

Case Study – July 2022

# Economic Accountability and Pro-Poor Forest Sector Reforms in Mexico

David Barton Bray

## About Accountability Research Center (ARC)

The Accountability Research Center (ARC) is an action-research incubator based in the School of International Service at American University. ARC partners with civil society organizations and policy reformers in the global South to improve research and practice in the field of transparency, participation and accountability. See: [www.accountabilityresearch.org](http://www.accountabilityresearch.org).

## About Sandwich Strategy Research

This case is published in a series of studies that contribute to ARC's comparative analysis of "sandwich strategy" reforms, with support from the John D. and Catherine T. MacArthur Foundation's on Nigeria program. For additional cases, see: <https://www.macfound.org/press/grantee-publications/top-down-ground-up-creating-accountability-with-sandwich-strategies>.

"Sandwich strategies" are interactive processes in which reformers in government tangibly enable citizen action from below, potentially bolstering coalitions for change. This comparative study seeks to identify diverse reform pathways, roadblocks and outcomes. See: <https://accountabilityresearch.org/sandwich-strategy-research/>.

## About ARC Publications

ARC publications serve as a platform for accountability strategists and researchers to share their experiences and insights with diverse readers across issue areas and sectors. These publications frame distinctive local and national initiatives in terms that engage with key issues in the transparency, participation and accountability field.

## Rights and Permissions



The material in this publication is copyrighted under the Creative Commons Attribution 4.0 Unported license (CC BY 4.0) <https://creativecommons.org/licenses/by/4.0/>. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

**Attribution**—Please cite the work as follows: Bray, David Barton. 2022. "Economic Accountability and Pro-Poor Forest Sector Reforms in Mexico." *Case Study*. Accountability Research Center.

**Translation**—If you create a translation of this work, please add the following disclaimer along with the attribution: This translation was not created by the Accountability Research Center (ARC) and should not be considered an official ARC translation. ARC shall not be liable for any content or error in this translation.

## Notes on Support

Support for ARC comes from the William and Flora Hewlett Foundation, the John D. and Catherine T. MacArthur Foundation, Open Society Foundations, and the David and Lucile Packard Foundation. ARC's work is also made possible by institutional support from the School of International Service, American University.

## About the Authors

**David Barton Bray** is Professor in the Earth and Environment Department at Florida International University (FIU). He received his Ph.D. from Brown University in 1983 in Anthropology and his master's degree in Anthropology from Brown and B.A. in Anthropology from the University of Missouri-Columbia. From 1983-1986 he was with the Roger Thayer Stone Center for Latin American Studies at Tulane University. From 1986-1997 he was Foundation Representative with the Inter-American Foundation. He is widely published in academic journals and journalistic venues including the New York Times, and in 2020 published *Mexico's Community Forest Enterprises: Success on the Commons and Seeds of a Good Anthropocene* (U. of Arizona Press).

# Contents

The Mexican Process.....	5
The First Seismic Shift and Period I (1917–1940). .....	6
Period II (1940–1970) .....	7
Period III (1970–1988:The Great Awakening of Mexican Community Forest Enterprises) .....	9
Period IV: The Consolidation of Community-Led Community Forestry: 1988–2018.....	13
Conclusions.....	16
Bibliography .....	20

Over the course of nearly a century, poor forest communities in Mexico have developed autonomous control over millions of hectares of forests. As will be discussed in greater depth below, Mexican agrarian reforms laid the legal foundation for the emergence of ‘community forest enterprises’ (CFEs), which poor forest communities have shaped in order to gain control over much of the forest sector and timber markets in the country. Today, there are over 1,600 community forest enterprises directly managing at least 6.2 million hectares of commercial forests and conserving substantially larger amounts of forest (Bray 2020). These forest enterprises comprise likely the largest self-managed community forestry sector in the world. This paper explores how this remarkable achievement was generated through an iterative, contested and uneven process between the state actors and rural social movements. As such, the case offers a rich opportunity to explore the dynamics of the *sandwich strategy*, which transcends conventional divisions of state and society in the accountability literature by identifying reinforcing interactions between pro-reform advocates from both spaces (Fox and Aceron 2016). Specifically, this case study adopts the sandwich strategy framework to argue that although state-society synergies were essential to creating the legal regimes that allowed for CFEs to flourish, their economic success has given them a large degree of economic autonomy from the state, thus diminishing the contemporary necessity of such synergies to maintain community control over the forestry industry.

The significant shift in favor of community control of forest resources likely would have been impossible in the absence of top-down state reforms in forestland distribution and state-supplied natural, social, human, physical and financial capitals. These reforms both stimulated and responded to forest community collective action demands for forests and provided the skills and capital necessary to organize community forest enterprises. In some regions, the reform process was almost entirely initiated from above. The political opening created by the agrarian reform process and the possibility of gaining access to valuable forest resources in turn stimulated peasant mobilization. In the case of community mobilizations, the risks of collective action were greatly reduced since the state encouraged collective action around depoliticized enterprise formation as a part of policies to encourage peasant enterprise. The outcome was not solely in more intangible results such as citizen participation, public policy monitoring or participatory budgeting but in direct participation, as capitalized community-based economic actors, in the forest economic sector.

This push for community control over forest resources was characterized by both spontaneous and state-induced collective action by citizens who were “pre-organized” as legally constituted communities with a territorial base and governance institutions mandated in Mexican agrarian law, reducing the transaction costs of collective action. Reforms in agrarian law, in forest law, and in forest development programs over decades created a “state-society synergy” (Evans 1996) that produced a pro-poor forest agenda (Kaimowitz 2003) which in turn resulted in what is arguably one of the most successful economic reforms of the 20<sup>th</sup> century in the developing world. The enactment of these forest reforms advances the proposition that capitalized community engagement can dramatically enhance the redistributive impacts of an entire economic sector by democratizing access to capital and natural resources (Boyce and Shelley 2003).

The opportunities for community control over a robust rural economy eventually gave these communities a degree of independence from the state, with a correspondingly larger dependence on market processes. Strong policy, program, and budgetary initiatives in varying periods encouraged collective action around forest-related businesses, both at the community and inter-community organizational level.

# The Mexican Process

The process whereby the entire forestry sector was shifted to expand economic opportunities for poor communities is due to two seismic political-economic shifts: the Mexican Revolution (1911–1917) and the subsequent presidency of Lázaro Cárdenas (1934–1940) and the presidency of Luis Echeverría (1970–1976). These two shifts can be linked to four periods of top-down forest public policies, with three periods of strong support for forest reform and one period hostile to it, combined with more sporadic and regionalized grassroots mobilizations. These periods included within them multiple cycles of reforms that both encouraged and created bottom-up community and peasant mobilizations. The four periods constituted political-economic stages where state actors and grassroots responses interacted to shape large-scale forestland distribution and the capital empowerment that would allow for the emergence of CFEs as largely autonomous economic actors in the forest sector. The four periods were:

1) 1917–1940 period, marking the end of the Mexican Revolution and the subsequent reform presidency of Lázaro Cárdenas (1934–1940), when agrarian reform processes and land and forestland distribution became an institutionalized activity of the Mexican state, albeit with varying degrees of commitment;

