will serve as a community of practice, sharing use cases, data updates, methodological innovations, and user feedback. This evolving knowledge base will not only support the continuous improvement of the calculator but also foster academic integration, capacity building, and peer learning across regions.

These mechanisms will allow GEF agencies, government representatives, civil society, and academic partners to share experiences, troubleshoot challenges, and co-develop localized adaptations of the Calculator. Active participation in workshops will strengthen cross-agency collaboration, support methodological harmonization, and foster an international community of practice around environmental benefit reporting.

In support of adaptive learning and institutional accountability, a comprehensive monitoring system will be implemented. This will include follow-up assessments to track knowledge retention and skill application, and institutional performance metrics to measure uptake and integration of the GEBs Calculator into implementing agency-level systems. Stakeholder feedback will be systematically collected through surveys, interviews, and platform analytics and used to inform iterative improvements to training content and support strategies. Collaboration with civil society and research institutions will further anchor tool application in real-world environmental data systems and community-based monitoring frameworks.

Joint training sessions across GEF implementing agencies will reinforce consistent understanding of the Calculator's methodologies, encourage harmonized data practices, and foster institutional alignment with the GEF Results Measurement Framework (RMF) and MEA reporting. Moreover, South-South cooperation initiatives will enable countries to learn from one another, share locally adapted data formats and templates, and build regional networks of expertise and support.

Finally, this output will advocate for the inclusion of harmonized GEBs reporting requirements of the Core Indicator 9 sub-indicators, and tool usage guidance in the design of future GEF project cycles, ensuring that use of the GEBs Calculator becomes a standard feature of environmental benefit reporting. By embedding stakeholder ownership, peer learning, and capacity monitoring into the operational fabric of the project, Output 3.3 will transform the GEBs Calculator from a one-time intervention into an enduring institutional asset that supports long-term environmental accountability and impact at the global scale.

COMPONENT 4. Monitoring and Evaluation

Outcome 4: Monitoring and Evaluation

Monitoring and Evaluation ensure systematic tracking, assessment, and learning throughout the implementation of the project, in full alignment with the GEF Monitoring and Evaluation Policy and Guidelines. This outcome is designed not only to ensure compliance with GEF reporting obligations but also to strengthen accountability, promote evidence-based decision-making, and support adaptive management. It serves as a mechanism to ensure the quality, relevance, and sustainability of the project's tools, methodologies, and capacity-building outcomes, particularly those developed under the previous three components.

The outcome focuses on designing and operationalizing a robust project M&E framework that is directly aligned with the project's Results Framework and the GEF RMF. This includes defining responsibilities for data collection across all relevant activities. The M&E plan will be applied consistently across outputs related to the GEBs Calculator, data harmonization, capacity development, and stakeholder engagement, ensuring that progress is measured accurately and reported transparently.

Key activities under this outcome include quarterly and annual performance reviews, timely submission of Project Implementation Reports (PIRs), with special attention on monitoring the functionality, uptake, and technical accuracy of the GEBs Calculator, with validation processes built into field demonstrations, stakeholder feedback loops, and independent technical assessments. This will ensure that the tool's methodologies remain consistent with MEA requirements and international estimations of global environmental benefits.

The outcome also includes the commissioning of both a Mid-Term Review (MTR) and a terminal evaluation (TE). These independent evaluations will assess project effectiveness, efficiency, relevance, and sustainability. The MTR will serve as a course-correcting tool to inform adaptive management, while the TE will evaluate long-term impacts and the potential for replication and scaling of project tools and approaches. This outcome also includes systematic monitoring and reporting of the Gender Action Plan through Project Implementation Reports (PIR), Mid-Term Review (MTR), and Terminal Evaluation (TE) processes.

Beyond performance tracking, this outcome emphasizes knowledge generation and learning integration. Lessons derived from pilot calculator reviews, capacity-building exercises, and institutional partnerships will be systematically captured, analyzed, and fed back into disclosure materials and methodological updates. This continuous learning approach will support both project refinement and future GEF project development. Also, once the tool is created, and by standardizing indicators that are disaggregated by gender (where applicable), the tool will support a better understanding and tracking of gender disparities in access to environmental services and resources and their impact on global environmental benefits. This, in turn, informs policy and planning that can help close such gaps in future investments.

Finally, Outcome 4 will facilitate coordination with key partners such as the GEF Secretariat, the Scientific and Technical Advisory Panel (STAP), and implementing agencies. Through regular consultations and participation in GEF knowledge-sharing, the project will contribute to broader improvements in global environmental monitoring systems. In doing so, this outcome not only ensures rigorous monitoring and evaluation of the current project but also informs the development of future standards and tools across the GEF partnership.

Output 4.1: Comprehensive Project Monitoring and Results Reporting System Established and Operational

This output delivers a fully integrated and results-based Monitoring and Evaluation (M&E) system that ensures transparent, consistent, and real-time tracking of project performance. The system will be designed to support evidence-based decision-making and accountability, while fully adhering to the GEF Monitoring and Evaluation Policy, the GEF Results Measurement Framework (RMF), and the project's own logical framework (logframe). It will underpin all aspects of project implementation, from technical tool development and data harmonization to training, stakeholder engagement, and field-level application.

To ensure timely and structured monitoring, the project will implement a schedule of quarterly progress reviews, annual internal evaluations, and the mandatory submission of GEF Project Implementation Reports (PIRs). Updates to GEF focal area tracking tools will also be integrated, ensuring alignment with evolving GEF guidance and focal area priorities. This regular review process will include mechanisms to track tool adoption, user engagement, and the functionality of the GEBs Calculator, including calculation accuracy, adherence to MEA methodologies, and prevention of benefit double-counting.

Finally, the reporting system will feed directly into the project's adaptive management process. Insights gained from M&E activities will inform mid-course corrections, guide updates to training materials and tool logic, and ensure alignment with broader GEF and MEA reporting obligations. By doing so, Output 4.1 ensures that the project remains not only compliant and practical but also strategically responsive to emerging needs, new knowledge, and lessons learned across the global environmental community.

Output 4.2: Learning Integration, Knowledge Sharing Mechanisms, and Independent Evaluations Conducted

This output focuses on systematically capturing, analyzing, and disseminating knowledge generated throughout the project's lifecycle to strengthen adaptive learning, promote replication, and enhance institutional uptake. It ensures that insights gained from tool deployment, capacity-building, stakeholder engagement, and technical implementation are continuously fed back into project refinement and future GEF programming. This output also fulfills critical accountability functions by delivering formal independent evaluations, in line with GEF Monitoring and Evaluation guidelines.

