Executive Summary of Phase I: Results and Biodiversity Finance Solutions
United Nations Development Programme

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Background

The United Nations Development Programme (UNDP) launched in 2012, the Biodiversity Finance Initiative (BIOFIN) in response to the urgent need to divert more finance from all possible sources to support the implementation of the commitments of the Strategic Plan 2011-2020 and the Aichi Targets of the Convention on Biological Diversity (CBD). Mexico joined the BIOFIN Initiative in 2015, under the leadership of the Ministry of Environment and Natural Resources and the participation of the Ministry of Finance and Public Credit, the National Institute of Statistics and Geography, the National Commission of Protected Natural Areas, the National Forestry Commission, and the National Commission for Biodiversity Knowledge and Use.

The goal of BIOFIN is developing finance solutions to increase resources for biodiversity based on solid information on the current state of biodiversity finances. BIOFIN countries must develop an analysis of public policies framework regarding biodiversity; estimate public spending for biodiversity; define funding needs for its national goals and objectives; and apply a finance solution plan build upon the former information. Within the BIOFIN Initiative framework, finance solution is defined as the set of financial mechanisms and instruments that work effectively to: 1) increase funding from several sources; 2) improve spending efficiency; 3) align programmes and budgets; and/or 4) reduce future costs from negative impacts.

Types of finance solutions

1. Increase financing from several sources (generate revenue)
2. Improve spending efficiency (deliver better)
3. Align programmes and budgets (realign expenditures)
4. Avoid future costs from negative impacts
BIOFIN Mexico permanently seeks to get involved in the financial, productive and social sectors, and foster intersectoral collaboration to increase the relevance of financing for biodiversity. Currently, the BIOFIN initiative is being implemented in 36 countries.

BIOFIN implementation process

1. Institutional policy analysis and public expenditure assessment
   - Political actors
   - Institutions
   - Public expenditure

2. Biodiversity financial needs
   - Financing needs
   - Implementation cost

3. Biodiversity finance solution plan
   - Identifying opportunities
   - Efficiency, realignment, co-benefits

4. Finance solutions implementation
   - Domestic dialogue and coordination
   - Build and strengthen mechanisms
Objectives

• To generate information through public policies and actors’ analysis, as well as of federal public expenditure with impact on biodiversity from 2006-2015.

• To identify the finance needs for biodiversity based on the National Biodiversity Strategy (ENBIOMEX) and other domestic priorities such as Payment for Environmental Services and Protected Natural Areas.

• To develop and implement biodiversity finance solutions allowing to increase resources, reduce expenses, align public programmes, and avoid future costs caused by negative impacts.

From 2015 to 2018, BIOFIN Mexico developed Phase I of the BIOFIN methodology comprising steps 1 to 3 of the project’s implementation process.

Result 1. Policy and Institutional Review on Biodiversity

The Policy and Institutional Review identified the main public policies, legal instruments and programmes supporting public actions for the conservation, management and sustainable use of biodiversity, as well as the incentives that could be redirected to generate a positive impact and those that potentially have a negative effect on biodiversity.

Constitutional and international agreements: Mexico has a robust legal framework for supporting actions for biodiversity conservation and sustainable use. The basis of this framework is the Mexican Constitution, which states that “every person has the right to a healthy environment for its development and well-being”. In addition, Mexico is a signatory of international commitments such as the Convention on Biological Diversity (CBD) and its protocols (Cartagena and Nagoya), the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) and the 2030 Agenda and its Sustainable Development Goals (SDG), among others. The institutional framework of Mexico places these instruments and their commitments at the federal legislation level.

Domestic laws: there are at least eight laws directly regulating biodiversity conservation and sustainable use and at least 36 laws controlling productive activities impacting on biodiversity. Among them are those that directly regulate biodiversity management:
- General Law of Ecological Equilibrium and Environmental Protection (LGEEPA)
- General Wildlife Act (LGVS)
- General Law of Sustainable Forest Development (LGDFS)
- Sustainable Rural Development Act (LDRS)
- General Law of Sustainable Fisheries and Aquaculture (LGPAS)
- Law on Biosafety of Genetically Modified Organisms (LBOGM)
- Federal Law of the Sea (LFM)
- Federal Law of Environmental Responsibility (LFRA)

However, while there is a comprehensive legal framework, it is necessary to harmonize the definitions on conservation and biodiversity sustainable use as well as to improve the articulation of policies and programmes.