2) The 1940–1970 period, known as the “counter-reform” but marked in the 1950s and 1960s by new efforts at top-down reforms in the forest sector and grassroots demands for forest land and forest enterprise formation;

3) The 1970–1988 period, launched by the Echeverría presidency (1970–1976), when deepening agrarian reform in the early 1970s began to be accompanied by forest policies and programs that channeled major support to incipient CFEs while responding to peasant demands for more support, and largely created the contemporary CFE sector; and

4) The 1988–2018 period, characterized by the consolidation and maturation of the sector. Particularly in the 1980s and the second half of the 1990s, CFE control over the new economic sector became fully institutionalized. In this period, the community political-economic space, a kind of enterprise defensive perimeter, had been secured. CFEs became the primary focus of forest policy in Mexico, and their efforts were largely focused on running businesses, rather than political mobilization, with the exception of the 1997 forest law to be discussed below. Generally strong profits in CFEs meant less dependence on state subsidies, although these were welcome and substantial, particularly in the 2000s. Although impacted by reductions in government subsidies and organized crime in the most recent period, the sector continues to present a successful model how an entire economic sector can be reformed to benefit the rural poor. The consolidation of the 1980s and second half of the 1990s virtually eliminated the costs and risks of collective action around enterprise formation and operations (Bray 2020).

## The First Seismic Shift and Period I (1917–1940).

The period 1917–1940 in the Mexican forest political economy was principally defined by the creation of institutionalized agrarian reform processes that gave forests to local communities, frequently in response to grassroots demands, but within a framework where the state retained substantial control over the production of timber. In this period, state officials in the agrarian reform agency entrusted with land and forest distribution, although hobbled by corruption, restricted budgets, and long periods of limited political support, also continued a process of forest distribution with lasting impacts. The agrarian reform agency commonly responded to pressures from below to hand out land and forests, but there were also cases where the state apparently engaged in forest distributions in the absence of direct demands from forest owners. These reforms in many cases substantially reduced the risks of collective action demanding forest distribution and opportunities for direct forest management.

The Mexican Revolution (1911–1917) was in part a reaction to the domination of the Mexican economy, including the timber economy, by foreign capital during the reign of the dictator Porfirio Díaz (1876–1880, 1884–1911). Timber has been one of the historic “commodity frontiers” driven by the global accumulation of capital (Williams 2007) and foreign capital penetrated Mexican forests in Chihuahua and Durango early in the 20<sup>th</sup> century (Boyer 2015). However, the Mexican Revolution mostly closed off foreign capital presence in timber, and logging became dominated by national enterprises, usually family companies with limited capital (Boyer 2015). The modern Mexican political economy emerged as a state-directed economy in the Cardenas period (1934–1940) and “constituted structural changes with long-term implications for Mexico’s social and economic development” (Hamilton 1982, 274). One of these little-recognized structural changes was the creation of a local political-economic and institutional space, insulated from large-scale capital, where community forestry entrepreneurial activity could take place and build resilience.

The post-revolutionary agrarian reforms began to take shape with 1922 legislation that established two forms of agrarian property, *ejidos*, distributions to landless peasants of expropriated haciendas and state lands, and *comunidades*, the restoration of lands to indigenous communities with titles from the colonial period (Boyer 2015). The 1925 Law of Ejido Patrimony established the contemporary form of community governance, the *Ejido Comisariado* and the Oversight Council (*Consejo de Vigilancia*), with democratic election by majority vote in the Assembly. The elected officials manage the territory and represent the village to other levels of government, among other duties (Simpson 1937). These institutions legitimized and in fact required collective action around land management by the communities, and later evolved new forms of organization for business administration, although they were also highly paternalistic (Bray 2020).

A 1926 Forest Law was a reaction to the emerging distribution of both agricultural land and forests. The law had little real impact, but did call for the establishment of community forest cooperatives, a space for collective action around forests. Forest distributions both before and during the reform presidency of Lázaro Cárdenas (1934–1940) provided the natural capital around which communities could eventually form community forest enterprises. In the early 1930s, enormous forest parcels were handed out, such as to the community of Pueblo Nuevo in Durango. Pueblo Nuevo leaders demanded the restitution of land taken in the 19<sup>th</sup> century and received a first huge land grant of 166,754 hectares in 1931, which later grew to 243,349 hectares (Guerra Lizarraga 1991). This was followed by more than twenty other forested land grants in the 1930s to ejidos in

Durango, who later launched CFEs in the late 1960s (Guerra Lizarraga 1991). Many of these communities in the 1930s established cooperatives and private sawmills where community members began to learn the basics of sawmill operations (Hernández Astorga 2015), the first signs of state accountability through endowments of human capital.

The 1934 Agrarian Code reinforced a space for community governance as a national top-down framework although it was primarily conceived as mechanism of control by the state. However, it also provided the state-structured space for self-governance at the community level and was the first major step of the transformative decentralization that would result in an economic defensive perimeter that led to community forest enterprises. Cárdenas promoted 866 forest cooperatives with management plans, 64% of the estimated 1,350 forest communities at the time. An undetermined number of these cooperatives evolved over the decades and eventually became autonomous CFEs. However, the cooperatives were primarily a fiction to conceal logging by contractors with little community participation (Hinojosa Ortiz 1958; Boyer 2015), but they did reduce risks around community collective action around forests.

## Period II (1940–1970)

The 1940–1970 period, encompassing five Mexican presidencies, is known in Mexican political history as the “counter-reform” (Sanderson 1981), and with the notable exception of Chihuahua and Durango in the 1950s, forest sector reforms would be almost entirely ignored in the name of economic development. State support for the cooperatives also disappeared, increasing risks of organization. The first documented effort to establish an independent CFE in Pueblo Nuevo, Durango ended with the assassination of its leader in March 1944 (Guerra Lizarraga 1991), reportedly by elements associated with a lumber company. During the counter-reform, the Mexican state would promote three coterminous and frequently contradictory policy initiatives in forests, while a fourth underlying trend began to impact policy. The three policies were a) harnessing Mexican forests for import-substitution industrialization for paper linked to a policy of granting vast logging concessions to parastatals and private companies; b) implementing bans as an effort to halt clandestine logging, particularly in areas without large economic interests; and c) In the 1950s, in an expression of the persisting ideological commitment by state actors for the ideals of the Revolution, isolated efforts in Chihuahua and Chiapas to train local communities to manage their own CFEs. Finally, the fourth significant trend in this period was the emergence of grassroots protests by local mass organizations, commonly encouraged and supported by the agrarian reform agency. These movements sought forest land distribution in Durango and Chihuahua and led to the emergence of the first CFEs in the late 1960s in Durango (Bray 2020). I will focus on the last two elements since they illustrate the emerging dynamic of state support and community response in the forest sector.

