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PRODUCTIVE LANDSCAPES (PROLAND)

COMMUNITY-BASED FOREST ENTERPRISE IN MEXICO:
LESSONS FROM SELECTED CASES



AUGUST 2020

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ACRONYMS AND ABBREVIATIONS

AC	<i>Asociación Civil</i> (Civil Association, equivalent to 501(c)(3) in Mexico)
ARIC	<i>Asociación Rural de Interés Colectivo</i> (Rural Association of Collective Interest)
CBFE	Community-Based Forest Enterprise
CCMSS	Mexican Civil Council for Sustainable Silviculture (<i>Consejo Civil para la Silvicultura Sostenible</i>)
CITES	Convention on International Trade in Endangered Species
CONABIO	<i>Comisión Nacional para el Conocimiento y Uso de la Biodiversidad</i> (National Commission for the Knowledge and Use of Biodiversity)
CONAFOR	<i>Comisión Nacional Forestal</i> (National Forestry Commission)
ENAIPROS	<i>Estrategia Nacional para el Incremento de la Producción y Productividad</i> (National Strategy for Increased Production and Productivity)
FAO	Food and Agriculture Organization of the United Nations
FMP	Forest management plan
FSC	Forest Stewardship Council
GAIA	<i>Grupo Autónomo para la Investigación Ambiental</i> (Autonomous Group for Environmental Research)
Ha	Hectare
INEGI	<i>Instituto Nacional de Estadística y Geografía</i> (National Institute of Statistics and Geography)
m ³	Cubic meter
MDF	Medium-Density Fiberboard
MIQROO	<i>Maderas Industriales de Quintana Roo</i> (Quintana Roo Industrial Woods)
MXN	Mexican Peso
NGO	Non-Governmental Organization
NTFP	Non-Timber Forest Product
OEPFZM	<i>Organización de Ejidos Productores Forestales de la Zona Maya</i> (Organization of Ejido Forestry Producers of the Mayan Zone)
PES	Payment for Environmental Services
PROFEPA	<i>Procuraduría Federal de Protección al Ambiente</i> (Federal Prosecutor for Environmental Protection)
ProLand	Productive Landscapes
REPSEAM	<i>Red de Productores de Servicios Ambientales, A.C. (Ya'ax Sot'ot' Yook' Ol Kaab)</i> (Network of Environmental Services Producers)

SADER	<i>Secretaría de Agricultura y Desarrollo Rural</i> (Secretariat of Agriculture and Rural Development)
SEMARNAT	<i>Secretaría de Medio Ambiente y Recursos Naturales</i> (Secretariat of Environment and Natural Resources)
SEZARIC	<i>Grupo Silvindustria General Emiliano Zapata</i> (General Emiliano Zapata SilvilIndustrial Group)
SPFEQR	<i>Sociedad de Ejidos Productores Forestales de Quintana Roo</i> (Society of Ejido Forestry Producers of Quintana Roo)
TOPASSS	Tónachi, Papajichi, Santa Anita, Sehuerachi and Samachique
UMAFOR	<i>Unidad de Manejo Forestal Regional</i> (Regional Forest Management Unit)
UNECOFAEZ	<i>Unión de Ejidos y Comunidades Forestales Emiliano Zapata</i> (Emiliano Zapata Union of Ejido and Community Forests)
USAID	United States Agency for International Development
UZACHI	<i>Unión de Comunidades Forestales Productores Zapotecas y Chinantecas</i> (Union of Zapotec and Chinantec Forest Producer Communities)

EXECUTIVE SUMMARY

This Productive Landscapes (ProLand) project report summarizes findings from an analysis in Mexico focused on learning from the experiences of less well-known community-based forestry enterprise (CBFE) models, with an emphasis on “second-tier” organizations. The overall objective of this analysis is to enrich ProLand’s CBFE Sourcebook by studying the experiences of a sample of representative CBFEs in Mexico. Mexico is an important site of CBFE development, given the country’s high level of community control over forests (approximately 70 percent is under community tenure); its relatively long history of commercial community forestry (extending back to the 1970s in some places); and the exceptional level of investment into building CBFEs in the country. To date, most analyses of CBFEs have focused on a small group of the country’s “five-star” examples, which are not broadly representative within Mexico, much less in other countries. An earlier ProLand study in Mexico concentrated on these five-star CBFEs and recommended the current review of a more representative sample.

Key findings from this analysis include:

Continuity in social governance is foundational. Years of investment in forest management, enterprise development, market access, and finance can be wasted if there are no mechanisms in place for weathering leadership transitions. In Mexico, leadership rotation is mandated every two or three years, creating multiple problems that combine to hold back CBFE development or even send communities into regression. CBFEs that manage to avoid such problems have established a separate forest enterprise administration with permanent staff. In communities visited whose forestry operations are stalled or backsliding, governance problems—not timber availability, markets, or finance—are the main issue. CBFEs that are doing well have, almost unanimously, established some kind of separate, permanent institution to manage the forest enterprise.

Governance innovation is possible. Although many communities have a strong attachment to the rotation of leadership as a fundamental check on corruption, new entities are possible within that framework as long as they have the full support of the community and remain transparent and accountable.

Associations are powerful, positive intermediaries. Communities that have achieved durable success with individual CBFEs are often supported by strong associations of other CBFEs. Such associations take many forms. Some are more political in nature, while others focus on forestry technical services provision. Other groups focus on product aggregation, value-added processing, and accessing finance and new markets. Such associations are particularly important for smaller, more remote forestry communities that are not likely to achieve “five-star” status on their own.

How associations evolve over time and adapt their approach in response to barriers and tensions provides important insights for CBFE investment strategy. **Key lessons** stand out. Above all: the need for an association to avoid **conflict of interest** in the services it offers. In some cases, organizations that introduced new services over time (moving from forestry technical services to product aggregation and marketing, for example) have created conflicts with their own members. An important way to avoid this is by eschewing **exclusivity arrangements that require members to sell all or a fixed amount of product to the enterprise**. It is also essential to provide a real **value-add** for members. Associations that **avoid mixing too many roles or services** seem more durable.

As powerful as such associations can be, **new alliances should be “in situ” wherever possible**. Evidence from field visits shows much greater durability among associations that emerged in situ and then evolved new services over time.

For most CBFEs in Mexico, progress up the chain toward **ever-increasing vertical integration and value added at the individual producer level is neither plausible nor desirable**. Scale, geography, competing community objectives, changing markets, and other trends (e.g., migration, demographics, or wage labor preference) make investing in increased value-added processing everywhere an unwise strategy. Given this logic, aggregating and adding value at the “second-tier” scale becomes more attractive. Lessons from the success and failure of such ventures are thus of key importance for future investment strategy.

I.0 INTRODUCTION

The Productive Landscapes (ProLand) project assists the United States Agency for International Development (USAID) to catalyze change in land management systems so that people and institutions in developing countries can make informed, actionable, and effective development decisions. A key focus for ProLand is Community-Based Forestry Enterprises (CBFE), and specifically the development of a Sourcebook¹ for USAID Missions on design and implementation of CBFE projects and activities. To ensure that the Sourcebook has practical application, ProLand conducted “field verification visits” with USAID Missions in Mexico, Indonesia, and Peru during 2018 and 2019. The focus of the initial analysis in Mexico was the country’s iconic five-star CBFEs, whose successes, while globally significant and important for the Sourcebook, are not broadly representative of Mexico or the global tropics. The report summarizing findings from the Mexico verification visit is available on USAID’s ClimateLinks website.²

This report summarizes findings from a second round of analysis in Mexico focused on learning from the experiences of less well-known CBFE models, with an emphasis on associations, alliances, and “second-tier” organizations. The primary aims of the analysis are to enrich the ProLand Sourcebook and present recommendations related to CBFE investment strategy. Beyond USAID, findings will also be shared with the Mexican government, communities, and key informants listed in Annex V.

The Sourcebook is based on a ProLand Assessment of CBFEs,³ which identifies four enabling conditions for effective CBFEs:

1. **Secure rights** to develop, exclude others, and sell a forest product or service are important for long-term social enterprise investment. While these rights are the most basic policy requirement, other policies contribute to a robust enabling environment.
2. **Governance, organization, and management** that provides effective leadership and technical knowledge to the CBFE and accountability to the community, and ensures the CBFE’s financial integrity.
3. **A viable social enterprise model** that produces financial benefits sufficient to reinvest in forest and business management and growth, and provides economic benefits (though not necessarily cash) to the community as a whole.
4. **Partnerships with value chain actors** to access external funding and technical support, help aggregate timber from several communities (or individual producers), market timber to buyers, and build/maintain infrastructure. These partners include national and local government, donors, civil society organizations, and private sector entities.