A central component of this output is establishing a structured knowledge management process that consolidates experiences from all project components. This includes the documentation of lessons learned from calculator demonstrations, training delivery, regional peer exchanges, and the use of the GEBs Calculator in real-world settings. User feedback, including technical issues, practical adaptation needs, and satisfaction levels, will be collected through surveys and focus groups. These insights will inform iterative updates to the tool's logic, interface, training content, and reporting dashboard. The goal is to support horizontal learning, encourage innovation, and inform institutional practices beyond the immediate project context and to provide the information of the full project execution.

Critically, this output includes the commissioning of two independent evaluations: a Mid-Term Review (MTR) and a Terminal Evaluation (TE). The MTR will be timed to assess the project's implementation performance, emerging risks, initial outcomes, and stakeholder satisfaction. Its findings will inform course corrections and adaptive planning in the second half of the project. The TE, conducted at project closure, will assess overall

effectiveness, efficiency, relevance, and sustainability. Both evaluations will be conducted by independent evaluators, including participatory stakeholder consultations, and will comply with GEF evaluation policies and standards.

To ensure long-term impact, this output also supports the strategic institutionalization of knowledge and tool evolution by different licensed further developments. Financial sustainability considerations will also be addressed, with clear guidance on how to incorporate support for the Calculator's continued development into future funding proposals, projects, and global partnerships.

Overall, Output 4.2 ensures that the project's legacy extends well beyond its implementation period by embedding continuous learning, strengthening institutional memory, and generating robust evidence to inform future environmental reporting tools and global GEF programming.

- [1] UNCTAD (2022). Tackling gender divides in e-commerce. <https://unctad.org/news/tackling-gender-divides-can-create-more-e-commerce-success>
- [2] ITU (2022). ICTs to achieve the UN Sustainable Development Goals. <https://www.itu.int/en/mediacentre/backgrounders/Pages/icts-to-achieve-the-united-nations-sustainable-development-goals.aspx>
- [3] UN Women (2023). Power On: How we can supercharge an equitable digital future. <https://www.unwomen.org/en/articles/explainer/power-on-how-we-can-supercharge-an-equitable-digital-future>
- [4] https://www.undp.org/sites/g/files/zskgke326/files/2024-04/undp-how-digital-is-transforming-the-lives_of-young-people-in-small-island-developing-states-v2.pdf?utm_source=chatgpt.com
- [5] Gender digital divide. https://en.wikipedia.org/wiki/Gender_digital_divide
- [6] Digital Gender Gap - Russian Wikipedia. https://ru.wikipedia.org/wiki/Цифровой_гендерный_разрыв
- [7] AP News (2023). UN: Gender gap in digital access. <https://apnews.com/article/c66860dda2e845b3ce27b536611d7814>
- [8] Energy poverty and gender. https://en.wikipedia.org/wiki/Energy_poverty_and_gender
- [9] UNESCO (2023). 251M children and youth still out of school. <https://www.unesco.org/en/articles/251m-children-and-youth-still-out-school-despite-decades-progress-unesco-report>
- [10] World Bank (2022). Learning Poverty Report. <https://thedocs.worldbank.org/en/doc/e52f5322528903b27f1b7e61238e416-0200022022/original/Learning-poverty-report-2022-06-21-final-V7-0-conferenceEdition.pdf>
- [11] INEE (2021). Distance Education in Emergencies. <https://inee.org/sites/default/files/resources/373717eng.pdf>
- [12] Wikipedia (2023). Educational Technology in Sub-Saharan Africa. https://en.wikipedia.org/wiki/Educational_technology_in_sub-Saharan_Africa
- [13] <https://www.itu.int/hub/2022/11/facts-and-figures-2022-global-connectivity-statistics/>
- [14] ITU (2021). Facts and Figures. <https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2021.pdf>
- [15] Cochran, W.G. (1977). *Sampling Techniques* (3rd ed.). Wiley.
- Yamane, T. (1967). *Statistics, An Introductory Analysis* (2nd ed.). Harper and Row.
- Krejcie, R.V., & Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.

Institutional Arrangement and Coordination with Ongoing Initiatives and Project.

Please describe the Institutional Arrangements for the execution of this project, including financial management and procurement. If possible, please summarize the flow of funds (diagram), accountabilities for project management and financial reporting (organogram), including audit, and staffing plans. (max. 500 words, approximately 1 page)

Project Implementation

The United Nations Industrial Development Organization (UNIDO) will serve as the GEF Implementing Agency (IA) for the project. In this role, UNIDO will provide overall strategic oversight, fiduciary supervision, and technical guidance throughout project implementation, in accordance with GEF policies and procedures. UNIDO will be responsible for managing the overall budget, ensuring quality assurance, and reporting to the GEF Secretariat, including annual progress reporting, Mid-Term Review (MTR), and Terminal Evaluation (TE).

In addition to its role as Implementing Agency, UNIDO will retain responsibility for coordinating project execution. This arrangement reflects the global and cross-sectoral nature of the GEBs Calculator, which is designed as a shared methodological and digital public good serving the broader GEF partnership rather than

a country-specific or sector-specific intervention. Centralized coordination by UNIDO enables integrated oversight of technical design, methodological coherence, procurement, and fiduciary management, while ensuring neutrality, transparency, and consistency across focal areas and Implementing Agencies.

This coordination role does not replace or duplicate the technical mandates of other GEF Implementing Agencies. Instead, it provides a centralized integration and quality assurance function, enabling other Implementing Agencies to contribute sector-specific expertise, data inputs, methodological guidance, and validation feedback within a shared framework aligned with the GEF Results Measurement Framework (RMF).

Specifically, UNIDO will be responsible for:

- Releasing payments based on satisfactory delivery of agreed outputs;
- Establishing execution arrangements and contractual modalities with technical partners and service providers
- Providing technical and financial oversight to contracted entities and consultants;
- Supervising the development, implementation, and validation of the GEBs Calculator and related knowledge products;
- Ensuring alignment with the GEF Results Measurement Framework (RMF) and GEF Core Indicator 9;
- Convening and supporting the Project Steering Committee.