Despite the counter-reform, the “recurrent reformist presence” in the state (Fox 1992, 40) persisted in expressing an alternative vision, that Mexican forest communities could one day manage their own forests. Beginning in the 1950s, for the first time since the 1930s, these recurrent top-down reformers made themselves felt, as a federal government agency began to build the community institutions and organizations for CFEs in Chihuahua, although now with a clearer focus on creating

economic autonomy from the logging industry and in investing in natural, physical, human, and social capital. A mass official indigenous organization, the *Consejo Supremo de la Raza Tarahumara* (CST), established in 1939 in a congress attended by Cardenas, became an important actor in the 1940s and 1950s, establishing legal offices supporting indigenous peoples in Sierra municipalities, making lobbying visits to Chihuahua City and Mexico City, organizing indigenous congresses with up to 20,000 participants, and established official links with the Chihuahua National Campesino Federation (O'Hara, 2004). Lobbying by the *Consejo Supremo*, supported through the official peasant organization, was one of the important factors that led to the establishment in 1952 of the center of the National Indigenous Institute (itself established in 1948) in Guachochi, Chihuahua with a mandate for the establishment of community logging cooperatives, among other programs (Boyer 2015).

The Indigenous Coordinating Center of the Tarahumara (*Centro Coordinador Indigenista de la Tarahumara*, CCIT) began to support Rarámuri (known in the period as Tarahumara) communities, a number of whom were actually dominated by mestizos, to build capacity for management of their forests. In 1957, President Adolfo Ruíz Cortines gave the CCIT the authority to cut out intermediaries in logging. This put the weight of the Presidency against the state and local political and economic interests, reducing the risks of collective action around forest management. This empowered the CCIT to develop capacities within the communities (human capital) and renegotiate existing contracts between communities and logging companies to ensure community employment and logging profits (Boyer 2015).

By the mid-1960s, after over a decade of sustained forest extension investments in human capital and endowments of natural and physical capital backed by the federal government, incipient community forest enterprises were advancing in 16 communities in Guachochi municipality and the multi-level Union of Ejidal Enterprises of the Tarahumara was organized, a recurrent example of inter-community collective action around enterprise formation encouraged by the state (Boyer 2015). Although the official CST played a role, there is no evidence of local mobilizations seeking more access to forests that created more pressure from below.

In Chihuahua, forest reform efforts were at least partially linked to efforts for greater indigenous rights, while in Durango there was a grassroots movement that emerged in the 1960s more directly focused on forest land titling and for the establishment of CFEs, also with support from state reformers. The processes of forest land titling and support for community forest operations was temporally uneven, even within the same region. In the municipality of Pueblo Nuevo, Durango, a large number of ejido forest grants were given in the 1930s and 1940s; by the 1960s the struggle of these communities shifted to freeing themselves from the *asociaciones en participación* contracts that bound them to private buyers (Guerra Lizarraga, 1991).

The Durango Lumber Company had been resisting agrarian reform for decades with only partial success. By the 1960s their remaining concession lands were under increasing pressures from still landless communities demanding ejido titles (García-López and Antinori 2018). In this period, 21 new community land titles or territorial expansions of existing communities were granted in the Pueblo Nuevo municipality. The Union de Empresas Ejidales Forestales-El Salto in the municipality of Pueblo Nuevo emerged in 1968 protesting low payments and abuses of community ignorance of how to get logging permits. In the mid-1960s community efforts were opposed by the then-governor, the Mexican Workers Federation (CTM), which represented the Company's workers, and by the Secretary of Agrarian Reform. However, the communities were able to use the *Confederación Nacional Campesina* to take their case to the federal government, and in 1966 a new Durango state

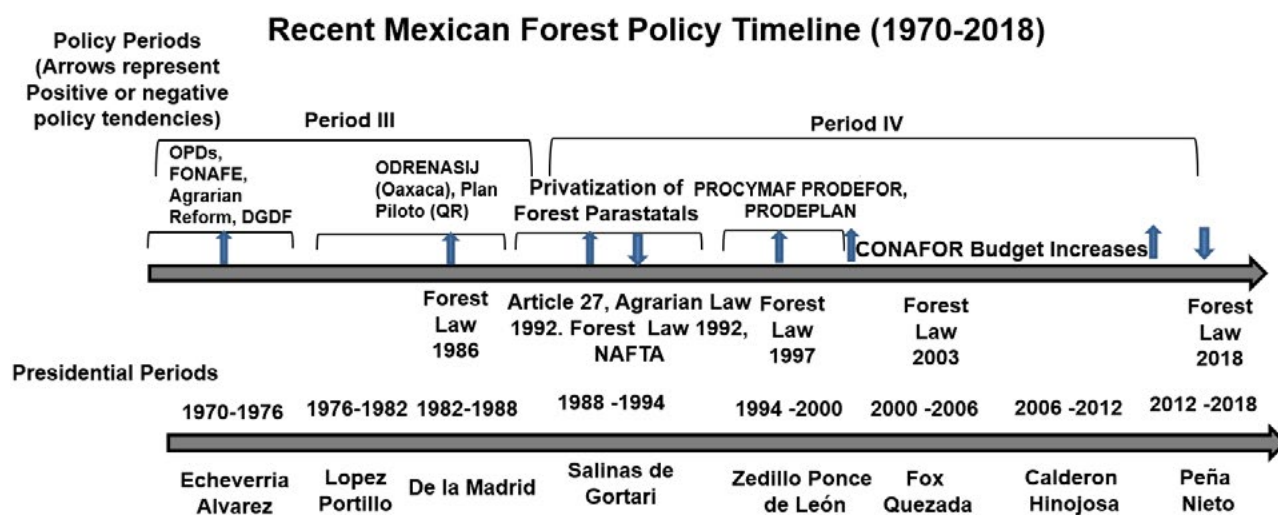


governor and the President of Mexico supported the communities (García-López 2012), reducing the risks of collective action around forests.

As a result, Durango witnessed the first formally established community forest enterprises in Mexico (Bray 2020). There was also forest sector restiveness elsewhere in Mexico, notably in Oaxaca. However, it was mostly focused on labor issues, and did not yet produce the gains that were seen in Durango and Chihuahua. The risks of engaging in more violent protests were high. In 1965 a brief armed uprising in Madera, Chihuahua against abuses of *Bosques de Chihuahua*, among other issues, was quickly suppressed. However, the movement drew increasing presidential attention to the situation in that state (Henson 2019). In 1962, struggles by Guerrero communities against a logging concessionaire eventually led to a guerrilla movement there, headed by a young schoolteacher, Lucio Cabañas, that was suppressed in the 1970s (Aviña 2014).

## Period III (1970–1988: The Great Awakening of Mexican Community Forest Enterprises)

Figure 1 below illustrates the forest policy processes for Period II (1970–1988) and Period IV (1988–2018). The arrows represent positive or negative policies tendencies, in policy, programs, and budgets, in the different presidential periods, with the period of Salinas de Gortari having both positive and negative tendencies.



The second great seismic shift in the Mexican rural political economy and policy-making was the Echeverría presidency (1970–1976) characterized by a continued commitment to the land and forest distributions of earlier periods. It is also notable for the interaction between state forest reformers intent on stimulating community collective action around the creation of CFEs and vigorous community entrepreneurial response, with “invited spaces” for community forest enterprise creation becoming “claimed spaces” by the communities (Fox 2019). This period launched a sustained process classified as Period III (1970–1988), the eighteen-year period when a substantially reformed forest sector emerged.

