



CLIMATE
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**SUSTAINABLE FORESTS,
SUSTAINABLE COMMUNITIES:
A CASE STUDY OF THE
FOREST INVESTMENT
PROGRAM IN MEXICO**



FIP FOREST
INVESTMENT
PROGRAM



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SUSTAINABLE FORESTS, SUSTAINABLE COMMUNITIES: A CASE STUDY OF THE FOREST INVESTMENT PROGRAM IN MEXICO

Lauren Cooper and Dr. Emily Huff

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CONTENTS

ACKNOWLEDGEMENTS	II
EXECUTIVE SUMMARY	1
INTRODUCTION	2
CLIMATE CHANGE FUNDING AND ENTRANCE OF THE FIP	3
INVESTING IN MEXICO'S FORESTS	4
CONTRIBUTING TO TRANSFORMATIONAL CHANGE	5
THE FIP PROJECTS IN MEXICO	6
SYNERGISTIC LINKAGES AND RELATED ACTIVITIES	9
ACHIEVING MULTI-SCALED RESULTS IN MEXICO'S FORESTS	11
EXAMPLE FROM THE FIELD: DURANGO	11
EXAMPLE FROM THE FIELD: OAXACA	17
SCALING FROM THE GROUND UP	23
FINDINGS	23
MOVING FORWARD	25
REFERENCES	26



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EXECUTIVE SUMMARY

With over 138 million hectares of forest land, a history of forest loss, and millions of inhabitants in forest-dependent communities, Mexico represents a key country in the endeavor to find equilibrium between forest industry, human development, best practice implementation, and forest protection. For decades, Mexico has worked with international partners to build internal forest management capacity at national, regional, and local levels with loans and grants from sources including the Forest Investment Program (FIP), the European governments (Germany, Norway, Spain, and France), the United Nations, the United States Agency for International Development (USAID), the Global Environmental Facility (GEF), and the Forest Carbon Partnership Facility (FCPF), and the World Bank (WB).

This case study explores the outcomes of the FIP in Mexico, finding that the program has been successful in achieving a mix of objectives including rural development, poverty reduction, improved market access, and increased resilience for forest-dwelling communities and their forests. Growing from past investments and linking with national-level policy, the FIP has built institutional capacity of key organizations like the National Forestry Commission (CONAFOR) and other executing agencies, offered workshops and learning exchanges, improved monitoring and information-sharing capabilities, creating new financial tools, and bolstered business management and long-term planning abilities for forests by forest owners.

Mexico's target to peak greenhouse gas (GHG) emissions by 2026 (SEMARNAT, 2015), requires a reduction in deforestation and a focus on sustainable forest management to increase sequestration of working forests. Working at the national level and in priority sub-national areas, the FIP is addressing the underlying drivers of forest loss by supporting three specific projects to advance adoption of best practices, scale up financing to micro-, small-, and medium-size community forest enterprises (CFEs), reduce deforestation and degradation, and increase the value of standing forests.

Forests and forest-dependent communities in Mexico are benefiting from FIP support in three major ways. First, investments have led to better forest management practices and the long-term conservation of key high-biodiversity value forestland. Second, investments are increasing the social health and wellbeing of underserved communities, with a special focus on and benefits for women and indigenous sub-populations. Finally, investments are contributing to institutional and economic partnerships across Mexico and at multiple scales, and showing these investments to be successful and financially sound.

Mexico has successfully leveraged support from the FIP as decades of capacity building and strategic thinking has set the stage for paradigm shifts in the economic valuation, sustainable management, and climate change mitigation and adaptation potential of the country's critical forest resources. Going forward, there are continued opportunities to share lessons learned and expand these investments to reach additional communities.



INTRODUCTION

Mexico has over 138 million hectares of forested land, of which about 45 percent is communally held (62.5 million hectares).¹ The rest is relatively small parceled private land or in various public lands. In the 1990s, Mexico experienced the second-highest overall rate of deforestation across Latin American countries. As such, the percent of forested land in Mexico decreased from 35.6% to 33.7% from 1990 to 2015, representing a loss of nearly 3.7 million hectares of forests and rainforests in 25 years.² While deforestation has slowed since 2000, it continues to be a problem, along with comparatively higher rates of forest degradation.³

Mexico, the second most populous country in Latin America with 119 million people, has seen its gross domestic product nearly double since 2000 – jumping from roughly \$650 billion to over \$1.2 trillion.⁴ Key economic sectors include manufacturing and industry, services (e.g. tourism and finance), and agriculture and forestry. While agriculture and forestry has declined as a percentage of GDP (from 7% in 1990 to 3.6% in 2016), it remains an important source of employment at 13.5%.⁵ Despite steady improvement in the country's economic and human indicators in recent decades, poverty is still widespread among rural and forest-dependent communities.⁶

In some communities, forestry activities have a long and important history in culture and employment – in some places representing over 70% of the employed workforce, as is the case in the communities featured in this study (at over 80% in each location).⁷ As a country, Mexico's rapidly growing economy demands increasing amounts of timber. Despite the country's abundant forests, Mexico continues to import timber from other countries. Most of the production in Mexico is small-scale and distributed across the country; many of these small-scale operations are dated and inefficient and recent studies show a gap in ability to meet local and regional demands for timber.⁸ Furthermore, a weak job market leads working age individuals to leave communities to seek opportunities elsewhere, disrupting and weakening communities and a resulting in a diminished sense of well-being.

Land tenure in Mexico's forests is dominated by a unique structure of land collectively held and managed by communities or *ejidos*.⁹ These include communal areas (such as forests) as well as individually owned parcels,

often with a home and small garden. With varying percentages of indigenous populations, *ejidos* represent great cultural variation, though the majority fall under poverty conditions.¹⁰ As many of these *ejidos* and communities have substantial forest land holdings, this system creates both unique challenges and opportunities for forest management. Stemming from the *ejidos* and communities, Community Forest Enterprises (CFEs) are partnerships formed between such entities to participate in cooperative endeavors such as business operations, managing working forests, and bringing products to market.¹¹ Approximately 990 CFEs operate in Mexico with varying levels of forestry activities.¹²

Important Definitions

Community Forest Enterprise (CFE): CFEs are comprised of small producers (e.g. *ejidos*, communities, and other rural micro-enterprises) organized as legally established entities in forestry activities. They typically operate in the areas of agroforestry, silvopastoral production, and timber and non-timber forest products. CFEs aim to take advantage of economies of scale and to improve collective action, increase market access, and reduce transaction costs.

Ejido [e'xiðo]: *Ejid*os are a system of collective land tenure and governance in which an area of communal land is used for productive activities and members collectively maintain communal holdings. Some also have individually designated parcels for community members. Generally, *ejidos* are made up of previously rural people landless who received title through the government. *Ejid*os have varying percentages of indigenous populations and great cultural variation.

Community: Communities (*comunidades*) are indigenous communities that received formal recognition and title to their traditional and/or established lands, which may consist of a mix of land types including forests.



CLIMATE CHANGE FUNDING AND ENTRANCE OF THE FIP

In recent years, Mexico has become a leader in addressing climate change, including in forest management and conservation. As a developing country that is also a member of the Organization for Economic Co-operation and Development (OECD), Mexico has a relatively unique ability to be both a contributor to and recipient of funds to mitigate climate change and increase resilience.¹³ Developing capacity to participate in negotiations, track and report emissions, and manage land has allowed Mexico to tap into international funding networks that have emerged for countries with both forest management issues and human development issues.