¹ <https://www.climatelinks.org/resources/sourcebook-community-based-forestry-enterprise-programming>; the Sourcebook includes material from earlier drafts of this Mexico study

² *Productive Landscapes Community-Based Forestry Enterprises Mexico Field Verification Report* (see <https://www.climatelinks.org/resources/productive-landscapes-community-based-forestry-enterprises-mexico-field-verification>)

³ *Productive Landscapes: An Assessment of Critical Enabling Conditions for Community-Based Forestry Enterprises* (see <https://www.climatelinks.org/resources/productive-landscapes-assessment-critical-enabling-conditions-community-based-forestry>)

2.0 SCOPE OF ANALYSIS

Mexico is an important case for the study of CBFEs given its high level of community tenure and the country’s long history of investment in community forestry. Annex III presents brief background on the Mexican forestry sector and data on sector-wide trends that make this analysis particularly timely because of recent federal budget cuts affecting forestry extension and investment.

While Mexico’s community forestry sector is recognized internationally as a success story, the reality is more complex. Table 2.1 below summarizes the most recent data on Mexico’s forest communities, following a government typology related to level of vertical integration and social organization.

TABLE 2.1: MEXICAN COMMUNITY FOREST TYPOLOGY

Type	Description	Number (and %) of Communities with Forest Nationwide	Percent of Communities with Management Plans
I – Potential producers	Forest owners with commercial potential without authorized management plans	13,893 (81)	N/A
II – Stumpage producers	Forest owners undertaking authorized harvesting of standing timber through contracting of third parties	1,767 (10)	55.9
III – Primary producers	Forest owners with authorized management plans that directly participate in harvesting and sales of primary forest products	1,228 (7)	38.9
IV – Primary transformation	Forest owners with capacity to transform primary products and undertake marketing	146 (1)	4.6
V – Integrated transformation	Forest owners with physical infrastructure to undertake integrated transformation for value-added production	18 (0.11)	0.6

Source: National Forestry Commission (CONAFOR)

While collectively 3,159 communities implement authorized forest management plans, few are beyond Stage II, “stumpage producers.” Of those communities with management plans, 56 percent contract nearly all operations to third parties and have little to no direct participation in management and harvesting. Approximately 39 percent of communities with management plans participate directly in some phase of forest harvesting on their lands, or in some part of transport, sales, and primary transformation. Under 5 percent not only harvest their own forests but also process, and often market, the timber they extract in their own facilities. About half of 1 percent of communities with management plans harvest their own forests, undertake processing, and own infrastructure for diversified secondary transformation and finished products.

The CBFEs highlighted in international analyses of the Mexican forestry sector are typically Type IV or V, which collectively represent just 5 percent of communities with management plans. Given that most community forests in Mexico have little visibility in the literature and are therefore largely absent in discussions of the Mexican forestry sector, ProLand undertook the present analysis of a more representative sample of CBFEs in different regions of the country. The analysis focused on innovation in CBEF organization, emphasizing the role of alliances between CBFEs in forest management, value-added processing, and access to markets and finance. Ultimately, ProLand studied nine communities and eight associations in four states. Annex IV presents the site selection and study methodology.



View of the Sierra Tarahumara, Guachochi, Chihuahua, one of the regions visited.

3.0 REFLECTIONS FOR THE PROLAND CBEF SOURCEBOOK

This section is organized around the four enabling conditions presented in the draft ProLand CBEF Sourcebook (see Section 1.0), with the aim of complementing and providing nuance to the recommendations presented while reflecting on the Mexico experience. Annex II contains more detailed contextual information on the specific sites and organizations mentioned below.

3.1 SECURE RIGHTS AND OTHER POLICIES

Mexico is widely considered a global model in terms of secure tenure for communities. Around 70 percent of the country's forest is under local tenure. Community-based governance is recognized in the Mexican Constitution, endowing community decisions with legal authority through recognition of local institutions and norms. Beyond recognition of tenure, this allows communities significant autonomy in decision-making. Furthermore, Mexico has facilitated and invested heavily in the development of CBEFs since the cancellation of forest concessions in the 1980s. Since the creation of the National Forestry Commission (CONAFOR) in 2000, hundreds of millions of dollars have been spent developing the country's community forests.⁴ This situation stands in stark contrast to the forestry sectors of most developing countries, where governments often do not recognize local tenure; have weak, under-resourced national forestry institutions that claim authority over ancestral resources; and engage in rent-seeking behavior on communal lands. Field visits revealed several important issues related to this enabling condition that are suboptimal for the independence and growth of CBEFs in Mexico, elaborated below.

Although the Mexican government's commitment to developing CBEF is exceptional, an **abundance of subsidy** in the sector has created unique (if somehow enviable) problems. In particular, a uniform strategy of building value-added capacity in individual forestry communities nationwide, without enough attention to market dynamics or local capacity, has caused problems. In some places, overcapacity sunk the viability of some existing CBEF mills.

Key informants in Quintana Roo, for example, blamed "all the new mills" financed by CONAFOR for shuttering some pre-existing CBEF sawmills, which, given low harvest volumes, were viable only when processing wood from multiple *ejidos*.⁵ In addition, new mill infrastructure sitting idle is common throughout Mexico. A lack of attention to market dynamics and community capacity to operate value-added enterprise has led to many mills shuttering, or failing even to get up and running, as witnessed in Quintana Roo and Chihuahua. Although the government improved its operational guidelines significantly in recent years on this front—for example, requiring communities to have a business plan, put up some of their own capital, and access credits where possible—investing in value-added enterprise at the producer level without sufficient planning and capacity building remains an issue.

⁴ CONAFOR subsidies in total for the period 2010–2017 amounted to MXN 34.7 billion (around US \$2.3 billion). About 5% of this budget was assigned specifically for "community forest development," while another 10% was for "production" and 26% for "environmental services," a significant share of which would have gone to communities (Deschamps-Ramírez and Madrid-Zubirán, 2018).

⁵ See Annex III for explanation of *ejidos* as community governance institutions.



New, unused mill infrastructure at a CBE in northern Mexico.

While CONAFOR has dedicated lines of funding to communities for both active management and protection of forest resources through its Payment for Environmental Services (PES) program, the **incentives for agricultural and livestock development** offered by the Secretariat for Agriculture and Rural Development (SADER) **have long been greater**. As in many countries, lack of alignment between sectoral agencies implementing rural development policy creates perverse incentives that encourage forest conversion, a problem brought up by several informants at the national scale, and also in Quintana Roo.

Furthermore, although the Mexican government grants communities significant autonomy in decision-making about land use, **forest management—and timber harvesting in particular—is heavily regulated** and from the top-down, especially in lowland broadleaf forests (often referred to as “selva” or “tropical forest” in Mexico). While much of the country’s forestry regulation is effective, there is redundancy in the tropical forest among different agencies (e.g., Secretariat of Environment and Natural Resources [SEMARNAT]; Federal Prosecutor for Environmental Protection [PROFEPA]; and the National Commission for the Knowledge and Use of Biodiversity [CONABIO], the Convention on International Trade in Endangered Species [CITES] “scientific authority”). This redundancy creates burdensome and slow bureaucratic processes to permit harvesting and sell wood. ProLand heard this common complaint from communities, foresters, and buyers alike during field visits in Quintana Roo.

In a similar vein, **silvicultural systems** are designed at the national level, and not customized at the local level. While there are exceptions, such as specific approaches in Durango developed and applied by

the local *despachos* (consulting foresters) based in Santiago Papasquiario, a rather uniform approach to managing for timber is in place across the temperate forests of Mexico. Although the sustainability of harvesting must be ensured and the state should insist on the application of scientific forestry (especially in a context where corruption is rife), allowing for greater creativity among “trusted” actors (e.g., Forest Stewardship Council [FSC]-certified communities) is preferred.

Another policy issue cited by interviewees was that the government’s policy of suspending management plans when there is **land conflict**, even when it is nonviolent and does not affect forest areas, can result in long-term negative impacts for forestry. While it is broadly a good policy, the collateral damage to CBFEs can be serious. For example, in Topia, Durango, a minor border dispute with a neighboring *ejido* effectively suspended forestry in the community for nearly a decade while the case was tied up in the courts. This closed the *ejido*’s mill and set enterprise development back after years of progress.

Although Mexico is recognized for its progressive tenure regime, **ownership of natural resources in communities does not extend to subsoil resources**. Thus, even in advanced communities that seem to have complete territorial control, the government awards **mining concessions**. This generates conflict and can result in the suspension of forest management activities, as happened in Capulálpam de Méndez in the Sierra Norte of Oaxaca. This leading Mexican CBEF, a founding member of the well-known forestry producer association Union of Zapotec and Chinantec Forest Producer Communities (UZACHI), had its management plan suspended for three years due to conflicts with the mining concession granted on its land. Although a judge recently ruled in favor of the community and forest harvesting has resumed, the case remains unresolved.⁶ This is but one of many such examples throughout Mexico.⁷

3.2 GOVERNANCE, ORGANIZATION, AND MANAGEMENT

According to nearly all informants, the most significant barriers to increased CBEF development in Mexico are related to **social governance challenges**. Like many community-based enterprises globally, most Mexican CBFEs are managed by local elected representatives (called the *comisariado*) whose service is limited to two or three years. This forced rotation of leadership is meant to avoid corruption and concentration of power while spreading the burden of often unremunerated service, but it is also blamed for creating a lack of continuity and limiting the long-range planning and investment necessary for CBEF development.