Echeverría attempted to address growing problems with the rural economy in general with state populist strategies (Sanderson 1981). Echeverría focused on increasing agricultural production, tenure issues, campesino enterprises, and income inequality, but his major impact on the forest sector has been little noted. Echeverría promised support to the emerging community forest enterprise sector and launched four different state policies that impacted forest communities, a continued wave of agrarian reforms, the launching of large timber parastatals, and two new forest development programs, all of which served, to varying degrees, to legitimize collective action around forest management (Bray 2020).

The major new Agrarian Reform Law in 1971 sought to broaden ejido economic options by promoting ejido unions or “forest associations” that could jointly market products, buy inputs, and channel state support. They constituted a massive top-down organizing effort, as new collective action efforts were required from above. As of 1976 there were twenty-five forest ejido unions with 611 ejidos in thirteen states (Mendoza Medina 1976), a major new burst of multi-level organizations derived from state action. The creation of timber parastatals was intended to generate greater state control over a sector that had been dominated by small logging companies who commonly abused local communities. However, they also served as regional development agencies to provide community services and to organize and endow incipient community forest enterprises, particularly in states marked by unrest such as Chihuahua and Guerrero (Bray 2020). The largest of these was PROFOTARAH (*Productos Forestales de la Tarahumara*), which was both a state logging company and a development agency. It began endowing communities with physical capital in sawmills and logging roads as well as clinics and other services. It eventually laid the groundwork for community forest enterprises in an additional seventy-seven ejidos and *comunidades* and organized thirty of these into an inter-community organization with a joint sawmill (Boyer 2015).

The *Fondo Nacional de Fomento Ejidal* (FONAFE) was founded in 1959 to channel resources from logging contracts to inaccessible forest communities. From the beginning of the Echeverría presidency “there began to immediately arrive resources from FONAFE to finance ejido industrialization...” (Guerra Lizarraga 1991, 100). FONAFE specialized in physical and human capital by financing sawmills and offering training in sawmill operation, logging, and marketing, with the explicit goal of creating “ejido forest enterprises” (Enriquez Quintana, 1976). It established training centers in Chihuahua and Durango with a staff of thirty-three professionals that trained in some twenty-two different skills from saw sharpening to lumber classification (Medina Mendoza 1976). It eventually promoted 135 CFEs in fifteen states. Eighty-seven of them received funding for sawmills, a major endowment of physical capital. Despite well-founded accusations of paternalism, it also had the goal of creating viable community forest enterprises.

Finally, the *Dirección General de Desarrollo Forestal* (DGDF) was founded within the Forestry Subsecretariat of the Secretary of Agriculture in 1973 under the direct authorization of President Echeverría (L. J. Castaños, interview, December 6, 2016). The DGDF developed a remarkable

strategic vision of what would later be called multi-level governance and of the communities as “collective action common properties” with continued state regulation (Castaños Martínez 2015, 99). The DGDF started in the Sierra Norte of Puebla state and by 1978 promoted a multi-level community forest association and organized CFEs with logging permits in fifty-two ejidos and 253 small private forests. It then expanded into Veracruz and in 1982 in Quintana Roo (see below). The DGDF continued to be highly relevant through most of the 1980s, as discussed further below.

In Durango in the 1970s, new and more abusive management in the parastatal *Productos Forestales de Mexico* (PROFORMEX) and close advising support from the Agrarian Reform agency stimulated twenty communities to form the Union of Ejidos and Communities Emiliano Zapata (UNECOFAEZ). They demanded that sawmills be located within communities in order to generate more employment. Once again, direct government support for the demand reduced the risks of collective action (Bray 2020).

The DGDF continued its work in Puebla, Veracruz and elsewhere in the rest of the 1970s and most of the 1980s. It was thus in the 1980s and particularly with the 1986 Forest Law (see below) that openings from above definitively created a new small business sector that eventually came to dominate the Mexican forest sector.

It was in the early 1980s in the forests of Oaxaca that the second major forest community mobilizations, after Durango in the 1960s, on behalf of community-controlled forestry occurred. The Organization in Defense of Natural Resources and Social Development of the Sierra Juárez (*Organización en Defensa de los Recursos Naturales y Desarrollo Social de la Sierra de Juárez*, ODRENASIJ), composed of twenty-seven communities, and supported by student activists, emerged to fight against the renewal of a 25-year concession to a parastatal paper mill, due to end in 1982. This movement was perhaps the only place in Mexico where autonomous civil society had a major impact on community forest organization.

ODRENASIJ and their advisors launched a campaign against a renewal of the concession by President Lopez Portillo in 1982 and were successful in defeating it through a legal strategy (Bray 2020). In December 1982, President Miguel de la Madrid in one of his first actions canceled the concession, a reversion to the form of direct Presidential support for the sector. With the victory of the anti-concession coalition of actors, DGDF state reformers entered Oaxaca in 1983. The DGDF took up residence in several communities for a year at a time, in intense periods of human and social capital formation. The DGDF team in Oaxaca eventually grew to twenty-three people and began working in various parts of the state, placing a community organizer full time in each community where they were working. Eventually, the team helped form the first independent forest association in Oaxaca, the Union of Forest Ejidos and Communities of Oaxaca in 1985.

In the same period when events in Oaxaca were producing significant numbers of new community forest enterprises by both bottom-up grassroots mobilizations and top-down state reforms, another state-led reform was occurring in the tropical state of Quintana Roo. The *Plan Piloto Forestal* (PPF) emerged in 1983, constituted by a unique confluence of state, federal and international actors. The *Acuerdo Mexico-Alemania* brought in substantial financial and technical assistance from German foreign assistance, with the DGDF providing salaries and political support to the Quintana Roo state government. At the same time, communities were growing restive around the end of a twenty-nine-year logging concession granted to the parastatal *Maderas Industrializadas de Quintana Roo*, although they did not mobilize to the same degree as the grassroots efforts of Oaxaca (Galletti 1998).

In a series of institutional and forest management innovations, the PPF helped the communities in declaring permanent forest areas (PFAs), conducted participatory forest inventories, established CFEs, and once again promoted social capital in inter-community forest associations by serving as the channels for technical assistance, donor support, and negotiations with government agencies. From 1985–1989, 502,166 ha were placed in PFAs in southern and central Quintana Roo by decisions in ejido General Assemblies, and two forest associations were founded in central and southern Quintana Roo (Bray 2020).

In Durango, new and more abusive management in the parastatal PROFORMEX created new mobilizations in the communities since community producers association UNECOFAEZ remained tied as suppliers to the PROFORMEX in the 1980s. In 1987, it organized a tense roadblock over control of the logging documentation, supported by allies in the federal government (García-López 2013). This led finally to their complete independence and full direct engagement with market price incentives for collective action. They also showed considerable political acumen, by tying themselves close to the then-ruling party through engagements in the presidential campaign of 1988, assuring continued high-level political support for their efforts (Chapela 1998). This paid off when President Salinas de Gortari endowed them with a plywood factory and other timber processing businesses, and subsidized loans to rehabilitate them, with the dissolution of PROFORMEX, and against state economic interests.

The most important of the top-down reformers, Leon Jorge Castaños, was named as Forest Subsecretary in 1983, bringing a reformist vision to the highest level of the Forestry agency. While budget cuts hindered its effectiveness, the 1986 Forest Law was characterized as "...peasant-oriented and environmentalist" (Chapela 1996, 355). Among a number of significant reforms that empowered community forest management, it ended all private concessions and dismantled the parastatals, allowing CFEs across the country to engage directly with prevailing market prices for timber.