Project Execution

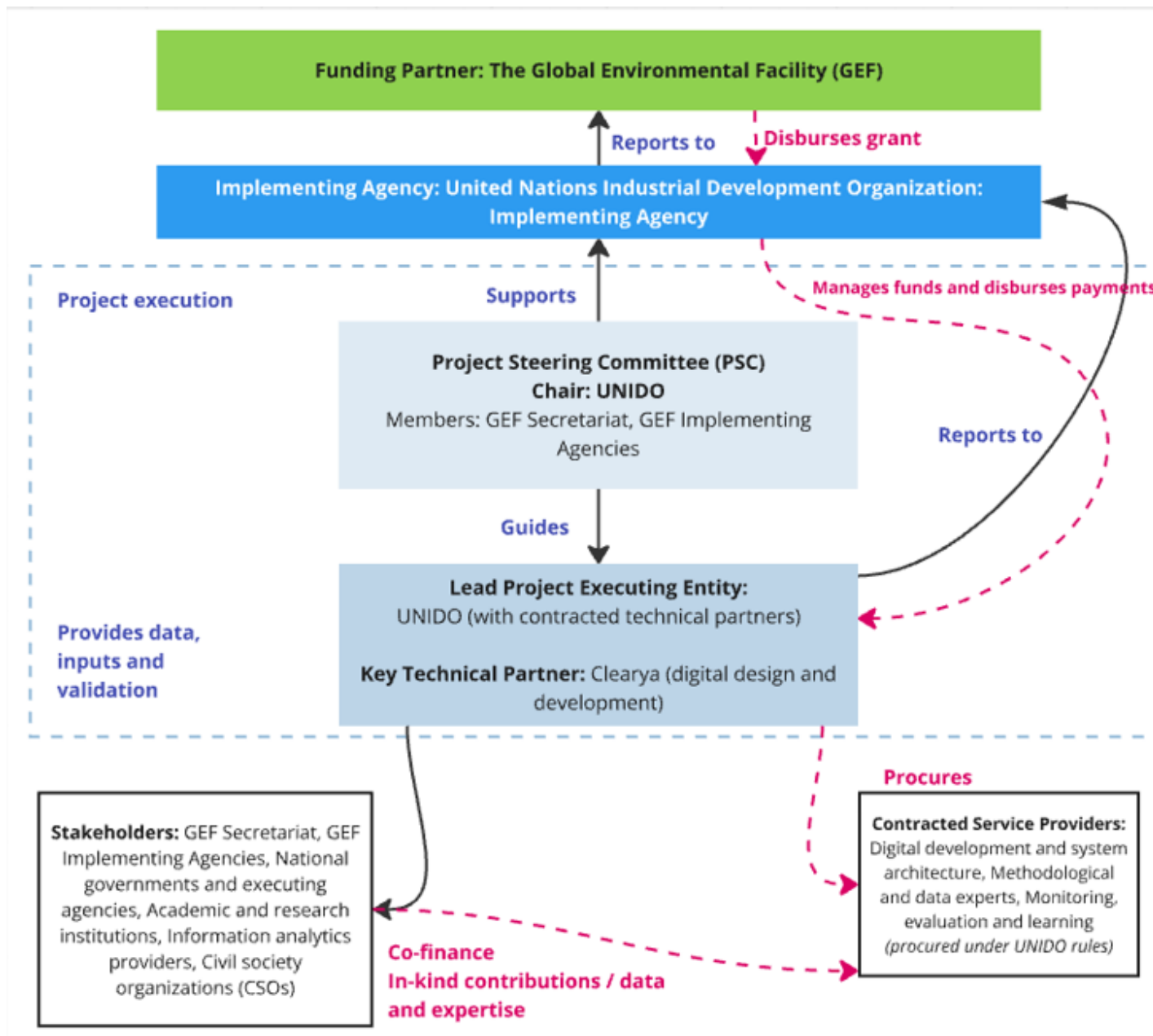
Project execution will be carried out through a combination of UNIDO-led coordination and contracted technical partners, including specialized digital solution providers, academic and research institutions, and data analytics organizations. UNIDO will coordinate execution activities while subcontracting specific technical tasks—such as digital design, system architecture, methodological development, and platform deployment—based on demonstrated expertise and in line with UNIDO procurement rules.

The project will engage Clearya as a key technical partner for the digital design and development of the GEBs Calculator. Clearya's role is strictly limited to technical design and development functions, including system architecture, user interface development, and platform deployment, under UNIDO's supervision. All methodological assumptions, calculation logic, indicator definitions, and validation processes will be defined and approved by UNIDO in coordination with GEF Implementing Agencies and relevant partners.

GEF Implementing Agencies, together with relevant Multilateral Environmental Agreement (MEA) Secretariats, will contribute data inputs, methodological guidance, and validation feedback. National governments and executing agencies participating in pilot activities will support contextualization, testing, and institutional uptake of the tool.

Figure 6 illustrates the project's institutional arrangement and governance structure, including the roles, reporting lines, and coordination mechanisms between UNIDO, GEF Implementing Agencies, technical partners, and executing stakeholders.

Figure 6. Institutional Arrangement and Governance Structure of the GEBs Calculator Project



Project Management Unit (PMU)

UNIDO will establish a dedicated Project Management Unit (PMU) to oversee day-to-day coordination and implementation of the project. The PMU will be hosted within UNIDO and will be composed of core project management and technical personnel, including a Project Coordinator, a Chief Technical Advisor, a Monitoring and Evaluation Specialist, and short-term technical experts as required (e.g. data architecture, gender, knowledge management).

The PMU will be responsible for:

- Managing and supervising national and international consultants and service providers;
- Coordinating implementation of all project activities in line with the approved workplan;
- Coordinating engagement with GEF Implementing Agencies, MEA Secretariats, national counterparts, academia, private sector partners, and civil society organizations (CSOs);
- Managing procurement processes, financial resources, and annual work planning;
- Organizing technical consultations, validation workshops, and coordination meetings;
- Monitoring progress and ensuring timely submission of progress reports, PIRs, and other required documentation to UNIDO and the GEF.

In managing implementation, the PMU will account for potential delays related to procurement, data access, or institutional coordination, integrating buffer periods into workplans to ensure timely delivery of outputs.

UNIDO will be a member of the Project Steering Committee, participating in an advisory capacity, without exercising voting rights. All decisions adopted by the Project Steering Committee shall remain subject to UNIDO's non-objection decision, exercised in its capacity as the Implementing Agency responsible for project supervision and oversight, in accordance with UNIDO's applicable rules, policies, and procedures.

Will the GEF Agency play an execution role on this project?

Yes

If so, please describe that role here and the justification.

UNIDO is uniquely positioned to serve as the GEF Implementing Agency for the Global Environmental Benefits Calculator project due to its mandate, technical expertise, and institutional role within the GEF partnership. The project addresses a systemic weakness in the GEF Results Measurement Framework—namely, fragmented and inconsistent reporting of Global Environmental Benefits under Core Indicator 9, particularly in the Chemicals and Waste focal area. UNIDO's core mandate in sustainable industrial development, chemicals management, pollution reduction, and technology deployment aligns directly with the technical and methodological complexity of this indicator. Its long-standing experience implementing GEF-funded projects on POPs, mercury, ozone-depleting substances, waste management, and circular economy initiatives provides UNIDO with a deep understanding of both GEF RMF requirements and the practical reporting challenges faced by countries and executing agencies.