Although the rotation of the *comisariado* is mandated by law, some CBFEs have succeeded in establishing **permanent positions** and creating a **separate enterprise administration**. The experience of the *ejido* Cabórachi, an indigenous Rarámuri community in Chihuahua, demonstrates the benefits of doing so. Unlike many of its neighbors, Cabórachi has advanced significantly in the last 10 years, achieving new value-added processing capacity, access to finance and new markets, and FSC certification. Community leaders attribute their success above all to the creation of new, permanent entities that guarantee continuity through times of *comisariado* rotation. Both entities are legal and recognized by the community assembly. One is an enterprise administration made up of permanent, paid staff dedicated solely to running the community’s forest enterprise. The other entity, called a “consultative committee,” is a quasi-external body that nonetheless is officially part of the community governance structure. The committee is made up of community representatives who rotate out only in years when the *comisariado* leadership will not change. Informants identify both the enterprise administration and the consultative committee as critical checks on the power of the *comisariado*, which many informants blame for holding back development in the past.

⁶ See <https://es.mongabay.com/2020/03/mexico-capulalpam-comunidad-forestal-modelo-mineria/>

⁷ See https://www.ccmss.org.mx/wp-content/uploads/2017/11/Analisis_Mineria_CCMSS_light.pdf



Changes in governance are critical to enterprise growth in the ejido Cabórachi.

Cabórachi “took the risk,” in the words of one informant, and created these bodies after seeing the benefits of such governance change while on an exchange visit to Nuevo San Juan Parangaricutiro, a “five-star” CBFE in Michoacán. This experience remains exceptional. In a majority of the CBFEs visited, there is **reluctance to create any permanent positions or bodies** for fear of accumulation of power and corruption. This is the case in San Juan Ozolotepec, in the Sierra Sur of Oaxaca. The community resisted establishing any permanent position or separate body, despite years of urging from their non-governmental organization (NGO) supporter the Autonomous Group for Environmental Research (GAIA), as well as from UZACHI, with whom San Juan Ozolotepec had a long-standing alliance (see below). Although San Juan has made significant advances over the last decade in comparison with its neighbors, inconsistency in leadership has led to lack of follow-up on key issues like pest management, client relationships, and keeping the community sawmill running.

In Quintana Roo, according to interviews, governance problems lie at the root of the “backslide” witnessed among many of the region’s CBFEs. The dominance of the **“work group” model**, in which harvest volumes in the ostensibly common-property forest are divided among groups of *ejidatarios*, has **led to de facto parcelization** of the forest resource, hindering enterprise development and investment. This **breakdown in collective social governance has made it hard for even some highly advanced CBFEs in the region to respond to a series of external challenges** that have hit forestry *ejidos* on the Yucatan Peninsula over the last 10 to 15 years. Such challenges include:

- The legacy of Hurricane Dean in 2007, which downed vast areas of forest and suspended management plans for years;
- Changing markets, especially a declining demand for mahogany, long the mainstay of the Peninsula's most successful CBFEs; and
- A shift toward greater reliance on employment outside communities (especially in the tourism-oriented Riviera Maya), exacerbating a demographic problem in which mostly older men make all decisions related to forestry.

Without a strong collective base committed to a long-term vision, enterprises cannot weather such challenges.

A further challenge for CBFEs is inequality in terms of decision-making and benefits. While there is greater representation in many indigenous communities, *ejidatarios* (those with voting rights in *ejidos*) typically make up a very small percentage of the population, and are almost always male. Los Altares *ejido* in Durango, for example, has a total population of 708, with 108 *ejidatarios*. Only *ejidatarios* are represented in the General Assembly that oversees CBFE operations, and only *ejidatarios* receive annual dividend payments. A trend toward increasing inequality in forest communities throughout Mexico has been noted by academics (see Skutsch et al., 2018). In CBFEs visited, those that had greater representation in decision-making were more successful with enterprises development, and enterprises with more diversified, value-added production created benefits for a wider array of community members, especially women.

3.3 SOCIAL ENTERPRISE MODEL

Overall, Mexican CBFEs, especially those operating in pine-oak forest, benefit from a **highly stable and good market for pine** over decades (Bray, in press). Cabbage et al. (2015) showed how, from a sample of Type III–IV CBFEs, a majority were profitable. In spite of competition from cheap Chilean and U.S. imports, Mexican CBFEs were well placed from a business perspective, especially in areas where pine is the focus for timber management.

Interviews in the field revealed some important caveats, however. First is that, as always, **markets are changing**. In particular, the trend toward increased use of medium-density fiberboard (MDF, typically made from cheap imported pine in specialized mills that are beyond the capacity of nearly all CBFEs) places pressure on solid wood products. Both General Emiliano Zapata SilvilIndustrial Group (SEZARIC) in Durango, which operates a plywood mill, and Pueblos Mancomunados in Oaxaca noted that this is a major problem for growing their business and has complicated negotiations with new buyers (most notably IKEA), who offer very low prices for products. Second, and critically, a 30 percent **value-added tax** on producers acts as an incentive for CBFEs to sell roundwood; for example, several *ejido* informants in Durango mentioned this tax underlies their decision to go back to selling more roundwood.

In Mexico's tropics, the reality is very different. **Markets for tropical timber are more fickle**. Mahogany, long the mainstay for *ejidos* in Quintana Roo, is no longer in great demand, according to interviews. Prices on the Yucatan Peninsula have more than halved over the last three or four years, from around Mexican pesos (MXN) 50 per boardfoot down to a reported MXN 24 per boardfoot currently. This reflects a **big drop in demand for "true" mahogany** in international markets, where cheaper substitutes of both plantation mahogany from the Asia/Pacific region as well as African mahoganies (e.g., *Khaya*) are increasingly in demand. As the *comisariado* of X-Hazil stated, "Mahogany doesn't even have value as fuelwood anymore." In recent years, markets have been much more favorable for "lesser-known" species like Chechen and Zapote, which should in theory be good for

CBFE development since there is now a demand for a wider diversity of species. However, much less is known about ecology, regeneration, and silvicultural requirements for such species. Taking advantage of these new markets also requires more value-added capacity and greater enterprise resilience to react to market fluctuations, capacities typically lacking among CBFEs.



Fluctuations in tropical timber markets pose unique challenges for CBFEs operating in the Yucatán Peninsula.

Given these broader changes, as well as other economic trends (e.g., outmigration and increasing reliance on wage labor), **the logic of investing in value-added enterprise at the single community level is increasingly less viable** according to some of those interviewed. Indeed, in several *ejidos* visited in Durango, the decision was made to rent their mill to a private operator (often an influential *ejidatario*). This way “we avoid all the costs, uncertainties and risks of running our own mill...having to pay so many workers even if we have a bad year.” Selling roundwood, according to another informant, is simpler, cleaner, and “everybody gets their dividend. Period.”

The trend away from value-added enterprises at the producer level was not found in all the CBFEs visited. Interestingly, in a few *ejidos*, **the move away from value-added timber processing has accompanied a strategy of diversification**, although this takes different forms and new products may not be run by the whole community. For example, in Topia, Durango, while the *ejido* has decided to rent its sawmill to a private operator and has basically moved back down to a Type II/III producer, informants noted that this decision has freed up time and resources to dedicate to new forest-based activities. These include development of a “green pharmacy” by a women-run cooperative; production

of handicrafts (e.g., baskets) using pine needles; and investment in an ecotourism venture with a trout nursery.

A similar phenomenon occurred in Quintana Roo in the Reforma Agraria *ejido*, a small, relatively resource-poor forestry community that is an Organization of Ejido Forestry Producers of the Mayan Zone (OEPFZM) member. According to the founder of the OEPFZM, after years of focusing on timber, this *ejido* has moved towards a more diversified approach as markets changed, including non-timber forest product (NTFP) production, handicrafts, and carpentry workshops that are accessing good markets in the hotel sector in the Riviera Maya. As in Topia, these smaller, non-timber-focused ventures tend to function as **small cooperatives within the community**. Thus, they are not run day-to-day by the *comisariado*, although they must report on activities to the community general assembly as they make use of common property resources.



Topia in Durango has diversified into handicrafts and medicinal items while downgrading timber processing capacity.

3.4 VALUE CHAIN PARTNERSHIPS

Table 3.1 summarizes the various associations, alliances, and second-tier businesses visited as part of this analysis.