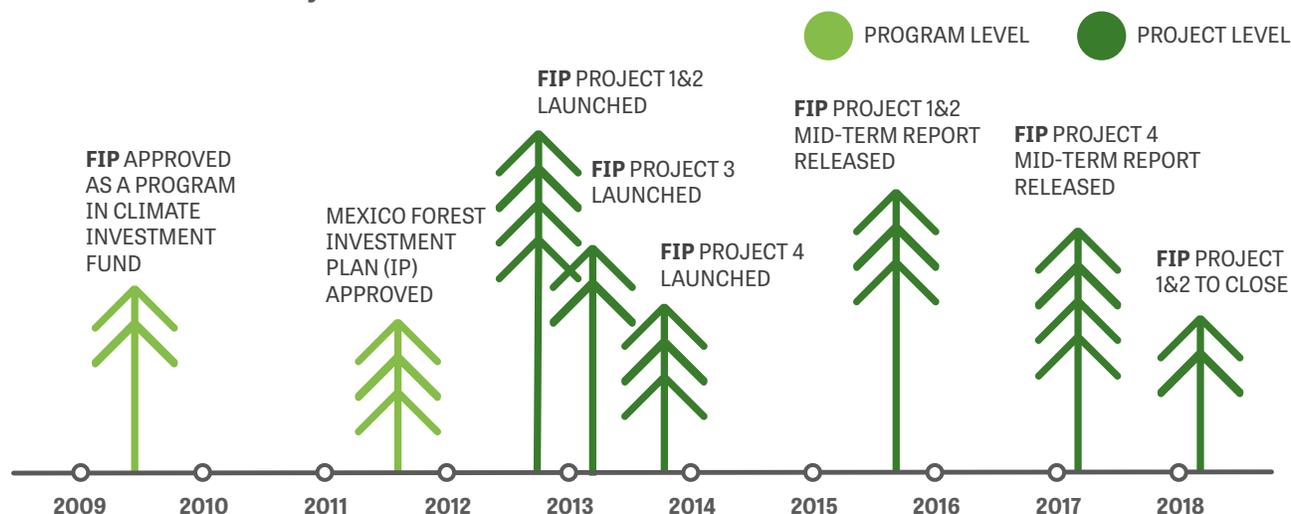
The World Bank has been supporting the forest sector and climate change adaptation and mitigation in Mexico for over two decades. This support has evolved in terms of scope to respond to specific needs, beginning with institutional support during the creation of the National Forestry Commission (CONAFOR) in the late 1990s¹⁴ and piloting standalone programs in the 2000s such as the Community Forestry and Payment for Environmental Services projects, that have since become notable programs not only in Mexico but worldwide. Generally, funding has supported knowledge transfer, partnership development, financial services, and technical assistance. The much larger “Forests and Climate Change Project” is also part of the Forest Investment Program (FIP), and with other funds from the World Bank, represents the largest and most ambitious World Bank engagement in forests today (see project description tables for more details).¹⁵



FIP-supported CONAFOR Headquarters in Durango
(photo credit: L. Cooper, 2017)

The Mexico Forest Investment Plan (IP) was approved in 2011 and began activities in 2012 to address rural poverty, reduce deforestation and degradation, and support healthy forest product economies that feature sustainable Forest Management (SFM). The FIP is one of three programs that make up the Strategic Climate Fund (SCF) in the Climate Investment Funds (CIF) portfolio. The SCF aims to fund new approaches with potential for transformational and scalable action in specific sectors or challenge areas. In this, the FIP supports developing countries’ efforts to reduce emissions from deforestation and forest degradation by providing scaled-up financing for forest management reforms and public and private investments for forest owners, with a focus on communally-held land.

FIGURE 1. Timeline of major decisions and actions



“Our vision of the forest sector in Mexico is to have sustainable forest development. About 11 million people live in or depend on Mexico's forests - we believe that these people should have a direct role in the sustenance of their forests.

The contribution of the FIP helped us to reach our goals faster and ensure that our efforts in improving forest management and utilization have continuity. I believe that without this support we would probably be working in the same direction, but we would not be in the place that we are today.”

- Jorge Rescala Pérez,
General Director of the National
Forestry Commission, May 2017

The FIP finances programmatic efforts to address underlying causes of deforestation and forest degradation and to overcome barriers that have hindered past efforts.¹⁶

The FIP projects in Mexico take into account key social (e.g. addressing potential impacts on indigenous communities) and environmental (e.g. protection of natural habitats) safeguards.¹⁷ Furthermore the FIP complements both the existing policy framework in Mexico and a range of climate mitigation and adaptation activities geared at forests and land management. These include the Special Program on Climate Change (PECC, for its Spanish acronym), Mexico's Vision on REDD+: Towards a National Strategy (2011), a REDD+ Working Group (GT-REDD), the National Mid-Century Climate Change Strategy (2013), the current National Strategy for Sustainable Forest Management for Increased Production and Productivity (ENAIPROS) and the National REDD+ Strategy (ENAREDD+).

INVESTING IN MEXICO'S FORESTS

As a pre-cursor to implementation and engagement, the 2011 Mexico Investment Plan envisioned advancing productive forested landscapes under sustainable management. It focused on increasing institutional and local capacity to address both direct and indirect causes of deforestation and forest degradation. Some activities take place at the national or regional levels, while others are focused in the defined Early Action REDD+ areas identified by prioritizing states with a high rate of net deforestation (Campeche, Jalisco, Oaxaca, Quintana Roo, and Yucatán). However, FIP activities take place in additional areas in Mexico where the risk of land use change and the need for rural development is present.

The Investment Plan set targets on the following actions:

1. Investing within the forest landscapes and launching a step wise approach for sustainable competitive productive mosaics;
2. Investing in institutional capacity, forest governance, regional management, and strategic evaluation platforms;
3. Strengthening the participation of indigenous and local communities in the overall forest landscape management and the strategic evaluation platforms; and
4. Creating financing mechanisms targeted at low carbon activities which enable financial access to communities and *ejidos* and promote productive mosaics in forest landscapes.

CONTRIBUTING TO TRANSFORMATIONAL CHANGE

In Mexico, the FIP is directly addressing factors that contribute to both deforestation and to underperforming rural economies. Recognizing additional variation between geographic regions, the IP identified the following pressures and causes of deforestation and degradation:

- Land conversion, unsustainable logging, overgrazing, and fuel wood collection,
- Profitability of alternative land uses,
- Vulnerability to fire, pests and disease,
- Rural development policies that exacerbate land use change,
- Limited capacity for land management in *ejido* and indigenous communal land holdings,
- Insufficient leadership capacity of *ejidos* and indigenous communities,
- Prevalence of informal or illegal activities, and
- Poor rural economic conditions with with limited options for income.

To address these challenges, the FIP works with in-country partners to build capacity strategically and intentionally from the national to the local level. One of the key identified issues in Mexico has been the inexperience and reluctance of the financial sector to provide credit and market opportunities to local-level communal forestry operations, resulting in limited financial services available to most forest owners. With direct support via programming and funding of credit lines for marginal and emerging enterprises, the FIP is creating transformational change in Mexico. Moreover, institutional change is fueled by extensive work within CONAFOR. Overall, the FIP in Mexico is working at three levels:

1. Building inter-agency relationships and communication at the national and state levels
2. Improving capacity and communication in executing agencies and encouraging changes to their operations in ways that support sustainability and local producers
3. Working directly with communities, *ejidos*, and private forest owners to change land management approaches, overcome knowledge and technology barriers, and create new and improved market access for timber and forest product producers