As the Implementing Agency and execution entity, UNIDO will provide methodological and technical leadership to ensure that the AI-enabled GEBs Calculator is fully aligned with the GEF RMF and relevant multilateral environmental agreements, including the Basel, Stockholm, Rotterdam, Minamata Conventions, and the Montreal Protocol. UNIDO will oversee the validation of calculation logic, emission factors, and assumptions to prevent double-counting, strengthen causal attribution, and ensure transparency, traceability, and comparability of reported results. Importantly, UNIDO's neutral institutional position within the GEF partnership enables it to convene and coordinate across all Implementing Agencies and MEA secretariats, facilitating system-wide adoption of a harmonized, GEF-endorsed reporting tool rather than agency-specific approaches.

UNIDO's strong capacity-building mandate further reinforces its suitability to execute this project. Through targeted training and institutional support—particularly for Least Developed Countries and Small Island Developing States—UNIDO will ensure that the GEBs Calculator is accessible, usable, and sustainably embedded within national and agency reporting systems. By combining technical rigor, cross-agency coordination, and inclusive capacity development, UNIDO offers the most credible and effective platform for delivering the project's transformative objective: a standardized, transparent, and globally comparable system for measuring and reporting Global Environmental Benefits across the GEF portfolio.

Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing (max. 500 words, approximately 1 page)

The GEBs Calculator project is designed to complement, strengthen, and add value to ongoing initiatives and projects across the GEF partnership by serving as a shared, cross-cutting results infrastructure rather than a stand-alone intervention. The project directly supports the implementation of the GEF Results Measurement Framework (RMF) under GEF-8 by operationalizing standardized methodologies for reporting Global Environmental Benefits, with a particular focus on Core Indicator 9 in the Chemicals and Waste focal area. In doing so, it reinforces existing GEF investments without duplicating activities, while addressing persistent challenges related to fragmented methodologies, inconsistent assumptions, and weak comparability of reported results.

The project will cooperate closely with ongoing and pipeline GEF projects implemented by UNIDO, UNDP, UNEP, FAO, the World Bank, and other accredited agencies by aligning the GEBs Calculator with their existing project information. Rather than replacing agency-specific tools, the Calculator is conceived as a harmonizing layer that consolidates and standardizes methodologies already in use, allowing agencies to map their internal approaches to a common GEF-endorsed framework. This approach facilitates aggregation of results at the portfolio level, reduces double-counting, and strengthens causal attribution across projects operating in complex, multi-sectoral environments.

Cooperation with ongoing GEF initiatives will be further strengthened through structured engagement with multilateral environmental agreement (MEA) secretariats, including the Basel, Stockholm, Rotterdam, Minamata Conventions, and the Montreal Protocol. The Calculator will draw on existing reporting guidance, indicators, and technical parameters developed under these conventions, ensuring methodological consistency and enabling countries and agencies to use a single, coherent system to meet both GEF and MEA reporting requirements. This alignment enhances efficiency, reduces reporting burdens, and increases the credibility of reported global environmental benefits.

UNIDO will leverage its existing technical teams working on chemicals, waste, and pollution-related GEF projects to support the development, testing, and refinement of the Calculator. Implementing Agencies have been and will be invited to designate technical focal points who will contribute part-time expertise to methodological validation, piloting, and training activities, fostering ownership and reducing transaction costs. In parallel, collaboration with academic institutions, private-sector partners, and existing GEF knowledge platforms will allow the project to draw on specialized expertise without establishing parallel staffing structures.

Finally, the GEBs Calculator is explicitly designed to be scalable and reusable across current and future GEF projects, including those under GEF-9. By functioning as a digital public good embedded in existing institutional arrangements, the project amplifies the impact of ongoing GEF investments, strengthens cross-agency learning, and supports a gradual transition toward an integrated, data-driven results architecture across the GEF partnership.

Core Indicators

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		3,942		
Male		4,817		
Total	0	8,759	0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

As this project primarily emphasizes the development of a tool, capacity building, and the institutionalization of standardized mechanisms for environmental benefit reporting, the estimation of beneficiaries is centered around individuals directly engaged in project activities such as training, piloting, and institutional engagement.

The project will involve stakeholders through international technical forums and training workshops organized from Vienna, as well as agency or national-level pilot demonstrations and global online learning platforms. Based on the project's design, participation is approximated as follows: approximately 200 participants from workshops across various implementing agencies; 100 participants attending global training events hosted or coordinated by UNIDO; around 200 individuals involved in pilot demonstrations and related training-of-trainers activities; and up to 500 users participating in online learning, virtual tools, and peer-learning tools. After accounting for potential overlap (individuals may participate in more than one activity), we conservatively estimate approximately 1000 unique direct beneficiaries (45 women and 50% men). Nonetheless, the indirect beneficiaries are estimated to number in the thousands and to have a global impact. The methodology used to calculate the number of people benefited indirectly is based on a conservative and transparent estimation of indirect beneficiaries, defined as staff members who are expected to indirectly receive and use the technical outputs of the intervention. The calculation focuses exclusively on formal staff of the main organizations—for example, UNIDO, UNEP, UNDP, FAO, the World Bank, and the GEF Secretariat—and excludes consultants, interns, and other non-staff personnel. Indirect beneficiaries, such as external partners or downstream stakeholders, are not included.

The starting point for the calculation is the total number of staff employed by each organization. These figures are drawn from the most recent publicly available staffing data and represent professional and general service staff. Where official gender-disaggregated data are available, they are used directly. In cases where such data are not explicitly published, proportional gender distributions are applied consistently to ensure comparability across organizations. The staff numbers are then aggregated to obtain a subtotal of 25,865 employees, comprising 10,456 men and 15,409 women.

To estimate the number of indirect beneficiaries, a technical beneficiary coefficient of 30 percent is applied to the total staff figures. This coefficient reflects the assumption that only a subset of staff within large international organizations is directly engaged in technical, programmatic, or operational functions relevant to the intervention. The 30 percent ratio is intentionally

conservative and is commonly used in project design when detailed role-by-role data are not available, helping to avoid overestimation of beneficiaries.