TABLE 3.1: ASSOCIATIONS AND “SECOND-TIER” ENTERPRISES VISITED

Organization Name	Location	Year Founded	Membership	Principal Services Offered	Notes
Emiliano Zapata Union of Ejido and Community Forests (UNECOFAEZ)	Durango	1976	77 <i>ejidos</i> and communities	<ul style="list-style-type: none"> Policy advocacy Access to government subsidy 	Has chosen not to offer certain services (e.g., technical forestry) to avoid conflict
SEZARIC	Durango	1991	40 of UNECOFAEZ members	<ul style="list-style-type: none"> Value-added processing and sales 	Members are shareholders, no timber sale exclusivity by CBFEs to association requirement

Organization Name	Location	Year Founded	Membership	Principal Services Offered	Notes
Tónachi, Papajichi, Santa Anita, Sehuerachi and Samachique (TOPASS)	Chihuahua	2017	5 <i>ejidos</i>	<ul style="list-style-type: none"> Pallet production from small diameter timber 	Has yet to get up and running due to lack of credit
Regional Forest Management Unit (UMAFOR), Civil Association (AC)	Chihuahua	2009	32 <i>ejidos</i> and 1,200 smallholders	<ul style="list-style-type: none"> Forest monitoring (fire, pests, biodiversity, water) 	A creation of CONAFOR, now an independent largely volunteer network
UZACHI	Oaxaca	1989	4 communities	<ul style="list-style-type: none"> Forestry technical services Land-use planning and monitoring 	Has mainly focused on serving its own members but offers services to other Oaxaca CBFES
OEPFZM	Quintana Roo	1986	10 <i>ejidos</i>	<ul style="list-style-type: none"> Forestry technical services 	Has diversified services to members as markets have changed
Society of Ejido Forestry Producers of Quintana Roo (SPFEQR)	Quintana Roo	1986	4 <i>ejidos</i>	<ul style="list-style-type: none"> Forestry technical services 	Early efforts to aggregate supply faltered; interested to form a second-tier business
Network of Environmental Services Producers (REPSERAM)	Quintana Roo	2008	36 <i>ejidos</i>	<ul style="list-style-type: none"> Access to government subsidy 	Focused on channeling CONAFOR PES subsidy; some diversification to NTFPs

Given the limited success of investing in value-added processing at the single producer scale for most CBFES, **aggregating supply and adding value up the chain** is a better option for many, especially smaller operations for whom forestry is not as important as a livelihood strategy. So-called “second-tier aggregation,” while complicated from an organizational point of view, spreads risk and allows *ejidos* greater flexibility to react to market fluctuations and their own internal politics and shifting goals (e.g., job creation versus dividend payments). For many CBFES visited, as well as for many projects that have supported their development over decades, there is **an irresistible logic to the idea of aggregation**. Whether it is increasing the volume, consistency, or quality of product on offer, investing in sophisticated value-added infrastructure, or accessing finance and new markets, there can be power in numbers, especially for smaller producers that cannot go it alone.

However, **significant risks** come with developing such enterprises, especially when they are “ex-situ” creations introduced by projects. Evidence from this analysis suggests that second-tier businesses tend to be more successful where they evolved in situ and organically (often growing out more political bodies that initially formed in pursuit of shared goals, such as land or resource rights), where they clearly and continually add value for their members, and where they have evolved a well-balanced separation of powers. Avoiding **conflict of interest** (both real and perceived) is an especially challenging task in second-tier businesses formed with the aim of marketing multiple CBFES member products, since these businesses need to balance enterprise management with community transparency and accountability.

The case of SEZARIC in Durango, which is probably the most successful and durable CBFES-run industrial timber processing enterprise in the world, highlights several keys to success. These include the need to **avoid exclusivity arrangements** with members and the centrality of **separating business**

operations from community-based governance systems. A counterpoint is the case of the Society of Ejido Forestry Producers of Quintana Roo (SPFEQR) in Quintana Roo, whose efforts in the early 2000s faltered, reportedly due to the lack of a clear value-added strategy.



A significant share of the employees in SEZARIC's plywood mill are women.

Likewise, where CBFs have been able to install long-term technical and administrative capacities, innovate with new governance structures, and access finance and better markets, it is often as a result of their involvement in **unions, associations, or other alliances**. Two examples from our field visits stand out, offering important lessons.

First is the case of Emiliano Zapata Union of Ejido and Community Forests (UNECOFAEZ) in Durango, which is instructive particularly in terms of the limits it has imposed on itself as a union. First, it made the decision early on to create SEZARIC as a separate legal business and require *ejidos* to contribute with timber in order to become shareholders, while not requiring them to sell them any wood (but giving them an 8 percent premium should they choose to). UNECOFAEZ also decided early on *not* to provide forestry technical services (e.g., inventory, management, planning, and tree marking) to its members, leaving this to private-sector consultancies (*despachos*). UNECOFAEZ members are fortunate that these *despachos* are fair dealers compared to many technical forestry consultancies operating in other parts of Mexico. In addition, UNECOFAEZ does not channel forestry subsidy or credits to its own members, removing itself as an intermediary where it would add little value. According to Union leadership, all of these decisions were taken “in order to avoid conflict of interest, real or perceived, with our members.”

UNECOFAEZ functions mainly as a political representative for members, giving them a greater voice as a platform from which to access policymakers and government programs. This seems in part to explain the Union's durability and appeal: now in its 44th year, UNECOFAEZ has grown its membership over the decades while other similar unions in Mexico have split up, often over conflict-of-interest issues. SEZARIC functions as a social enterprise and also a major market player, helping ensure a fair market for producers while not forcing them to sell it any of their wood. This balancing act has seen its share of tension over time, but has also proved highly durable.

The second example is found in Quintana Roo, where organizations like OEPFZM and SPFEQR, established about a decade after UNECOFAEZ, were initially created by the government to provide forestry technical services to *ejidos* in the wake of the cancellation of the parastatal concession Quintana Roo Industrial Woods (MIQROO). These associations were highly successful, according to informants, in supporting effective uptake of technical capacity among *ejidos*, and were critical in helping to provide working capital and advice on markets (e.g., grading and scaling, price negotiation). According to informants, SPFEQR's problems began in the early 2000s when it started to aggregate and market member CBFE products at a mark-up. This generated a backlash, because the organization was seen as "just another coyote," not adding any value. Both OEPFZM and SPFEQR still exist but neither is presently attempting to undertake commercial enterprise. They mainly act as technical forestry service providers, like consultants, but have the trust of the *ejidos*, which is significant in a context where many private-sector foresters are perceived to be corrupt.

The case of UZACHI in Oaxaca (covered previously in ProLand's Mexico verification report) also deserves mention. This Union, one of the better-known examples in Mexico, is an alliance of four indigenous communities (three Zapotec and one Chinantec) in the Sierra Norte. They formed an alliance out of an much larger organization created during the struggle to remove parastatal concessions from community lands in the 1980s. Due to a bad experience during the concession period with neighbors that attempted to undertake aggregation and joint marketing, UZACHI opted from the start to focus solely on the "technical side of territorial management and forestry," according to one informant. UZACHI has **repeatedly rejected calls from donor-funded projects to form a second-tier enterprise** and become more involved in marketing, which it leaves to individual members. Likewise, there have been internal calls over the years to expand membership to other communities, which the Union has resisted in order to "keep things from getting too complicated."

However, UZACHI did engage in a **pioneering alliance** with a much less developed indigenous Zapotec community located in the Sierra Sur of Oaxaca. Through the intervention of GAIA, a local NGO, UZACHI worked with San Juan Ozolotepec for 12 years. At the start of the partnership, San Juan was not managing its forest and had experienced problems with fraud and illegal timbering in the past. After visiting UZACHI to learn about "real community forestry," in the words of one informant, San Juan leaders opted to undertake the internal negotiations with the community assembly and get approval to move forward with forest management. UZACHI provided technical services beginning in 2008, charging a volume harvest-based fee for its services. This fee was reportedly "slightly higher" than those for most consulting forestry firms operating in the region—many of whom have a poor reputation and are blamed for the typically poor state of CBFE development in the Sierra Sur—but included yearly capacity building work plans for San Juan and ultimately helped them access more CONAFOR financing.

In 2019, this alliance ceased operation, with San Juan opting to go with another consulting forester (himself from an UZACHI community and a former GAIA staff) who will charge less and be "more present." Although many challenges remain for San Juan, it is now far ahead of its neighbors, for whom illegal timbering, forest fragmentation, and forest pests are a huge problem. Those interviewed see the alliance as a success and something that should be replicated.

3.5 CONCLUSIONS FOR FUTURE CBFE INVESTMENT STRATEGY FOR USAID

Based on the synthesis above, the following recommendations, complementary to the Sourcebook, are advanced for USAID (or other donor) investment strategy with CBFEs:

- **Associations, unions, and second-tier businesses** are potentially powerful intermediaries for delivering a range of services, but investing in the development of these organizations comes with substantial risk, especially when the focus on aggregation takes away from grassroots capacity building and other support. Where possible, **“in-situ” models** should be prioritized over the creation of new organizations “ex-situ.”
- While the importance of markets, business models, and finance should not be ignored, **capacity building for social governance** should form a central focus of interventions, especially where the CBFE is a new venture.
- There should be a strong focus at the individual CBFE scale on installing permanent **forestry technical capacities**. This installed capacity can be a powerful catalyst for community organizing, which in turn can help CBFEs to be nimble and responsive to change. Notably, the most successful CBFEs visited have in-house technical capacity, the result of years of training. For most, the business aspects take much longer to mature.
- **Different models must be employed in different contexts** to make CBFEs work. It is not always desirable to pursue maximum value-added in each site; sometimes communities want to diversify. There is no one-size-fits-all approach to building CBFEs.
- There is scant evidence from Mexico that “top-down” **arrangements with the private sector**, like structuring new financial mechanisms with commercial banks or bringing in “responsible buyers” (e.g., as part of a Global Development Alliance) have had much long-term impact on CBFE development. While such partnerships may be advantageous, they **are not the fundamental piece**; long-term success relies on in-house forestry technical capacity, social organizing, and governance.
- **Blended finance**—combining private sector capital and/or loans with government subsidy, guarantees and CBFE co-finance—is a desirable approach to extend producer access to credit, but evidence shows that **creating the mechanism is the easy part**; ultimately, success turns on CBFE readiness, which requires capacity building.
- The **cuts in CONAFOR’s budget** offer an opportunity to assess what has worked and what has not over 20 years of heavy subsidy (compared to most developing countries). Given this major change, a thorough analysis is desirable to align donor support (including USAID) in the forestry sector.