**Planning instruments:** mainly the National Biodiversity Strategy and its Action Plan (ENBIOMEX) and the National Climate Change Strategy (ENCC).

**Institutions:** the Federal Public Administration (APF) ministries that have direct budgetary allocations that impact on biodiversity are: Environment and Natural Resources (SEMARNAT); Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA); and the Navy (SEMAR). However, there are other such as Finance and Public Credit (SHCP), Territorial and Urban Agrarian Development (SEDATU); Social Development (SEDESOL); Tourism (SECTUR), Economy (SE); Energy (SENER); and Communications and Transport (SCT) which also have a bearing on them, although it is not explicit.

**Intersecretariat commissions:** knowledge and Use of Biodiversity (CONABIO); Climate Change (CICC); Sustainable Rural Development (CIDRS); Biosecurity and Genetically Modified Organisms (CIBIOGEM) and Seas and Coasts (CIMARES).

**Public policies and programmes for biodiversity conservation and sustainable use:** in 2014, 37 public programmes regarding biodiversity were identified by BIOFIN. The policies and programmes were classified as: 1) biodiversity; 2) sustainable use of natural resources; 3) productive activities; and 4) negative drivers and threats. It should be noted that, for those programmes related to productive activities, they could be converted in programmes that explicitly promote biodiversity sustainable use with specific changes in its operation rules. Of the 37 programmes identified, 17, with productive purposes, have the possibility of reducing its impact on biodiversity or contributing to its management by including sustainability criteria through modifications to its operation rules and guidelines.
Executive Summary of Phase I: Results and Biodiversity Finance Solutions

Classification of policies and programmes and their impact on biodiversity

Based on the Environmental Protection Expenditures annually estimated by the National Institute of Statistics and Geography (INEGI), and other expenses related to the biodiversity sustainable use identified in the Ministry of Finance (SHCP) public account, BIOFIN Mexico estimated the federal public expenditure for biodiversity, which has had a growing trend from 2006 to 2013.

As shown in the graph below, it increased from USD 351 million in 2006 to USD 1,079 million in 2014, 207% growth in real terms, thus, from 2006 to 2014 the federal spending tripled. However, from 2015 a decrease of 9% was observed. Nonetheless, biodiversity spending has shown a constant proportion related to gross domestic product (GDP) representing on average 0.09% of GDP.

Result 2. Biodiversity Expenditure Review, 2006-2015\(^1\).

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\(^1\)This information will be updated annually.
\(^2\)The exchange rate is of 18.8MXN per 1USD. The numbers are also rounded.
It is important to note that the participation of other ministries regarding Mexico’s spending on biodiversity conservation, has increased in the period under review. In 2006, SEMARNAT executed 80% of expenditure, while in 2015 was 62%. As a result, federal spending on biodiversity diversified throughout the period because other ministries increased their participation, such as SAGARPA, which went from 14% (2006) to 21.5% (2015). In the last year of the period, SAGARPA used its resources for biodiversity mainly through programmes relating to phytogenetic conservation resources, fisheries management and pest control. Other ministries also allocated resources for biodiversity in reforestation (SEDENA) inspection and monitoring of seas and coasts (SEMAR).

It is important to point out that, even though there was an increasing trend on biodiversity expenditure from 2006 (USD $353.5 million) to 2014 (USD $1,078.4 million), Mexico started a fiscal adjustment period from 2016, that is still under way. This has caused a general decrease on the federal budget, including the environmental sector. It is estimated that for 2017 and 2018, the biodiversity expenditure will decrease as a result of the budget allocations and the executed expenditure.
Ministries’ Participation in Public Spending on Biodiversity 2006-2015
FIGURES IN PERCENTAGES

Source: own elaboration based on SHCP and INEGI
Strategic Sector Subsidies Programmes: most of the subsidies in the primary sector in Mexico are destined for agricultural and livestock activities causing important impacts on biodiversity. If the resource designed to promote productive activities is compared with the one given to programmes for conservation and biodiversity sustainable use, the differences are substantive. Accordingly, the effort to align public programmes is essential, as this will encourage greater efficiency of spending and avoid generating negative impacts involving future costs, i.e.: restoration costs, as well as the ecosystems’ value loss due to forest decrease.

