

CHAPTER 6

The Romance of State Forestry, 1972–1992

Mexico in the late 1960s and early 1970s faced a crisis of authority unseen since the revolution, as the first signs of a protracted economic downturn spawned rural unrest and bouts of urban protest that the federal government met with violent repression unimaginable a generation earlier. Young people took to the streets in cities like Durango and Morelia to protest the ruling party's repressive and increasingly ubiquitous machine politics, which appeared to have lost any remaining tethers to revolutionary ideals. The boldest movement emerged in Mexico City, where students rallied in the summer of 1968 to demand the release of political prisoners and the expulsion of police from university campuses. The protests continued into the fall. With the Mexico City Olympic Games set to begin and preliminary negotiations with protesting students underway, the Díaz Ordaz administration ordered army units and undercover police to quash an October 2 protest in Tlatelolco Square. Armed forces fired directly into the crowd, leaving perhaps two hundred dead and over a thousand in custody. The massacre dealt a death blow to reformist urban protest movements, but it bankrupted the government's moral authority and spawned scores of smaller and more radical challenges to the ruling Institutional Revolutionary Party (PRI) over the following decade.

The ripples from Tlatelolco spread to the countryside, where small numbers of radicalized urban refugees sought out pockets of peasant discontent. They were not hard to find. The breakneck economic growth of the postwar decades had bypassed most rural people yet forced them to pay its social costs. An increasingly populous peasantry confronted widening economic disparities that set commercial agribusinesses and the timber industry against land reform beneficiaries, indigenous people, and the growing ranks of landless workers. The pre-1970 economic model of "stabilizing development" had spawned dams, irrigation districts, and UIEFs but systematically diverted investment from ejidos. To make matters worse, the agrarian reform was structurally unsuited to end landlessness in

the long term. Only the registered heads of households—in other words, adult men—received the so-called agrarian rights necessary to enroll as official members of an ejido. In theory, these beneficiaries could bequeath their rights to only one family member, typically a spouse or eldest son. In the postwar era, declining infant mortality and modestly longer life expectancies placed the land reform sector into a demographic vise. Since land redistribution did not keep up with the expanding population, families had to choose between locking most of their children out of the ejido or illegally subdividing their plot of land and giving everyone a parcel. By 1970, the backlog of campesinos declared eligible for the agrarian reform, but for whom no suitable land was available, reached two million. Observers began to speak of a crisis in the countryside as rural people abandoned their cornfields for the burgeoning cities of Central Mexico or perhaps for the United States.¹ Others elected to take matters into their own hands.

Rural Mexico had never completely demobilized after the revolution. Episodes such as the counterrevolutionary *cristero* movement of the 1920s or the peasant insurgencies led by Rubén Jaramillo in the 1950s and Lucío Cabañas in the early 1970s revealed rural people's willingness to protest machine politics and the shortcomings of agrarian reform. Economic turbulence gave new life to such protests. Local leaders formed independent peasant unions beyond the grip of the PRI-affiliated National Peasants Confederation (CNC) and led their followers in a wave of land invasions. Leading the way was the reinvigorated General Union of Workers and Campesinos (UGOCM), which had pioneered these tactics in the late 1950s and targeted agribusinesses that flaunted constitutionally mandated limits on the size of private landholdings. The majority of land invasions were copycat actions spontaneously organized by rural people tired of waiting for official channels of land redistribution. By one estimate, six hundred land seizures occurred in 1972 and 1973 alone, and most avoided bloodshed. Popular unrest on such a scale threatened to slip beyond official patronage networks, however, and authorities announced in June 1973 that the army would block any new invasions, effectively bringing the episode to a close.²

These conditions posed a central challenge to Luis Echeverría, who ascended to the presidency in 1970. He had served as secretary of the interior (*gobernación*) during the previous administration, and many observers held him accountable for the Tlatelolco massacre. To combat this potentially damaging image, Echeverría made a dramatic shift from a stony bureaucrat who had once declared the land reform dead, to a left-leaning populist—although his administration continued its predecessor's covert campaign

of repression, torture, and the occasional execution of the regime's most vocal opponents.³ For those willing to play by the PRI's rules, however, the president offered a program of "shared development" that portended higher wages, more jobs, and a fairer distribution of national income. He anchored this initiative with industrialization and social services in the city and a new round of land reform and credit for the countryside. Echeverría redistributed nearly 13 million hectares to ejidos (compared to almost 19 million by Cárdenas and 24 million by his predecessor, Gustavo Díaz Ordaz). The administration refused to touch the most valuable agribusiness lands, most of which appeared in the registry of deeds as ineligible for redistribution, either because landowners had split them into small parcels titled in the name of friends and family or because they had received "certificates of exemption" (*inafectabilidad*) supposedly reserved for small family farmers. What Echeverría lacked in redistributive zeal, however, he made up for in bureaucratic intervention. The administration reformed the agrarian code in 1971 to allow women to receive agrarian rights directly, rather than through their husbands. It more than doubled the amount of credit available to ejidos. Three years later, it initiated a massive push to improve productivity, in part through an ill-conceived plan to collectivize labor on ejidos and generate economies of scale.⁴ For the forests, however, Echeverría had something different in mind.

STATE FORESTRY

Land invasions and independent peasants' unions spread particularly rapidly into the forestlands, largely because widespread resentment of the forest service and UIEF concessions had fostered clandestine logging in so many communities. Forestry officials tried to gain the upper hand by rewriting management plans and increasing the amount of timber that ejidos could legally extract, but many villagers ignored the documents or illegally sold their logging permissions (*guías*) to other communities.⁵ Campesinos protested the most abusive companies, such as Michoacana de Occidente or Bosques de Chihuahua, with land invasions, occasional acts of arson, and whatever political pressure they could muster. Overlaying these social stresses were material ones. While the overall economy had grown at over 6 percent for the previous decades, the timber sector only managed to eke out a tenth of that pace. Efforts to ratchet up production on forest ejidos by giving them more generous quotas did little to make community forestry more profitable. The decades-long push to make the nation

self-sufficient in newsprint had also failed, even though the number of paper mills had more than tripled, from 17 in 1950 to 59 in 1970, and paper companies consumed more wood by 1977 than did the construction and lumber industries combined.⁶ The one bright spot was foreign investment. The U.S. company Kimberly-Clark purchased the Aurora paper mill in Naucalpan, just outside the Federal District, in 1959. Four years later, this transnational company expanded into the consumer market by launching its successful line of Scribe notebooks, and it began to manufacture Kleenex and Kotex products (which had been imported since the 1930s) in Mexico a few years later.⁷

Echeverría met the economic and social challenges of the woodlands by instituting a regime of “state forestry”: a suite of policies that created highly bureaucratic, publicly owned institutions intended to increase rural people’s access to land, equipment, and credit. Echeverría’s administration took steps that made it easier for villagers to contract licensed foresters, whose authorization was still required for all (legal) logging operations on ejidal lands. At its most expansive, state forestry shaded into an exercise in environmental populism in which Echeverría fashioned himself as the benevolent leader whose administration would finally make it possible for rural people to make a living in their own woods—provided, of course, that they affirmed their allegiance to his regime and its policies. His successors José López Portillo (1976–1982) and Miguel de la Madrid (1982–1988) jettisoned overt populism in favor of a technocratic leadership style, but they retained most aspects of state forestry until the economic crisis of the 1980s forced a drastic contraction of government services.