*Sustainable managed forest – Oaxaca.
Photo credit: L. Cooper. 2017*



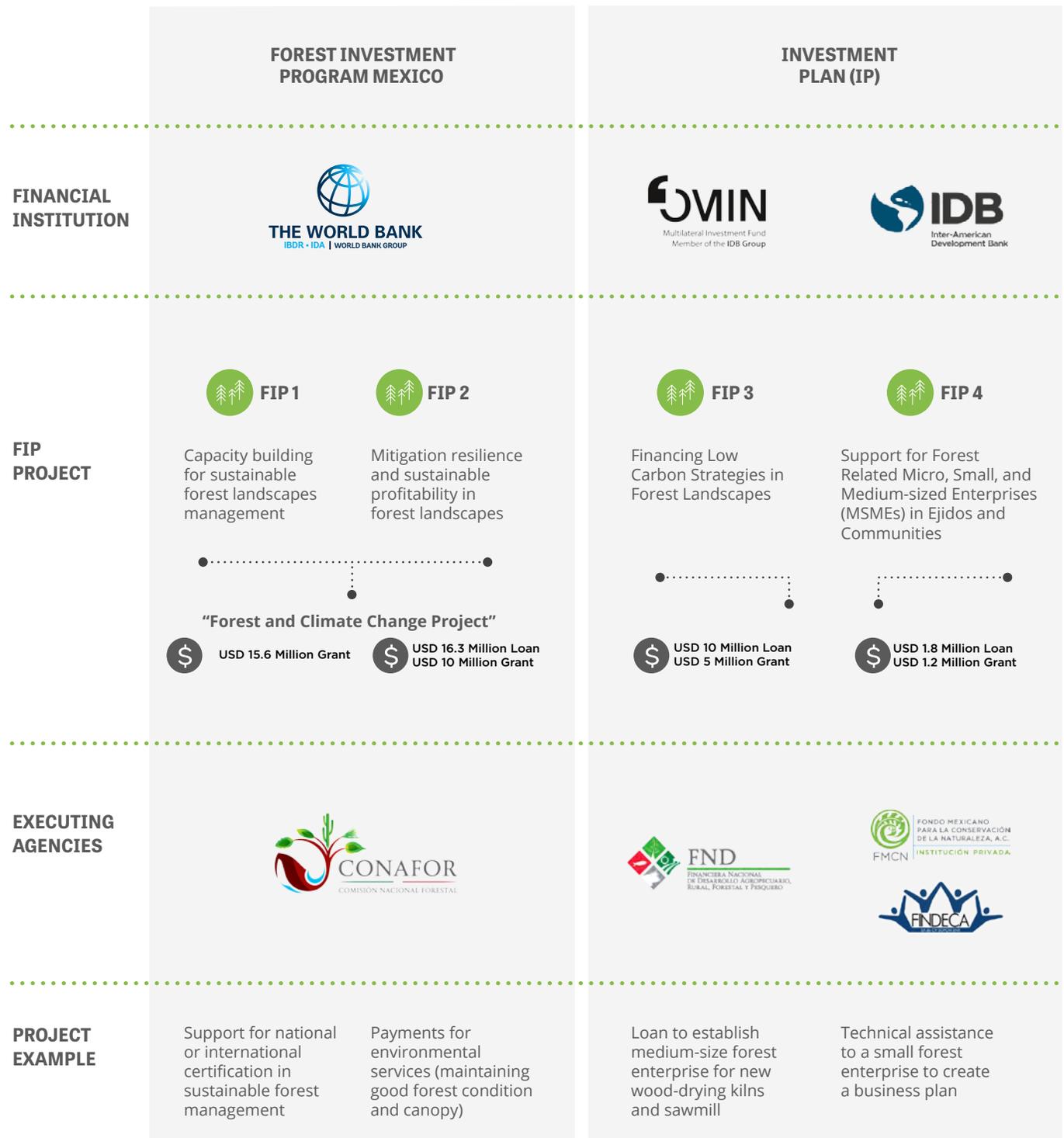
THE FIP PROJECTS IN MEXICO

In Mexico, the FIP operates through three major projects – a mix of grant and loan funds – that are implemented through different financial institutions and executing agencies (the in-country partners and implementers).

FIP 1 and 2 are presented jointly here and in this case study because together they contribute to a larger project – the “Forest and Climate Change Project.” See Figure 2 for a breakdown of the FIP projects in Mexico.

The following display details from each of the three FIP projects.

FIGURE 2. Forest Investment Program Projects in Mexico



FOREST AND CLIMATE CHANGE PROJECT

Goal/Description	<p>This project encompasses FIP 1 & 2 to bolster resilience, increase economic valuation of forest products, and support sustainable and productive mosaics. FIP 1 (“Capacity Building for Sustainable Forest Landscapes Management”) aims to implement and enable policy and program alignment for integrated multi-sectoral action in priority forest landscapes by enhancing coordination mechanisms across agencies and at multiple scales. It assists sustainable forest management to prevent deforestation and degradation and to enhance forest carbon stocks.</p> <p>FIP 2 (“Mitigation Resilience and Sustainable Profitability in Forest Landscapes”) promotes investments in sustainable productive mosaics targeting local and indigenous community organizations and small landholders in their forests and across the value chain.</p>
Endorsement date	Endorsed November 2011, approved January 2012
Amount	USD \$42 million fund
Co-Finance	USD \$350 million Specific Investment Loan (SIL) from the International Bank for Reconstruction and Development (IBRD)
Executing Agency	CONAFOR
Components	<ul style="list-style-type: none"> • Component 1: Policy Design and Institutional Strengthening • Component 2: Consolidation of Priority Community-Based Programs at National Level • Component 3: Innovation for REDD+ in Early Action Areas
Beneficiaries	National and regional agencies and institutions, with a specific emphasis on the National Forestry Commission. An estimated 3,000 ejidos and communities will benefit from the incentive and advisory programs supported by the project at the national level and in REDD+ Early Action areas, about a quarter of which are indigenous peoples.
Monitoring and Evaluation	<ul style="list-style-type: none"> • Tracking the number of hectares managed sustainably, leading to a reduction in carbon emissions at the national level • Increasing the number of communities that can generate steady income from sustainable production of forest goods and services • Reduction in deforestation rates and in the number of hectares considered degraded forest land, particularly within REDD+ Early Action areas



FINANCING LOW CARBON STRATEGIES IN FOREST LANDSCAPES

Goal/Description

This public-sector project aims to assist Small and Medium-size Enterprises (SMEs) access a dedicated financing line guaranteed by the government of Mexico. These SMEs are ejidos and communities that are somewhat advanced in their business development and management capacities, and therefore ready for larger loans. An important aspect of this project is the Technical Assistance Facility (TAF) created for capacity building. This will provide additional support to less-developed community enterprises while also fulfilling a role as a project incubator.

Approval date

Endorsed September 2012, Approved November 2012

Amount

USD \$10 Million Loan, USD \$5 Million Grant

Executing Agency

Mexico's National Development Bank of Agriculture, Rural communities, Forests, and Fisheries (FND)

Components

- **Component 1:** This component will create a dedicated financing line, accessible by communities and ejidos or their members (the end borrowers), for identified low carbon projects in forest landscapes
- **Component 2:** Financial and technical assistance to SMEs; Enhancing the institutional capacity of executing agency through contracting local promotional agents, and technical assistance for borrowers ; Creating a guarantee fund to mitigate risks.

Beneficiaries

Market-ready Small and Medium-size Enterprises (SMEs)

Monitoring and Evaluation

This project is still underway, but results are expected to track substantial emissions reductions (roughly 390,000 tCO₂e over 10 years), increase harvest yields, improve efficiencies, provide greater financial returns to the CFEs, and increased participation of indigenous groups and women.



SUPPORT FOR FOREST RELATED MICRO, SMALL, AND MEDIUM-SIZED ENTERPRISES (MSMES) IN EJIDOS AND COMMUNITIES

Goal/Description	This project aims to improve social and financial sustainability of Community Forest Enterprises (CFEs) in ejidos and other forest communities while mitigating climate change. Using trained, local providers for technical assistance, the project is working to build community-level capacity by developing and implementing financially and technically viable management activities. CFEs are developing fundamental business administration and entrepreneurial skills for sound management - strengthening financial inclusion of ejidos and communities by involving the private sector (FINDECA) and empowering existing CFEs by expanding opportunities for participation and improving coordination.
Endorsement date	Endorsed March 2013, Approved April 2013
Amount	USD \$1.8 Million Loan, USD \$1.2 Million Grant
Co-finance	FOMIN - a Multilateral Investment Fund of the International Development Bank (IDB) providing US\$3.0M in co-financing.
Executing Agency	<ul style="list-style-type: none"> • Mexican Fund for the Conservation of Nature (FMCN) and the financial institution FINDECA
Components	<ul style="list-style-type: none"> • Component 1: Selection of CFEs and TA Partners & Definition of baselines (FMCN) • Component 2: Accelerator for FND loans, connecting market ready MSMEs to finance (FMCN) • Component 3: Technical Assistance (TA) for non-market ready MSMEs (FMCN) • Component 4: Loans executed by FINDECA and the institutional strengthening of FINDECA • Component 5: Dissemination and knowledge management (FMCN and FINDECA)
Beneficiaries	35 Micro, small, and Medium Community Forest Enterprises (CFEs), 6 local providers of technical assistance
Monitoring and Evaluation	Project results track ability of local level actors to meet REDD+ targets and actively participate in markets for sustainably harvested wood products and decreasing overall risk of entering these markets, encouraging more SMEs to join the industry.

SYNERGISTIC LINKAGES AND RELATED ACTIVITIES

The FIP investments have complemented other foreign and domestic resources and strengthened ongoing financial partnerships in Mexico. Mexico has received funding from the Government of Norway, the Global Environmental Facility, USAID, the Government of Spain, and UN-REDD, among other sources.

Additionally, a US\$3.6 million grant from the Forest Carbon Partnership Facility (FCPF) is helping to construct the policies and systems necessary for communities to receive carbon-related benefits of improved forest land and avoided deforestation. The activities supported by this grant (e.g., developing reference emissions levels, designing monitoring and reporting systems) provide a stronger institutional and policy context for FIP investments. In the future, a US\$50 million payments-for-results FCPF Emissions Reduction Payment Agreement could complement the foundation built with FIP funds.