Thus by 1988, the Mexican small community forest enterprise sector had substantially emerged and became focused on making their businesses work, with the need for political mobilization largely over. Key reformers controlled entire divisions of government, agencies at the subsecretarial level, with support from the highest levels of government. The CCIT, PROFOTARAH and other parastatals, FONAFE, and the DGDF all constituted major and relatively well-funded long-term reforms from above. The cases of the Consejo Supremo Tarahumara, NGOs and student activities in Oaxaca, and grassroots forest community organizations, commonly encouraged by the Agrarian Reform agency, represented participation by civil society. A little noticed feature of all these efforts was that they had government forest extension agents who spent substantial time in communities training and promoting social and human capital (Bray 2020). Before this period, forest service employees were almost entirely urban-based (Hinojosa Ortiz 1958).

This concentrated, relatively well-financed, mostly top-down reform efforts in institutional and capital supply through forest extension is what it took to make these enormous advances in Mexican community forestry. The most important and successful grassroots mobilizations in developing community-based economic alternatives were in Durango and Oaxaca, although both benefitted from significant state support and timely Presidential interventions. However, in most other states the process was less about protest and more about communities vigorously seizing the opportunities that came from above to get into the timber business. For them to be able to become a fully community owned and operated forest industries was truly remarkable. With the disappearance of the parastatals in the late 1980s, they became fully engaged with market price incentives for collective action.

This historic process of state reform and community response converted subsistence corn farmers with minimal grade school educations into managers of industrial forestry processes. As of 1988, estimates suggest that there may have been as many as 1,300 CFEs operating to one degree or another, constituting an enduring power shift in relationship of citizens to the market, with clear state support. In the process, the forest communities developed a variety of different forms of entrepreneurial organization, evolving from the foundation of the agrarian governance institutions endowed from above. These included a community model, a manager model, a diversified forest products model, and a work group model, among other variants (Bray, 2020) Since this formative period, the sector has now had 30 years to mature and expand and achieve a significant degree of political and economic autonomy, with continued government support after 1994.

## Period IV: The Consolidation of Community-Led Community Forestry: 1988–2018

Although the presidency of Carlos Salinas de Gortari (1988–1994) was mostly indifferent or hostile towards community forestry, under his administration, a number of new legislation passed that had a positive impact on the forest sector. This is particularly evident in the devolution of an almost full bundle of property rights over forests, cementing the foundations for the counter-hegemonic alternative of community enterprises that began in the 1930s. Beginning in 1989, Salinas de Gortari launched an aggressive program of privatization of state enterprises and constitutional reforms. His goal was to introduce market forces into the countryside by creating pathways for *ejidos*, but not *comunidades*, to privatize themselves and to create a rural land market. However, significant environmental protection for forests in the legislation provided powerful disincentives for dissolving an ejido with forest resources. The Salinas de Gortari period included at least five major policy initiatives that impacted community forestry: 1) the privatization of state enterprises, including the timber parastatals, 2) the modification of Article 27 of the Mexican Constitution, 3) the 1992 Agrarian Law, 4) the 1992 Forestry Law, and 5) the North American Free Trade Agreement (NAFTA). The first three of these became top-down reforms that benefitted community forestry, while the second two were potentially negative but finally did not appear to do any lasting damage to the sector.

An unintended but positive consequence of the privatization of the Echeverría-era timber parastatals was that it definitively freed forest communities from the requirement to sell to them. The burgeoning community forest enterprise sector initially emerged, to a significant degree, tied to these parastatals in a monopsony, a market where there is only one buyer. Privatization was the final step in dismantling their state tutelage, a process that had been started with the 1986 Forest Law. In several cases, the state transferred their assets to newly formed ejido unions, providing substantial new physical capital for them and their organizations (Bray 2020).

The reform of Article 27 and the accompanying 1992 Agrarian Law were an attempt to “recreate property rights” (Muñoz-Piña et al. 2003) and open up rural land markets. The reform sought to substantially reduce the common property sector in Mexico by allowing *ejidos* to have their land

surveyed, parceled into private landholdings, and dissolve the ejido by majority vote. *Comunidades* could not dissolve themselves, providing protection for indigenous territories, but could enter into joint ventures with private enterprise. However, the reforms also strengthened community rights over the forest common property by removing references to land belonging “originally” to the state, defining ejidos as a form of corporate private property, and constituted a transition from state-led community forestry to community-led community forestry (de Janvry et al. 2001).

The 1992 Forest Law was primarily focused on encouraging forest plantations and displayed a striking indifference to the sector that had been maturing over the previous 15 years. Nonetheless, the sector seemed to be able to consolidate and mature during this period despite the inattention. Finally, NAFTA, passed in 1993, was feared to be a devastating blow to the forest sector in general, since in that year prices per board foot were 1,700–1,800 pesos in Mexico when they were 750 pesos (in dollar equivalent) in the US. While NAFTA did send shocks through the sector, the worst fears were not realized, primarily because the higher quality of Mexican timber from natural forests, as opposed to plantations, had demand in the national market.

It was during the Zedillo presidency that policy support for community forestry became fully institutionalized. The struggle for forestlands had been largely victorious in the 1920s–1970s. After Salinas de Gortari, the 1994–2018 period is marked by the consolidation and institutionalization of significant state support in supplying human, social, physical and financial capital to the community enterprise-dominated economic sector. Zedillo appointed as his Environmental Secretary an academic who had formed her own NGO to work on community development and environment issues, Julia Carabias. She brought with her as part of her management team many individuals from the ranks of her own environmental NGO and other civil society activists, many of whom were close to the community forestry policy initiatives and policy entrepreneurs of the 1970s and 1980s. This began a new wave of legislative initiatives and consistent state support for community forestry that continued to varying degrees into the second decade of the 21<sup>st</sup> century, largely without the mobilization of significant autonomous mass forest organizations.

Several significant new support programs for community forestry and small forest properties were launched, particularly the *Programa para el Desarrollo Forestal* (PRODEFOR), a program of forest producer subsidies and the World Bank/Government of Mexico-funded Forest Conservation and Management Program (*Programa de Conservación y Manejo Forestal*, PROCYMAF) (Merino Pérez and Segura 2005), giving community forestry its strongest policy and program platform since the DGDF. PROCYMAF started as a regional pilot program with a geographic focus on Oaxaca (1997–2003) and later expanded to Guerrero and Michoacán and Jalisco (S. Anta, interview, March 20, 2017). PROCYMAF was directly influenced by the experiences of the DGDF in the 1970s and 1980s, with a focus on increasing social and human capital and in diversifying forest production into non-timber forest products such as ecotourism, water bottling, and pine resin. It was an ideological successor to the earlier programs, defining its approach as “social extensionism”, although it never had the large-scale extensionism of the earlier generation of government programs. The program, under various names, continued on through the 2000s as will be discussed further below. The Zedillo period also featured a 1997 Forest Law with extensive public consultation designed to correct deficiencies of the 1992 law, which was perceived as having carried deregulation too far, and brought a renewed policy focus on support for community forestry.