State forestry borrowed heavily from urban industrial policies, which emphasized centralized management of the economy exercised primarily through corporations known as *paraestatales*, which were either owned by the federal government or in which it was the primary shareholder. Over a hundred of these state-affiliated corporations appeared in the 1970s, and they produced everything from subway cars to the artificial hormones used in birth-control pills.⁸ In the woodlands, the Echeverría administration put an end to most logging bans and formed *paraestatales* in Chihuahua, Michoacán, and Durango, which were charged with stabilizing the price of wood products, providing technical expertise to rural people, and making loans available for the purchase of sawmills and other equipment. The government also invested in existing timber companies in Oaxaca, Quintana Roo, and Mexico state. The fund that provided capital to ejidal enterprises (the Fondo Nacional para el Fomento Ejidal, or FONAFE) was likewise con-

verted into a paraestatal that functioned as a development bank to provide capital for community-owned timber companies. In 1972 the minister of agriculture announced that FONAFE would build 160 sawmills and workshops in Chihuahua alone—enough, it was said, to “rescue” rural people, who would finally be able to harvest ejidal timber and sell it on the open market.⁹ In the end, this thoroughly bureaucratic entity succeeded in funding 135 ejidal forestry businesses located primarily in Chihuahua, Durango, and Quintana Roo.¹⁰

Most experts welcomed this turn of events. A forestry professor at the national agronomy university (Chapingo) argued, for example, that paragonovernmental corporations would ensure that rural people adopted the best forestry practices while simultaneously contributing to national economic development, thereby fulfilling “the basic function of capitalism, which is to accumulate wealth, but in this instance putting it at the disposal of the federal government.”¹¹ Foresters also supported the administration’s proposal to increase production in the remotest parts of the country. Domestic and international experts had argued for years that private logging companies did not make efficient use of natural resources. Now these experts contended that state forestry not only would put rural people to work in unprecedented numbers, but, under the right conditions, could make timber as profitable as petroleum.¹² Others were not so optimistic and cautioned against overtaxing ecosystems that had endured generations of overuse. The loudest voice of restraint belonged to Enrique Beltrán, a distinguished biologist, conservationist, and former director of the forest service. Beltrán had a long record of criticizing overly intrusive conservationist measures like logging bans, which, in his view, did little other than encourage clandestine logging. Now he worried that state forestry would swing too far in the opposite direction. He argued that Echeverría’s policies opened the door to “galloping developmentalism,” which encouraged rural people to extract wood for short-term profit and irreparably harm forest ecology.¹³ His warnings had little appeal in an era of peasant militancy and renewed optimism about locally managed forestry. Young and idealistic professionals flocked to the forest service in record numbers, especially once it added a social-development section, in 1976. They helped over 250 ejidos to found their own timber enterprises and formed twenty-five unions of forestry ejidos nationwide.¹⁴

State forestry derived from a transactional logic in which natural resources served as bargaining chips to placate rural demands. Yet it gave rise to new institutions that were only marginally more responsive to rural

needs than were their predecessors. Instead of empowering forestland communities and placing them in control of their resources, the organs of state forestry reproduced the bureaucratic forms that kept villagers dependent on administrators for access to both resources and markets. While the program did achieve some successes—particularly in temperate northern forests, where it fostered scores of ejidal forestry enterprises that endured for decades—it left a more alarming legacy elsewhere in the country. In the coastal and southern tropics, for example, federal institutions promoted the colonization of “under-utilized” forests well suited, it was believed, to cattle ranching. Almost overnight, sawmills began to appear in some of the nation’s most delicate and biodiverse landscapes, where commercial logging would never have made inroads without official support.

COLONIZATION AND THE POLITICS OF DEFORESTATION

With existing agricultural lands off the table for redistribution, the land reform bureaucracy turned to territories once considered too isolated or undesirable for redistribution. One strategy was to reinvigorate colonization initiatives, inherited from the 1960s, that aimed to populate and “develop” tropical jungles in sparsely populated southern states. Officials dangled images of virgin forests and rich pastures before the eyes of landless villagers in central Mexico. They seem to have targeted former *braceros* from the United States whose exposure to independent labor unions branded them as potential troublemakers. Extension agents arrived in overcrowded ejidos in Michoacán, Jalisco, and other western states, where they convened meetings of people waiting for their own parcels of land (i.e., those with “secure agrarian rights”) to elect an executive committee and fill ejidal rolls before the colonists had even seen their new homes in the tropics.¹⁵ Most colonists appear to have relocated to the southeastern territory (now a state) of Quintana Roo, where they received forestlands that often fell inside a UIEF concession held by Maderas Industrializadas de Quintana Roo, a private company that had cut its teeth in the mahogany trade. Many of the agrarian colonists had previous experience working as lumberjacks. They knew how to operate skidders and chainsaws, so they felled timber in their new, tropical ejidos and sold it—typically at below-market prices—to the timber company or to the gray-market brokers that swarmed to the area. Thirty-one new ejidos were formed in the 1970s in coastal Quintana Roo, resulting in the loss of half a million hectares of

tropical forest, the near-disappearance of mahogany, and (eventually) an overproduction of cattle that took another decade to balance out.¹⁶

Policies that explicitly encouraged deforestation had also appeared in the mid-1960s, mostly to facilitate the clearing of new land for cattle ranching. International development agencies—including the Inter-American Development Bank, the World Bank, and the German Technical Cooperation Agency (GTZ)—provided funds and technical assistance for these early colonization projects, while domestic agencies such as the river basin commissions and the Banco Ejidal provided credit to colonists interested in raising cattle or growing cash crops. The land reform bureaucracy mapped out new ejidos in the clearings and either enticed or bullied rural people onto them. Forestry experts remained strangely silent in the face of official deforestation policies. While the 1960 forestry code explicitly authorized clear-cuts (*desmontes*), it also gave the forest service authority to halt any deforestation project that might destroy valuable resources or cause erosion.¹⁷ Foresters may have hesitated to criticize a policy blessed by the international community and supported by the presidency, but perhaps more importantly, few of them cared very much about the particular ecosystems slated for forest removal. In a telling instance, a forest service report from the mid-1970s classified over 90 percent of the species slated for colonization as “low grade” noncommercial wood, a category that apparently encompassed nearly all tropical species.¹⁸ Most professional foresters considered the tropical rainforests as useless wastelands, not true forests. Those who disagreed prudently chose to keep their opinions to themselves.