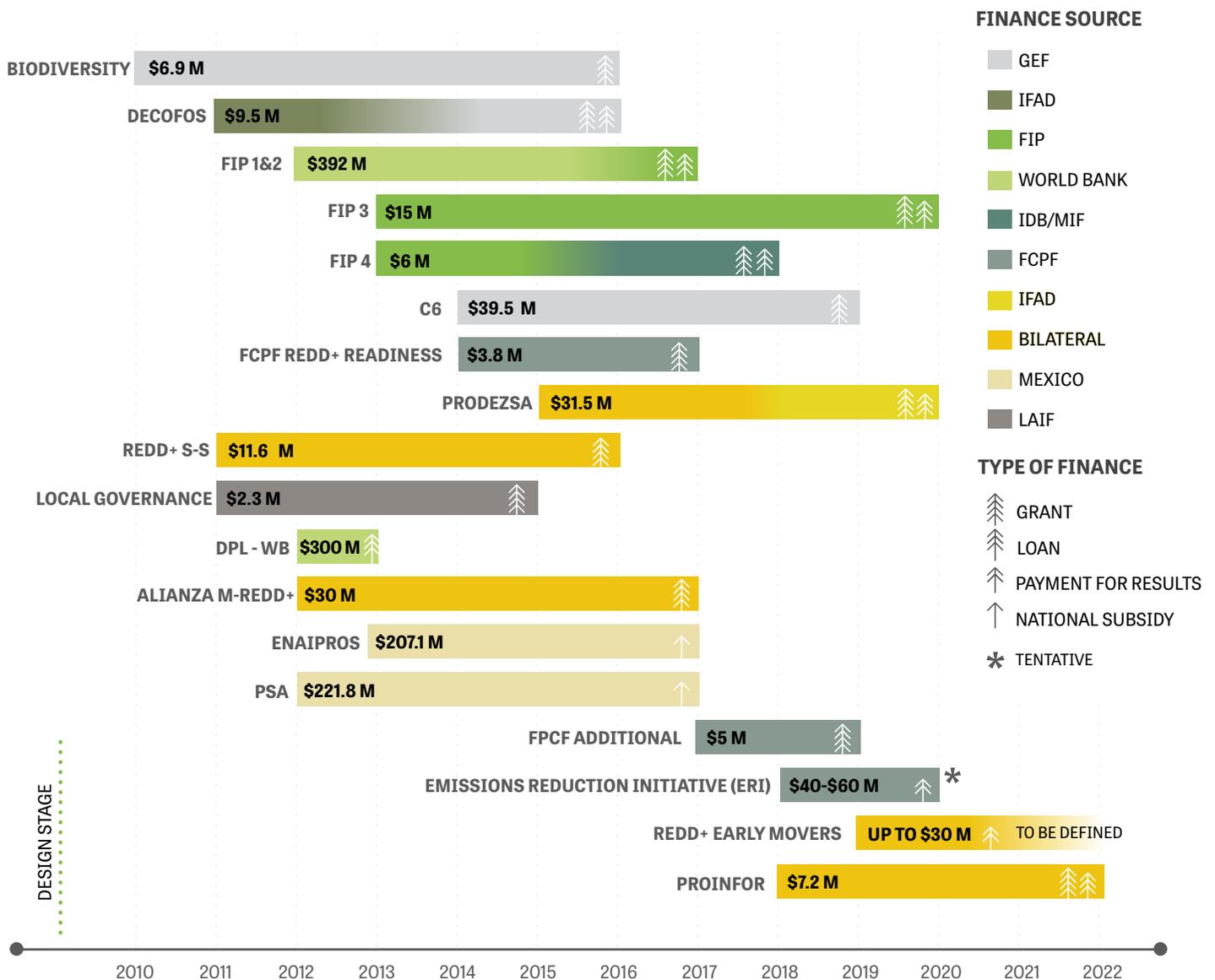


Moreover, the World Bank's International Bank for Reconstruction and Development (IBRD) has implemented a forestry-specific goal in a Strengthening Social Resilience to Climate Change development loan that complements FIP projects "Financing Low Carbon Strategies in Forest Landscapes" and "Support for Forest Related Micro, Small, and Medium-sized Enterprises (MSMEs) in Ejidos and Communities." This loan of US\$300 million continues the work of the FIP in promoting community development, access to job opportunities, and secondary consequences like improved education and community resilience.

In addition to linkages with international entities, there have been key collaborations between Mexican agencies. The National Council for the Evaluation of Social

Development Policy (CONEVAL) is tasked with monitoring social and development indicators as well as measuring poverty in Mexico. CONAFOR worked with CONEVAL from 2011-2014 to conduct an impact assessment of its payment-for-environmental-services program, which the FIP is now contributing to support financially. CONEVAL has existing measurement capacity and indexes for social and economic success that complement the more ecologically-focused monitoring capabilities within CONAFOR and have been important in monitoring of FIP and other projects. Moreover, FIP supported other key agency connections strengthened in linking reporting and measurement systems with CONAFOR and the Ministry of Environment and Natural Resources (SEMARNAT) and Ministry of Agriculture, Rural Development, Fisheries, and Food (SAGARPA).

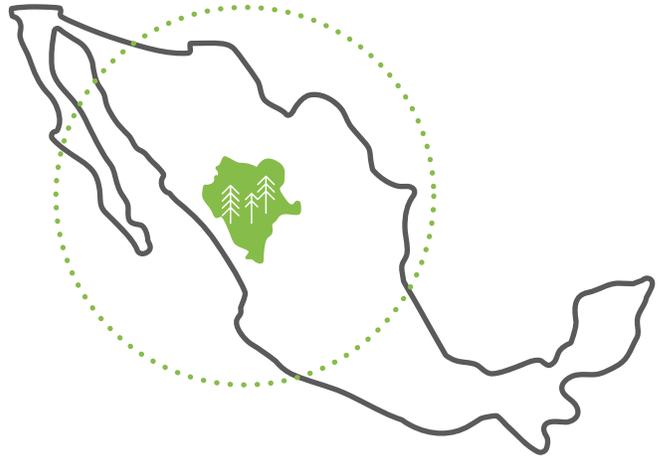
FIGURE 3. International Investment in Climate Change and Forestry in Mexico, 2010-2019



ACHIEVING MULTI-SCALED RESULTS IN MEXICO'S FORESTS

As discussed, the FIP is advancing the REDD+ agenda in Mexico by facilitating sustainable forest management with a strong focus on community-based enterprises. The following sections will highlight two community forest enterprises (CFEs) and their related community or *ejido*-managed forestland. The first location is a CFE in the state of Durango called Pino Real Forest Corporation and one of its member *ejidos*, San Pablo. The second location showcases the community San Pedro el Alto in Oaxaca, which is highlighted with their CFE *Dimensionados Oro Verde*.

Map of State of Durango, Mexico



EXAMPLE FROM THE FIELD: DURANGO

The State of Durango, located in Mexico's northwestern region, has the second-lowest population density in Mexico,¹⁸ yet is considered the most important state for timber production.¹⁹ Vast open plains on the northeastern half support economic activities in cattle ranching and agriculture. To the southwestern side of the state, the altitude rises into the largely forested mountainous region. Pine and oak dominates the species mix, and the area is divided mostly into large territories owned by *ejidos*.

In recent decades, this region has also been supported by synergistic projects, such as the Transforming Management of Biodiversity-rich Community Production Forests (CONAFOR-GEF-PNUD), which has an overarching objective of implementing biodiversity conservation and Sustainable Forest Management while improving operations and profitability of CFEs.

In Durango, the CFE Pino Real Forest Corporation (*Corporación Forestal Pino Real* in Spanish) was formed in 2012 to consolidate technology and wood harvesting capacity, improve organizational structure, reduce transaction costs, and improve market access. The organization is a rural association of collective interests, or *Asociación Rural de Interés Colectivo* (ARIC) in Spanish. Pino Real, whose partners are situated in the municipalities of Pueblo Nuevo and San Dimas, is formed by three *ejidos*: San Pablo, La Ciudad, and Vencedores. All three *ejidos* are certified sustainable by the Rainforest Alliance in the internationally recognized Forest Stewardship Council (FSC) program.