The development of this forest law showed broad engagement with the forest sector, showing both its maturity and the degree to which the state now recognized and validated its existence. The environmental agency in coordination with the Mexican house and senate and the Consejo Nacional Forestal (CONAF), a broadly representative policy consultative body established by the

1992 law, presented a preliminary draft (*anteproyecto*) for public discussion in July 1996. This launched a round of consultative forums, representing a broadening of the public dialogue on forestry law.

The consultations included 9 meetings of CONAF, five regional fora, four meetings with social organizations, the private sector, NGOs, and researchers, the receipt of 171 proposals, and the establishment of an Editorial Committee composed of peasant, private and public sectors that drafted the final text of the law in 7 meetings. SEMARNAP argued that the consultations revealed the deficiencies of the 1992 law that must be addressed: deregulation had gone too far and clandestine logging had increased, insufficient criminal penalties for violations of forest laws, insufficient regulations of the provision of forest technical services, no framework of evaluating the environmental impact of plantations, strong limitations on the ability of the community sector to participate in plantation programs, and insufficient legal safeguards for the plantations (Bray, 2020).

The first two presidential periods of the 2000s, that of Vicente Fox (2000–2006) and Felipe Calderón (2006–2012) represented both continuity and significant change in Mexican forest policies, but continued support for community forestry. The Fox government established a new forest agency, the Comisión Nacional Forestal (CONAFOR), and in 2003 established yet another new forest law, the General Law of Sustainable Forest Development (*Ley General de Desarrollo Forestal Sustentable*, LGDFS). The 2003 law left most of the 1997 law intact but brought in tighter environmental controls, and established an environmental services program.

The PROCYMAF program continued in the Fox and Calderón presidencies, expanding from the original three years to six, eventually investing in human and social capital in 530 communities in 5 states (CONAFOR 2012). However, it remained a small pilot program, constituting only 3.4% of the CONAFOR budget by 2006. However, the community forestry support program PRODEFOR quadrupled in the first years of the Fox administration, and by 2006 constituted 17.2% of the budget, the second largest percentage behind firefighting. This included 706 grants to subsidize the forest management programs, and 2,436 grants for a wide variety of significant investments in human and physical capital (CCMSS 2006).

The presidency of Calderón (2006-2012) gave even greater attention to CONAFOR in both programs and budget, more than doubling the CONAFOR budget in 2007 to approximately US\$381.1 million and ended the administration with a total budget of approximately US\$558.5 million (J.M. Torres Rojo, interview, February 6, 2017). With the expanded budget, CONAFOR developed major new efforts to support community forestry. In this period, the PROCYMAF budget took an enormous leap upward, growing nearly six times from 2009 to 2011 to approximately US\$43.3 million, while the PRODEFOR budget actually shrank somewhat (CCMSS 2010).

It is also notable that this period saw the first significant effort to rebuild the kind of forest extension effort that was characteristic of the 1970s and 1980s. Furthermore, PRODEFOR and later PROCYMAF continued the practice of endowing communities with physical capital, buying sawmills and other logging equipment. From 2003–2008 the PROCYMAF program handed out grants to 2,256 ejidos, comunidades and inter-community organizations, covering 4.6 million hectares (CONAFOR, 2012). Thus, in the 1994–2012 period, it is no longer appropriate to speak of reforms from above. The reforms up until 1988 had created a new economic sector that after that was the subject of state subsidies, like many other economic sectors, no longer requiring structural reform.

The government of Enrique Peña Nieto (2012–2018) marked the first time since 1994 that forest policy in support of community forestry was relatively less prominent. The Peña Nieto government

announced its National Strategy for the forest sector that included, among other things 1) an 86% increase in timber production, from 5.9 million m<sup>3</sup> to 11 million m<sup>3</sup> 2) a tripling of certified forests to 2.5 million ha 3) the establishment of 750 new CFEs and 4) the incorporation or reincorporation of 4.6 million ha in production with criteria of increased production, biodiversity conservation, and forest zoning (Benet 2018). It also continued the program of forest extension established in the previous presidential period, creating 750 community promoters to work in a similar number of forest communities (Bray 2020).

However, a drop in oil prices led in 2017 to a forty percent cut to the CONAFOR budget. The government fell short on all of the announced goals. By 2017 it was estimated that forest production increased modestly to 7.6 million m<sup>3</sup> (but far short of the 11 million goal), forest certification increased little, only 259 new CFEs were created (thirty-four percent of the goal, including both timber and NTFPs), and only fifty-five percent of the stated goal was achieved in increased production areas (CCMSS 2016; Benet 2018). In addition, the Community Silviculture program (the successor to PROCYMAF) was eliminated entirely. Support to production and community forestry was reduced to around fifteen percent of the budget, with most funds going to “passive conservation” of the environmental services program and reforestation. Subsidies were focused on particular states and municipalities with no clear strategy (Deschamps Ramírez and Madrid Zubirán 2018), and deforestation increased (Benet 2018).

One notable event during the Peña Nieto period was a new Forest Law, passed in the Chamber of Deputies in April 2018. The law had a torturous legislative process, and was not considered a substantial advance over the 2003 law. However, it did establish for the first time that community forest management (*manejo forestal comunitario*) was an official policy of the government and added additional language on sustainability. It also attempted to reduce regulation and added new measures to combat illegality (Benet 2018). As noted, the community forest sector largely came into being by 1988, with some 1,300 communities producing timber, and by 2011-2013 there had only been a relatively modest increase to 1,621, with considerable flux in CFE start-ups and the demise of existing ones. Thus, with the exception of the Salinas de Gortari period, state policy since then has been characterized by continued and generally increasing support. These successful reforms from above were complimented by grassroots mobilizations to claim and expand economic spaces in some states, a vigorous entrepreneurial response to the openings by many hundreds of other communities, and, with the disappearance of the parastatals, full engagement with market prices.

## Conclusions

Beginning in the early 1930s, even before the Cárdenas era, policy entrepreneurs in the agrarian reform agency began handing out large forest tracts to local communities. Despite accusations of corruption, inefficiency, and insufficient funding over the decades, actors in the agrarian reform agency continued distributing forests large and small to local communities up until the early 1990s. Beginning in the 1970s, reformers began occupying for the first time high-level positions within the forest agency and related government agencies. Splits within the forestry agency between



a conservative old guard and the reformers have been referenced, but over time the reformers clearly won out.

The reformers appear to have been driven substantially by both ideological and technocratic motivations. Ideologically, they were responding to the vision of the Mexican Revolution that sought empowerment and justice for peasant producers, in this case for timber. Technocratically, they were interested in making the Mexican forest industry more modern and productive. L. J. Castaños, the most important of the reformers (who returned in his 80s as the head of CONAFOR in the López Obrador government) began his career in the 1960s more focused on small private forests in Mexico, but later came to understand that it was also possible and necessary, given their ownership of most of the forests, to work with communities. At crucial moments, the reforms were able to count on support directly from the President of Mexico in almost all documented cases. Allies in civil society were mostly constituted by the increasingly organized and combative forest communities, with support from NGOs not emerging until the 1980s, and was significant only in Oaxaca.