ANNEX I: MAP OF STUDY SITES



Source: Mapswire.com

ANNEX II: ORGANIZATION BASIC DATA AND KEY FINDINGS

CHIHUAHUA

Chihuahua: *Ejidos*

Ejido/community name	Cabórachi
Location	Guachochi
Population (ejidatarios/comuneros)	872 (421)
Total area (ha)	27,178
Forest management area (ha)	21,975
Annual harvest (m³)	14,807
Principal species harvested	<i>Pinus durangensis</i> , <i>P. arizonica</i> , <i>P. lumholtzii</i> , <i>P. engelmannii</i> , <i>P. leiophylla</i> , <i>P. ayacahuite</i> , <i>P. leiophylla</i> Var. <i>chihuahuana</i> ; <i>Quercus sideroxyla</i> , <i>Q. rugosa</i> , <i>Q. spp.</i>
Diversified/value-added production	Mill for both large- and small-diameter pine; chip production; ecotourism; compost production experiment; ceramics and handicraft production; wildlife management area
CONAFOR level of development	Level V—integrated transformation
Findings per research questions	Cabórachi is FSC certified and is a CONAFOR “instructor community.” Unlike most of its neighbors, it has made significant advances in the last 10 years, which leaders attribute to changes in governance, putting checks on the power of the <i>comisariado</i> , and ensuring continuity through times of leadership change.

Ejido/community name	Santa Anita
Location	Guachochi
Population (ejidatarios/comuneros)	(463)
Total area (ha)	28,000
Forest management area (ha)	6,941
Annual harvest (m³)	9,555
Principal species harvested	<i>Pinus durangensis</i> , <i>P. arizonica</i> , <i>P. engelmannii</i> , <i>P. leiophylla</i> , <i>P. ayacahuite</i> ; <i>Quercus spp.</i>
Diversified/value-added production	Mill for both large- and small-diameter pine; potential for wood chip production
CONAFOR level of development	Level IV—primary transformation
Findings per research questions	The <i>ejido</i> has suffered significant violence in recent years due to organized crime. CONAFOR provided co-finance for a new sawmill for large-diameter pine and the <i>ejido</i> was able to access credit in 2018, but the mill is still not yet running due to lack of electricity. The main barrier to growth has been organizational, as well as problems with security and narco activity. The <i>ejido</i> is member of Tónachi, Papajichi, Santa Anita, Sehuerachi and Samachique (TOPASSS) second-tier business, which is not yet operational.

Chihuahua: Organizations

Organization name	TOPASSS, Rural Association of Collective Interest (ARIC)
Location	Guachochi
Year founded	2017
Membership	5 <i>ejidos</i> (Tónachi, Papajichi, Santa Anita, Sehuerachi, and Samachique)
Type of organization	Second-tier business
Total area (ha)	130,000
Principal services offered	Processing of members' small-diameter pine for pallet production; market access
Findings per research questions	An increase in low-value pine production through government-mandated forest harvesting intensification created the opportunity to launch second-tier businesses. Organization is based on the model of similar “productive chains” in other states. CONAFOR support was foundational, but <i>ejidos</i> required to access credit for co-finance. Market is favorable. Main barriers so far are organizational. At the time of this analysis, this enterprise is not yet operational.

Organization name	Regional Forest Management Unit (UMAFOR), Civil Association (AC)
Location	Guachochi
Year founded	2009
Membership	32 <i>ejidos</i> and 1,200 small landowners
Type of organization	Forest management service provision
Total area (ha)	946,000 ha
Principal services offered	Forest monitoring activities, including fire, pest, biodiversity, soil and water; tree nursery.
Findings per research questions	CONAFOR created more than 200 UMAFORs during 2007–2009, envisioned as regional hubs for analysis and organization among forest producers with the vision for them to become self-financing. Guachochi's UMAFOR is one of the few nationwide that was able to become independent—this group charges a small quota to its members, but it is not sufficient to cover costs and pay staff. Since it does not provide technical forestry services and no longer receives subsidy, the UMAFOR functions mostly as a volunteer network.

DURANGO

Durango: Ejidos

Ejido/community name	Ciénega del Salpica el Agua
Location	Santiago Papasquiario
Population (ejidatarios/comuneros)	(32)
Total area (ha)	7,485
Forest management area (ha)	6,874
Annual harvest (m³)	5,186
Principal species harvested	<i>Pinus arizonica</i> , <i>P. durangensis</i> , <i>P. tecote</i> , <i>P. engelmannii</i> , <i>P. leiophylla</i> , <i>P. ayacahuite</i> ; <i>Quercus sideroxyla</i> (however, only about 30% of authorized oak volume is harvested due to weak markets)
Diversified/value-added production	None
CONAFOR level of development	Level III—primary producer
Findings per research questions	Salpica el Agua is mainly dedicated to livestock: meat and cheese production are the mainstays for livelihoods, and forestry is a complementary activity; it is unlikely that forestry would be practiced here were it not for membership in the UNECOFAEZ. The main barrier to increased growth is limited forest and human resource. Subsidy is a disincentive to growth since more subsidy is available for lower level of vertical integration.

Ejido/community name	Los Altares
Location	Santiago Papasquiario
Population (ejidatarios/comuneros)	708 (108)
Total area (ha)	19,462
Forest management area (ha)	7,632
Annual harvest (m³)	22,700
Principal species harvested	<i>Pinus arizonica</i> , <i>P. durangensis</i> , <i>P. tecote</i> , <i>P. engelmannii</i> , <i>P. leiophylla</i> , <i>P. ayacahuite</i> ; <i>Quercus sideroxyla</i>
Diversified/value-added production	None
CONAFOR level of development	Classified as Type IV but is Type III in practice
Findings per research questions	Los Altares is FSC certified. Forestry is the main source of income for the <i>ejido</i> 's 708 inhabitants; in addition to jobs in the forest and mill, 108 <i>ejidatarios</i> receive annual dividend payments (the <i>ejido</i> generates around U.S. \$750,000/year for dividend sharing). Although Los Altares has a mill, it has opted to rent it to a private owner, a phenomenon observed elsewhere. The main barrier to development is the limited economic logic to value-added processing given social pressures.

Ejido/community name	Las Hacienditas y Anexos
Location	Otáez
Population (ejidatarios/comuneros)	297 (71)
Total area (ha)	5,264
Forest management area (ha)	5,096
Annual harvest (m³)	7,668
Principal species harvested	<i>Pinus ayacahuite</i> , <i>P. arizonica</i> , <i>P. durangensis</i> , <i>P. tecote</i> , <i>P. leiophylla</i> ; <i>Juniperus deppeana</i> ; <i>Quercus sideroxyla</i>
Diversified/value-added production	None
CONAFOR level of development	Classified as Type IV but is Type III in practice
Findings per research questions	Timber by far the most important cash income earner in the community, with annual cash payments of around U.S. \$2,700/year

	per <i>ejidatario</i> . CBFE also generates around 30 jobs annually for work in the woods (inventory, silvicultural treatments, harvesting). As in Los Altares, the Las Hacienditas mill is in private hands (generating around 20 full-time jobs as well). The main barrier to enterprise development is the limited economic logic to value-added processing given social pressures to maximize dividend payments.
Ejido/community name	Topia
Location	Topia
Population (ejidatarios/comuneros)	550 (121)
Total area (ha)	7,816
Forest management area (ha)	3,195
Annual harvest (m³)	9,940
Principal species harvested	<i>Pinus arizonica</i> , <i>P. ayacahuite</i> , <i>P. cembroides</i> , <i>P. chihuahuana</i> , <i>P. durangensis</i> , <i>P. engelmannii</i> , <i>P. herrerae</i> , <i>P. lumholtzii</i> , <i>P. oocarpa</i> , <i>P. tecote</i> , <i>P. leiophylla</i> ; <i>Alnus spp.</i> ; <i>Juniperus spp.</i> ; <i>Quercus castanea</i> , <i>Q. emoryi</i> , <i>Q. laurina</i> , <i>Q. magnolifolia</i> , <i>Q. candis</i> , <i>Q. crassifolia</i> , <i>Q. rugosa</i> , <i>Q. sideroxylla</i>
Diversified/value-added production	Handicraft production using pine needles, cones, and NTFPs
CONAFOR level of development	Level II—stumpage community, but diversifying enterprise
Findings per research questions	Long history of forestry in Topia and early organizing with UNECOFAEZ led to value-added investment during the 90s. Land conflict with a neighboring <i>ejido</i> that took years to resolve froze forest management in the <i>ejido</i> and forced them to close their mill for almost 10 years; now rents mill to a private individual to avoid risk. In the meanwhile, the community reinvested part of its earnings from roundwood sales in a trout farm, ecotourism, charcoal production, and a women-run cooperative using NTFPs for a range of handicrafts and artisanal health and beauty products; all of these efforts had significant CONAFOR co-investment. The main barrier to development is remoteness and insecurity.