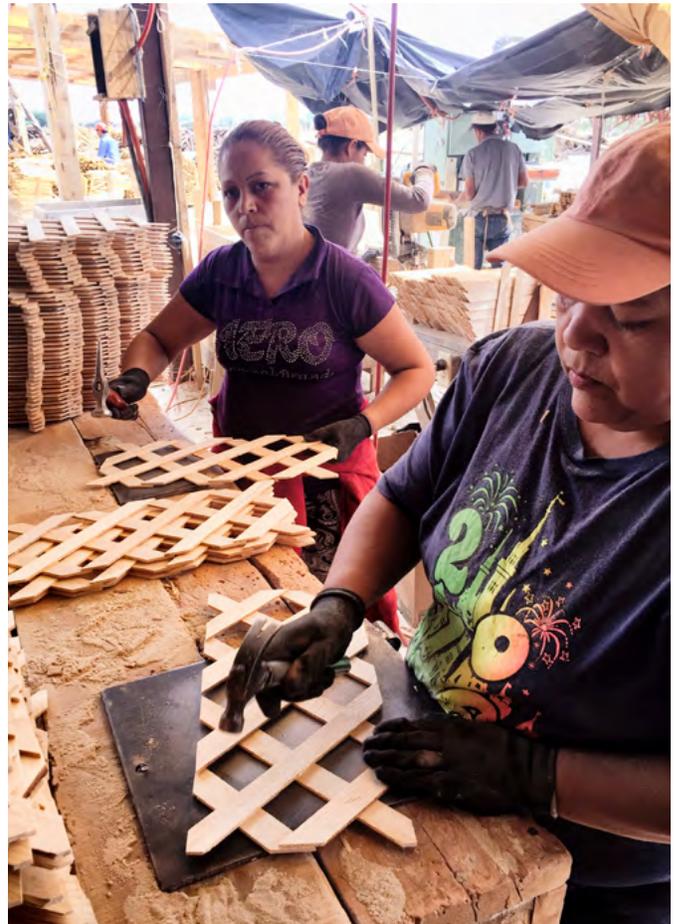


CFE Pino Real Forest Corporation Manufacturing site, Durango (photo credit: L. Cooper, 2017)

In total, the Pino Real Forest Corporation includes nearly 70,000 hectares of forestland, 1,600 of which are considered to be of high conservation value and have been voluntarily protected. The organization represents 699 community members between the three ejidos, who are also beneficiaries of the CFE's financial returns. There are more than 80 employees in the Pino Real Forest Corporation, including the Director, who is the first female leader, C.P. Alma Lili Mena García. Nineteen of the eighty new jobs generated since 2012 are held by women, who, apart from the Director, occupy positions including: Plant Manager, Head of Quality Control, Administrative Staff, and technical workers in processing and manufacturing.

FIP Investments in San Pablo and the CFE Pino Real

FIP programming has supported all three *ejidos* individually, while additional funding has gone directly to the CFE. This funding has helped Pino Real build a robust and transparent business operation, while also improving land management and harvesting activities in the *ejidos*. The FIP support in this location has come primarily through the "Forest and Climate Change Project" in both direct and indirect forms of support. Directly, nearly US\$540,000 has been invested to leverage domestic funds and synergize with existing projects in the three *ejidos* (see Table 1 for a breakdown of these investments). An additional US\$375,000 has gone to directly support the CFE, including FSC Chain of Custody Certification (US\$4,100), wood product equipment to utilize marginal wood pieces to make molding (US\$235,000), equipment control panels (US\$64,000), and participation in the annual Forest Expo in Mexico to promote activities (US\$66,000). Indirectly, the CONAFOR office in Durango has received substantial support to update their facilities, train employees, and engage with specialists.



Female employees in CFE Pino Real (photo credit: L. Cooper, 2017)

As of 2015, the organization was generating returns of US\$1.9 million annually (over \$35 million pesos). It is the only Mexican CFE currently exporting timber products directly to the US. Before forming the partnership, each of the *ejidos* sold mainly raw sawlogs to wholesalers that made steep profits by transporting and re-selling to processors. This profit was not shared or returned to the *ejidos*. Currently, through participation in Pino Real Forest Corporation, the *ejidos* can get much higher returns for the same timber by participating in more aspects of the supply chain and eliminating these middle men. Due in part to the Forest and Climate Change Project, the profit-sharing mechanism of the organization has increased by 179% since it started in 2012, from US\$3,620 to US\$10,388 per household in 2016.



Women working in manufacturing of wood products, CFE Pino Real (photo credit: E. Huff, 2017)

Today, business activities include forest management, raw timber production, wood processing, and creating a variety of finished products - including decking, molding, garden fences, and bundled firewood. These products have higher value, which not only generates revenue for the Corporation and the *ejidos*, but also support additional employment opportunities to benefit individuals.



TABLE 1. FIP Support in Durango ejidos of Vencedores, La Ciudad, and San Pablo

INVESTMENT AREA	TOTAL Investment* (in US\$)	% OF TOTAL	EXAMPLES	LOCATION(S)
Sustainable Forest Management Practices	304,097	57%	Funded activities to improve forest ecosystems by applying best practices to preserve or improve the forest and protect areas that may be affected by grazing or farming activities (2012, 2014, 2015, 2016)	Vencedores La Ciudad San Pablo
			Funding for timber management training and efforts to expand legal wood extraction (2014)	La Ciudad
Payments for Ecosystem Services	50,315	9%	Payments to individual forest owners who maintained forests in good condition without decreasing forest cover (2015)	La Ciudad
Technical Support	51,589	10%	Brought internet in forest communities (2015)	San Pablo
Certification and Accreditation	44,766	8%	Funding for national or international certification in sustainable forest management (2012, 2014, 2015)	Vencedores La Ciudad San Pablo
Training	41,354	8%	Funding for learning exchanges in other communities (2012)	La Ciudad
			Training on developing and implementing proper management programs (2012)	Vencedores La Ciudad San Pablo
Capacity Building	26,664	5%	Funding to purchase office furniture and computer equipment as well qualified specialist in administration, production, or marketing of forest enterprises and supply chains (2016)	Vencedores
Ecosystem support (e.g. conservation, degradation)	17,663	3%	Financial support for studies of degraded areas and identification of remediation options (2012)	San Pablo
			Funding to conserve and improve habitat of fauna, activities include planting of forage species, habitat connectivity through reforestation, and sign posting prohibiting poaching (2012)	Vencedores
Total	536,448	100%		

*Forests and Climate Change Project

Ejido of San Pablo, Durango

The *ejido* of San Pablo was created in 1936. After two territory expansions in 1965 and 1979, the *ejido* covers nearly 35,000 hectares today. There are total of 230 *ejidatarios* (members of the *ejido*) and it is led by a 30-member advisory council. Forestry is by far the most important economic activity, and 80% of the community work permanently in forestry related activities. Other economic activities include agriculture, ranching, and fisheries, and small amounts of mining.

Since 2002, the territory has continuously maintained 12,000 hectares of FSC-certified forests – and that number is increasing. In maintaining this certification and sustainable forest management practices, the community incorporates best practices to cultivate and restore forested areas. The FIP has funded learning exchanges with other forest managers and timber producers both within and outside of the state of Durango. For example, a technical specialist familiar with sawmill maintenance and sharpening spent time in Oaxaca to share expertise gained in Durango. They have also hosted and/or participated in FIP-funded workshops on biodiversity management, chain of custody, and use of specific technology.

San Pablo has reforested an average of 60 hectares annually since 2001, relying on their tree nursery, which produces more than 200,000 native plants per year. The Forest Management Plan (PMF in Spanish), has indicated a total of 2,100 hectares for restoration.

Results in San Pablo and the CFE Pino Real

Using a 60-year rotation cycle, the 2011 PMF was modified with support from CONAFOR. Harvesting and returns have been increasing since the start of the “Forests and Climate Change Project” investments in 2012. Previously, San Pablo forests were managed for 31,000 cubic meters (m³) harvest a year until 2011, when this increased to 42,000 m³ annually through 2016 and is expected to increase again in 2017 after undertaking new assessments with support from CONAFOR and the FIP.

Since 2000, the *Pino Real* Forest Corporation has been improving and acquiring technology, equipment installations such as sawmills and kilns, and incorporation of various processing machines. CONAFOR has supported this continued growth and modernization of the CFE. The processing site, referred to as the industrial plant, is 5.6 hectares and produces primary products of classified and

cut wood, pallets, poles for tool handles, and cellulose material used in plywood (Table 2). To ensure sustainable forest management produces a steady timber supply, the community requires machinery for extraction, transportation, and roads. When *ejidos* own their own machinery, there is no need to rent equipment, thus increasing both efficiency and financial returns.

FIP investments have increased the ability of the *ejidos* to meet these technology needs with grants through the “Forest and Climate Change Project” and returns from this increased mechanization can be immediately reinvested in the communities. The increased knowledge transfer and availability of expertise in the region has multiplied the effects of these simple machinery upgrades. These improvements have allowed San Pablo to maintain and increase profitability while continuing FSC certification and also reducing damage to the forest from over-extraction of timber or using outdated equipment.