This relatively unfocused set of forest-clearing policies set the stage for the thoroughly institutionalized regime of deforestation that the Echeverría administration undertook in the southern tropics and along the coasts. The Programa Nacional de Desmontes (National Deforestation Program, or PRONADE), launched in 1972, promised to eradicate “useless” vegetation and reorient peasant agriculture toward the commercial economy, particularly in the realm of beef production for national and international markets. PRONADE funded the destruction of approximately 400,000 hectares of woodland across seventeen states, according to one study. It claimed to have cleared land that was delivered to nearly a quarter million people, before environmental concerns led to the program’s quiet suspension, in 1982. The deforestation program had been plagued with unexpected reversals from the outset, however, beginning with the two-year pilot project in

the area of San Fernando, Tamaulipas. In the spring of 1970, eight hundred colonists were hired to clear a 30,000-hectare section of forest, after which the ICA engineering corporation used bulldozers to uproot the remaining trees and stumps in preparation for planting. Although colonists wanted to sow corn or allow cattle to forage on native grasses in the clearings, agronomists directed them to plant as fodder a tough and sometimes uncontrollably invasive import from Africa known as buffel grass (*Cenchrus ciliaris*), even though the agronomists knew that most rural people considered it a weed. After some tense negotiations, the colonists agreed to seed most of their land with sorghum instead, but that choice proved equally controversial when local ranchers, fearing competition from ejidatarios, refused to sell them any livestock. Moreover, the ICA's heavy equipment compacted the soil, making it hard for colonists to plow and slowing the filtration of water into the substrate. As a result, the pastures never produced as much fodder as hoped and could only sustain a few cattle. Most colonists eventually abandoned San Fernando, which remained an economically and environmentally distressed area for many years.¹⁹

Ecological missteps like these, along with tense relations with colonists, plagued PRONADE throughout its existence. Part of the problem was that the organization often assumed responsibility for land-clearing projects initiated under the previous administration, but which had already alienated residents. In Chontalpa, Tabasco, for example, PRONADE took over management of a deforestation-and-colonization project that the Grijalva River Commission had initiated in 1966 with funding from German and American development agencies. It entailed dam construction, as well as the conversion of 50,000 hectares of rainforest into small family farms. The following year, colonists accused administrators of fraud and took a group of surveyors hostage. An army detachment ultimately stepped in to quell the unrest, but no real progress was made until PRONADE used tractors to deforest the land a few years later. Even then, poor earthmoving techniques once again compacted soil and left huge pools of water in areas slated to become cropland. The prospective colonists were already upset about official collectivization initiatives that shunted them into cement housing and demanded a more highly structured (and proletarian) workday than they had been used to as campesinos. Now they refused to plant in the waterlogged clearing because they feared losing a season's worth of work if the rains fell too heavily and the land flooded once more. As the project teetered on breakdown, engineers reluctantly recategorized the cropland land as pasture, and the colonists turned to cattle ranching.²⁰ These well-

publicized fiascos dimmed villagers' enthusiasm for colonization, but not before PRONADE had taken a brutal toll on tropical rainforests and coastal ecosystems. In the temperate forests of central and northern regions, however, state forestry took a dramatically different form.

ENVIRONMENTAL POPULISM IN CHIHUAHUA

On 17 April 1971, Echeverría brought his agrarian populism to Chihuahua in dramatic fashion. The president ducked under the rotors of a helicopter in the town of Madera, stepped up to a podium, and announced the expropriation of a vast territory owned until then by the Bosques de Chihuahua timber company. Industrial logging in Madera dated back to 1909, but most of the forests in the area had fallen to hatchets and chainsaws long before Echeverría's pronouncement. By then, many parts of Chihuahua had become landscapes of chaparral punctuated by lonely stands of second-growth timber. One exception was the El Largo tract, located southwest of the city, which consisted of a quarter-million hectares of forestland that the president turned over to ejidatarios in a sweeping gesture of "social responsibility" meant to punish Bosques de Chihuahua for the "illegitimate hoarding" of the nation's patrimony.²¹ The expropriation dealt a stinging blow to the timber company, and it promised a new source of employment for a thousand predominantly mestizo campesinos, who gratefully received the land. But the president was less interested in seeking social justice than in staunching an agrarian movement that had percolated in the sierras for more than a decade. Bosques de Chihuahua was the direct descendent of Porfirian-era timber companies (including the Madera Lumber Company and the North Western Railway), yet it had remained virtually untouchable thanks to the influence of its silent partner, the former president Miguel Alemán. An earlier land grant had caused a small tract of El Largo's forests to 110 families in 1950, but the company had used its influence to modify the execution of the order, and the beneficiaries ended up with nothing more than arid scrubland. The ejidatarios responded by setting forest fires in Bosques de Chihuahua lands for years to come.²²

Some of these frustrated ejidatarios joined UGOCM, an independent peasant union founded by progressive leaders, which functioned as a counterbalance to the official worker and campesino unions controlled by the PRI. The UGOCM had for years objected that Bosques de Chihuahua and its Spanish-born owner, Eloy Vallina, had grown rich at the expense of people who lived in the sierras. The union targeted the company in the

mid-1950s for a series of land invasions that served as an uncomfortable reminder that some great estates had survived the revolution and land reform in Chihuahua. In 1965 a small guerrilla movement headed by the schoolteacher and UGOCM member Arturo Gámiz pressed the issue still farther. On 23 September, Gámiz led twelve companions in an ill-conceived attack on the Madera army barracks that left him and most of his followers dead, along with five soldiers and at least one civilian. The army quickly stamped out the embers of rebellion, but the episode helped spark similar movements elsewhere and forced the rebel group's complaints about Valina and Bosques de Chihuahua onto the national stage.²³

Echeverría could not ignore such an obvious blight on his agrarian populism, but he artfully turned the expropriation to his own advantage by putting the government-affiliated peasants confederation (the CNC), rather than the UGOCM, in charge of the redistribution process in El Largo. In one deft move, he succeeded in painting himself as a champion of campesino interests while ensuring that his local supporters in the CNC occupied the key positions in the massive new ejido. He outflanked the more radical and independent peasant organization and generated a powerful new clientele among the new land reform beneficiaries.²⁴

Echeverría added 265,111 hectares and 1,215 new families to El Largo, making it the nation's largest ejido and a showcase for the president's campaign of state-led rural development. Federal extension agents arrived within a month and established a community forestry enterprise large enough to employ all of the beneficiaries. Ironically, its administrators secretly penned a cooperative contract (*contrato de asociación en participación*) that leased logging rights back to Bosques de Chihuahua for a twenty-year term. Like most such agreements, the company pledged to put its sawmills at the disposal of ejidatarios and hire the locals for all nonspecialized positions, including transport. But as with most such agreements, much of this contract's language was empty rhetoric that allowed the timber company to use the land more or less as it had always done. Ejidatarios complained about the backroom chicanery, and sawmill workers declared a strike against their own ejidal forestry company, ostensibly seeking better pay and more hours, but actually to protest Bosques de Chihuahua's continuing influence in the area. Residents wrote forestry officials that their ejido's own administrators intended to clear-cut the forest, leaving them with nothing but a vast wasteland.²⁵

Only a hastily arranged meeting between ejidatarios and federal foresters averted a full-blown rebellion. The foresters assured the assembly that

logging would proceed slowly and methodically. They also pointed out that the contract with Bosques de Chihuahua included some unusually progressive clauses that gave ejidatarios a role in the “planning, organization, and execution of the entire extractive process, from cutting trees until their delivery to sawmill,” as well as assurances that the company would log at 70 percent or more of its authorized volume (and hence could not freeze production and put the locals out of work).²⁶ As it turned out, villagers in El Largo indeed received jobs as loggers, haulers, and millers; some moved into the ranks of management as well. By the late 1970s, the ejidal business held regular public assemblies and hired its own forestry experts. Over a thousand members of the ejido worked most of the year in the collective forest company. The ejidal enterprise eventually purchased a sawmill from the timber company and built a workshop that fabricated furniture and shipping crates. Ejidatarios also cut their own wood for sale, equivalent to about 20 percent of the ejido’s total output (with the remaining 80 percent delivered to Bosques de Chihuahua), though the beneficiaries grumbled that they had to travel to the extreme north and south of their territory if they wanted to cut trees, since the logging company still held the logging permissions (guías) for the most readily accessible woods. It seemed that most ejidatarios eventually accepted the arrangement with Bosques de Chihuahua as an unpleasant fact of life. As one ejidatario explained, perhaps a bit wistfully, “Now we own the forests, but the company still owns the logging contracts.”²⁷ And while some observers fretted that the residents were more interested in making money than about caring for the forest’s long-term viability, others felt that the ejidatarios had slowly learned to use their land sustainably.²⁸

If Echeverría hoped that his dramatic blow against the state’s most reviled timber company would tamp down popular discontent, however, he had made a serious miscalculation. Word of the arrangement between Bosques de Chihuahua and the ejido spread quickly, and the members of another large ejido decided they, too, deserved more authority over their woods. This time, the president did not control the script.