Subsidies Programmes in Strategic Sectors 2017
FIGURES IN MILLIONS OF USD

Result 3. Biodiversity Financial Needs Assessment

According to the estimation of financial needs for biodiversity management, there is a need for an additional USD 461.9 million per year during the period 2017-2020, which represents an increase of 46.7% to biodiversity spending, based on the one exercising during 2015.
The financial needs assessment includes: 1) Protected Natural Areas (PNA) financial gap calculated in USD 60 million per year estimated by CONANP; 2) the finance needs to cover the Payment for Environmental Services (PES) demand estimated at USD 202.1 million by CONAFOR; and 3) the National Biodiversity Strategy and the Action Plan (NBSAP-ENBIOMEX) finance needs estimated at MXN 191.4 million.

ENBIOMEX’s Finance Needs:

- **Strategic priority 1 Knowledge**: USD 55.4 million (12%)
- **Strategic priority 2 Conservation and restoration**: USD 350.8 million (76%)
- **Strategic priority 3 Sustainable use and management**: USD 25.8 million (5.6%)
- **Strategic priority 4 Attention to negative drivers and threats**: USD 19.9 million (4.3%)
- **Strategic priority 5 Education, communication and environmental culture**: USD 3.6 million (0.8%)
- **Strategic priority 6 Integration and governance**: USD 6.2 million (1.3%)

Biodiversity Annual Financial Needs by ENBIOMEX strategic priorities for the period 2017-2020

Source: own elaboration

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3 Includes the financial gap of PNA calculated by CONANP and the estimate of finance needs to cover the demand for CONAFOR’s PES
Another result of the financial needs assessment was that 76% of the required resources are current expenditure and 24% are investment spending. However, due to the fiscal adjustment process in recent years, an increase in the current expenditures of the federal government is unlikely. Accordingly, more initiatives and projects that can leverage public spending for investment projects in restoration, environmental infrastructure and conservation, should be considered.

BIOFIN’s financial needs assessment has helped to establish a path of implementation for the ENBIOMEX and has shown the required resources for its implementation up to 2020. It also enabled the identification of major gaps and opportunities in the field of biodiversity which will be crucial for the design and development of finance solutions. This exercise sets a precedent by including the finance approach for updating and/or elaborating future national biodiversity strategies and action plans.

Financial Needs Beyond ENBIOMEX

Increasing financial resources will not be enough to close the funding gap, because to meet the objectives of ENBIOMEX in the medium and long term, some actions indirectly affecting biodiversity should be considered, for instance the Environmental Degradation and Resource Depletion Total Costs (CTADA)\(^4\) annually estimated by INEGI. In 2015, these costs represented USD $11.6 million (1% of GDP) of which 67.2% corresponded to the primary sector economic activities that potentially affect the ecosystems and species. Therefore, the mainstreaming, and internalization of biodiversity criteria in programmes, projects and policies in other sectors are crucial to prevent and neutralize negative impacts to biodiversity.

This is illustrated in the following figure representing the amount needed to cover the biodiversity finance needs, which is significantly lesser than the CTADA related to negative impacts to biodiversity. To reduce the financial gap, is required to increase the expenditure intended for biodiversity as well as increase the efficiency in expenditure. However, compensating, reducing and preventing CTADA’s related to biodiversity is essential. Otherwise, the gap will continue to grow even if the ENBIOMEX’s financial needs are covered.

\(^4\)The costs that society would have to take to repair, restitute or prevent the depletion and degradation of natural resources and environment, as a result of the processes of production, distribution and consumption are considered (INEGI)
Financing Needs for Biodiversity and Total Costs for Environmental Degradation and Resource Depletion Costs (CTADA) Related to Biodiversity

CTADA’s related to negative impacts on biodiversity
USD 11.6 million (2015)
- Land degradation: USD 5.5 billion
- Water pollution: USD 2.8 billion
- Depletion of forest resources: USD 1.1 billion
- Water depletion: USD 2.0 billion

Finance Needs (2017-2020)
- USD 461 million per year
- 0.047% of 2015 GDP

Biodiversity expenditure (2015 baseline)
- USD 977.3 million
- Biodiversity expenditure 0.38% of total federal budget
- 0.1% of GDP in 2015