Moving forward, the community is interested in completing baseline studies to explore how their decades of experience, management, and data can contribute to policies and markets around carbon storage. The activities over recent years in training, forest management plans, and certification have continued and strengthened a platform to advance in climate change mitigation and adaptation across the *ejidos*. Furthermore, the community reports that they have moved from simply identifying areas of high conservation value to implementing monitoring strategies for these areas. They also report a perceived reduction in migration by working-age men since forestry is now better able to provide steady work.



Newly regenerated pine forests in Durango with protective fencing from cattle grazing (photo credit: E. Huff, 2017)



The “Forests and Climate and Change Project” investments have additional outcomes beyond sustainable forest management. In a different *ejido*, “La Ciudad”, investment has supported the long-term protection of biodiversity via conserved forest land. Community leaders reported a reduction in illegal hunting of deer and turkey to improved monitoring capacity and awareness of rules and value in conservation. For example, *El Mexiquillo* is an eco-tourism operation that includes cabins, a rock garden, hiking in conservation areas, caves, and zip lines. The community can thus benefit from increased capacity for ecotourism revenue and, by maintaining healthy forest cover in managed and unmanaged areas, the *ejidos* under the Pino Real umbrella can

diversify their economic opportunities for a more sustainable future.

Finally, San Pablo forms part of the Forest Region “*El Salto*”, known for its important forestry activities at both the region and the country level. Since 2011, it has been part of an integrated Regional Management Plan, which was informed by various government agencies including CONAFOR and SEMARNAT. This plan serves as the forerunner for the important ENAIPROS policy, mentioned earlier, that is in place today. As such, FIP funding allows this *ejido* to fit into broader forest policy objectives and management goals at the regional, state, and national level.

TABLE 2. Results in Pino Real Forest Corporation, Durango

	PRIOR TO FORESTS AND CLIMATE CHANGE PROJECT (APPROXIMATELY 2010-2012)	CURRENT (AS OF 2017)	DETAILS
Number of employees in timber processing and product production	12	80	Started in 2012 with 12 employees making pallets
Number of female employees	0	19	In a range of position, including Director
Perceived and actual Forest sector market opportunities	Local and regional markets	National and International exports	Creation and participation in a business association with larger businesses
Cubic meters (m3) processed per year	108,459 m3 pine	146,368 m3 pine	Implementation of a management plan with more Intensive silviculture
Types of products to market	Board wood	<ul style="list-style-type: none"> • Molding • Pallets • Garden fences • Kindling 	International export: Molding, pallets, fences, kindling Domestic: pallets
Average annual profit sharing returns at the household level	US\$3,620 / household	US\$10,388 / household	Increase due to increased harvest volumes and offering finished products (e.g. painted molding)
FSC-certified Hectares	44,835 hectares	55,167 hectares	A 23% increase in FSC-certified forests

Lucio Sanas Salabria, Technical Forestry Support Staff, Durango, Mexico. (Photo credit, L. Cooper, 2017)

HUMAN SNAPSHOT:

LUCIO SANAS SALABRIA

Location

The forests of the ejido San Pablo, Durango, Mexico

Background

Lucio Sanas is an “auxiliar técnico forestal” or Technical Forestry Support Staff. His responsibilities include directing forest management activities such as logging, planting, and equipment operation. Lucio is part of the Pino Real A.R.I.C. community, an organization that covers three ‘ejidos’ or communities centered around forestry activities in Durango, Mexico. Lucio works in ‘el bosque del ejido San Pablo,’ the forests managed by San Pablo – one of the three communities. He is part of a team of over 20 technical managers working in this forested area.

Forest Investment Program Impacts

When asked about changes from outside financial investment, Lucio commented that there is a stronger ethic for preserving the function of the forest, including biodiversity of plant and animal species because the forest is “the future of our family.” He also shared that support has been plentiful for San Pablo, and elaborated that support meant both financial and technical support in the form of trainings, machinery upgrades, and demonstrations. His crew has taken advantage of these opportunities and says everyone has a very positive outlook on the future of their profession. In relation to his family and personal life, he commented that having the opportunity to enter the forestry profession was important for the next generation. He made the distinction between children that like ‘to study’ and children that like ‘to work.’ For those that like to work, he saw lots of positive changes in this direction, with additional work opportunities for his and others’ children to work in forestry. Not only did Lucio see changes occurring, he felt that the changes were sustainable. With the equipment upgrades and increased training, he feels there is a much better chance that their forestry operations can now become self-sustaining into the future.



In his own words

“**Cuando era niño, no tenía dinero, ni zapatos, sufrí mucho. Pero ya tenía la mentalidad de trabajar y hacer algo para mí y mi familia, que ellos no pasen lo que yo pasé. Hay un futuro para mis hijos y mis hermanos, adelante. Si tengo la posibilidad de ayudarlos hay que ayudarlos a ellos y a otras personas, y no solo a ellos, si se agrega más gente también se puede.**

El negocio va bien hasta ahorita, nos han ofrecido muchos apoyos y hemos logrado llevarlos a cabo. Y si hemos participado en muchos apoyos, que nos han dado. Los hemos ejecutado, ustedes pueden darse cuenta con el aserradero.”

“When I was a kid, I had no money, no shoes, I suffered a lot. But I already had the mentality for working and doing something for myself and my family so they wouldn't have to go through what I did. There is a future for my children and my brothers to move forward. If I have the possibility to help them [my family], I have to, and not only them but other people as well, if more people join they can be helped too.

The business is going well, they (CONAFOR) have offered us a lot of support and we've been able to take advantage of that. We have participated in several opportunities through the support they have provided. We have implemented these, as you can see with the installation of the sawmill.”



EXAMPLE FROM THE FIELD: OAXACA

The State of Oaxaca has roughly 13% (7 million) of Mexico's forested hectares²⁰ and the second highest percentage of indigenous population at 48%.²¹ Forests cover over 70% of Oaxaca, with climatic zones covering both tropical and temperate forests, some considered of very high importance in conservation due high numbers of endangered species.²² The vegetation in San Pedro el Alto reflects the cooler climate and higher altitude (7200 feet above sea level), with a species mix predominantly of pine (*Pinus*), juniper (*Juniperos*), oak (*Quercus*), and alder (*Alnus*). It is estimated that in Oaxaca most forests in are communally held. Thus, forests fall mostly within community territory, placing communities at the center of forest conservation and management efforts here.²³

The community of San Pedro el Alto is situated in the southwest quadrant of the state of Oaxaca. The community can trace its origins to the Zapotecan civilization and it remains largely indigenous today.²⁴ There are roughly 265 families with a population of nearly 1,800 people. The communal territory covers an area of just under 30,000 hectares, 26,000 of which are working forests. The community is led by a general assembly, with roughly 350 members meeting monthly. According to information provided by the community, forestry dominates the major economic activities (80%), while ranching (12%), agriculture (6%), and commerce (2%) also contribute.

In 2010, San Pedro el Alto formed a business arm, *Dimensionados Oro Verde*, which operates across multiple aspects of the timber value chain with harvesting operations, transportation, processing, and market engagement at the local, regional, and international levels.

OAXACA, MEXICO



San Pedro el Alto uses a forest management system based on a 1989 agreement between Mexico and Finland called the System of Conservation and Silviculture Development (SICODESI for its Spanish name *Sistema de Conservación y Desarrollo Silvícola*). Since then, CONAFOR has provided continued support and facilitated the FSC certification of all working forests of San Pedro el Alto. The additions of FIP funding since 2012 has further contributed to the nearly 30 years of improving forest management planning and implementation. The existing activities and ongoing planning created a path for FIP to contribute to tipping the balance towards transformational change. FIP funding in Oaxaca supports forest conservation and protection practices that are an important part of community forest management here. Use of erosion control techniques after harvesting, such as rows of berms from harvesting slash and residue, are standard practice. The community uses a variety of silvicultural treatments including "Arboles padres" or natural regeneration, as well as selection techniques. Furthermore, San Pedro el Alto operates a tree nursery to supplement natural regeneration and relies on native trees species.



Native Species Tree Nursery in San Pablo el Alto, Oaxaca, Mexico (photo credit: E. Huff, 2017)

FIP Investments in San Pedro el Alto and the CFE Dimensionados Oro Verde

In Oaxaca, aspects of all three major FIP projects manifest on the ground. Specifically, the “Forests and Climate Change Project” has supported the following in San Pedro el Alto:

- Learning exchange between communities to improve technical and commercial abilities,
- Workshops to increase capacities in organization, administration, planning, business development, technical matters and productive diversification,
- Assistance in the certification process (both domestically and internationally),
- Technical and managerial capacity development for production and commercialization to strengthen ability to meet production goals,
- Training in forest management and timber production and biodiversity conservation, and
- Facilitating development and strengthening processes for community forestry institutions.