Durango: Organizations

Organization name	UNECOFAEZ
Municipality	Santiago Papasquiaro
Year founded	1976
Membership	77 forestry communities (49 <i>ejidos</i> and 28 communities)
Type of organization	Political organizing
Total area (ha)	1.1 million
Principal services offered	Policy advocacy; access to government subsidy
Findings per research questions	UNECOFAEZ is one the oldest, largest, and most durable forestry associations in Mexico. An early pioneer in the struggle for community rights and the cancellation of the concessions, UNECOFAEZ has expanded membership considerably over the years while remaining focused on the objective of increasing the political visibility of member aspirations and needs. UNECOFAEZ is primarily political—it does not offer forestry technical services or get involved with the forestry business activities of its members. The Union acquired a plywood mill in the early 90s (see SEZARIC below) but separated mill operations as an independent business.

Organization name	SEZARIC
Municipality	Santiago Papasquiario
Year founded	1991
Membership	40 forestry communities (all UNECOFAEZ members)
Type of organization	Second-tier business
Total area (ha)	626,121 (total); 445,673 (forested)
Principal services offered	Plywood; sawnwood; value-added products, including furniture
Findings per research questions	SEZARIC is arguably one of the largest industrial social forestry enterprises on earth—it employs 550 people and has annual sales in excess of U.S. \$15 million. Willing members of UNECOFAEZ became shareholders in the enterprise when the Union acquired the parastatal plywood mill in 1991. Crucially, members are not required to sell any of their wood to SEZARIC, but receive an 8% premium if they choose to, as well as an annual dividend, according to profits and number of shares held. Separation of business operations from the politics of UNECOFAEZ and member <i>ejidos</i> are key to its success.

QUINTANA ROO

Quintana Roo: Ejidos

Ejido/community name	X-Hazil
Location	Felipe Carrillo Puerto
Population (ejidatarios/comuneros)	(392)
Total area (ha)	55,020
Forest management area (ha)	5,000 for current five-year cycle (25,000 ha designated as permanent production forest)
Annual harvest (m³)	Authorized harvest is approximately 58,000 m ³ /year covering 15 species; about a third of this volume is for pole-sized timber; in actuality, only around 4,000 m ³ (mostly of the below spp.) is harvested
Principal species harvested	<i>Manilkara zapote</i> (Chicozapote), <i>Metopium brownei</i> (Chechén), <i>Lysiloma bahamensis</i> (Tzalam), <i>Swietenia macrophylla</i> (Big-leaf Mahogany), <i>Swartzia cubensis</i> (Katalox)
Diversified/value-added production	None
CONAFOR level of development	Formerly Type IV, newly reclassified as Type III; in practice, Type II—stumpage community
Findings per research questions	Once one of the lead CFEs in tropical Mexico, X-Hazil has backslid considerably in the last 15 years. Several dynamics underlie this, including: a breakdown in collective management of the forest and the formation of “work groups” that divide the volume harvest among groups of ejidatarios; the aftereffects of Hurricane Dean (2007); the dip in market demand for mahogany; changing demography and preference for wage labor jobs among the young; the domination of the market by a sole buyer; and, above all, governance challenges and internal conflict that hindered the <i>ejido</i> 's ability to adapt to external challenges. As a result, X-Hazil has lost its FSC certification and sold its mill and work groups market timber off the stump in competition with one another.
Ejido/community name	San Antonio Tuk
Location	Puerto Morelos
Population (ejidatarios/comuneros)	(31)
Total area (ha)	6,298
Forest management area (ha)	2,825
Annual harvest (m³)	Authorized volume is average 3,275m ³ annually, about half of which is palizada; in reality, <100m ³ has been harvested annually in recent years, nearly all of it Tzalam
Principal species harvested	<i>Lysiloma bahamensis</i> (Tzalam), <i>Swartzia cubensis</i> (Katalox), <i>Piscidia comunis</i> (Jabín); palizada (multiple spp.)
Diversified/value-added production	None, but have recently acquired a small sawmill
CONAFOR level of development	Type IV, although still Type III in practice
Findings per research questions	Tuk is a small indigenous Maya community that only recently became involved in commercial forestry. Its forest is low-value with little mahogany. An attempt with REPSEAM and a Mexican NGO to market value-added Tzalam with flooring buyers failed due to costs of production and unclear roles in organization. The main barriers to development are poor forest resources, low human resource capacity, and limited markets. To the extent that Tuk operates, it is attributable to their strong social governance capacity.

Quintana Roo: Organizations

Organization name	OEPFZM
Municipality	Felipe Carrillo Puerto
Year founded	1986
Membership	10 <i>ejidos</i>
Type of organization	Technical services provider
Total area (ha)	131,840
Principal services offered	Forest management planning; harvest permitting; technical training
Findings per research questions	Created by the state to provide the forestry technical services to <i>ejidos</i> in the region, OEPFZM provides inventory, management plans, and harvest permitting, as well as facilitating access to working capital; big focus on training its members in grading and scaling; with changing markets have innovated to introduce simple technology for on-site processing of lesser-known species, as well as increased management focus on pole-sized timber (<i>palizada</i>), with big market hotels and restaurants in the Riviera Maya
Organization name	REPSERAM
Municipality	Puerto Morelos
Year founded	2008
Membership	36 <i>ejidos</i>
Type of organization	Producer network
Total area (ha)	250,000
Principal services offered	Access to government subsidy
Findings per research questions	REPSERAM was created by Mexican NGO Mexican Civil Council for Sustainable Silviculture (CCMSS) and founded with the aspiration to provide technical forestry services and support marketing of community forest products, but has yet to develop this capacity. REPSERAM is focused on organizing <i>ejidos</i> to receive CONAFOR payments for environmental services. Efforts to add value and commercialize member wood products ended badly. REPSERAM does not collect any quota or membership fee from members and, with falling CONAFOR budget, its future is in doubt. REPSERAM has received funding from multiple donors and is working to diversify into agriculture and NTFPs.
Organization name	SPFEQR
Municipality	Othón P. Blanco
Year founded	1986
Membership	4 <i>ejidos</i>
Type of organization	Forestry technical services provider
Total area (ha)	80,000
Principal services offered	Forest management planning; harvest permitting
Key notes	During the 1980s and 90s, SPFEQR had a much larger membership, including nearly all the forestry <i>ejidos</i> in the southern part of Quintana Roo. In the 2000s, attempts to start aggregating and marketing timber from multiple member <i>ejidos</i> led to problems because SPFEQR was seen as simply selling member timber at a markup, not adding value. At present, SPFEQR provides forestry technical services for four <i>ejidos</i> , although its Director has a vision for evolving into a second-tier business. Lack of finance and human resources are the key barriers to diversifying services.

OAXACA

Oaxaca: Community

Ejido/community name	San Juan Ozolotepec
Location	San Juan Ozolotepec
Population (ejidatarios/comuneros)	615 (267)
Total area (ha)	7,006
Forest management area (ha)	3,977
Annual harvest (m³)	9,947
Principal species harvested	<i>Pinus ayacahuite</i> , <i>P. oaxacana</i> , <i>P. pseudostrobus</i>
Diversified/value-added production	Sawnwood sold in some years
CONAFOR level of development	Type III, although Type II in some years
Key notes	After years of mismanagement and bans on forest harvesting, San Juan formed an alliance with UZACHI in 2007, leading to a 12-year partnership that has developed a CBFE in the community, a model with substantial scope for replication. In spite of many advances, including major gains in controlling pine beetle infestation (a major problem in the region), a lack of continuity in CBFE leadership has hamstrung the community's ability to develop further.

Oaxaca: Organization

Organization name	UZACHI
Municipality	Capulalpam de Mendez, Santiago Xiacui, Santiago Comaltepec
Year founded	1989
Membership	4 communities
Type of organization	Forestry services provision
Total area (ha)	24,405
Principal services offered	Integrated land use planning; forest management planning; harvest permitting; training
Findings per research questions	As covered in ProLand Mexico verification report, UZACHI was founded out of community struggles in 1980s against parastatal concessionaires. UZACHI is focused strictly on territorial management and technical forestry services provision and have steadfastly refused to get involved in commercial ventures, a key to their durability. The training alliance with a lesser-developed community in another part of Oaxaca (see above) is a model for replication.

ANNEX III: MEXICAN FORESTRY SECTOR— BACKGROUND, KEY DATA, AND TRENDS

In-depth study of the Mexican forestry sector is important for ProLand given the country's long history of investment in CBFE nationwide. Mexico is characterized by its large-scale common property sector, a legacy of the Mexican Revolution (1911–1917). Two forms of common property exist in the country: *ejidos* (land grants to landless, largely *mestizo*, farmers) and *comunidades* (land titles to indigenous groups that could prove recognition by the Spanish crown). In total there are 31,837 such “agrarian units” in Mexico (29,490 *ejidos* and 2,347 *comunidades*), covering more than 100 million hectares, or about 51 percent of the national territory (Robles Berlanga, 2012, cited in Bray in press).