The ejido of San Juan Chiantú, in Chihuahua’s southernmost district of Guadalupe y Calvo, included 968 mostly Rarámuri beneficiaries, who possessed a vast territory of slightly more than 150,000 hectares in the early 1970s. The land reform community had been formally established in 1948, but it remained largely isolated. Villagers continued to use slash-and-burn agriculture for another two decades, which protected the forests from the far more damaging impacts of commercial exploitation. Even so,

timber interests had tried for years to exploit the communal woods. In the mid-1950s, the governor of Chihuahua named a “false campesino” as chairman of the ejidal governing council, much to the disgust of Chiantú’s residents.²⁹ Soon thereafter, the González Múzquiz timber interests built a road linking the village with Parral and signed a lease agreement for the woods. The forest service approved a logging permit, in exchange for which the company promised to build a boarding school (*internado*) for villagers, complete with teachers, school breakfast, medicine, and sports equipment. The timber giant also pledged to fund a local police force and pay for the upkeep of the village church.³⁰ But none of the promised improvements appeared, and the small-scale logging operation that finally got underway did not provide work for any of the residents. When news arrived in 1972 about Echeverría’s immense land grant to El Largo, the Rarámuri ejidatarios of Chiantú expelled the Spanish-speaking (presumably mestizo) ejidal officers, whom they branded “pirates.” They denounced the chabochi upstarts as shills for the timber company and accused them of pilfering lease payments meant for the entire community. In a carefully worded statement to the national press, they demanded that authorities approve a collectively owned timber company under the direction of indigenous ejidatarios.³¹

The logging company spokesman shot back that native people had no real desire to work and preferred to “lie around the doorways . . . and do whatever they want. The poor things! They’re like little birds.”³² The issue caught the attention of the Supreme Council of the Tarahumara Race (the organization of native and nonnative schoolteachers that represented Chihuahua’s indigenous people), which prevailed upon the local agent of the Secretariat of Agriculture to abrogate the lease and, in their words, “rescue” ejidos in Guadalupe y Calvo by building a series of locally managed sawmills.³³ Although villagers celebrated their independence from the logging company, the forest service replayed the strategy followed in El Largo and obliged them to sign a five-year contract with the González Múzquiz corporation. Most locals reluctantly assented to the deal once the company agreed to turn over its sawmills in exchange for exclusive rights to market timber that the villagers cut.³⁴

Losing control of events on the ground like this was certainly not what Echeverría or the forest service had in mind for the nation’s forests. Neither the president nor the regulators wanted Chiantú to become an example that might inspire other communities to take matters into their own hands. As it turned out, political leaders had another plan in the works that

appeared to grant villagers throughout the nation the means to manage their own lands while ensuring that forestry experts retained the final say over the best woods that still remained in the Sierra Tarahumara.

STATE FORESTRY IN THE SIERRA TARAHUMARA

A few months after the president returned from his sojourn to Madera, representatives from the Supreme Council of the Tarahumara Race held a conference to discuss how indigenous ejidatarios might take advantage of the forest service's newfound emphasis on locally managed forestry. One hurdle was that the Secretariat of Agrarian Reform had never formally executed the documents confirming the rights of many indigenous communities to legally occupy their ejidos, so only a few could legally receive logging permits.³⁵ More substantively, the delegates agreed to formally request the abrogation of rental agreements with logging companies so that villagers in the Sierra Tarahumara could work their own woods. They praised the CCIT for setting up a dozen community-logging enterprises, but argued that every village deserved such an opportunity. "Rather than wasting our region's forest wealth," the delegates argued, "we can use modern technology to exploit it rationally and guarantee a permanent source of employment . . . to our people who are isolated from the mainstream of civilization."³⁶ In February, the representatives met with Echeverría in Mexico City and presented their petition in person. He listened attentively to their descriptions of grinding poverty, forest degradation, and the INI's inability to call timber companies to task for misusing village woods. The Rarámuri leaders also worried that agrarian officials had left many people off the official agrarian rolls, effectively locking them out of access to ejidal forests. When they finished speaking, the president praised the courage of those who had traveled so far to meet him and pledged that "all the problems you have brought to me will be addressed." Then he empaneled a group of bureaucrats and local politicians to study the issue further.³⁷

The working group predictably concluded that the most direct path for regional development led through the forest. Its recommendations envisioned better roads, newer logging equipment, and more autonomy for campesinos vis-à-vis timber companies. As for the Rarámuri, it recommended "incorporation into the nation via an explicit program that permits above all the development of sedentary [i.e., not transhumant] habits in the use of agricultural and forest resources."³⁸ Echeverría responded to

the report with an executive order, dated 10 August 1972, that created a paragonovernmental corporation, PROFORTARH (the Forest Development Agency of the Tarahumara), charged with effectuating the “rational and integral” use of forests in a 3.7 million hectare region of western Chihuahua. Echeverría explicitly ordered the organization to place rural poor at the top of its agenda and invest in new roads, hospitals, schools, and housing.³⁹ Its administrators understood that logging would continue to represent “the region’s primary agent of development” and chief source of income, but they also recognized that forestry could never generate enough revenue to solve all of the region’s economic problems. In response, they suggested that resource extraction should be used to build an industrial base that would meet the needs of an impoverished and rapidly growing population. PROFORTARH administrators recognized that similar development projects had fallen short in the past, but they vowed that things would be different this time around. Whereas their predecessors had never managed to square the interests of rural people with the “capital and technical knowledge” of commercial timber companies, the new state-owned organization would deliver to rural people the tools they needed to work their own forests in the foreseeable future. Best of all, from the administrators’ standpoint, the commercialization of village logging would finally generate enough employment to acculturate the Rarámuri and fold them into the economic mainstream.⁴⁰

The state-owned company started off on a positive note. It collected annual fees from the rural communities within its territory and used the funds to build hundreds of kilometers of roads that linked far-flung villages with regional population centers. It built a box-manufacturing facility and woodworking workshop in San Juanito, as well as larger, permanent sawmills that were both easier to monitor and more efficient than the itinerant mills favored by logging companies. Perhaps most important, it established collectively owned enterprises in 77 ejidos and Rarámuri communities (out of a total of 120 population centers in its so-called zone of influence), 30 of which joined to form a mestizo-indigenous ejidal union that sent timber to a shared sawmill in Tomochic. These energetic policies increased timber production at an average of 8 percent annually between 1972 and 1976. PROFORTARH also claimed to have founded 27 medical clinics and trained around 200 ejidatarios in various aspects of scientific forestry.

