

## Workshop Report

# Regional Workshop on Ecuador's Experience in Developing Economy-Wide Material Flow Accounts (EW-MFA) and Knowledge Exchange

1-3 December 2025 | Quito, Ecuador



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- Increased visibility of EW-MFA for policy and SDG reporting
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- National follow-up actions in Ecuador
- Continued regional collaboration and knowledge exchange
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## 1. Summary

A Regional Workshop on Ecuador's experience in developing Economy-Wide Material Flow Accounts (EW-MFA) and knowledge exchange was held in Quito, Ecuador, from 1 to 2 December 2025. The workshop was jointly organized by the Ministry of Environment and Energy of Ecuador and the United Nations Environment Programme (UNEP), with the objective of fostering regional peer learning and strengthening institutional capacities for the development and use of EW-MFA in support of sustainable development policymaking.

The workshop formed part of the Statistics and Data Project "Resilient and agile National Statistical Systems to meet post-COVID-19 data needs to recover better", under the 14th tranche of the United Nations Development Account (DA14 project). It brought together representatives from national statistical offices, ministries of environment and energy, central banks, sectoral agencies, academia and international organizations from Ecuador and several countries in Latin America, including Argentina, Chile, the Dominican Republic, Mexico, Panama and Uruguay.

The main purpose of the workshop was to share Ecuador's national experience in compiling EW-MFA, including methodological approaches, data sources and institutional arrangements, and to facilitate technical and policy-oriented exchanges among participating countries. Particular emphasis was placed on the relevance of EW-MFA as a tool to support evidence-based policymaking on resource efficiency, circular economy, and sustainable production and consumption, as well as to inform reporting on Sustainable Development Goal (SDG) targets 8.4 and 12.2.

The workshop combined technical and methodological discussions with institutional and policy dialogues. The first day focused on the presentation of UNEP's EW-MFA methodology and on Ecuador's experience in compiling material flow accounts, complemented by technical exchanges on data availability and methodological challenges. The second day emphasized institutional arrangements, policy relevance and regional knowledge exchange, including country presentations on national experiences and a dialogue on sustainable institutional frameworks for environmental-economic accounting.

Overall, the workshop strengthened regional cooperation on EW-MFA, enhanced mutual learning among participating countries, and reinforced the role of institutional coordination in advancing the development and use of material flow accounts. The discussions and exchanges provided a foundation for continued national and regional collaboration under UNEP's work on resource efficiency and circular economy.

## 2. Workshop Objectives

The Regional Workshop on Ecuador's experience in developing Economy-Wide Material Flow Accounts (EW-MFA) was designed to support regional peer learning and to strengthen institutional capacities for the development, use and policy application of EW-MFA in Latin America. The workshop aimed to build on Ecuador's ongoing work on material flow accounting and to provide a platform for technical exchange and dialogue among countries at different stages of implementation.

In particular, the workshop sought to:

- **Present Ecuador's national experience** in compiling Economy-Wide Material Flow Accounts, including the methodological framework, data sources, material categories and harmonization approaches adopted at the national level.
- **Facilitate the exchange of experiences and methodologies** among participating countries, with a focus on practical challenges and opportunities related to data availability, compilation processes and inter-institutional coordination.
- **Strengthen understanding of the policy relevance of EW-MFA**, highlighting their role in supporting evidence-based policymaking on resource efficiency, circular economy, and sustainable production and consumption.
- **Promote the use of EW-MFA for international reporting**, particularly in relation to Sustainable Development Goal (SDG) targets 8.4 and 12.2 on material footprint and domestic material consumption.
- **Foster regional collaboration and knowledge exchange**, contributing to the development of a regional community of practice on environmental-economic accounting under UNEP's work on resource efficiency and circular economy.

Overall, the workshop aimed to reinforce the strategic role of EW-MFA as a bridge between statistical systems and public policy, supporting both national decision-making processes and regional cooperation efforts in the context of the 2030 Agenda for Sustainable Development.

### 3. Participants

The Regional Workshop on Ecuador’s experience in developing Economy-Wide Material Flow Accounts (EW-MFA) brought together a diverse group of participants representing key institutions involved in environmental-economic accounting, statistics, and policy development at the national and regional levels.

The workshop was attended by representatives from government institutions, national statistical offices, central banks, sectoral agencies, academia and international organizations, reflecting the multi-institutional nature of the work required to develop and sustain EW-MFA.