Applying this coefficient to the aggregated staff totals results in an estimated 7,759 direct beneficiaries. When disaggregated by gender, this corresponds to 4,267 male beneficiaries and 3492 female beneficiaries. These figures indicate that approximately 45 percent of the direct beneficiaries are women and 55 percent are men, reflecting the underlying gender composition of the participating organizations.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Low	Although the project is not physically infrastructure-based, climate-related disruptions (e.g., extreme weather events or natural disasters) may affect the scheduling of workshops, consultations, or data collection for different stakeholders. To manage this risk, UNIDO (when feasible) will prioritize online and hybrid engagements modalities, apply flexible scheduling and plan activities in advance to ensure continuity of implementation and avoid seasonal climate related constraints.
Environmental and Social	Low	Project activities have low environmental footprint, but there may be social and equity risks if marginalized or vulnerable groups (e.g., Indigenous communities, women, or the elderly) are not adequately engaged in the processes. In line with UNIDO's Environmental and Social Safeguards Policy, the project will apply inclusive participation criteria, develop localized and accessible materials in multiple languages where relevant, and validate selected tools and outputs with diverse stakeholder groups to ensure equitable participation and benefits.
Political and Governance	Low	Changes in national policies, political instability, or shifts in government priorities may affect data availability and engagement from executing agencies. To mitigate this risk, the project will prioritize data collection across a diversified set of GEF projects and institutions, apply a transparent prioritization approach for selected countries and agencies, and engage multiple data sources to reduce reliance on any single institutional counterpart. Activities will be planned with consideration of domestic political cycles to minimize disruption.

INNOVATION

Institutional and Policy	Moderate	Institutions may be hesitant to adopt standardized models that modify or harmonize existing methodologies. To mitigate this risk, UNIDO will co-create methodologies with GEF Implementing Agencies, and relevant partners, pilot and validate the GEB Calculator in selected contexts, align indicators logic with MEA reporting to strengthen legitimacy. Institutional buy-in will be supported through targeted training activities, technical guidance, and policy oriented communication materials.
Technological	Low	A distinct technological risk does exist but is indirect rather than intrinsic to the technology itself: the project does not hinge on novel or unproven AI, but on the integration, standardization, and operationalization of data across highly heterogeneous systems and users. The main risk is therefore that the GEBs Calculator may produce inconsistent or unreliable outputs if underlying data, methodologies, and user inputs remain fragmented or are applied unevenly across agencies and countries, particularly where technical capacity is limited . This risk is mitigated through (i) the prior establishment of a harmonized data architecture and standardized methodologies aligned with the GEF Results Measurement Framework and MEAs, (ii) embedding validation rules, transparent logic, and auditable calculations within the tool, and (iii) implementing pilot testing, user guidance, and capacity-building programs, including low-resource and offline functionality to ensure usability across contexts. Given that the technology itself is relatively low complexity but highly dependent on institutional uptake and data quality, the residual technological risk is best characterized as low, with remaining exposure primarily linked to external data and capacity constraints rather than failure of the technology itself.
Financial and Business Model	Low	This risk relates mainly to post-project sustainability rather than revenue generation, as the GEBs Calculator is conceived as a publicly funded, non-commercial tool within the GEF framework. The primary risk is that, after the initial GEF grant and time-bound co-financing from Clearya, there may be insufficient dedicated funding to maintain and periodically update key technical parameters (e.g., emission factors and scientific data inputs), which are necessary to keep the tool accurate and relevant over time. However, this risk is mitigated by the project's design, the core calculation architecture and methodology will be standardized and remain stable, significantly reducing future costs, while only incremental updates to scientific parameters are required. Furthermore, the tool is intended to be institutionalized within the GEF Results Measurement Framework, creating an implicit expectation that future GEF cycles will allocate resources for its maintenance, and its low-cost, modular structure minimizes financial burden. Given these characteristics, the residual financial risk is low, as the project does not depend on market-based revenue or complex financial models, and future funding needs are predictable,

		limited in scope, and aligned with GEF's mandate to support standardized reporting systems.
EXECUTION		
Capacity	Low	Risks related to the necessary capacity for implementation are deemed low. UNIDO has adequate capacity to support implementation at the global level, as well as contribute to the success of the Calculator program overall. Regarding tests of the tool, potentially, there could be limited technical capacity, especially in LDCs and SIDS, which may affect the proper use of the calculator. Therefore, implementing the training-of-trainers, multi-language resources, and phased technical support during and post-pilot will help to reduce this risk.
Fiduciary	Low	Fiduciary risk is considered low due to UNIDO's established financial management, procurement, audit, and oversight systems. The project will apply standard UNIDO financial controls, procurement procedures, expenditure tracking, and periodic audits to ensure transparency, accountability, and compliance with applicable regulations and donor requirements.
Stakeholder	Moderate	There is a risk of limited engagement or buy-in from key stakeholders (e.g. GEF Implementing Agencies, MEA Secretariats, national focal points), which could affect adoption and sustained uptake of the tool. To mitigate this risk, the project will prioritize continuous engagement through structured consultations, validation workshops, and coordination mechanisms. Dedicated technical focal points within implementing agencies and convention secretariats will be encouraged, and project outputs will be co-developed and validated with stakeholders to strengthen ownership, visibility, and long-term uptake.
Other	Moderate	Intellectual property considerations, data privacy issues, or delays related to inter-agency coordination could slow project progress. UNIDO will mitigate these risks by applying appropriate confidentiality (non-disclosure) arrangements, protecting sensitive data in line with UNIDO data protection standards, and establishing clear coordination mechanisms, timelines, and roles to support effective implementation.
Overall Risk Rating	Moderate	The overall project risk is assessed as Moderate, mainly due to the complexity of coordinating multiple international stakeholders, harmonizing methodologies across agencies and conventions, external software developers, and ensuring the uptake of the GEBs Calculator. However, it has low environmental, financial, fiduciary, and technological risks, as it involves no physical infrastructure or untested tech, and will be managed under UNIDO's systems. Risks related to stakeholder engagement, data harmonization, and inter-agency coordination will be mitigated through strong centralized

		coordination, phased piloting, stakeholder co-development, alignment with frameworks, and capacity-building activities. These measures reduce the risk of major disruptions and support successful, sustainable project delivery.
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C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Explain how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this. (max. 500 words, approximately 1 page)

The proposed GEBs Calculator project is fully aligned with GEF-8 programming strategies by directly strengthening the implementation of the GEF Results Measurement Framework (RMF) and enhancing the credibility, comparability, and transparency of Global Environmental Benefits reporting, particularly under Core Indicator 9 in the Chemicals and Waste focal area. GEF-8 places strong emphasis on results-based management, accountability, digital transformation, and system-wide coherence across the partnership. By developing and operationalizing a harmonized, AI-enabled reporting tool, the project addresses a recognized systemic gap in the GEF architecture—namely, fragmented methodologies, inconsistent assumptions, and weak attribution of results across projects, agencies, and countries.

Many GEF recipient countries—particularly Least Developed Countries (LDCs) and Small Island Developing States (SIDS)—face persistent capacity constraints in meeting reporting requirements under multilateral environmental agreements. The proposed interventions respond to these challenges by providing standardized methodologies, automated calculations, and targeted capacity building that enable countries to generate credible data using nationally available information. This strengthens national planning, supports evidence-based decision-making, and improves countries’ ability to access and justify future environmental financing.