Company administrators also tried to recalibrate the relationship between rural people and timber companies. Before the paraestatal, ejidos and native communities signed “association in participation” contracts

that ostensibly devoted half of logging proceeds to village coffers and set aside jobs for residents; in fact, these stipulations were rarely enforced and allowed the less scrupulous timber companies to make a few token payments that many villagers never even knew about. PROFORTARH foresters rewrote these agreements and brokered deals that allowed ejidos and native communities to sell timber directly to sawmills, cutting out the widely reviled *contratista* middlemen. This procedure limited the chances of fraud and (theoretically) directed payments to the people who had contributed their resources and labor to community enterprises.⁴¹ By the late 1970s, administrators recognized that regional needs still “vastly exceed the Organization’s capacity to meet them,” but declared that PROFORTARH had nearly put an end to the “irrational use of resources and the exploitation of *campesinos* . . . and substituted them with new forms of economic organization that guarantee greater productivity and progress toward making social justice a reality.”⁴² It soon became clear that triumphalism of this sort was a bit premature.

Indigenous people apparently liked the idea of a publicly funded organization that both provided technical support and helped them cut through the tangle of federal regulations. One group of *ejidatarios* predicted that PROFORTARH would promote the “progress of our Mexico in a way that benefits *campesinos*” and break their dependency on logging companies.⁴³ At least some of the company’s foresters shared this vision. They fanned into the Sierra Tarahumara beginning in 1972, to rewrite rental agreements and formulate new management plans for ejidos and native commons. They reported that native communities seemed tentatively supportive of their activities. No complaints appear in the archives about the company at this time, despite the fact that villagers had to pay compulsory “contributions” for PROFORTARH’s services.

The core forestry ejidos formerly managed by the INI’s CCIT did not fall under the paragonovernmental corporation’s ambit and were grouped instead into a semiautonomous productive unit called the Union of Ejidal Enterprises of the Tarahumara. (The CCIT itself continued to offer education and medical services, but no longer oversaw logging.) In practical terms, however, the union depended on PROFORTARH to provide credit and annual renewals for logging permits. By the early 1980s, the corporation had effectively displaced the Union of Ejidal Enterprises and worked directly with Rarámuri communities throughout the Sierra Tarahumara. Its intervention was particularly valuable around Cusárare and Sisoguichi, where decades of intensive logging had left the area covered with spindly



Figure 6.1. Work at the Sisigochi sawmill managed by Productos Forestales de la Tarahumara, ca. 1974. PROFORTARH, *Memoria 1973–76* (Ciudad Juárez: Imprenta Roa, n.d.), 72.

trees in sparse, secondary-growth forests that demanded careful oversight. The state-owned company arranged for the more progressive timber companies to transfer ownership of sawmills to local authorities, as in the case of the El Pino installation in Guachochi. If necessary, it built new ones, as in Cabórachi.⁴⁴ Many native people interpreted these as welcome changes. Local leaders eagerly staffed the mills with people from their communities, while the Union of Ejidal Enterprises explored ways of collaborating with company experts on management plans and contributed ideas for marketing timber products. In a few places, ejidal leaders looked to PROFORTARH for instructions about how to log stands of old-growth forest.⁴⁵ Indigenous leaders, it seemed, had decided to take a gamble on cooperation with the new organization.

The paragovernmental forest company was never intended to function as a true partnership, however. Some members of its professional staff clung to conventional ideas about the primacy of expert knowledge in bringing about “the rational and integral utilization of forest resources,” and they railed against the supposed tendency of native people to misuse nature.⁴⁶ While PROFORTARH foresters realized that native people valued small-scale logging operations and community-owned sawmills, they never

attempted to leverage this enthusiasm into grassroots support for PROFORTARH's broader development mission. Over time, they increasingly fell back on the same adversarial tactics as their forebears. They punished villagers who allowed goats to browse on saplings and complained that recalcitrant peasants refused to combat forest fires unless their own houses and crops were in peril. They also took measures to end slash-and-burn agriculture, even though they recognized that the poorest people in the Sierra Tarahumara regarded it as a necessary subsistence strategy.⁴⁷

More controversially, PROFORTARH abandoned an important component of its plan for local production when it moved to ban the ubiquitous, so-called portable sawmills equipped with conventional radial blades. These rudimentary machines still processed most timber in the sierras, in part because they were cheap enough for individual communities to purchase and maintain. The foresters pointed out, however, that portable mills were "deficient as a general rule and [could not] produce quality products," and should therefore be replaced with a smaller number of high-capacity mills owned by PROFORTARH and equipped with modern band saws that wasted less wood.⁴⁸ Many ejidal leaders objected, particularly when company personnel refused to confer about staffing decisions or negotiate over which community's wood the larger mills would saw first. As the head of the state agrarian league explained, no one opposed the idea of conservation, but villagers simply expected to run their own sawmills. The smaller units cost less to build and ultimately generated more employment at the local level.⁴⁹ PROFORTARH eventually relented, but the welter of small mills (which the corporation itself had initially funded), supplemented by a newly built high-capacity installation in Sisoguichi, created a crisis of overcapacity that suppressed the prices that any of the mills could charge for their services. Further aggravating the situation, banks refused after 1980 to extend credit to communities that still wanted to build a sawmill of their own.⁵⁰

A proliferation of red tape and bureaucratic negligence further hampered PROFORTARH's capacity to engage native people. Within a few years, its internal bureaucracy metastasized into a hopelessly complex network of units, subdirectorates, and offices whose organizational chart required a trifold book insert to represent. Villagers had no real point of entry into the top-heavy paraestatal and began to abandon hope that it would ever bestow the guidance and documentation they needed to work the land. Already in the late 1970s, native leaders had lost their enthusiasm and complained that the corporation produced few tangible benefits in the

countryside. They also charged that administrators refused to hire native people for management positions. By the early 1980s, some indigenous communities requested permission to withdraw from PROFORTARH, but the forest service denied the petition on the basis that they had already reaped the benefits of the company's technical services.⁵¹ Faced with this officious response, some villagers abandoned the woods or turned once again to the clandestine market. Little by little, the organization lost its footing and lapsed into corruption, inefficiency, and interminable conflicts between management on the one hand, and villagers and sawmill workers on the other. By the mid-1980s, any pretense of local input had evaporated, and the organization had become something of an albatross—a relic of state forestry that had proven ineffectual at best and counterproductive at worst.⁵² To the generation of neoliberal politicians coming of age in Mexico City, paragon government corporations like PROFORTARH had come to symbolize the failure of state intervention in the economy and to exemplify why state forestry represented a false step down the path of economic development.

A POPULIST PARAESTATAL

In December 1973, the Echeverría administration lifted the logging ban (*veda*) that had affected the entire state of Michoacán since 1950 and had covered some districts (including those in the Meseta Purépecha) as early as 1937. The ban had not halted logging altogether, of course. UIEF concessionaires including the Michoacana de Occidente and a few other corporations received legal exemptions that allowed them to lease logging rights from ejidos and smallholders and to “cooperatively” log these lands. A number of ejidal unions and regional producers organizations had likewise won permission to use their woods under the scrutiny of forestry officials, but these arrangements were cumbersome and rarely functioned very well. Most people turned instead to tapping pine trees for resin or to the well-developed black market in clandestinely harvested timber.