The table 3 shows the knowledge-building activities that have taken place under this project.



*CFE Dimensionados Oro Verde, Oaxaca
(photo credit: L. Cooper, 2017)*

TABLE 3. Knowledge Building in San Pedro el Alto

TYPE	NAME	PARTICIPANTS	DATES
Workshop	Development Plan for the San Pedro el Alto Community	16 participants	May, 2017
Short course	Tree climbing techniques and safety	12 forestry technicians	May, 2017
Workshop	Use of the web-based citizen science platform <i>CONABIO Naturalista</i>	2 forestry technicians	April, 2017
Workshop	Understanding and certifying chain of custody	26 participants	December, 2016



The FIP credit line in the project “Support for Forest Related Micro, Small, and Medium-sized Enterprises (MSMEs) in *Ejid*os and Communities”, aimed at CFEs with little or no access to traditional finance, facilitated increased returns for harvested wood by increasing activities in more aspects of the value chain. In June 2015, the CFE, working with FINDECA and in coordination with the Fondo Mexicano para la Conservación de la Naturaleza (FMCN), was authorized a credit line of US\$265,000 to provide working capital for the sawmill and two kilns. The sawmill is an FSC-certified roundwood sawmill for commercialization and has dramatically increased the capacity to process wood and keep financial returns in the community. The investments under this project provide basic technical and financial assistance to CFEs to build enterprise skills and access lines of credit for smaller investments.



FIP-funded kilns in San Pablo Huixtepec, Oaxaca (photo credit: E. Huff, 2017)

In turn, the newly generated capacities help them become able to access other financial institutions, such as Mexico’s National Development Bank (FND, in Spanish) to access credit lines focus on developing larger scale operations. As such, under the FIP project “Financing Low Carbon Strategies in Forest Landscapes” financing line, 3.8 million pesos (US\$204,000) were provided through a direct loan to the CFE *Dimensionados Oro Verde* to acquire kilns to dry

harvested wood. The kilns have a production capacity of 20,000 board feet and have reduced processing time for the timber from by over 50% (from over a month to two weeks), thus increasing economic profit for the communities. This is part of a new location, called San Pablo Huixtepec, that processes timber to market for a variety of products, including furniture.

FIGURE 4. Overview of the three FIP projects in San Pedro el Alto

	FORESTS AND CLIMATE CHANGE PROJECT	FINANCING LOW CARBON STRATEGIES IN FOREST LANDSCAPES	SUPPORT FOR FOREST RELATED MICRO, SMALL, AND MEDIUM-SIZED ENTERPRISES (MSMES) IN EJIDOS AND COMMUNITIES
EXECUTING AGENCIES	 		 
ROLE	To provide support to communities and ejidos to improve joint sustainable forest management and socio-economic development	To provide technical assistance and loans to market-ready small and medium size enterprises, this project supports larger scale operations	To build community-level capacity, this project assists in developing and implementing financially and technically viable management activities
IMPLEMENTATION EXAMPLE IN OAXACA	<ul style="list-style-type: none"> Financial assistance to complete domestic and international certification processes Workshop on studying and monitoring forest areas valuable for conservation 	<ul style="list-style-type: none"> This project provided a US\$204,000 loan through a direct loan to the CFE (<i>Dimensionados Oro Verde</i>), to acquire kilns to dry harvested wood 	<ul style="list-style-type: none"> This project provided a loan of US\$265,000 to finance the working capital of a new FSC (Forest Stewardship Council) certified sawmill for timber commercialization



Results in San Pedro el Alto and the CFE Dimensionados Oro Verde

The FIP investments improved the transformation and commercialization of wood forest products, adding value at the communal level and helping to satisfying an unmet demand in the region. The community requires infrastructure to do this, and FIP-supported equipment and machinery for harvest and extraction, transportation, and office administrators have strengthened that infrastructure. Increased timber harvest and ability to

process wood with the additional sawmill has allowed San Pablo el Alto to process 100% more than before, from 50,000 m³ in 2011 a year to 100,000 m³ in 2017.

By improving the efficiency of the sawmill and reducing drying times, the project can generate more valuable product with the same raw material. Better management practices increase the value of forest products and promote production, which enhances carbon stocks in the long-term. Higher returns from the same harvest also results in improved revenues for the community (Table 4).

TABLE 4. Results in CFE Dimensionados Oro Verde, Oaxaca

	PRIOR TO FIP INVESTMENTS (APPROXIMATELY 2010-2012)	CURRENT (AS OF 2017)	DETAILS
Number of employees in timber processing and product production	24	50	Includes new employment at the original processing site and 21 jobs at the new location
Number of female employees	CFE (5 women) Sawmill (1 woman)	CFE (15 women) Sawmill (7 women)	9 women work in the water treatment and bottling plant (a forest ecosystem service)
Perceived and actual Forest sector market opportunities	Local and regional markets	Local, National, and international markets	Demand for products have increased the value and opened new markets
Cubic meters (m³) processed per year	50,000 m ³	100,000 m ³	Allowable harvest volume increased since 2012, as studies showed forest potential to be higher than what was used previously
Financial returns to the CFE for sawed timber (roundwood)	US\$ 2,800,000 (2012)	US\$4,200,000 (2016)	Reflects both a volume increase and improved market access for the sale of roundwood (over a 50% increase)
Types of products to market	Sawed Logs	Sawed Logs, Processed Wood	Current products are both sawed logs and planks
FSC-Certified Hectares	30,048 hectares	30,048 hectares	All of the working land is certified



Overall, FIP resources have improved the CFE *Dimensionados Oro Verde* with better forest management, administrative, and wood processing capacities, while improving the livelihood of community members and their families. The role of women has increased substantially, thanks to increased mechanization from FIP funds and an emphasis on increasing engagement and opportunity for women in FIP-supported training. As such, women in Oaxaca are now working in the sawmill as well as in administrative roles.

Additionally, the community has seen a 20% increase in returns annually since they started new forest management and harvesting activities in 2012. Due in to FIP investments, there has been a greater than 50% increase in roundwood sales from 2012 to 2016.

Furthermore, forestry activities are an integral part of the culture in San Pedro el Alto. This can be seen in the mural art in the school yard depicting forest management and harvest activities (see photo below) and a pervasive awareness of the community benefits from forestry revenues such as the municipal building, an ambulance and medical center, education at multiple levels (preschool, elementary, and high school), a major church renovation, and even their own water treatment plant (in construction). Forestry returns also fund additional

activities that support well-being, including an organic garden to provide food for the community and an experimental orchard.

A healthy economy rooted in forestry activities has also provided capital to initiate other business opportunities including a bus system (*Autobuses San Pedro El Alto*) and a bottled water plant (*Beedani*), which treats and bottles water from a natural source in a forested area for distribution to nearby cities. This is an example of not only leveraging capital, but also of an ecosystem service provided by maintaining healthy forests.

In recent years, the community members have fostered a more positive outlook and increased motivation for both utilization of forest resources and efforts to improve and protect them, as well as to preserve biodiversity in the communal land. Community members report that caring for wildlife was not as dominant in the previous management program but the current plan considers criteria for the conservation of biodiversity a central component. It also highlights the role of biodiversity in the functioning of ecosystems and the generation of environmental services, including water. As result of this increased education and monitoring on biodiversity, forest managers in San Pedro el Alto report that they struggle less with deforestation or illegal activities.



Mural Depicting Forestry and Harvest Activities in Schoolyard, San Pedro el Alto, Oaxaca (photo credit: E. Huff, 2017)

HUMAN SNAPSHOT:

DANIELA ZÁRATE ZBÍRATE

Location:

San Pablo Huixtepec, Oaxaca, Mexico

Background

Daniela Zárate is an administrative support staff member for the wood products company “*Dimensionados Oro Verde*”. Her responsibilities include managing the reporting requirements of the company, such as checking the measurements of the raw material against the receipts when the wood is sold. She also deals with unit conversions, and tracks material through the production process.