The GEBs Calculator introduces a unified methodological framework that enables consistent aggregation of results from regional and global projects, thereby enhancing regional comparability and enabling the GEF to demonstrate collective impact across portfolios and geographic scales.

The project is explicitly aligned with the objectives and reporting frameworks of key multilateral environmental agreements supported by the GEF, including the Basel, Stockholm, Rotterdam, and Minamata Conventions, as well as the Montreal Protocol and its Kigali Amendment. These agreements require Parties to report on reductions in hazardous chemicals, elimination of persistent organic pollutants, mercury phase-out, and control of ozone-depleting substances. By aligning GEF Core Indicator 9 sub-indicators with MEA technical guidance and reporting structures, the project enables countries to use a single, coherent system to meet both GEF and convention obligations, thereby reducing reporting burdens while improving data quality and consistency.

In addition, the project supports broader GEF-8 strategic priorities related to innovation, knowledge management, and private-sector engagement. The AI-enabled design and partnerships with academic and private-sector actors facilitate access to peer-reviewed methodologies, data analytics, and scalable digital solutions. This positions the GEBs Calculator as a future-ready tool that can evolve alongside GEF-9 priorities, including circular economy transitions, enhanced private-sector participation, and increased reliance on high-quality, verifiable environmental data.

Overall, the proposed interventions translate GEF-8 strategic objectives into an operational, country-responsive, and MEA-aligned solution that strengthens national capacities, enhances regional coherence, and improves the GEF's ability to credibly demonstrate global environmental impact across its portfolio.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed during Project Preparation as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

1) Does the project expect to include any gender-responsive-measures to address gender gaps or promote gender equality and women's empowerment?

Yes

If the project expects to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment, please indicate in which results area(s) the project is expected to contribute to gender equality:

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision-making; and/or

Yes

Generating socio-economic benefits or services for women.

2) Does the project's results framework or logical framework include gender-sensitive indicators?

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during Project Preparation as required per GEF policy, their relevant roles to project outcomes has been clearly articulated in the Project Description (Section B) and that a Stakeholder Engagement Plan has been developed before CEO endorsement.

Yes

Select what role civil society will play in the project:

Consulted only; No

Member of Advisory Body; Contractor; Yes

Co-financier; Yes

Member of project steering committee or equivalent decision-making body; No

Executor or co-executor;

Other (Please explain)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided information regarding Environmental and Social risks associated with the proposed project or program, including risk screenings/ assessments and, if applicable, management plans or other measures to address identified risks and impacts (this information should be presented in Annex E).

Yes

Please provide overall Project/Program Risk Classification

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
	Low		

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described during Project Preparation in the Project Description and that these activities have been budgeted.

Yes

Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate and these benefits translate in supporting the achievement of global environmental benefits (GEF Trust Fund) or adaptation benefits (LDCF, SCCF). This section identifies the direct beneficiaries from the project.

The project will strengthen institutional capacity, reduce reporting costs, and improve access to standardized, high-quality data. Through the AI-enabled GEBs Calculator, governments and implementing agencies will be able to generate credible and comparable results using existing international data systems, reducing reliance on external consultants and increasing efficiency in project preparation, monitoring, and reporting. This strengthens public sector performance and supports more effective use of GEF and co-financing resources.

Despite not working at the national level, the project enhances countries' ability to comply with reporting obligations under the GEF and key multilateral environmental agreements, including the Basel, Stockholm, Rotterdam, Minamata Conventions, and the Montreal Protocol. Improved data quality supports evidence-based policymaking, prioritization of investments in chemicals and waste management, and increased access to future environmental financing. These benefits are particularly significant for Least Developed Countries and Small Island Developing States, where institutional and technical capacity constraints are most pronounced.

At the local level, targeted training and knowledge dissemination strengthen the skills of implementing agencies, government staff, local institutions, civil society organizations, and technical professionals in environmental accounting and results-based management. These transferable skills improve employability, support local expertise, and promote inclusive participation, including increased opportunities for women in technical and decision-making roles.

These socioeconomic benefits directly support the achievement of global environmental benefits under the GEF Trust Fund by improving the accuracy, consistency, and credibility of reported outcomes. Harmonized reporting reduces double-counting, strengthens causal attribution, and enables the GEF to demonstrate measurable reductions in hazardous chemicals, persistent organic pollutants, mercury emissions, and ozone-depleting substances. Direct beneficiaries include national authorities, GEF implementing and executing agencies, and trained stakeholders involved in monitoring and reporting, while broader populations benefit indirectly from improved environmental governance and reduced exposure to chemical pollution.

ANNEX A: FINANCING TABLES

GEF Financing Table

Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional / Global	Focal Area	Program- ing of Funds	Grant / Non- Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNIDO	GET	Global	Chemicals and Waste	POPs	Grant	1,166,668.0 0	110,833 .46	1,277,501.46
UNIDO	GET	Global	Chemicals and Waste	Mercury	Grant	1,166,666.0 0	110,833 .27	1,277,499.27
UNIDO	GET	Global	Chemicals and Waste	SAICM	Grant	1,166,666.0 0	110,833 .27	1,277,499.27
Total GEF Resources (\$)						3,500,000.0 0	332,500 .00	3,832,500.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

150000

PPG Agency Fee (\$)

14250

GEF Agency	Trust Fund	Country/ Regional / Global	Focal Area	Programming of Funds	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNIDO	GET	Global	Chemical s and Waste	POPs	50,000.00	4,750.00	54,750.00
UNIDO	GET	Global	Chemical s and Waste	Mercury	50,000.00	4,750.00	54,750.00
UNIDO	GET	Global	Chemical s and Waste	SAICM	50,000.00	4,750.00	54,750.00
Total PPG Amount (\$)					150,000.00	14,250.00	164,250.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
Total GEF Resources (\$)					0.00

Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CW-1	GET	3,500,000.00	12,080,000.00
Total Project Cost (\$)		3,500,000.00	12,080,000.00

Confirmed Co-financing for the project, by name and type

Please include evidence for each co-financing source for this project in the tab of the portal

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	UNIDO	Grant	Investment mobilized	80,000.00
Private Sector	Clearya	In-kind	Recurrent expenditures	12,000,000.00
Total Co-financing (\$)				12,080,000.00

Please describe the investment mobilized portion of the co-financing

Not Applicable

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	12/19/2025	Ganna Onysko		G.ONYSKO@unido.org
Project Coordinator	12/19/2025	Veronica Villacis		v.villacis@unido.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name of GEF OFP	Position	Ministry	Date (Month, day, year)
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ANNEX C: PROJECT RESULTS FRAMEWORK

Please indicate the page number in the Project Document where the project results and M&E frameworks can be found. Please also paste below the Project Results Framework from the Agency document.