Most rural people applauded the resumption of legal logging. For the first time in decades, ejidos could request their own management plan from the forest service and—in principle—establish their own, locally managed logging enterprise. The market also cooperated, thanks to Michoacán's expanding paper industry, which grew at a 14.2 percent annual rate between 1970 and 1979, or about three times faster than the national average.⁵³ With the *veda* gone, ejidos moved individually or in groups

to form small-scale logging enterprises, each with its own low-capacity sawmill. All of these activities required approval from the federal forest service as well as from the state forestry commission. Although officials rushed to approve new lease agreements and draw up village management plans, people in many parts of the state lacked the capacity or perhaps the necessary trust to file formal requests with the forest bureaucracy. The appearance of new sawmills, combined with the perceived difficulty of obtaining logging permits, meant that timber poaching actually increased in some places. One forester also noticed an upsurge of intentionally set forest fires, a well-worn strategy to win official permission to salvage the dead, standing timber. Villagers usually converted the charred land to agriculture, although they also torched the woods to punish neighbors for cutting trees in disputed territory.⁵⁴ More typical but less obvious was the process that foresters labeled “ant operations,” in which people cut a few trees here and a few trees there, then hauled them, one or two at a time, to some nearby sawmill. The cumulative effect could be ruinous. Around three-quarters of the wood in indigenous ejidos around the Meseta Purépecha was cut this way during the early 1970s.⁵⁵

The spectacular growth of logging and pulp production tarnished the appeal of work as a tree tapper. Bleeding the trees for resin did less damage to forest ecosystems than timber extraction did, but it netted villagers only a modest income even in the best years, and the 1970s were certainly not one of those times. Global overproduction of turpentine and the appearance of synthetic alternatives sent prices for raw pine pitch tumbling. Yet some villagers refused to abandon their trade. A generation had made their living as tree tappers, especially in indigenous communities. Many of them had worked the same stands year after year, protecting “their” trees from fire, timber poachers, and other interlopers. Michoacán’s resin industry had received strong support from foresters and development agencies, and many tappers felt proud about having cared for their patch of the woods. The resumption of legal logging meant that chainsaws would inevitably take a place alongside collection buckets, however. As woodsmen set their sights on the trees that tappers needed to make their living, many communities fell into agonizing internecine conflicts that lasted well into the 1980s.⁵⁶

Despite these tensions, the seeds of community forestry were planted in the 1970s. Rejecting federal oversight, the state government of Michoacán created its own paragonovernmental corporation to promote locally managed forestry and ensure a reliable flow of wood products to regional consumers. For a brief period, the Promotora Forestal de Michoacán (PROFORMICH)

provided significant price supports and technical assistance to ejidos and native communities. Unlike its northern (and federal) counterpart in Chihuahua, it grew in part out of an existing producers organization, which may help to explain its relatively populist character. When the enterprise collapsed a decade later, it meant the last gasp for state forestry in Michoacán and left people in the woodlands with a stark alternative: either turn the woods over to commercial enterprises, such as the state's booming avocado agribusinesses, or find the means to manage their woodlots and market the timber on their own.

PROFORMICH's primary mission was to purchase pine resin and wood products from its member organizations, which included indigenous communities, ejidos, and unions of ejidos, along with a few smallholders. The company provided technical assistance in the form of professional foresters who managed logging and tree-tapping projects, as well as training in sustained-yield forestry techniques. It used some of the wood it bought to build shipping crates and made the rest available to local businesses such as the CEPAMISA paper mill founded just outside Morelia in 1973. It also sold turpentine on the national and international markets. Income from all these transactions covered most operating expenses, with the balance made up by a subsidy from the state government and payments from local producers who benefited from its services. In theory, these member-producers wielded ultimate authority over management decisions. In practice, the top administrators were insulated from local producers by layers of middle management. As in Chihuahua, the idea of creating such an organization garnered support from across the social spectrum. Rural people wanted guaranteed prices and logging permits. Politicians and well-established business interests liked the idea of a locally managed company that generated a steady flow of raw material to paper plants and sawmills, not to mention shipping crates for the nascent avocado industry.

Another group that favored the new corporation was the Acuitzio-Villa Madero Forest Administrative Unit (UAF), a cooperative-like organization that the forest service had organized in the 1960s to manage woods in ejidos, indigenous communities, and a handful of private properties located in the heavily Purépecha region between Morelia and Pátzcuaro. That organization had seen its share of controversy. The timber magnate and Michoacana de Occidente board member Ricardo Sánchez Monroy arranged for his properties to fall within the UAF's ambit so he could sidestep the statewide logging ban, for example. Some observers claimed that the entire organization was nothing more than a shell corporation for Sánchez

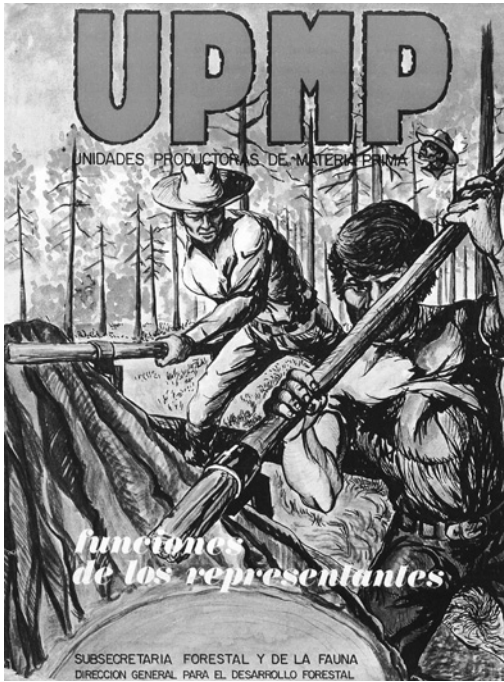


Figure 6.2. Cover of a comic book produced in the early 1970s by the forest service to encourage local acceptance of federal foresters. In the story, the light-skinned expert earns villagers’ trust when he saves a young girl lost in the woods. Author’s collection.

and his cronies.⁵⁷ But small-time producers also used the organization as a clearinghouse. They eagerly delivered pine resin to its warehouses, where they received a guaranteed minimum payment, and they maintained generally good relationships with the organization’s foresters. Buoyed by these encouraging signs, federal authorities gave the UAF a five million peso grant to build a sawmill and turpentine distillery.⁵⁸ By the early 1970s, progressive foresters who worked in the Michoacán state government had come to think of the unit as a “social service agency” working on behalf of the state’s poorest people.⁵⁹

PROFORMICH intended to reproduce these successes on a wider scale, and its managers anticipated the day when it would institute a comprehensive management plan statewide. They hoped that it would “remake the forest industry” in Michoacán by integrating small-scale production with

the largest and most modern enterprises, all following scientific management practices.⁶⁰ Governor Servando Chávez Hernández held a public inauguration ceremony for the paraestatal on 5 January 1974, just two weeks after the federal government lifted the statewide logging ban in Michoacán. The national press paid tribute to the new era in social forestry, which Chávez later claimed would serve “the campesinos who own the forests by establishing an enterprise that seeks . . . greater social justice.”⁶¹ Yet some doubts floated behind the fanfare. After all, the corporation was merely the latest organization among many that proposed to “develop” rural areas and integrate peasant producers into the broader timber economy. Most of these schemes had failed, of course. To make matters worse, its first director was none other than Sánchez Monroy, the controversial timber magnate. One veteran forester denounced PROFORMICH as a leviathan unleashed by politically connected businessmen and forestry experts who hoped to line their pockets in the name of community forestry.⁶²