#### 3.1 Institutional participation

At the national level, the workshop included participation from key institutions in Ecuador involved in the production, coordination and use of data relevant to Economy-Wide Material Flow Accounts: the Ministry of Environment and Energy of Ecuador, the National Institute of Statistics and Census (INEC), the Central Bank of Ecuador (BCE), the Geology and Energy Research Institute (IIGE), the Agency for Regulation and Control of Mining (ARCOM) and the Agency for Regulation and Control of Water (ARCA).

The participation of these institutions highlighted the importance of inter-institutional coordination for the compilation, validation and policy use of EW-MFA, as well as for their integration into national statistical systems and decision-making processes.

At the international level, the workshop was supported by the United Nations Environment Programme (UNEP), which provided technical guidance and facilitated regional knowledge exchange in line with its custodianship role for environment-related SDG indicators.

#### 3.2 Countries represented

In addition to Ecuador, the workshop brought together delegations from **Argentina, Chile, the Dominican Republic, Mexico, Panama and Uruguay**, representing National Statistical Offices, Ministries of environment and other sectoral institutions involved environmental-economic accounting. The participation of countries at different stages of EW-MFA development enriched the technical discussions and enabled peer learning on methodological approaches, institutional arrangements and policy applications.

#### 3.3 Number of participants

A total of 133 participants attended the workshop over the two days, reflecting strong interest in advancing the development and use of Economy-Wide Material Flow Accounts at both national and regional levels. This number includes assistants to the protocolar segment of Day 2. A detailed list of participants is provided in **Annex**.

a) Institutions involved in the workshop

#	INSTITUCIÓN	TIPO
1	Ministerio de Ambiente y Energía	Público
2	Instituto Tecnológico Sucre	Academia
3	Programa de las Naciones Unidas para el Desarrollo	ONG
4	Ministerio de Agricultura, Ganadería y Pesca	Público
5	Gran Tierra Energy Inc.	ONG
6	Asociación de Municipalidades Ecuatorianas	Público
7	ECONOMICA CI	ONG
8	Lowell Mineral Exploration S.A.	Privado
9	PCR Ecuador S.A.	Privado
10	Ministerio de Producción, Comercio Exterior e Inversiones	Público
11	Conservación Internacional	ONG
12	SEIN EC	Privado
13	EOSS CONSULTANT	Privado
14	Agencia de Regulación y Control Hidrocarburos	Público-Adscrita
15	Instituto Nacional de Estadística y Censos	Público
16	Agencia de Regulación y Control Minero	Público-Adscrita
17	Instituto de Investigación Geológico y Energético	Público-Adscrita
18	PETROECUADOR	Público-Adscrita
19	Banco Central del Ecuador	Público
20	Presidencia de la República del Ecuador - Dirección de Gobierno Abierto	Público
21	UNESCO	ONG
22	Agencia de Regulación y Control del Agua	Público-Adscrita
23	Pontificia Universidad Católica del Ecuador	Academia
24	Fundación Ciudadanía y Desarrollo	ONG
25	Empresa Nacional Minera ENAMI	Público-Adscrita

b) Technicians and authorities participating in the training and discussion sessions.

#	Nombre y apellido	País	Institución
1	Gabriela Ackermann	Argentina	INDEC Argentina
2	Camila Rosales	Chile	Ministerio de Medio Ambiente de Chile
3	Federico Gonzalez	México	Instituto Nacional de Estadística y Geografía
4	Yelvis Acevedo	Panamá	Ministerio de Ambiente Panamá
5	Rikelvi Fermin	Rep. Dominicana	Ministerio de Medio Ambiente y Recursos Naturales
6	Enrico Benedetti	Uruguay	Instituto Nacional de Estadística Uruguay
7	Jhomara Katherine Salazar Garcia	Ecuador	Ministerio de Ambiente y Energía

