Mexico’s Biodiversity Expenditure Review 2006–2019

Executive Summary
**Rights:** Reproduction of this publication for educational or other non-commercial purposes is authorized without prior written permission from the copyright holder provided the source is fully acknowledged. Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder. The designation of geographical entities in this book, and the presentation of the material, do not imply the expression of any opinion whatsoever on the part of UNDP concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

This publication was written as part of the project 00108628 Biodiversity Finance Initiative BIOFIN Mexico phase II.

**EXECUTIVE EDITOR:**
Daniela Torres, National Coordinator of the Biodiversity Finance Initiative in Mexico (BIOFIN Mexico)

**EDITORS:**
Alonso Martínez, María Márquez and Frida Arriaga

**EDITORIAL DESIGN:**
Héctor Mendoza


**Please cite this publication as:** UNDP Mexico (2021). Biodiversity Expenditure Review in Mexico 2019. Biodiversity Finance Initiative BIOFIN Mexico: Mexico City.
Introduction
The Biodiversity Finance Initiative of the United Nations Development Programme developed a methodology to estimate national biodiversity expenditures. The BER aims to use data on biodiversity related budget allocations to inform and promote improvements in public policies. Due to its usefulness in decision making, it is important that this information is permanently updated and communicated among stakeholders.

Since 2015, Mexico started the BER process along with the National Statistics and Geography Institute (INEGI). The first edition was released in 2018 comprising the period 2006 - 2015. This partnership has been crucial not only for strengthening the methodology but also to build trust on BER due to INEGI’s role as an independent and reliable institution.

During 2020, a BER update started with the intention of institutionalizing the BER process within the structure and processes of INEGI. For this process two inputs were considered, firstly, the recommendations of the Central Framework of the System of Environmental and Economic Accounting (SEEA)-Classification of Environmental Activities (CEA), and secondly, the recommendations of the BIOFIN methodology to develop a BER.

The present document gathers lessons learned derived from the efforts to harmonize the SEEA-CF Classification of Environmental Activities (CEA) used for Expenditure on Environmental Protection (EPE) and Natural Resources Management (NRM) and the BIOFIN categories.
Methodology
The first BER was built by taking the Expenditure on Environmental Protection national database, and adding those budgetary programs related to sustainable use of biodiversity, both the direct and indirect expenditures. For the indirect expenditures, the team applied coefficients (also known as attribution rates) including major subsidies and programmes that were not considered under the EPE and that were found through BIOFIN’s Policy and Implementation Review (PIR). The PIR helped guide the definition of coefficients where EPE was not explicit enough.

What changed from the previous BER?

The updated version of BIOFIN’s BER methodology (2018) includes changes that allow detailing expenditures by growing from six to nine categories.

The SEEA–CF Natural Resources Management account was included, expanding the analysis from the previous EPE.

The coefficient coherence was reevaluated under the new categories.
Regarding the coefficients

To harmonize both methodologies, INEGI-BIOFIN team compared definitions and proposed rates to match both classifications. The coefficient is a percentage weighting of the expenditure that is allocated to biodiversity. A primary level is considered when 100% of the expenditure for conservation can be attributed to some expenditure, and a secondary level with those that have a variable percentage. It is important to highlight that for each BIOFIN activity there is at least one EPE or NRM category, hence all BIOFIN categories fall under one of these categories, as shown in the following diagram.

*Category 8, Access and Benefit Sharing is not considered due to the fact that there is not enough information on the Protocol’s implementation.
CLASSIFICATION OF ENVIRONMENTAL ACTIVITIES

1. Protection of air and climate
2. Wastewater management
3. Waste management
4. Protection and remediation of soil and water
5. Noise and vibration abatement
6. Protection of Biodiversity and Landscapes
7. Protection against radiation
8. R&D for environmental protection
9. Other environmental activities
10. Management of mineral and energy resources
11. Management of timber resources
12. Management of aquatic resources
13. Management of other biological resources
14. Management of water resources
15. R&D for resource management
16. Other resource management activities
For example, the activities of category 6 “Protection of biodiversity and landscapes” are included as primary expenditures on biodiversity, which refer to the measures and activities intended to the protection and recovery of biodiversity, ecosystems, habitats, and natural and intervened landscapes.
Regarding the PIR and its role on this review, during this revision the coefficients of the previous BER (informed by the Institutional Analysis) were revisited, and the coherence between coefficients, categories and budget programs was reviewed in order to make them as sustainable in time as possible. A future update of coefficients would imply revising the governmental programmes and the correspondence between expenditure categories and coefficients. Attribution ratios will be allocated through an integrated approach that considers agency, programme, and activity. This process shall take place every six years, when the federal administration changes.
BER estimation

To consolidate the information, the Environmental Protection Expenditure and Natural Resource Management accounts are recorded in a database where the expenses are classified either as current expenditure or investments. Current expenditure refers to expenditures made for the payment of salaries, materials, and diverse services. Investment is focused on the development, repair, and maintenance of fixed capital. This classification intends to match the way Mexican public accounts are built, it is important to understand where the resources are going and evaluate their impact, this will also save a substantial amount of time when developing the Financial Needs Assessment.