Compensate, reduce and avoid CTADA
Reduce financing needs
Increase expenditure
Finance Needs
Executed expenditure in biodiversity

Source: own elaboration with INEGI and BIOFIN data.
The financial needs for biodiversity should be addressed through a strategy of diversified resources with a multi-actor participation. This strategy should be formulated based on the biodiversity federal public expenditure estimation, the analysis of the public programme framework and policies that affect it, and the estimate of finance needs to meet the domestic priorities on biodiversity. BIOFIN Mexico, along with a great diversity of actors and experts, developed the Biodiversity Finance Plan. This plan recognized that there is previous national experience within many instruments and mechanisms of public, private and public-private partnerships that have managed to generate and leverage additional resources to public budgets. These are included as an annex to this document.

**Biodiversity Finance Plan objective:** to present a consistent and integral finance approach for biodiversity, covering innovative finance solutions, with participation from the public-private sector and civil society to help decrease the finance gap and aid the population that is directly dependent on biodiversity.

**Biodiversity Finance Solutions Proposal**

- Integration of biodiversity (mainstreaming)
- Climate and biodiversity finance
- Financial mechanisms for conservation
- Sustainable businesses and impact investment
- Greening the financial sector
- Support solutions
  - International financing vision
  - Economic and finance analysis
1) Biodiversity mainstreaming in public policies and processes

- **Green budget based on results aligned to Sustainable Development Goals (SDG):** to institutionalize the biodiversity expenditure review; to contribute to the formulation of a green budget; and to improve the result based planning through modification of the design, rules of operation and Indicator Matrix (MIR) of budgetary programmes related to biodiversity and align them to the SDG. In addition, to identify and adapt operation rules of the federal budgetary programmes for the promotion of sustainable productive activities; to promote and consolidate territorial public policies in strategic areas integrating biodiversity considerations; and to enable a fund that allows the alignment of resources of various programmes under an unified criteria at the territorial level.

2) Climate Change and Biodiversity Finance

- **Climate Change Fund strengthening:** to increase, diversify and improve funding for biodiversity through the operationalization and full implementation of the Fund to contribute to the fulfilment of national and international commitments on climate change and biodiversity.

- To fund projects of environmental infrastructure and/or ecosystem-based adaptation issues through the Environmental Programme of the National System of Public Investment (SNIP): to realign and increase funding for biodiversity through the Environmental Programme of the SNIP whose purpose is financing conservation, biodiversity, restoration and pollution remediation projects.

- **To promote the Ecosystem-Based Adaptation (EBA) through international climate finance:** to increase international cooperation resources (Global Environment Facility, Green Climate Fund, etc.) for projects of EBA to finance large-scale interventions that reduce the vulnerability of people and ecosystems to climate change.

- **To develop a forest carbon protocol including biodiversity and social considerations:** to design a protocol for forestry projects of capture and storage of emissions in the framework of the new carbon market set by the General Law on Climate Change.

3) Conservation financial mechanisms

- **To increase the local mechanisms for the payment of environmental services programme:** expand and diversify the financing sources for active conservation and sustainable forest management by increasing the resources with CONAFOR’s PES programme, with a multi-stakeholder intervention: private sector, subnational governments and civil society.

- **Conservation local mechanisms in Protected Areas:** expand and diversify fund sources (private and civil society organizations) for the PA through innovative finance local mechanisms.
4) Sustainable business and impact investment for biodiversity

- Nature entrepreneurship and impact investing: to promote impact investment on biodiversity conservation in Mexico by introducing a finance approach in partnership with the private sector. It seeks to catalyze a process on impact investments to generate a profitable portfolio aligned to the objectives of biodiversity, and to design a hybrid financial mechanism, that could channel grants and private investments in accordance with the project needs. This solution involves civil society organizations, private sector, donors and governments. The participation of the private sector in early stages is key for the exchange of best practices, awareness-raising and to promote a multiplier and scalable effect. It is also important to generate incentives to encourage the sustainable, legal and traceable trade of wild species, thereby contributing to the conservation of biodiversity, creation of new markets and development of rural communities by implementing the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

5) Greening the financial sector

- Facilitate the implementation of an Environmental and Social Risk Management System (SARAS) in the financial sector to adequately acknowledge biodiversity: reduce the negative impacts on biodiversity with the establishment of SARAS through guidelines and clear indicators of risk assessment, and to support the development of information systems to parameterize and generate a homogeneous and automatic risk level classification.