In fact, the corporation was more minnow than whale. It began with a relatively modest jurisdiction, which included a million hectares, six sawmills, three plywood factories, and a handful of turpentine distilleries that had all seen better days. Its managers drew up plans to create another six regional management districts (Unidades de Ordenación Forestal) that would complement the existing district in Acuitzio-Villa Madero, each of which would respond to the specific needs and ecological conditions of the state’s major geographic divisions. The only new district that actually got off the ground was centered in the Ciudad Hidalgo, and even that district nearly misfired when foresters rushed smallholders and ejidatarios into a producers union and asked them to raise a 100,000-peso bond to ensure that the organization would abide by its management plan and officially determined production levels. Its members eventually agreed to raise the funds, lured by the prospect of legally logging their own woodlands as well as by the corporation’s pledge to deliver top prices for their wood. Several communities launched new ejidal enterprises that produced first-quality wood.⁶³ Officials also began planning for a management district in the Meseta Purépecha and recruited several ejidos and indigenous communities under its jurisdiction. Some native people, such as the twenty-four members of the resin producers cooperative in the Purépecha village of Aranza, found much to like about the new arrangement. They tapped the same trees they always had and delivered resin directly to the regional distillery in the nearby town of Cherán, but now they received double the price for their labor.⁶⁴ By the mid-1970s, it appeared that PROFORMICH’s

two management districts were functioning smoothly, and all that remained was to expand to the rest of the state.

But the organization could not outrun its bureaucratic origins. A series of missteps later in the decade exposed the gap between the increasingly top-heavy bureaucracy and rural producers—a problem that became more visible as the federal forest service displaced their Michoacán state counterparts in the late 1970s and transferred most decision-making authority to Mexico City, in essence federalizing what had been a shoestring operation under the control of the Michoacán state government.⁶⁵ The federal authorities refused to update the payment schedule for timber and resin, however, even though inflation reached 30 percent in 1977, before decreasing to just under 20 percent over the next two years. By that point, tree tappers in communities such as Aranza could no longer make a living by selling to PROFORMICH. They abandoned their collection pots and either migrated elsewhere or turned to clandestine logging. Even the Acuitzio-Villa Madero producers union collapsed, as its members desperately sought alternatives to logging. Many took jobs in the Uruapan area, where clandestine loggers were clearing forest to plant avocado.⁶⁶ The paragovernmental company's unresponsiveness only added to people's gnawing suspicion that administrators shortchanged them on what little wood and resin they still delivered to company depots. Most of them preferred to deal with the small-time pirate sawmills and distilleries that paid less than PROFORMICH but at least did so in straightforward cash deals rather than in complicated transactions that involved stamps, taxes, and official signatures. Nor did the company make good on its promise to teach villagers new techniques of forest management. Some of the company foresters said that they would take on apprentices, but they were so busy drafting management plans and filling out paperwork that they never quite made the time.⁶⁷

The growing tide of resistance converted the company into yet another failed development project a mere six years after it was founded. As one peasants' union explained, PROFORMICH paid poorly and sporadically, kept villagers from selling their products where they wanted to, and generally suffered from "a lack of defined goals and accomplishments."⁶⁸ One community after another gave up on the institution. Some abandoned logging altogether, while others turned to the time-honored contraband trade. With few goods left to sell, the corporation collapsed in late 1980, taking with it any prospect for regional management for years to come. Yet the paragovernmental corporation had succeeded in incubating

two critical social groups. In the first place, it had launched the careers of several progressive foresters who understood their role primarily in social rather than technical terms and now intended to work directly with communities outside of a corporatist bureaucracy. In the second, it had convinced some local leaders that professional foresters were willing to step outside their role as functionaries and pay more attention to villagers' own expectations. In other words, the organization had set the stage for a collaboration between experts and villagers, particularly the Meseta Purépecha. It turned out, however, that they soon had to contend with a new threat to the woods in that area.

GREEN GOLD

The revitalization of logging in 1973 also unleashed new ecological pressures in the Meseta Purépecha as planters began to clear the woods for avocado orchards for Michoacán's flourishing new agribusiness. Avocado trees are native to what is now the state of Puebla in south-central Mexico, and many of the nation's most beloved dishes feature the fatty green fruit. People who lived in Uruapan had a long tradition of planting a tree or two in the patios of their houses and flavoring their food with a wide variety of locally grown avocados. The first commercial groves appeared in the area sometime around 1957, but they primarily catered to local consumers and a few regional markets such as Guadalajara. A decade later, a handful of farms planted avocado trees on a modest 13,000 hectares to meet demand from Mexico's growing urban population. International demand also picked up, thanks to the growing popularity of "Mexican food" in the United States. Commercial farms began to scout the warm foothills around Uruapan in the early 1970s, at the very moment when villages were furiously cutting wood in the wake of the logging ban, and small-scale forestry became the primary means of opening land for plantation agriculture. By the mid-1980s, Michoacán had become the world's single largest producer of the sought-after fruit. The acreage dedicated to avocados had grown seven-fold, to approximately 100,000 hectares, enough to supply 40 percent of global demand.⁶⁹

The forest service began to authorize clear-cuts on some ejidos in the late 1970s, allowing villagers to permanently convert their woods into groves of what farmers were already calling "green gold." Even though federal programs like PRONADE actively promoted deforestation by this time, it was still relatively rare for the forest service to explicitly approve

the removal of temperate forests for agriculture. But forestry officials understood that they had few alternatives in the avocado zone. Members of the Peribán ejido, twenty kilometers west of Uruapan, told the veteran forester Waldemar Díaz in 1978 that they were tired of earning a pittance tapping their communal forests for pine resin and had decided to clear the land and plant avocado trees, whether he gave them his blessing or not. Díaz gamely granted permission to raze 65 of the ejido's 1,978 hectares. He put the best face on the episode by pointing out that decades of improper tree-tapping had converted most of the ejido's once abundant forests into dying husks, despite the fact that villagers had adopted a less damaging technique of bleeding the trees a few years earlier. In any case, the largest trees in Peribán had already succumbed to clandestine logging, and the remaining forest was too small to meet residents' needs, even if they logged it sustainably.⁷⁰

The forest service soon concluded that most communities around Uruapan would be better off growing avocados than trying to make a living through forestry. After all, the new crop generated far more income than a regime of tree-tapping and low-intensity timber production ever could. Rural people would also receive payments in annual cycles, rather than the more irregular distributions associated with traditional forestry operations. And anyway, forest wardens could not keep villagers and smallholders from opening small clearings to plant avocado trees in areas too remote for officials to police. As the forester Díaz put it, "Everyone who owns or possesses forestlands in these parts has been infected by avocado fever."⁷¹