The striking success of the top-down reforms were obviously linked with the major political, economic, and programmatic policies of post-Revolutionary Mexico to distribute land to peasants, mostly to forestall any further uprising but also in the hopes that it would stimulate the rural economy. In different moments, local mass movements were able to link to national electoral competition, as when UNECOFABEZ offered its support to Salinas de Gortari in 1988, and received in return substantial new physical and financial capital. There were only in a few cases relatively autonomous, broad-based mass forestry organizations. The mobilizations for forest distribution in Durango in the 1930s were apparently led by a handful of local leaders. In the 1960s–1980 in Durango they were local mass organizations of forest communities demanding both forests and policy support for CFEs, allied with state reformers who advised them.

As noted, ODRENASIJ in Oaxaca appears to be the only case in Mexico where civil society played a significant support role. The forest reform initiatives that begin as national policy in the early 1970s (preceded by the reform efforts in Chihuahua in the 1950s and 1960s) were characterized by deploying significant numbers of extension agents who channeled support in human, social, financial and physical capital to accompany the natural capital of the forests. These reform initiatives focused not only on constructing community-based CFEs but also commonly had as a requirement that the CFEs should be organized into second-level, inter-community ejido unions, a major opening benefitting collective action by forest communities. It is an open question why political leaders and Mexican presidents appear to have so clearly supported the sector. However, it is likely related to the fact that forestry has little importance in the Mexican economy. It has always been much less than 1% of the GDP, and the fact that timber is a commodity that has a relatively high and relatively stable market price, implying that once communities had access to their forests, political and economic demands were reduced.

It is important to emphasize the apparent uniqueness of the case in the accountability framework, in that the existence of “autonomous mass organizations” were only a historically transitory phenomenon and were commonly directly advised and supported by state agencies, also commonly in conflict with other state agencies. Once the reforms had achieved their goal of creating local spaces and defensive economic perimeters where common forest property-based community enterprises could be begin to develop, the more appropriate interpretive framework is really small communal business development. The grievance of not having access to their own forests and support for the construction of community forest enterprises had been successfully addressed. Collective action to lay claims on the state was successful, so collective action became oriented

around the challenges of a community running a business in competitive markets. Thus it was in the 1980s and second half of the 1990s that the enduring shift in community-market relations became fully consolidated, with significant state support.

It is only in recent years that proactive gender inclusive measures have developed as a component of this successful reform. Traditionally, Mexican agrarian reform rules discriminated against women, since only “heads of households” were to participate in community assemblies. The only women who participated were commonly widows or women representing their migrated husbands. Recent reforms have opened new spaces for women to participation in ejido and comunidad governance. In some community forest enterprises women are beginning to occupy responsible positions, but they are still very much a minority. On the other hand, the inclusion of indigenous communities with forest resources have always been part of state policies, and there has been no discrimination for that reason. The one situation where discrimination exists is in a number of ejidos in Chihuahua where due to historical processes, there are both mestizo and indigenous populations, and in these cases the indigenous peoples are frequently unable to access many benefits from the enterprises.

State policy, both unintentionally and intentionally, opened up the spaces for political mobilizations and community entrepreneurial vigor to occupy and expand those spaces. Furthermore, in many cases, the state provided the natural, physical, financial, human and social capital necessary to create market-viable community enterprises. The market incentive of consistently high prices for timber has ensured that there is a permanent motivation to incur the substantial transaction costs in engaging in the collective action. The policy reforms provided the space for the “voice” of forest communities, supported by the “teeth” of supportive state programs going all the way up the executive. The scope of direct technical, legal, and economic support for the CFE sector was quite substantial in virtually all recent periods except for the presidency of Salinas de Gortari.

The transformational nature of the reform process in the Mexican forestry sector was not just “distributive reform” defined as “qualitative changes in the ways states allocate public resources to large social groups” or even “redistributive reform” defined as policies that “change the relative shares between groups” (Fox 1992, 10). Rather, reforms and programs in the community forestry sector, crucially including supplies of institutions and the five capitals, opened up a new political-economic and entrepreneurial space at the local territorial level. The dynamic is less between entrepreneurial reformists and autonomous social movements than between entrepreneurial reformists and an emerging communal small business sector, which only in particular historical periods and locations have been expressed as social movements. Once this space had been won, the sector became politically relatively quiet because they were focusing on taking care of business and like any small business sector, only became mobilized when their interests were threatened (Bray 2020). The history of Mexico’s community forest enterprises shows both political accountability, where organizing spaces around forests were opened from above, and economic accountability, where an entire economic sector was opened up for participation and eventually dominance by small and medium communal businesses.

The successful effort by Mexico to achieve food self-sufficiency in the 1950s and 1960s has been called the “Mexican miracle”; “... one of the most successful programs to raise peasant welfare by liberating important forces that would encourage and enable them to increase production; it was also one of the most successful land reforms implemented in the twentieth century in the whole world” (Barkin 2002, 77). The rise and persistence over decades of hundreds of successful community forest enterprises constitutes an ongoing, and still little known, second “Mexican miracle”.

It is currently under threat by organized crime in some states and regions but continues to represent one of the most successful rural and forest policy reforms of the 20<sup>th</sup> century. Due to their broad base and relative economic and political autonomy, they embody what Alatorre Frenk (2000) has called a “counterhegemonic” power, expressed principally through enterprise self-governance with no need to directly challenge the state. Supportive forest and development policy with infusions of the five capitals, including institutions and organizational models, represents a policy mix that stimulates collective action and provides a path forward for economic accountability.

# Bibliography

- Alatorre Frenk, Gerardo. 2000. *La Construcción De Una Cultura Gerencial Democrática En Las Empresas Forestales Comunitarias*. México, D.F.: Casa Juan Pablos, Procuraduría Agraria.
- Aviña, Alexander. 2014. *Specters of Revolution: Peasant Guerrillas in the Cold War Mexican Countryside*. New York: Oxford University Press.
- Barkin, David. 2002. "The reconstruction of a modern Mexican peasantry." *The Journal of Peasant Studies*, 30 (1): 73–90.
- Benet, Raul. 2018. "El fracaso de la política forestal de Peña Nieto." *Aristegui Noticias*, November 14, 2018. Accessed 12/7/18. <https://aristeguinoticias.com/1411/mexico/el-fracaso-de-la-politica-forestal-de-pena-nieto-articulo/>.
- Boyer, Christopher. 2015. *Political Landscapes: Forests, Conservation, and Community in Mexico*. Durham, N.C. and London: Duke University Press.
- Bray, David Barton. 2020. *Mexico's Community Enterprises: Success on the Commons and the Seeds of a Good Anthropocene*. Tucson, AZ: University of Arizona Press.
- Boyce, James K. and Barry Shelley, ed. 2003. *Natural Assets: Democratizing Ownership of Nature*. Washington, DC: Island Press.
- Castaños Martínez, Leon Jorge. 2015. "Esfuerzos pioneros de política pública para la gestión forestal en comunidades: La Dirección General para el Desarrollo Forestal (1973–1985)." In *Desarrollo Forestal Comunitario*, edited by J.M. Torres Rojo. Mexico City, DF: Centro de Investigación y Docencia Económica.
- CCMSS. 2010. "Análisis del Proyecto de presupuesto para CONAFOR en 2011." *Nota Informativo 29*. Consejo Civil Mexicano para la Silvicultura Sostenible: Mexico, D.F. Accessed 8/21/16 <http://www.ccmss.org.mx/documentacion/332-nota-info-29-presupuesto-forestal-2011/>.
- CCMSS. 2016. "Presupuesto forestal 2016: Nuevos Riesgos para los bosques?" *Nota Informativa 43*. Consejo Civil Mexicano para la Silvicultura Sostenible: Mexico, D.F. Accessed 8/21/16. <http://www.ccmss.org.mx/documentacion/presupuesto-forestal-2016-nuevos-riesgos-para-los-bosques/>.
- Chapela y Mendoza, Gonzalo. 1996. "La Política de Aprovechamiento Forestal en México: Liberalismo, Comunidades y Conservación de Bosque." In *La Sociedad Rural Mexicana Frente al Nuevo Milenio*, edited by Horacio Mackinlay and Eckart Boege. *Volumen III: El Acceso a Los Recursos Naturales y el Desarrollo Sustentable*. Mexico City: Plaza y Valdés Editores.
- Chapela y Mendoza, Gonzalo. 1998. *La Organización Campesina Forestal En El Cambio Liberal Mexicano: 1980–1992*. Ph.D. Thesis, Universidad Nacional Autónoma de México.
- CONAFOR. 2012. *Logros y perspectivas del desarrollo forestal en México 2007–2012*. Zapopan, Jalisco, Mexico: Comisión Nacional Forestal.