- Green Bonds Issuance: to issue a green bond for anchoring a portfolio of productive projects of restoration or green infrastructure for biodiversity and ecosystems.

- Facilitate the development of guidelines for investors of companies listed on the Mexican Stock Exchange (BMV): to promote the development of indicator and metrics on impact and management of natural capital for companies listed on the BMV. This, in order to generate business reports that serve for investors interested in measuring the impact on its investment portfolio.
6) Implementation support solutions

- **International finance vision to close the finance gap in biodiversity:** develop a concerted vision of international finance aligned to national and international priorities of biodiversity, promoting synergies and coordination between projects, as well as efficiently take advantage of the resources of international cooperation while avoiding duplication of activities.

- **Economic and financial analysis as a support for finance solutions:** To develop economic valuations for estimating the inaction cost of biodiversity conservation and environmental services. In addition, to develop financial analysis of policies and investments (public and private) to align public policies and programmes and minimize negative impacts on biodiversity.

**BIOFIN Mexico Phase II 2018-2022**

BIOFIN Mexico concluded Phase I in 2018, meeting the goals and results proposed above. Consequently, UNDP granted Mexico additional resources to implement the priorities of the Biodiversity Finance Plan, as well as others that are identified as priorities in the coming years. The identification and prioritization of finance solutions was done in collaboration with representatives of the BIOFIN Mexico Steering Committee, as well as with a large number of parties and specialists in various fields and sectors.
Conclusions and Recommendations

Having a national diagnosis on the status of finance biodiversity that identifies major institutions, actors, sources of funding (including those that can promote negative impacts) and biodiversity financial needs, provides a tool to propose solutions for the conservation and sustainable use of biodiversity from a financial perspective.

Regarding the challenges of biodiversity financing, it is necessary to design finance solutions that can diversify sources of assets, national and international, public and private. In addition, it is important to promote efficiency improvement of expenditure, the alignment of programmes and public budgets, and to avoid future costs for negative impacts (restoration is more expensive than conservation).

After ENBIOMEX’s finance needs assessment, the importance of embedding –within planning tools– the link between productive sectors and the underlying causes of biodiversity loss and the strategies to address them was recognized. Only in 2015, the costs to compensate the biodiversity related environment damage were estimated at USD 11.6 million of which 67.2% is caused by the primary sector activities (INEGI, 2015).

It is essential to create and facilitate coordination mechanisms, strengthen inter-secretariat commissions, internalize biodiversity criteria in different sectors and promote sustainable productive activities that diminish the impact on biodiversity, as well as to design and implement innovative and greater impact finance solutions.

Creating linkages with actors outside the environmental sector is crucial to increase the relevance of biodiversity in domestic planning and to identify new finance opportunities with the private sector. Examples include: 1) collaboration with INEGI was key to estimate the analysis of biodiversity federal public expenditure; 2) working with SHCP allowed triggering key processes to strengthen the Climate Change Fund; and 3) to approach the private sector made it possible to identify finance opportunities such as impact investment, which has the potential to allocate resources for nature projects beyond philanthropy while generating economic gains.

There are several financial vehicles for biodiversity, but there is yet a chance to expand, diversify and improve their institutional design and operation to increase its efficiency. In addition, the private sector has contributed to the conservation and sustainable development of biodiversity, primarily through philanthropy and corporate social responsibility; however, through impact investing and hybrid vehicles (awarding grants, investments and credits) nature entrepreneurship can be promoted vehicles with sustainable practices whilst generating investment returns.
## Annex: Existing Biodiversity Finance Mechanisms in Mexico

Some of the main instruments and mechanisms existing in Mexico are shown below; they are grouped by types of economic instrument: market, fiscal, regulatory risk, and environmental funds.