8	Ana Lissett Castillo Paredes	Ecuador	Ministerio de Ambiente y Energía
9	Jacqueline Alexandra Guevara Aviles	Ecuador	Ministerio de Ambiente y Energía
10	Katherine Mishell Nieto Paredes	Ecuador	Ministerio de Ambiente y Energía
11	Santiago Estuardo Martínez Pumagualli	Ecuador	Ministerio de Ambiente y Energía
12	Iliana Lourdes Ochoa Luzuriaga	Ecuador	Ministerio de Ambiente y Energía
13	Fredy Guillermo Ramón Ibujés	Ecuador	Ministerio de Ambiente y Energía
14	Carla Paredes	Ecuador	Ministerio de Ambiente y Energía
15	Evelyn Madeleyn Fernandez	Ecuador	Ministerio de Ambiente y Energía
16	Jackson Maximiliano Tapia	Ecuador	Ministerio de Ambiente y Energía
17	Amparo Carolina Almeida Ponce	Ecuador	Ministerio de Ambiente y Energía
18	Vinicio Paúl Chicaiza Cocanguilla	Ecuador	Ministerio de Ambiente y Energía
19	Gina Krupaskaia Moreta Sevillano	Ecuador	Ministerio de Ambiente y Energía
20	Evelyn Vannessa Guevara Cárdenas	Ecuador	Agencia de Regulación y Control del Agua
21	Maria Belen Grijalva Gonzalez	Ecuador	Agencia de Regulación y Control de Hidrocarburos
22	Lenin Vivanco Armijos	Ecuador	Asociación de Municipalidades Ecuatorianas
23	Josué Laverde	Ecuador	Banco Central del Ecuador
24	Álex Pérez	Ecuador	Banco Central del Ecuador
25	Santiago Segovia	Ecuador	Banco Central del Ecuador
26	Javier Fontalvo	Ecuador	Instituto de Investigación Geológico y Energético
27	Guillermo Fernández	Ecuador	Instituto de Investigación Geológico y Energético
28	Pamela Paredes	Ecuador	Instituto Nacional de Estadísticas y Censos
29	Jaritzza Marianela Velez Motaño	Ecuador	Ministerio de Agricultura, Ganadería y Pesca
30	Diego Manosalvas Cordovez	Ecuador	Ministerio de Agricultura, Ganadería y Pesca
31	César Augusto Egas Vaca	Ecuador	Ministerio de Agricultura, Ganadería y Pesca
32	Cecilia Enríquez	Ecuador	Ministerio de Producción, Comercio Exterior e Inversiones
33	Maritza Ramírez	Ecuador	Empresa Nacional Minera
34	Yolanda Chávez	Ecuador	Conservación Internacional
35	Ricardo Tipán Daqui	Ecuador	PETROECUADOR
36	Diego Vizuete	Ecuador	Instituto Tecnológico Sucre

## 4. Workshop Sessions

### Day 1 – Technical and Methodological Focus (1 December 2025)

The first day of the workshop focused on technical and methodological aspects related to the development of Economy-Wide Material Flow Accounts (EW-MFA), with an emphasis on compilation processes, data sources and methodological challenges.

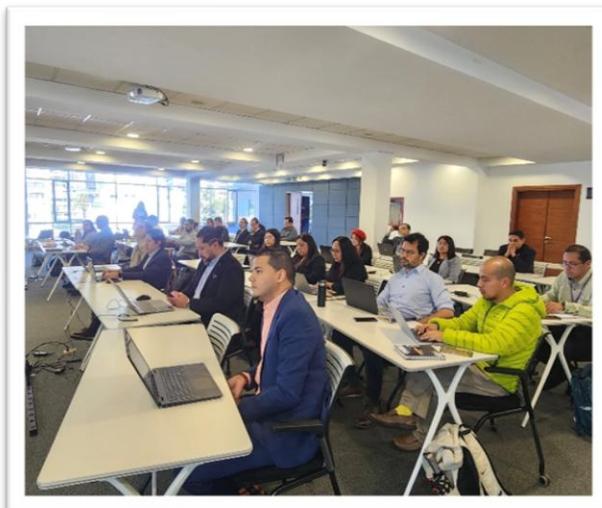
- **Session 1. Opening and Introduction**



The workshop opened with welcoming remarks from representatives of the Ministry of Environment and Energy of Ecuador and the United Nations Environment Programme (UNEP). The opening session highlighted the relevance of Economy-Wide Material Flow Accounts as a core component of environmental-economic accounting and their role in supporting evidence-based policymaking for sustainable development.

Participants were introduced to the objectives and structure of the workshop, and the agenda for the two days was presented, outlining the technical focus of the first day and the institutional and policy-oriented discussions planned for the second day.