According to CONAFOR, forest cover in Mexico stands at 139 million ha, or about 70 percent of the country's total land area. Data from the United Nations Food and Agriculture Organization (FAO) classify only around 34 percent of the country as forested, amounting to approximately 66 million ha (FAO, 2015).⁸ About 60 percent of the forests of Mexico are under the control of communities (Madrid et al., 2009), the second highest in the world after Papua New Guinea (Rights and Resources Initiative [RRI], 2018). Different numbers are advanced for the total number of communities with forest. Torres-Rojo, Moreno-Sanchez, and Amador-Callejas (2019) writes that there are around 29,000 communities, just over 15,000 of which have >100 hectares of forest. Other sources cite “between 7,000 and 9,041” total forestry communities (Bray and Merino-Perez, 2004). Recent CONAFOR data counts around 17,000 communities with forest in the country.

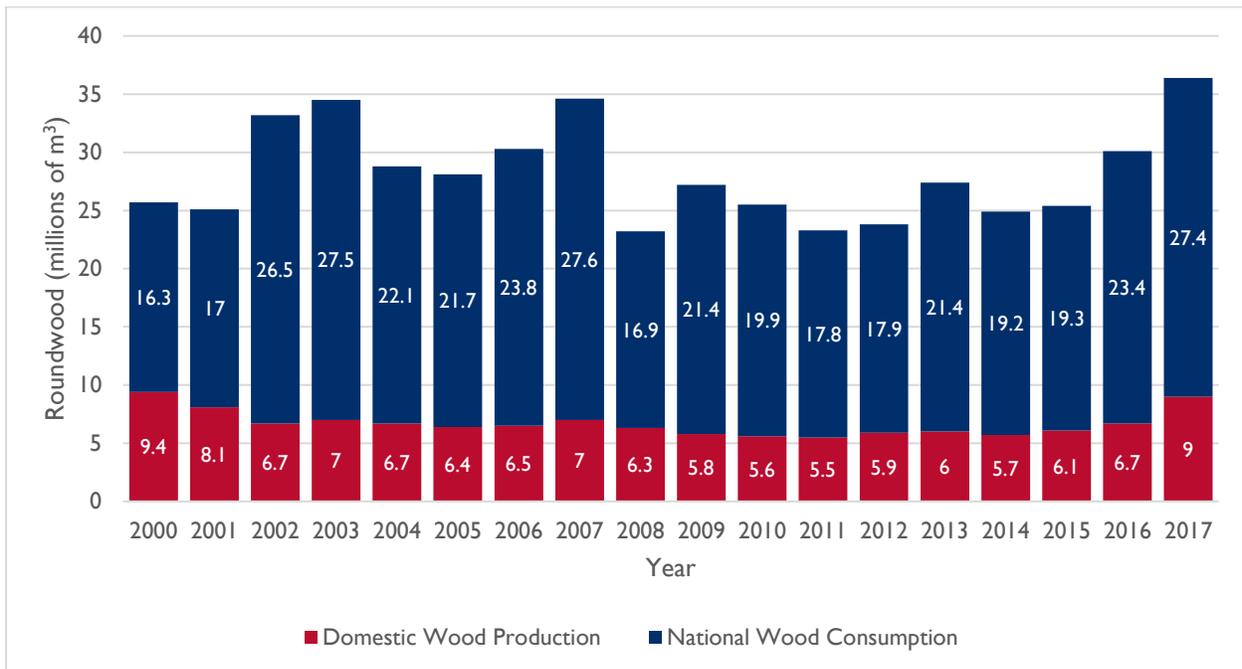
The exact number of communities undertaking authorized management of their forests is equally difficult to pin down. Bray (in press) says the “most reliable” estimate for the 2011–2013 period was 1,621 communities with logging permits (citing Torres-Rojo and Amador-Callejas, 2015). Recent CONAFOR data, meanwhile, classifies 3,159 communities as having authorized management plans and at varying levels of enterprise development (see Figure 2.1 in main text). Whether or not a community is undertaking harvesting in any given year seems to account for the variance.

The Mexican forest sector produces large volumes of wood annually, which is notable given that most of this comes from community enterprises. SEMARNAT (the environment ministry, responsible for all forest harvesting permitting) data shows production at 9 million cubic meters for the year 2017 (see Figure III.1 below), a significant increase over previous years. This increase is likely a result of major CONAFOR investments in silvicultural intensification (a program called the National Strategy for Increased Production and Productivity [ENAIPROS]⁹), which increased production substantially, especially in smaller-diameter classes and particularly among well-developed northern CBFEs already undertaking timber harvesting. However, as Figure III.1 makes clear, production is still far below domestic consumption, in spite of large investments made to increase productivity.

⁸ These ostensibly conflicting estimates in fact concur, since CONAFOR classifies over half of Mexico's “forest” as “matorral xerófilo” (semi-arid scrub). In terms of productive forests, approximately 34.2 million hectares are classified as “bosque” (mostly temperate pine-oak forest), and about 31.4 million ha are classified as “selva” (variable tropical forest formations). Source: *Instituto Nacional de Estadística y Geografía*, 2017.

⁹ See CONAFOR (2018) for a summary of the ENAIPROS strategy and results.

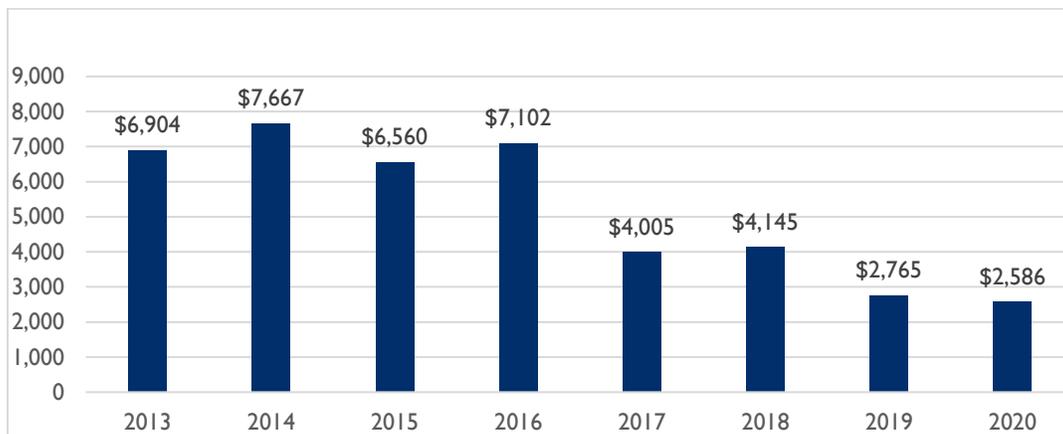
FIGURE III.1: NATIONAL WOOD CONSUMPTION AND DOMESTIC PRODUCTION (2000–2017, MILLIONS OF M³)



Source: Secretariat of Environment and Natural Resources (SEMARNAT)

These data show that production has not returned to where it was before the creation of CONAFOR in 2000 and the advent of major government subsidy in the forestry sector. In most years since its creation, CONAFOR has had an annual budget of around U.S. \$300–500 million, dwarfing that of forestry agencies in most developing countries. Over the last two decades, CONAFOR has invested heavily in a strategy of increasing productivity in the forestry sector both through plantation development and increased value-added production among CBFEs. An analysis of the assumptions, implementation, and outcomes of these investments was beyond the scope of this consultancy but would be timely given the recent budget cuts (see Figure III.2 below), and a resulting process of internal strategizing within CONAFOR to do “more with less.”

FIGURE III.2: CONAFOR BUDGET, 2012–2020 (MILLIONS OF PESOS)



ANNEX IV: STUDY METHODS

ProLand’s intent in designing the study was to look beyond the 1 percent of CBFEs widely studied to understand the breadth of CBFEs operating in the country and understand their varying aspirations, levels of support, and trajectories of development. To do so, ProLand initially sought to learn from the experiences of two less-studied types of community forests in the country, including:

1. Communities that appear to meet all of the enabling conditions identified by ProLand for enterprise development, but have not developed vertically-integrated enterprise; and
2. Communities that do not have all the advantages of Mexico’s “five-star” CBFEs but have nonetheless developed enterprise through innovative approaches, especially working through associations.