### MARKET-BASED INSTRUMENTS

<table>
<thead>
<tr>
<th>Name of Mechanism</th>
<th>Responsible Institution</th>
<th>Type of Solution</th>
<th>Result</th>
<th>Regulatory Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary market of carbon emissions mitigation</td>
<td>CSO, private buyers</td>
<td>Carbon market</td>
<td>Increase resources</td>
<td>Private agreement between communities and donors</td>
</tr>
<tr>
<td>Eco-labels in PA</td>
<td>CONANP</td>
<td>Eco-labels</td>
<td>Avoid future costs</td>
<td>Voluntary mechanism of producers in PA</td>
</tr>
<tr>
<td>Certification of timber</td>
<td>Forest Stewardship Council (FSC)</td>
<td>Sustainability Standards: products and services</td>
<td>Avoid future costs</td>
<td>Certificate issued by local entities under FSC standards</td>
</tr>
<tr>
<td>Certification of Sustainable Forest Management</td>
<td>CONAFOR</td>
<td>Sustainability Standards: products and services</td>
<td>Avoid future costs</td>
<td>NMX-AA-143-SCFI-2015</td>
</tr>
<tr>
<td>Certified Sustainable Fisheries</td>
<td>Marine Stewardship Council (MSC)</td>
<td>Sustainability Standards: products and services</td>
<td>Avoid future costs</td>
<td>Certificate issued by local entities under the MSC standards</td>
</tr>
<tr>
<td>Share issue for forest plantations</td>
<td>Proteak</td>
<td>Forest Bonds</td>
<td>Avoid future costs</td>
<td>Public offering of Certificates of Regular participation (July 5th, 2010)</td>
</tr>
<tr>
<td>Monterey Metropolitan Water Fund</td>
<td>Latin American Alliance of Water Funds, private sector, government, academia, civil society</td>
<td>Environmental Fund</td>
<td>Increase resources Avoid future costs Improve expenditure efficiency</td>
<td>Private agreement between companies</td>
</tr>
<tr>
<td>Agua Capital (Water Fund)</td>
<td>Water Council, private sector</td>
<td>Environmental Fund</td>
<td>Increase resources</td>
<td>Private agreement between companies</td>
</tr>
<tr>
<td>Management System of Environmental and Social Risks (SARAS)</td>
<td>CitiGroup Banamex, Banorte</td>
<td>Green Banking</td>
<td>Avoid future costs</td>
<td>Bank Voluntary Initiative</td>
</tr>
<tr>
<td>Replenishment of water projects</td>
<td>TNC, Pronatura, private companies (Coca-Cola, PepsiCo, Heineken, etc.)</td>
<td>Environmental Fund</td>
<td>Avoid future costs</td>
<td>Voluntary agreement between the parties</td>
</tr>
<tr>
<td>Name of mechanism</td>
<td>Responsible Institution</td>
<td>Type of Solution</td>
<td>Result</td>
<td>Regulatory Framework</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Permits, authorizations and concessions in PNA</td>
<td>CONANP</td>
<td>Permits and Licenses</td>
<td>Avoid future costs</td>
<td>Federal law (Article 194-C)</td>
</tr>
<tr>
<td>Collection of biological resources for scientific purposes, for biotechnology or trade (specifically the Convention on International Trade in Endangered Species of Wild Fauna and Flora-CITES)</td>
<td>SEMARNAT</td>
<td>Permits and Licenses</td>
<td>Align expenditure</td>
<td>Federal law (Article 194-F)</td>
</tr>
<tr>
<td>Protected Natural Areas Tariffs</td>
<td>CONANP</td>
<td>Entrance fees</td>
<td>Avoid future costs</td>
<td>Federal law (Articles 198, 198-A, 198-B, 238-C)</td>
</tr>
<tr>
<td>Wildlife Conservation Management Units (UMA)</td>
<td>SEMARNAT</td>
<td>Hunting licenses, sustainable trade of species, and ecotourism</td>
<td>Increase resources</td>
<td>General Law of Ecological Equilibrium and Environmental Protection</td>
</tr>
<tr>
<td>Compensation for land use changes in forest land</td>
<td>CONAFOR</td>
<td>Environmental Compensation</td>
<td>Avoid future costs</td>
<td>Federal law (Article 238)</td>
</tr>
<tr>
<td>Special tax on carbon dioxide</td>
<td>SHCP</td>
<td>Carbon taxes</td>
<td>Improve the expenditure efficiency</td>
<td>General Law of Sustainable Forest Development</td>
</tr>
<tr>
<td>Licenses to release Genetically Modified Organisms license</td>
<td>SEMARNAT</td>
<td>Licenses, authorizations and concessions</td>
<td>Avoid future costs</td>
<td>Law of the Special Tax on Production and Services. (Article 2, Section I, subparagraph (H))</td>
</tr>
<tr>
<td>SEMARNAT licenses and concessions</td>
<td>SEMARNAT</td>
<td>Licenses, authorizations and concessions</td>
<td>Increase resources</td>
<td>Federal law (Article 194-I)</td>
</tr>
<tr>
<td>Environmental sanctions</td>
<td>PROFEPA</td>
<td>Environmental Crimes</td>
<td>Increase resources</td>
<td>Federal law (Chapter XII)</td>
</tr>
<tr>
<td>Payment for Hydrological Environmental Services</td>
<td>CONAFOR</td>
<td>Payment for environmental services: water</td>
<td>Avoid future costs</td>
<td>Law of Environmental Responsibility</td>
</tr>
<tr>
<td>Biodiversity Payment for Environmental Services</td>
<td>CONAFOR</td>
<td>Payment for environmental services: forests</td>
<td>Increase resources</td>
<td>(Articles 19, 45 and 46)</td>
</tr>
<tr>
<td>Programme for the Conservation of Endangered Species</td>
<td>CONANP</td>
<td>Incentives for conservation</td>
<td>Avoid future costs</td>
<td>Public budget</td>
</tr>
<tr>
<td>Conservation Programme for Sustainable Development</td>
<td>SEMARNAT-CONANP</td>
<td>Incentives for conservation and sustainable businesses</td>
<td>Increase resources</td>
<td>Matching Funds</td>
</tr>
<tr>
<td>Rates and concessions for extraction and use of water resources</td>
<td>SEMARNAT-CONAGUA</td>
<td>Ecological Fiscal Transfers</td>
<td>Avoid future costs</td>
<td>Transfer of CONAGUA to CONAFOR Based on Federal Law (Article 223 paragraph (B))</td>
</tr>
<tr>
<td>Basins and cities II: Zapalínánemé mountains</td>
<td>FMCN, GRAF, Profauna, Aguas de Saltillo</td>
<td>Ecological Fiscal Transfers</td>
<td>Increase resources</td>
<td>Public budget</td>
</tr>
</tbody>
</table>
## RISK INSTRUMENTS