- **Session 2. Introduction to UNEP's methodology for Economy-Wide Material Flow Accounts**



This session provided an overview of UNEP's methodological framework for compiling Economy-Wide Material Flow Accounts. The presentation introduced the conceptual foundations of EW-MFA and their alignment with international statistical standards, as well as their relevance for monitoring progress towards Sustainable Development Goal (SDG) targets 8.4 and 12.2.

The session highlighted the structure of EW-MFA, including the main material categories and accounting tables, and

discussed the importance of data consistency, transparency and harmonization across sources. The presentation also emphasized the role of national statistical systems and inter-institutional coordination in ensuring the sustainability and policy relevance of material flow accounts.

- **Session 3. Ecuador's experience in developing Economy-Wide Material Flow Accounts**



Building on the methodological introduction, this session focused on Ecuador's national experience in compiling Economy-Wide Material Flow Accounts. The presentation covered the process followed at the national level, including the identification of relevant data sources, the classification of material categories, and approaches used to harmonize data across institutions.

The discussion highlighted practical challenges encountered during the compilation process, such as data availability, institutional coordination and methodological alignment, as well as lessons learned that may be relevant for other countries initiating or advancing EW-

MFA work.

- **Session 4. Technical exchange on data sources and methodological challenges**

The first day concluded with an interactive technical exchange involving participants from Ecuador and the other participating countries. This session provided an opportunity for delegates to share experiences, raise questions and discuss common challenges related to data collection, compilation practices and methodological choices.

The exchange underscored the diversity of national contexts and institutional arrangements across the region, while also highlighting shared challenges and opportunities for collaboration. The discussions reinforced the value of peer learning and regional knowledge exchange in strengthening the technical foundations of Economy-Wide Material Flow Accounts.



## Day 2 – Institutional and Policy Dimensions (2 December 2025)

The second day of the workshop shifted the focus from methodological considerations to institutional arrangements, policy relevance and regional knowledge exchange.



- **Session 5. Institutional arrangements and policy relevance of EW-MFA**

The day began with a presentation of Ecuador's Economy-Wide Material Flow Accounts and their relevance for national policy processes. The session emphasized how EW-MFA can inform decision-making on resource efficiency, circular economy strategies and sustainable production and consumption.



A symbolic inter-institutional signing ceremony among national entities collaborating in the development of EW-MFA highlighted the importance of formalized coordination and sustained institutional engagement for the continuity of environmental-economic accounting efforts.

- **Session 6. National experiences from participating countries**

This session featured presentations from participating countries, including **Argentina, Chile, the Dominican Republic, Mexico, Panama and Uruguay**, on their respective experiences in developing environmental accounts and related statistical frameworks.



The presentations reflected different stages of progress and institutional arrangements across countries, providing valuable insights into diverse approaches to environmental-economic accounting. The exchange enabled participants to identify common challenges, good practices and opportunities for collaboration at the regional level.





- **Session 7. Regional dialogue on sustainable institutional arrangements**

Following the country presentations, participants engaged in a regional dialogue on sustainable institutional arrangements for the development and use of Economy-Wide Material Flow Accounts. The discussion addressed issues related to inter-agency coordination, data sharing mechanisms and the integration of EW-MFA into national statistical and policy frameworks.

The dialogue reinforced the importance of clear institutional roles, strong coordination mechanisms and continued capacity development to ensure the effective use of EW-MFA for policymaking.

- **Session 8. Closing session**

The workshop concluded with reflections on the key messages and insights emerging from the two days of discussions. The closing session emphasized the value of continued regional collaboration and knowledge exchange, as well as the role of UNEP in supporting countries in advancing Economy-Wide Material Flow Accounts under its work on resource efficiency and circular economy.

### **Day 3 – Bilateral and Inter-Institutional Follow-up (3 December 2025)**

Following the regional workshop, a third day was dedicated to internal and bilateral technical meetings between the Ministry of Environment and Energy of Ecuador, the United Nations Environment Programme (UNEP) and selected national institutions involved in the compilation of Economy-Wide Material Flow Accounts.

These meetings focused on addressing a limited number of remaining information gaps identified during the national EW-MFA compilation process. Discussions centered on clarifying specific data issues, improving consistency across sources and identifying practical steps to strengthen data availability and validation.