GEBS Calculator Results Framework

Objective	To develop and operationalize an AI-enabled Global Environmental Benefits (GEBS) calculator that improves the accuracy, consistency, comparability, and transparency of reporting under GEF Core Indicator 9 across the GEF partnership, by harmonizing methodologies, reducing double-counting, strengthening causal attribution, and enhancing capacity for standardized data collection, validation, and analysis in alignment with the GEF Results Management Framework.						
	Indicators	Baseline	Mid-term Targets	End-of-Project Targets	Data Sources / Methods	Risks / Assumptions	Responsible
	Improved accuracy, consistency, and comparability of GEF Core Indicator 9 reporting globally	Fragmented methodologies; inconsistent reporting across agencies	Calculator piloted and adopted by initial agencies and countries	The calculator is institutionalized and used across GEF implementing agencies	UNIDO progress reports	Assumes institutional buy-in and GEF portal data access	UNIDO
	# of People benefiting from GEF-financed investments disaggregated by sex (count)	0 The project has not started	200 women 300 men	3,942 women 4,817 men	UNIDO progress reports	Assumes institutional buy-in and sustained GEF endorsement and support	UNIDO
Outcomes/Outputs	Indicators	Baseline	Mid-term Targets	End-of-Project Targets	Data Sources / Methods	Risks / Assumptions	Responsible
Outcome 1: Integrated data systems and methodologies	unified data architecture built around the GEBS Calculator	No unified architecture	Draft unified data architecture developed and internally validated	Fully operational unified data architecture aligned with GEF RMF and MEAs	Technical design documents; validation workshop reports; MEA consultation records	Assumes cooperation of GEF Agencies and MEA Secretariats	UNIDO
Output 1.1: Data on indicators' inventories, metrics, and technical research studies collected for harmonized reporting systems	# of GEF projects sampled and analyzed for methodological extraction	No consolidated inventory	At least 200 GEF projects reviewed	435 GEF projects analyzed (statistically representative sample)	Desk reviews of PIFs, CEO Endorsements, MTRs, TEs	Availability and accessibility of project documentation	UNIDO
	# of environmental sub-indicators inventoried and aligned with GEF RMF	No consolidated inventory	Minimum 4 sub-indicators aligned	All Core Indicator 9 sub-indicators and relevant contextual indicators are aligned	Indicator mapping matrices; RMF crosswalk tables	Consistency of indicator definitions across agencies	UNIDO

	# of methodological parameters standardized across the focal area of chemicals and waste	No standardized parameters	At least 4 parameters standardized	6 validated parameters (sub-indicators) standardized	Technical parameter registry; peer-review validation, GEF Portal	Availability and accessibility of project documentation and GEF Portal	UNIDO
Output 1.2: Unified Data Architecture and Indicator Logic Aligned with Global Reporting Frameworks	# of agencies contributing to the harmonized reporting framework	No consolidated inventory	At least 6 GEF Agencies engaged	At least 10 GEF Agencies are actively contributing	Meeting records; contribution logs	Agencies' willingness to align internal systems	UNIDO
	# of international workshops organized	No project exists	1 international workshop accomplished	N/A	International workshop, meeting records.	Agency' willingness to align internal systems and participate in the workshop	UNIDO
Outcome 2: GEBs Calculator developed and operational	Functional AI-enabled calculator (yes/no)	No calculator exists	A prototype calculator designed	Fully functional, validated GEBs Calculator deployed	Platform testing reports; user acceptance tests	Technical feasibility of AI platform	UNIDO
Output 2.1: Development of the GEBs Calculator	Unified logic model validated by MEAs	No unified logic model	Draft logic model reviewed by key MEAs	Logic model formally validated by at least 3 MEA Secretariats	Validation workshop reports; MEA feedback letters	Timely engagement of MEA Secretariats	UNIDO, Cleary a
	# of sub-indicator-specific modules implemented	No calculator exists. Independent efforts from implementing agencies are not standardized	At least 5 modules developed	All Core Indicator 9 sub-indicator modules implemented	Source code repository; functional demos	Integration challenges across modules	UNIDO, Cleary a
	calculator completed	No calculator exists	Prototype calculator designed	Final version completed and validated	Completion certificates; validation reports	Timely technical inputs	UNIDO, Cleary a
Output 2.2: User Guidance, Training Resources, and Pilot Demonstrations	# of manuals and SOPs developed	No calculator exists	Draft user manual and SOPs produced	1 finalized guidance documents	Published manuals; dissemination logs	User-friendliness of materials	UNIDO
	# of pilot tests conducted in countries	No pilots	At least 5 country pilots	At least 12 country pilots completed	Pilot reports; country feedback	Country readiness for pilots	UNIDO
	# of feedback reports generated	No reports	Interim feedback report produced	Final consolidated feedback reports	Pilot evaluation summaries	Stakeholder participation	UNIDO

	from field testing						
Outcome 3: Capacity strengthened	Number of stakeholders trained (sex-disaggregated)	0 The project has not started	At least 200 stakeholders trained (40% women)	At least 500 stakeholders trained (minimum 40% women)	Training attendance records	Participation from LDCs/SIDS	UNIDO
Output 3.1: Stakeholder Training Programs and Global Knowledge Exchange Network, with Emphasis on LDCs	# of stakeholders trained across all regions	None	50 stakeholders (40% women)	200 stakeholders (40% women)	Training databases	Travel and connectivity constraints	UNIDO
	# of LDC-specific training events conducted	None	At least 3 events (online/in-person)	At least 6 events (online/in-person) (involving at least 100 people)	Event reports	LDC institutional engagement	UNIDO
	# of trainings and awareness raising	None	At least 6 sessions (involving 40% women)	At least 12 sessions (involving at least 100 people, 40% women)	Workshop records	Scheduling conflicts	UNIDO
Output 3.2: Training Tools and Knowledge Resources Developed, Localized, and Disseminated for Scalable Capacity Building	# of tools and materials localized into 3 UN languages	None	Materials in 1 UN language	Materials in 3 UN languages	Published materials	Translation quality	UNIDO
	# of Train-the-Trainer–Qualified Facilitators	None	At least 15 trainers (initial invitation for training to 50 people, at least 40% women)	At least 30 trainers (initial invitation for training to 200 people, at least 40% women)	Certification records	Trainer retention	UNIDO
Output 3.3: Stakeholder Engagement, Peer Learning Mechanisms, and Capacity Monitoring Systems Institutionalized	# of peer learning networks and forums held	None	At least 3 events	At least 6 events	Event summaries	Continued stakeholder interest	UNIDO
	# of feedback surveys conducted and integrated	None	Interim survey conducted	100% surveys integrated	Survey analysis reports	Response rates	UNIDO