<table>
<thead>
<tr>
<th>Name of Mechanism</th>
<th>Responsible Institution</th>
<th>Type of Solution</th>
<th>Result</th>
<th>Regulatory Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance for reconstruction of coral reefs (in development)</td>
<td>Swiss RE, hoteliers in the Riviera Maya, Government of the State of Quintana Roo</td>
<td>Environmental and Climate Insurance Schemes</td>
<td>Avoid future costs</td>
<td>Private Agreement between companies</td>
</tr>
<tr>
<td>Livestock insurance (predators)</td>
<td>SAGARPA</td>
<td>Environmental Impact Insurance Schemes</td>
<td>Avoid future costs</td>
<td>Operating rules from the agriculture assurance programme</td>
</tr>
</tbody>
</table>

## GRANTS

<table>
<thead>
<tr>
<th>Name of Mechanism</th>
<th>Responsible Institution</th>
<th>Type of Solution</th>
<th>Result</th>
<th>Regulatory Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>International finance for biodiversity</td>
<td>KfW, AFD, USAID, GEF, GIZ</td>
<td>Official Development Assistance (ODA)</td>
<td>Increase resources</td>
<td>Multilateral conventions and bilateral cooperation agreements</td>
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<tr>
<td></td>
<td></td>
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<td>Avoid future costs</td>
<td>Memoranda of Understanding</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Align spending costs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Improve expenditure efficiency</td>
<td></td>
</tr>
<tr>
<td>Philanthropy</td>
<td>WWF Alliance - Carlos Slim Foundation, PEMEX, Fomento Ecológico Banamex, Gonzalo Rio Aronte Foundation, Fundación Harp Helú, Televisa Foundation, among others</td>
<td>Donations and mobilization of private funds</td>
<td>Increase resources</td>
<td>Boards of Trustees</td>
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<tr>
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<td>Avoid future costs</td>
<td>Corporate social and environmental responsibility</td>
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</table>
## REGULATORY INSTRUMENTS