Forest Investment Program Impacts

When asked about changes from outside financial investment, Daniela’s main observations were about the increase in women employed in forestry in Oaxaca. She noted that there are more women in managerial positions and more women in general working industrial forestry jobs. She noted that with improved equipment, more women were able to work in the actual sawmill, using heavy machinery. There are 12 additional women employed by *Dimensiones Oro Verde* as a result of FIP investments. Finally, Daniela stated that she was able to get this job after high school, without requiring extensive studying or schooling, which wasn’t an economic reality for her family. She did state that she was most interested in the forest management side of the business, as opposed to the industrial wood processing, and that eventually she would like to go back to school and learn more. Her current position has motivated her to seek more out of life and she now knows what it takes to become a forest engineer and feels more comfortable committing to a career that was previously completely male-dominated.

In her own words

“En la primera parte que llegué se me hacía complicado congeniar con puros hombres, es difícil porque se llevan de una manera, pero con el tiempo ahora si con ellos es un respeto que tienen hacia mí.”

“At first it was difficult for me to work with only men, it’s difficult because it’s a very specific way of working, but now, over time, they respect me.”



Daniela Zárate Zbírate. Photo credit: L. Cooper, 2017



SCALING FROM THE GROUND UP

FINDINGS

In both Oaxaca and Durango, the FIP provided resources to implement loans and grants to marginal and emerging enterprises, and leveraged a “demonstration” approach to show that CFE projects are financially viable and offer environmental benefits. As noted by staff at executing agencies FINDECA and FND, foreign investment into Mexico’s forestry sector has enabled them to form new partnerships with local banks and local communities that would otherwise not have been possible. The unique combination of grants and concessional loan financing lowers overall risk and allows them to work with communities like San Pedro el Alto in Oaxaca that otherwise would not have had sufficient credit history to qualify for traditional financing. Without these institutional partnerships, a direct consequence of FIP project “Support for Forest Related Micro, Small, and Medium-sized Enterprises (MSMEs) in *Ejid*os and Communities”, it is unlikely that FINDECA would be working with *ejidos* and communities to improve the social, environmental and economic growth of forest-based communities. Furthermore, by partnering with groups like FMCN, FINDECA can specialize in the finance side while ensuring that communities receive the technical and administrative support they will need to successfully pay back loans and make a healthy profit to reinvest in the community.

Furthermore, by partnering with financial experts, such as FND, the “Financing Low Carbon Strategies in Forest Carbon Landscapes” project can provide additional support to the fledgling CFEs that were nurtured in the “Support for Forest Related Micro, Small, and Medium-sized Enterprises (MSMEs) in *Ejid*os and Communities”, while also supporting more “market-ready” enterprises. As these groups work in multiple states, they can easily transfer best practices and lessons learned into other parts of the country. Further, the interrelated FIP project structure combines with the relationships between the executing agencies to cross projects and open up additional opportunities to support CFEs at multiple stages of their business development.

While challenges remain in Mexico, perhaps most notably scaling up sufficient financing and support to reach other forestlands, FIP funding has fueled an institutional shift that will allow for continued growth and improvement



Natural Regeneration supplemented with planted seedlings, Oaxaca (photo credit: E. Huff, 2017)

beyond the FIP. The experience generated by this project invites more financial intermediaries to invest and reduces perceptions of risk and uncertainty.

All FIP activities coalesce into increased sustainability, profitability, and improved management of Mexico’s forests: from building capacity of key agencies, to training and boosting capacity for landholders, to developing and implementing transparent and innovative methods for forest management and investment. Following the FIP investments, Mexico is better equipped to support livelihoods and wellbeing at the local level, while addressing climate change nationally and as a leader on the international stage.

Currently, sustainable forest management is prevalent in Mexico and is strongly rooted in some communities. While others need improvement, programs like those funded by the FIP support communities that are adopting improved practices. Neighboring communities are then able to see benefits of these approaches, thus increasing best management practice adoption and leveraging a peer-learning approach. FIP-funded learning exchanges between communities are helping to expedite this process and preparing other communities and enterprises to take advantage of investment opportunities.



Field work in both Durango and Oaxaca show that the FIP was successful in key themes such as Livelihoods, the Institutional Landscape, Resilience, and a Programmatic Approach. When surveyed, FIP stakeholders (communities, executing agencies, and governmental actors) felt that the FIP support contributed most strongly to:

1. Improved sustainable forest management
2. Greater financial security in rural communities, and
3. Better connections between local level results and national objectives in forest management.

See the table below for details:

At the national level, Mexico has successfully linked policy objectives (currently, ENAIPROS) with investment funds, and is working at multiple-scales and across agencies to implement these objectives. Within policy, the focus is shifting to increasing economic competitiveness and meeting more domestic timber needs, while also keeping sustainability front and center. A mammoth task, this success rests on decades of continual institutional strengthening within the country. Key to this has been developing and implementing a shared vision across stakeholders that encompasses multiple goals (e.g. habitat protection and poverty reduction) and values transparency and information-sharing. Moreover, with international support, Mexico has grown CONAFOR into a distinguished leader amongst international forestry agencies, improving forest management and information sharing, and setting the stage for participation in REDD+.

TABLE 5. FIP Results in Mexico

Livelihoods	<ul style="list-style-type: none"> • Increased income, professional development, and other opportunities for indigenous people and women • Integration of good forest practices into culture and community identity, achieved by growing capacity through existing organizations and relationships
Local Communities	<ul style="list-style-type: none"> • Improved and supplemented natural resource management incomes (e.g. forestry and non-timber forest products) • Diversified income from forest ecosystem services (e.g. bottled water business, ecotourism) • Created linkages across the supply chain to improve income security
Institutional Landscape	<ul style="list-style-type: none"> • Improved access to loans and grants for marginal and emerging enterprises • Funding leveraged a “demonstration” approach with the executing agencies to show that CFE projects are financially viable and offer environmental benefits
Programmatic Approach	<ul style="list-style-type: none"> • Increased capacity and inter-agency connectivity within the federal government, the most important being the National Commission of Forestry (CONAFOR) • Built capacity in the various executing agencies and changing how these agencies operate (including types of activities they support financially)
Sustainable Forest Management	<ul style="list-style-type: none"> • Offered workshops and training to transfer the skills and knowledge in sustainable forest management as well as establishment of conservation areas • Improved incorporation of biodiversity knowledge and protection measures
REDD+ capacity building	<ul style="list-style-type: none"> • Increased capacity of national agencies (e.g. CONAFOR) to monitor, track, and report on land use change • Supported efforts to equip and train local-level actors, who now have improved economic circumstances to better manage forests both in near and long-term
Resilience	<ul style="list-style-type: none"> • Supported increased resilience on multiple fronts: economic, communal, ecological, and in response to climate change stressors • Strengthened forest management and the economies and communities that rely on them • Improved networks of training, communication, and resources within Mexico will help to implement best practices in response to climate change impacts



By bringing in a range of partnering organizations as executing agencies, different priorities (from biodiversity management to economic development) are encompassed, along with the institutional experience of the partnering organizations. This results in approaches that are truly implementable, reflect knowledge from different perspectives, work with and through communities to meet their economic goals, and contribute to broader environmental targets at the regional and national level.

MOVING FORWARD

On the path forward after the FIP, forests in Mexico will benefit in the long-term from gains achieved through FIP support. FIP investments have contributed to forest sector change in several key aspects. First, investments have led to better forest management practices and the long-term conservation of key high-biodiversity value forestland. These actions will improve the ecological functioning of the ecosystem, decrease the deforestation rate, and maintain critical biodiversity of flora and fauna. Second, investments lead to an increase in social health and wellbeing of underserved communities, with a special focus on and benefits for women and indigenous sub-populations. These communities will continue to have increased job opportunities, strengthened industries, increased wages, and improved equality and career opportunities for women. Third, investments will continue to contribute to institutional and economic partnerships across Mexico and at multiple scales. New partners, including financial institutions, are now working with small and medium-size community forest enterprises, who today access credit to improve their operations and control more parts of the supply-chain, resulting in improved stability and efficiency. Because the FIP has shown these investments to be successful and financially sound, it is likely that national financial institutions will continue to work with community forest enterprises beyond the specific FIP projects. Finally, an additional, yet crucial, product of the FIP funding is the built capacity and visionary thinking in early-career emerging professionals. This will continue to advance professional landscapes in lending (e.g. in the executing agencies), forest management, and habitat protection by emphasizing shared values and goals while identifying exemplary, yet practical, solutions.

Decades of capacity building and strategic thinking has set the stage for paradigm shifts in the economic valuation, sustainable management, and climate change mitigation and adaptation potential of the country's critical forest resources. Going forward, there are continued opportunities to communicate best practices and expand these efforts and opportunities to reach additional communities.



*Conservation and Ecotourism Area
of La Ciudad Ejido, Durango
(photo credit: L. Cooper, 2017)*



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