Outcome 4: Monitoring, learning and scaling	% Aligned monitoring, reviews, evaluations, and knowledge products	The project has not started	50% of outputs monitored	100% of outputs monitored and documented	M&E system reports	Timely data reporting	UNIDO
Output 4.1: Comprehensive Project Monitoring and Results Reporting System Established and Operational	# of RMF-aligned indicators tracked	None	At least 10 indicators	All relevant RMF indicators tracked	M&E dashboard	Indicator definition changes	UNIDO
	# of quarterly reviews and annual reports completed	None	1 annual report + quarterly reviews	2 annual reports + quarterly reviews	Progress reports	Reporting delays	UNIDO
	# of knowledge products created	None	At least 5 products	At least 10 products	Published outputs	Knowledge uptake	UNIDO
Output 4.2: Learning Integration, Knowledge Sharing Mechanisms, and Independent Evaluations Conducted	Mid-Term and Terminal Evaluations conducted (# of independent evaluations conducted)	None	Mid-Term Evaluation completed	Mid-Term and Terminal Evaluations completed	Independent evaluation reports	Availability of evaluators	UNIDO

ANNEX D: STATUS OF UTILIZATION OF PROJECT PREPARATION GRANT (PPG)

Provide detailed funding amount of the PPG activities financing status in the table below:

Project Preparation Activities Implemented	GETF/LDCF/SCCF Amount (\$)		
	Budgeted Amount	Amount Spent To date	Amount Committed
International consultants (feasibility studies, technical and scientific design parameters)	20,000.00		20,000.00
International meetings (consultations and workshops to inform the design and deliverables of the project)	20,000.00	11,700.00	8,300.00

Contractual Services (for data analysis for the support of the project, technical parameters, gender and stakeholder engagement documents)	50,000.00		50,000.00
Travel (for stakeholder consultations, collection and harmonization of technical inputs and software architecture strategy)	20,000.00		20,000.00
☑ Institutional capacity assessments and due diligence of Executing and other relevant partners	40,000.00		40,000.00
Total	150,000.00	11,700.00	138,300.00

ANNEX E: PROJECT MAP AND COORDINATES

Please provide geo-referenced information and map where the project interventions will take place

Please provide any further geo-referenced information and map where project interventions are taking place as appropriate.

Not Applicable

ANNEX F: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

Attach agency safeguard screening/assessment report(s), including ratings of risk types and overall project/program risk classification as well as any management plans or measures to address identified risks and impacts.

Title

Stakeholder Engagement Plan GEB Calculator

GAP_GEBs Calculator

ES_Screening_250299_GEB_Calculator_signed

ANNEX G: BUDGET TABLE

Please explain any aspects of the budget as needed here

Expenditure Category	Activities	COMPONENT 1	COMPONENT 2	COMPONENT 3	COMPONENT 4	PMC	Total	Responsible
Goods	Equipment for Project Management Unit: subscriptions to apps, a laptop, screens, and tables.					\$15,000.00	\$15,000.00	UNIDO
Goods Total						\$15,000.00	\$15,000.00	
Sub-contract to executing partner/entity	Interfaces' initial design, contextualization, and logic protocols		\$200,000.00				\$200,000.00	CLEAR YA
	Programming of a modular calculator		\$1,200,000.00				\$1,200,000.00	CLEAR YA
	Validation of logic and usability features		\$200,000.00				\$200,000.00	CLEAR YA

Sub-contract to executing partner/ entity Total			\$1,600,000.00				\$1,600,000.00	
Contractual Services – Individual	Collection of data from global databases and MEAs	\$60,000.00					\$60,000.00	UNIDO
Contractual Services – Individual Total		\$60,000.00					\$60,000.00	
Contractual Services – Company	Create multilingual training manuals, resources, and SOPs		\$55,000.00				\$55,000.00	UNIDO
	Design of a centralized data system	\$150,000.00					\$150,000.00	UNIDO
	Develop sector-specific learning modules			\$180,000.00			\$180,000.00	UNIDO
	Development of cross-agency data harmonization framework - external consultant	\$105,000.00					\$105,000.00	UNIDO
	Implement peer and community exchange			\$70,000.00			\$70,000.00	UNIDO
	Link to the global knowledge exchange platform			\$120,000.00			\$120,000.00	UNIDO
Contractual Services – Company Total		\$255,000.00	\$55,000.00	\$370,000.00			\$680,000.00	
International Consultants	Conduct Mid-Term Review and Terminal Evaluation				\$70,000.00		\$70,000.00	UNIDO
	Conduct pilot demonstrations in GEF countries and agencies		\$20,740.00				\$20,740.00	UNIDO
	Development of a cross-agency data harmonization framework	\$75,000.00					\$60,000.00	UNIDO
	Stratified sampling and review of 435 GEF projects	\$150,000.00					\$150,000.00	UNIDO
International Consultants Total		\$225,000.00	\$20,740.00		\$70,000.00		\$300,740.00	
Local Consultants	Create lessons-learned reports and methodological updates				\$17,222.00		\$17,222.00	UNIDO
	Document case studies and lessons learned		\$15,000.00				\$15,000.00	UNIDO
	Gather and analyze stakeholder feedback			\$50,000.00			\$50,000.00	UNIDO
	Implement quarterly and annual reviews				\$10,000.00		\$10,000.00	UNIDO
	Inventory of indicators and methodologies across agencies	\$80,000.00					\$80,000.00	UNIDO
Local Consultants Total		\$80,000.00	\$15,000.00	\$50,000.00	\$27,222.00		\$172,222.00	
Salary and benefits / Staff costs	Project Coordinator					\$90,000.00	\$90,000.00	UNIDO
	Expert in Stakeholder Engagement					\$36,000.00	\$36,000.00	UNIDO
	Project assistant					\$36,038.00	\$36,038.00	UNIDO
Salary and benefits / Staff costs Total						\$162,038.00	\$162,038.00	
Trainings, Workshops, Meetings	Certify regional ToT trainers			\$120,000.00			\$120,000.00	UNIDO
	Conduct regional forums and roundtables			\$100,000.00			\$100,000.00	UNIDO
	Host in-person trainings and virtual events			\$180,000.00			\$180,000.00	UNIDO
Trainings, Workshops, Meetings Total				\$400,000.00			\$400,000.00	
Travel	Development of a cross-agency data harmonization framework	\$80,000.00					\$80,000.00	UNIDO
	Host in-person trainings and virtual events			\$30,000.00			\$30,000.00	UNIDO
Travel Total		\$80,000.00		\$30,000.00			\$110,000.00	UNIDO

Grand Total		\$700,00 0.00	\$1,690, 740.00	\$850,00 0.00	\$97,222 .00	\$162,0 38.00	\$3,500, 000.00	
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