<table>
<thead>
<tr>
<th>Name of Mechanism</th>
<th>Responsible Institution</th>
<th>Type of Solution</th>
<th>Result</th>
<th>Regulatory Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexico-Meso-America Biological Corridor Project (MBC)</td>
<td>SEMARNAT SAGARPA</td>
<td>Intersectoral approach</td>
<td>Align expenses</td>
<td>Convention on Environmental Sustainability for the Mesoamerican Biological Corridor</td>
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<td>Avoid future costs</td>
<td>Specific agreements on certain species published in the Official Journal of the Federation</td>
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<tr>
<td>Fishing quotas</td>
<td>CONAPESCA</td>
<td>Fishing quotas</td>
<td>Avoid future costs</td>
<td>FEDECOOP</td>
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<td>Community management of fishing quotas</td>
<td>EDF, COBI</td>
<td>Fishing quotas</td>
<td>Avoid future costs</td>
<td>General Law of Sustainable Forestry Development</td>
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<tr>
<td>Changes in agricultural subsidies programmes</td>
<td>SAGARPA SEMARNAT</td>
<td>Harmful Subsidies: agriculture</td>
<td>Align expenses</td>
<td>Agriculture National Programme</td>
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<td>Avoid future costs</td>
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</table>
## ENVIRONMENTAL FUNDS

<table>
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<tr>
<th>Name of Mechanism</th>
<th>Responsible Institution</th>
<th>Type of Solution</th>
<th>Result</th>
<th>Regulatory Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biodiversity Fund</td>
<td>CONABIO</td>
<td>Environmental Fund</td>
<td>Increase resources</td>
<td>Trust Agreement for Biodiversity</td>
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<tr>
<td>Climate Change Fund</td>
<td>SEMARNAT</td>
<td>Environmental Fund</td>
<td>Increase resources Align expenses</td>
<td>General Law on Climate Change (Article 80)</td>
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<tr>
<td>Mexican Forest Fund</td>
<td>CONAFOR</td>
<td>Environmental Fund</td>
<td>Increase resources Align expenses Avoid future costs</td>
<td>General Law of Sustainable Forest Development (Article 142)</td>
</tr>
<tr>
<td>Biodiversity Endowment Fund</td>
<td>CONAFOR</td>
<td>Environmental equity fund</td>
<td>Increase resources Avoid future costs</td>
<td>Project Agreement 7375-ME GEF-CONAFOR of Environmental Services</td>
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<td>Natural Protected Areas Fund</td>
<td>FMCN</td>
<td>Environmental equity fund</td>
<td>Increase resources Improve the expenditure efficiency</td>
<td>Public-private scheme between the Mexican Government and the Mexican Fund for Nature Conservation</td>
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<tr>
<td>State of Veracruz Environmental Fund</td>
<td>Government of Veracruz</td>
<td>Environmental Fund</td>
<td>Increase resources Improve the expenditure efficiency</td>
<td>Amending Decree for the creation of the Public Trust of Veracruz’s Environmental Fund</td>
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<td>Environmental Responsibility Fund</td>
<td>SEMARNAT</td>
<td>Environmental Fund</td>
<td>Increase resources</td>
<td>General Law of Ecological Equilibrium and Environmental Protection</td>
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<td>Climate Change Fund of the Yucatan Peninsula</td>
<td>Yucatan, Campeche and Quintana Roo Government</td>
<td>Environmental Fund</td>
<td>Increase resources</td>
<td>General Cooperation Agreement and Interstate Coordination to take actions and joint strategies to address adaptation, mitigation and vulnerability reduction in the Yucatan Peninsula</td>
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<tr>
<td>Monarch Fund</td>
<td>FMCN</td>
<td>Environmental Fund</td>
<td>Increase resources Avoid future costs</td>
<td>Trust Agreement between FMCN, governmental authorities and landowners of the Monarch Butterfly Biosphere Reserve</td>
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<tr>
<td>El Triunfo Conservation Fund</td>
<td>FONCET</td>
<td>Environmental Fund</td>
<td>Increase resources Avoid future costs</td>
<td>Agreement between public and private institutions</td>
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</tbody>
</table>
For more information about BIOFIN Mexico, as well as to consult the reports and results of the Initiative, refer to the website: http://www.biodiversityfinance.net/mexico

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- Biodiversity Finance Initiative

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