The study approach was iterative. First, a broad literature review was undertaken around CBE development at the national scale to formulate key questions. Second, a database of all harvest permits approved by SEMARNAT in the country as of 2018 was consulted. This database includes more than 14,600 records from all Mexican states. In order to narrow down the sample size, two filters were applied to the data:

- **Region and state filter.** The SEMARNAT dataset presents harvest permits for all 32 Mexican states. A first step was limiting the sample visited to the major forestry states. Eight states were pre-selected: Chihuahua, Durango, Michoacán, Mexico, Oaxaca, Chiapas, Campeche, and Quintana Roo. These are the most important in terms of forest production nationally and are also representative geographically, covering the four key regions in the country as well as both temperate and tropical forest types. They are also broadly representative in terms of tenure types (*ejidos* and *comunidades*) and other social realities (e.g., presence of indigenous peoples and relative level of economic development). Working with these states, the dataset of 14,600 is narrowed to 6,500 permits.
- **Ownership size filter.** The data covers all types of ownerships, but the present work is interested in community-based, communally managed forests, which are typically larger properties. Taking 500 hectares as a floor value, the database is reduced to 1,150 records. At the state level, this reduces the number to much more manageable tallies. For example, there are more than 2,500 permits in Michoacán alone, but looking only at properties >500ha the number is reduced to just 45 (an example of a state heavily dominated by smallholders). In Campeche, there are 378 permits, and those >500ha = 47. (Note that removing small properties from the sample did not eliminate the case of “practically parceled” community forestry, where communally owned forest is managed by individuals or groups, since in such cases a single forest management unit is approved for harvesting.)

Third, working from these reduced lists, ProLand consulted key informants at the national and regional level. These key informants included government, civil society, academic, and community-based organizations (see Annex V). Fourth, sites recommended by informants were cross-referenced with a CONAFOR database of CBFEs in all Mexican states to ensure a degree of representativeness across vertical integration typology. Finally, sites were selected based on security considerations, accessibility, and community willingness to participate.

As the fieldwork advanced, an increasing focus evolved around the question of associations, alliances, and “second-tier” businesses. Thus, priority in both the north and south regions was given to sites where CBFEs were a part of successful, new, and/or innovative partnerships focused on enterprise development.

TABLE IV.1: SITES SELECTED

State (region)	Organizations and sites	Description
Chihuahua (Guachochi)	UMAFOR, A.C.	Regional-scale service provider for 32 <i>ejidos</i> and 1,200 small landowners (covering 946,000 ha)
	TOPASSS, A.R. de I.C.	Second-tier enterprise established by 5 <i>ejidos</i> to add value to small diameter timber for pallets
	<i>Ejido</i> Santa Anita	30,000 ha Type IV forestry producer, part of TOPASSS enterprise
	<i>Ejido</i> Cabórachi	28,000 ha Type V indigenous Rarámuri producer, FSC certified, CONAFOR instructor community
Durango (Otáez, Santiago Papasquiario, Topia)	UNECOFAEZ	Union of 77 forestry <i>ejidos</i> and communities (covering 1.1 million ha), founded in 1976
	SEZARIC	Industrial-scale social enterprise including 40 UNECOFAEZ members as shareholders, in operation since 1990
	<i>Ejido</i> Ciénega Salpica el Agua	7,400 ha Type III producer, UNECOFAEZ member, smaller <i>ejido</i> with limited production capacity
	<i>Ejido</i> Los Altares	19,500 ha Type IV producer, UNECOFAEZ member, FSC certified
	<i>Ejido</i> Hacienditas	5,300 ha Type IV producer, UNECOFAEZ member, FSC certified
	<i>Ejido</i> Topia	7,800 ha Type II producer, UNECOFAEZ member, under group FSC certificate
Oaxaca (Sierra Norte, Sierra Sur)	UZACHI	Union of 4 forestry communities in the Sierra Norte, profiled in previous ProLand report, service provider to San Juan Ozolotepec
	San Juan Ozolotepec	7,000 ha Type III indigenous Zapotec community, limited forestry experience before partnering with UZACHI in 2007
Quintana Roo (Felipe Carrillo Puerto)	OEPFZM	Organization founded in 1986 after concession cancellation, now comprising 20 <i>ejidos</i> covering 335,000 ha
	REPSERAM	Network of forestry <i>ejidos</i> covering some 250,000 ha, focused on environmental services
	SPFEQR	Organization founded in 1986 after concession cancellation, now comprising 4 <i>ejidos</i> covering in southern Quintana Roo
	<i>Ejido</i> San Antonio Tuk	6,300 ha indigenous Maya producer community, Type IV
	<i>Ejido</i> X-Hazil y Anexos	55,000 ha former Type IV producer that has dropped FSC certification and returned to Type III

In the field, interviews were undertaken with different types of stakeholders: technical service providers, association representatives, buyers, government officials, financial service representatives, local NGOs, and community members. Several key questions guided semi-structured interviews; these included:

- What internal and external investments were critical for CBFE(s) to develop?
- Has the operation(s) developed as far up the value chain as initially envisioned by community members and government or other proponents?
- What are the main barriers to increased enterprise development and vertical integration, and under what conditions is further vertical integration desirable?
- What are the evolving roles of second-tier community enterprises and associations, private logging and/or timber transformation companies, civil society, and any other intermediaries in CBFE development?

- What, if any, innovative partnerships have catalyzed enterprise development?

At the organizational and community scale, baseline information was also collected around a range of key indicators (see below). Where possible, this information was complemented by other resources (e.g., FSC audits, forest management plans, land-use plans, and CONAFOR reports).

The following format guided data collection in the field:

GENERAL INFORMATION

- Basic demographic information: community population size; number of households, number of voting members, number working in CBFE, role of women and youth, breakdown of land-use-based livelihoods.
- Land use: area under different natural resource land uses, land-use plans, legal status/tenure, conflicts.
- Forest management plan and implementation: valid plan and implementation permits in place, status of implementation (species, timber, NTFPs, ecotourism).

SOCIAL ENTERPRISE

- Organization of forest management: common property; parceled by household, aggregated parcels within or spanning more than one community.
- Who manages/harvests: community enterprise unit (legally registered CBFE?), committee, buyer, technical service provider, etc.
- Management structure: key posts and functions.
- Level of enterprise development (per CONAFOR typology).
- Assets and capacity: for forest management plan (FMP), harvest, transport/roads, primary processing, secondary processing, finished products, office (information technology, etc.).
- Income: timber (on-stump–finished product spectrum), charcoal, NTFP, ecotourism, other.
- Vertical integration: actual vs. desired level, barriers.
- Labor: numbers hired within/from outside community (by gender and age group), full-time/part-time, Human Resources policy/practice, training.

REVENUES

- Governance policy and practice, decision-making mechanisms and issues.
- Use of revenues: covering production costs, including advances; other community debts; dividend payments to members; social development projects; reinvestment in enterprise; account management and transparency; other.

VALUE CHAIN PARTNERSHIPS (INVESTMENT AND MARKETS)

- Type of product: timber spectrum (see above), allocation to local/national/international markets, issues with sales.

- Partners/intermediaries: services (finance, technical assistance, other); public, private, civil society, associations; status; needs innovations.
- Markets: past and present demand trends, key buyers, access to differentiated markets, marketing capacity and challenges, partnerships.
- Investment types: assets, finance (loans, grants, technical assistance); amounts and allocation to operations; which are critical/desirable.

ANNEX V: LIST OF KEY INFORMANTS

NATIONAL SCALE

Name	Title	Organization
Filemón Manzano	Head of Community Forestry Unit	CONAFOR
Bárbara Baltazar	Community Forestry Unit	CONAFOR
Citlali Cortés	Forestry Specialist	KfW
Iván Zúniga	Manager, Forest Landscapes	WRI-Mexico
Francisco Chapela	Coordinator	<i>Estudios Rurales y Asesoría</i>
David Bray	Professor	Florida International University
Alfonso Arguelles	Director	FSC-Mexico
Sergio Madrid	Coordinator	CCMSS

YUCATAN PENINSULA

Name	Title	Organization
Claudia Palafox	Associate	TropicaRural Latinoamericana
Victoria Santos	Director	OEPFZM
Hugo Galletti	Technical Director	SPFEQR
Jose Luis Azuara	General Manager	<i>Productos Forestales del Sureste y Centro América</i>
Raul Perez Palomenque	Coordinator, Community Forestry Development	Rainforest Alliance
Christopher Guevara Durán	Promoter, Quintana Roo	Los Fideicomisos Instituidos en Relación con la Agricultura (FIRA)
Miguel Ku Balam	Representative	REPSERAM

NORTHERN MEXICO

Name	Title	Organization
Daniel Trujano Thome	State Manager, Durango	CONAFOR
Carlos Zapata Perez	Managing Forester	Forestry Conservation and Development Unit, Topia
Ma Luisa Soto Moreno	Coordinator	Forestry Conservation and Development Unit, Topia
Juan Corral Gomez	Forestry Technician	Forestry Conservation and Development Unit, Topia
Fernando Salazar	Managing Forester	Forestry Administration Unit of Santiago Papasquiario
José Raquel Ramirez	Head of Administrative Council	UNECOFÁEZ
Reymundo Valdivia	Production Manager	SEZARIC
Alfonso Caraveo	Head	UMAFOR Guachochi
Edgar Chaparro	Technical Director	<i>Ejido Cabóachi</i>
Oscar Estrada	Director	<i>Ecoprocesos y Gestoría Ambiental</i>
Alberto León	Manager	Duraplay

OAXACA

Name	Title	Organization
Pedro Vidal	Consultant	FIRA
Manuel Herrera	Technical Director	UZACHI
Martin Vasquez	Forestry Advisor	San Juan Ozolotepec

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