- de Janvry, Alain, Charles Dutilly, Carlos Muñoz-Piña and Elisabeth Sadoulet. 2001. "Liberal Reforms and Community Responses in Mexico." In *Communities and Markets in Economic Development*, edited by Masahiko Aoki and Yujiro Hayami. Oxford, UK: Oxford University Press.
- Deschamps Ramírez, Paulina and Sergio Madrid Zubirán. (2018). *Subsidios Forestales Sin Rumbo: Apuntes para una política en favor de las comunidades y sus bosques*. Consejo Civil Mexicano para la Silvicultura Sostenible: Mexico, D. F. Accessed 1/7/19. <http://www.ccmss.org.mx/acervo/subsidios-forestales-sin-rumbo-apuntes-para-una-politica-en-favor-de-las-comunidades-y-sus-bosques/>.
- Enríquez Quintana, Manuel. 1976. "Las Empresas Ejidales Forestales." *Revista del México Agrario* Año IX (2): 71–98.
- Evans, Peter. 1996. "Government action, social capital, and development: Reviewing the evidence on synergy." *World Development* 24 (6): 1119–1131.
- Fox, Jonathan A. and Gordillo, Gustavo. 1989. "Between State and Market: The Campesinos' Quest for Autonomy in Rural Mexico". In *Mexico's Alternative Political Future*, edited by Wayne Cornelius, Judith Gentleman and Peter Smith. La Jolla: UC-San Diego Center for US-Mexican Studies.
- Fox, Jonathan A. 1992. *The Politics of Food in Mexico: State Power and Social Mobilization*. Ithaca and London: Cornell University Press.
- Fox, Jonathan A. 2015. "Social accountability: what does the evidence really say?" *World Development* 72 (1): 346–361.
- Fox, Jonathan A. 2019. "Revisiting the sandwich strategy" January 31, 2019, 3.0 version. Manuscript available from author.
- Fox, Jonathan, and Joy Aceron. 2016. "Doing Accountability Differently: A Proposal for the Vertical Integration of Civil Society Monitoring and Advocacy." 4. U4 Issue Paper. Bergen: C. Michelsen Institute.
- Galletti, Hugo A. 1998. "The Maya forest of Quintana Roo: thirteen years of conservation and community development." In *Timber, Tourists, and Temples: Conservation and development in the Maya forest of Belize, Guatemala, and Mexico*, edited by Richard Primack, David Barton Bray, Hugo A. Galletti, and Ismael Ponciano. Washington, D.C.: Island Press.
- García-López, Gustavo A. 2013. "Scaling up from the grassroots and the top down: The impacts of multi-level governance on community forestry in Durango, Mexico." *International Journal of the Commons* 7 (2): 406–431.
- García-López, Gustavo A. and Camille Antinori. 2018. "Between Grassroots Collective Action and State Mandates: The Hybridity of Multi-Level Forest Associations in Mexico." *Conservation and Society* 16 (2): 193–204.
- Guerra Lizarraga, Juan. M. 1991. *La Explotación Forestal En La Región De El Salto, Durango*. Tesis de Ingeniería Agrónomo, Universidad Autónoma Chapingo.

- Hamilton, Nora. 1982. *The Limits of State Autonomy: Post-Revolutionary Mexico*. Princeton, NJ: Princeton University Press.
- Henson, Elizabeth. 2019. *Agrarian Revolt in the Sierra of Chihuahua, 1959–1965*. Tucson: University of Arizona Press.
- Hernández Astorga, Manuel. 2015. *El Salto: Crónicas de un pueblo maderero*. Durango: Instituto de Cultura del Estado de Durango.
- Hinojosa Ortiz, Manuel. 1958. *Los Bosques De México: Relato De Un Despilfarro Y Una Injusticia*. México, D.F.: Instituto Mexicano de Investigaciones Económicas.
- O'Hara, Julia Cummings. 2004. *Transforming the Sierra Tarahumara: Indians, missionaries, and the state in Chihuahua, Mexico, 1890–1960*. PhD dissertation. Department of History, Indiana University.
- Kaimowitz, David. 2004. "Conventional wisdom about sustainable forest management and a pro-poor forest agenda." In *Working Forests in the American Tropics: Conservation Through Sustainable Management*, edited by Daniel Zarin, Janaki Alavalapati, Francis E. Putz and Marianne C. Schmink. New York: Columbia University Press.
- Mendoza Medina, Roberto. 1976. "La política forestal en el sector ejidal y comunal." *Revista del México Agrario* 9 (2): 35–69.
- Merino Pérez, Leticia and Gerardo Segura. 2005. "Forest and Conservation Policies and Their Impact on Forest Communities in Mexico." In *The Community Forests of Mexico: Managing for Sustainable Landscapes*, edited by David Barton Bray, Leticia Merino-Pérez, and Deborah Barry. Austin, TX: University of Texas Press.
- Muñoz-Pina, Carlos, Alain De Janvry and Elisabeth Sadoulet. 2003. "Recrafting rights over common property resources in Mexico." *Economic Development and Cultural Change* 52 (1): 129–158.
- Sanderson, Steven. E. 1981. *Agrarian Populism and the Mexican State*. Berkeley: University of California Press.
- Simpson, Eyler N. 1937. *Ejido: Mexico's way out*. Chapel Hill: University of North Carolina Press.
- Williams, John. 2007. "The Role of Deforestation and World-System Integration." In *Rethinking Environmental History: World-System History and Global Environmental Change*, edited by Alf Hornborg, J. R. McNeill, and Joan Martinez-Alier. Lanham, MD: AltaMira Press.

[www.accountabilityresearch.org](http://www.accountabilityresearch.org)



American University  
School of International Service  
4400 Massachusetts Ave NW  
Washington, DC 20016  
[www.accountabilityresearch.org](http://www.accountabilityresearch.org)