The day provided an opportunity to advance coordination among key institutions and to support progress toward the closure of outstanding data gaps, contributing to the consolidation of Ecuador's national Economy-Wide Material Flow Accounts.

## 5. Key Outcomes

The Regional Workshop on Ecuador's experience in developing Economy-Wide Material Flow Accounts (EW-MFA) resulted in several important outcomes at the national and regional levels, contributing to the strengthening of environmental-economic accounting and to regional cooperation under the DA14 project.

### **Strengthened regional peer learning and knowledge exchange**

The workshop provided a platform for regional peer learning, enabling participating countries to exchange experiences, methodologies and lessons learned related to the development and use of Economy-Wide Material Flow Accounts. The presentation of Ecuador's national experience, combined with country interventions from Argentina, Chile, the Dominican Republic, Mexico, Panama and Uruguay, facilitated a constructive dialogue among countries at different stages of implementation.

This exchange contributed to a shared understanding of common challenges, practical solutions and good practices, reinforcing regional collaboration on EW-MFA.

### **Enhanced institutional coordination in Ecuador**

At the national level, the workshop strengthened **inter-institutional coordination** among key institutions involved in the compilation and use of EW-MFA in Ecuador. The participation of statistical, environmental, financial and sectoral institutions highlighted the multi-institutional nature of material flow accounting and the importance of sustained collaboration across agencies.

The symbolic inter-institutional signing ceremony held during the workshop further underscored the commitment of national institutions to work jointly on the development and consolidation of Economy-Wide Material Flow Accounts.

### **Increased awareness of the policy relevance of EW-MFA**

Discussions throughout the workshop highlighted the role of EW-MFA as a tool to support **evidence-based policymaking** on resource efficiency, circular economy, and sustainable production and consumption. Participants explored how material flow accounts can inform national policy processes and contribute to reporting on Sustainable Development Goal (SDG) targets 8.4 and 12.2.

The integration of technical and policy-oriented discussions strengthened participants' understanding of the linkages between statistical production and policy application.

### **Progress toward addressing remaining data gaps**

The bilateral and inter-institutional meetings held on the third day contributed to advancing the resolution of a limited number of remaining information gaps identified during Ecuador's national EW-MFA compilation process. These discussions supported greater clarity on data sources, consistency across datasets and practical steps for improving data availability and validation.

This follow-up work reinforced the continuity between the regional workshop and ongoing national technical processes.

### **Contribution to UNEP and DA14 objectives**

Overall, the outcomes of the workshop supported the objectives of the DA14 project by strengthening national and regional capacities for environmental-economic accounting and by promoting the use of EW-MFA in support of sustainable development planning and reporting. The workshop also contributed to UNEP's broader work on resource efficiency and circular economy in the region.

## 6. Way Forward and Next Steps

Building on the discussions and exchanges held during the regional workshop, several follow-up actions and next steps were identified at the national and regional levels to sustain and further advance the development and use of Economy-Wide Material Flow Accounts (EW-MFA).



### National follow-up in Ecuador

At the national level, continued technical collaboration among key institutions will be essential to consolidate Ecuador's Economy-Wide Material Flow Accounts. Follow-up actions will focus on strengthening data availability, improving consistency across sources and addressing remaining information gaps identified during the compilation process.

Ongoing coordination between the Ministry of Environment and Energy of Ecuador, the National Institute of Statistics and Census (INEC), the Central Bank of Ecuador (BCE) and other sectoral institutions will support the integration of EW-MFA into national statistical systems and their use for policy analysis and reporting.

### Regional collaboration and knowledge exchange

At the regional level, the workshop highlighted the value of sustained peer learning and collaboration among countries working on environmental-economic accounting.

Participating countries expressed interest in continuing technical exchanges on methodologies, institutional arrangements and policy applications of EW-MFA.

These efforts will contribute to strengthening a regional community of practice on Economy-Wide Material Flow Accounts and to promoting methodological consistency across countries in the region.

### **Alignment with UNEP and the DA14 project**

The follow-up actions identified during the workshop align with the objectives of the DA14 project on strengthening national statistical systems and with UNEP's work on resource efficiency and circular economy. Continued technical support and regional cooperation under these frameworks will help ensure that EW-MFA are effectively developed, maintained and used to inform sustainable development policies and reporting on the 2030 Agenda.