These values are individually multiplied by the BIOFIN coefficient to obtain the corresponding biodiversity expenditure breakdown. Direct expenses are multiplied by 1, and indirect expenses by a coefficient greater than zero and less than one:
0 < **BIOFIN expenditure coefficient** < 1

Once the aggregates of current and investment spending have been obtained, these two subtotals are added resulting in the total spending at the Federal Government level. If any piece of information is missing from the available public accounts, then a specific research within the PIR must be taken to fulfill these gaps. The following diagram summarizes the process.
Biodiversity expenditure

**STARTING POINT**

- Review Federal EPE Database
  - FEDERAL EPE DATABASE

- Identify Biodiversity Expenditure relating to NRM in public accounts according to PIR
  - BIODIVERSITY FINANCE POLICY AND INSTITUTIONAL REVIEW
  - FEDERAL PUBLIC ACCOUNT/TRANSPARENCY PORTAL/PROGRAMS AND PROJECTS

- Complete database with information from Biodiversity Expenditure Questionnaire
  - BIODIVERSITY EXPENDITURE QUESTIONNAIRE

- Apply the BIOFIN classification according to the corresponding catalogue
  - CEA-BIOFIN CORRESPONDANCE CATALOGUE

- Assign BIOFIN Attribution Rate
  - BIOFIN ATTRIBUTIONS CATALOGUE

- Multiply the CE by the corresponding BIOFIN coefficient to obtain the CEBn CH 1000 + CH 2000 + CH 3000

- Multiply the IE by the corresponding BIOFIN coefficient to obtain the CEBn CH 5000 + CH 6000

- Obtain the TBE = CEBn + IEn

**EPE:** Environmental Protection Expenditure

**NRM:** Natural Resource Management

**PIR:** Biodiversity Finance Policy and Institutional Review

**IE:** Investment Expenditure

**CEA:** Classification of Environmental Activities

**CE:** Current Expenditure

**CEB:** Current Expenditure on Biodiversity
The results of this update show a behavior of spending with a sustained increase between 2006 and 2013, stabilizing until 2015 at around $ 19 billion pesos annually (USD 954.7 million). As of 2016, a negative trend is observed that continues until 2019.

The following graph shows the results obtained at federal level for the 2006–2019 period in dollars. It should be noted that the Spanish version contains other tables and graphs that allow to understand how much and where the budget is being allocated under several classifications. The way the database is constructed allows for such flexibility.

### Biodiversity Expenditure 2006–2019
Millions of USD

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>$450.81</td>
</tr>
<tr>
<td>2007</td>
<td>$715.43</td>
</tr>
<tr>
<td>2008</td>
<td>$565.61</td>
</tr>
<tr>
<td>2009</td>
<td>$598.86</td>
</tr>
<tr>
<td>2010</td>
<td>$771.79</td>
</tr>
<tr>
<td>2011</td>
<td>$907.95</td>
</tr>
<tr>
<td>2012</td>
<td>$915.32</td>
</tr>
<tr>
<td>2013</td>
<td>$1,086.75</td>
</tr>
<tr>
<td>2014</td>
<td>$1,093.19</td>
</tr>
<tr>
<td>2015</td>
<td>$1,092.88</td>
</tr>
<tr>
<td>2016</td>
<td>$1,005.71</td>
</tr>
<tr>
<td>2017</td>
<td>$831.48</td>
</tr>
<tr>
<td>2018</td>
<td>$948.88</td>
</tr>
<tr>
<td>2019</td>
<td>$732.05</td>
</tr>
</tbody>
</table>
Subnational BER
Finally, another substantial difference with this update is the ability to expand the reach of implementation. The first edition was limited to expenditures reported at the federal level, however, the institutionalization of the methodology allows for specific analysis for state governments that are willing to organize and report their information under the same categories as INEGI does for the federal government. Currently, BIOFIN and INEGI collaborate with Mexico City and the State of Jalisco in the development of local spending studies that will allow more effective targeting of resources. In 2019, Mexico City spent MXN 12,425 million in biodiversity (USD 624 million).
Conclusions & recommendations

Mexico, like other countries that are using the SEEA-CF framework measures the EPE and NRM accounts, this standard allows the generation of internationally comparable statistics. Therefore, it is advisable to identify which countries and to what extent are using this methodology in order to develop the BER.

For the BER, it is necessary to count on sources of information that are timely, truthful, recurrent and that meet data quality criteria such as certainty and consistency. The extent to which standardized methodological frameworks are used will allow greater international comparability of the BER across countries. Additionally, the following takeaway points must be noted:

- The biodiversity expenditure analysis is a tool, based on the best available information, for decision-makers to plan their resource mobilization strategies under an expenditure efficiency approach.

- The expenditure analysis enhances its effectiveness when accompanied by the PIR and FNA. It is not only important to know how much is spent but where spending should be directed and through what financial or policy mechanisms it should be done.

- This information should preferably be accompanied by information on conservation gaps, local, national, or international biodiversity goals, and must be linked to biodiversity conservation strategies to identify those actions that require more funding.
• The methodology developed jointly by BIOFIN–INEGI can be applied at the subnational level to detail the historical and trend behavior of state biodiversity budgets.

• Attribution rates can be allocated through an integral approach that considers agency, program, and activity.

• The role of the private sector in mobilizing resources is essential to move towards a more sustainable economy. Although expenditure information for this sector is still a pending task, it is necessary to make visible the advantages that this would have in terms of environmental and climate risk impacts, not only for society but for the operation of the business and financial sector.
For more information about BIOFIN Mexico, go to:

http://www.biodiversityfinance.net/mexico