The new plantations transformed life on dozens of ejidos and native communities, and the private sector quickly emerged as the major player. Around 80 percent of Uruapan's avocado production took place on private property (rather than ejidos) in the 1980s.⁷² The trade was initially dominated by the smallholders known as *rancheros*, who had a long tradition of planting creole avocado varieties alongside their other crops. They used most of this produce for their own consumption, though some ventured to the open-air markets of Uruapan to test the waters. Like *ejidatarios*, the *rancheros* made scores of requests to permanently convert woodlands to avocado orchards in the mid-1970s. Others logged the woods without permission or "accidentally" set fire to inconvenient stands of trees. Officials recognized the pattern and granted virtually every request to convert the forest to agriculture, though they also worried that the homogenization of the ecosystem would impose a heavy environmental and perhaps economic cost in the long run.⁷³ The *rancheros* also tended to ignore the precise

boundaries that divided their land from that of their neighbors, leading to a spate of complaints from ejidatarios and commonholders about avocado orchards that mysteriously appeared on the margins of their property. A few communities seized on the moment to demand that the authorities adjudicate contested property lines once and for all.⁷⁴

The new plantation economy attracted migrants from the neighboring highlands and as far away as Morelia. Some of the newcomers squatted on attractive parcels owned by desperately impoverished people whose hold on the land was already tenuous. For example, a few indigenous settlements had never titled their property in the district of San Juan Parangaricutiro, and their cornfields soon gave way to rows of bushy, sun-loving trees with waxy leaves as settlers pushed the most vulnerable farmers off of the land. Many of the dispossessed campesinos ended up as field hands on avocado plantations, where they worked long hours while exposed to huge doses of overapplied pesticides.⁷⁵

Although forestry experts had once hoped that avocados would anchor a mixed-use regime of small-scale farming that would in turn provide a degree of agro-ecological diversity, domestic and international markets came to favor the “improved” and easily transported—but nearly tasteless—Hass varietal. Large commercial farms were better positioned to buy and plant Hass saplings en masse, as well as to make use of the agronomists posted at the Universidad Michoacana’s new agricultural extension campus in Uruapan. Highly capitalized growers were also the best able to forge long-term contracts with the Mexican, American, and Chilean transnationals that increasingly dominated trade. Soon, even medium-scale rancheros found it difficult to fend off the encroaching plantations. By the end of the twentieth century, most independent farmers had given up and become clients of the larger commercial farms.⁷⁶ The homogenization of regional agriculture, it turned out, had foretold an analogous narrowing of land ownership as well.

THE RESURGENCE OF COMMUNITY FORESTRY

In the midst of the advancing avocado plantations lay a small oasis of conifers held by Purépecha communities such as San Juan Nuevo Parangaricutiro, the village forced to relocate after the 1943 eruption of the Parícutín volcano. Residents were given an expropriated hacienda with 18,000 hectares, or 70 square miles, of land blanketed with pines and oaks. These rich common lands could easily sustain San Juan’s population, although

it appeared for a few decades that conflicts over boundaries would mire the land in endless litigation. Neighboring villages claimed that the relocated village had usurped some of their territory, including a tiny parcel in Angahuan which stood at the center of an ongoing feud between the two communities that eventually cost over a hundred lives. More threatening still, the nonnative Equihua and Anguiano families also claimed the rights to nearly a quarter of San Juan's common lands. Everyone knew that the village had allowed Pedro and Miguel Equihua to use the commons as payment for having represented the village in a 1908 court case that successfully contested the disentanglement and privatization of communal land. These men's descendants insisted that the grateful village elders had not only agreed to accept the Equihua family as fellow comuneros, but had given them outright possession of several thousand hectares. In the early 1950s these aspiring landowners secured a legal title to the disputed acreage, prompting many other residents to quickly follow suit. The precise boundaries of the new property that San Juan Nuevo received after the eruption had never been precisely mapped, and by the mid-1950s, a hundred more private titles had been granted to land that most people regarded as part of the village commons. Most of these transactions occurred when villagers bribed a notary public to record their titles, but some people took advantage of the "emergency" railroad-tie production plan of 1955, when county officials were eager to write deeds for anyone willing to harvest timber.⁷⁷ Whatever its origins, the ownership controversy lingered until 1991, when President Carlos Salinas annulled most of these transfers and ordered most private claims to be reintegrated into the commons.⁷⁸

Village leaders got along well with the foresters assigned to work in San Juan Nuevo, beginning with Waldemar Díaz, one of the most experienced and diligent foresters in the state. In the 1950s Díaz helped local leaders to organize a community-owned resin-tapping enterprise. The village headmen took the unusual step of dividing the commons into 130 blocks, each controlled by a specific head of household, although the allocation of earnings and deliberations about how intensively to log the forest still took place in the periodic public meetings of comuneros typical of Purépecha communities. In the 1960s the commonholders helped fund the construction of the regional turpentine distillery in the nearby town of Cherán. Most foresters reported that the commonholders embraced the enterprise and did their best to care for "their" block of woods. Townspeople confronted outsiders who invaded communal land and usually refused to tolerate clandestine logging among their own number. They did not mind

colluding with each other to collect more resin than their management plan permitted and selling the excess on the black market, however.⁷⁹

Even so, villagers developed a grudging respect for the forest service, or at least enough to ask the federal authorities for help in combatting a plague of sawflies (*Neodiprion vallicola*) that appeared in the late 1960s.⁸⁰ The forester billeted to the town arranged for an aerial bombardment of DDT. When that failed to kill the insects, he recommended cutting the infested trees, including some in stands used for resin tapping. He then mediated the inevitable disputes that pitted the villagers who assented to the emergency logging against those who tapped the trees and balked at any form of logging at all. In the end, all but a handful of commonholders consented to remove the infected trees, although some furtively erased the marks that foresters sprayed on blighted trees to signal that they should be cut.⁸¹

It seems likely that negotiations over the sawfly issue smoothed the way for a broad consensus about the viability of community forestry. The reemergence of legal logging in 1973 caused a great deal of angst in many parts of Michoacán, because tree tappers—who typically numbered among the poorest sectors of rural society—opposed any logging program that threatened the trees that sustained their livelihood. Something similar could have happened in San Juan Nuevo, where around six hundred people, or nearly half of the economically active population, still worked as resin tappers.⁸² Once lumberjacks began to cut the fly-infested trees in 1969, however, they used selective logging techniques that did not displace tappers from “their” forest stands. In a further bid to smooth over potential rifts, village leaders included all comuneros—including the tree tappers—as members of the village timber enterprise formed in 1976. This budding sense of solidarity was almost immediately put to the test when the small landholders who claimed land in the village commons signed lease agreements with logging companies later that year. A hastily called meeting to discuss the issue nearly led to bloodshed, but village leaders convinced residents to write a lengthy missive, most likely composed by a resident who had attended school in nearby Uruapan, that laid out their grievances against the private landowners in lawyerly language. It asked the forest service to halt any logging that impugned their “territorial integrity” or that made it possible for “people outside [their] community” to harm their lands and their families. Officials responded by halting logging on disputed lands while still allowing comuneros to cut trees on undisputed areas of the commons.⁸³

Much of this wood initially supplied paper mills, but the community established its own sawmill and wood shop in 1981. Although the avocado boom had prompted some of the remaining smallholders to plant trees of their own, it also created an immense demand for packing crates, so the new communal business immediately began to turn a profit.⁸⁴ Many of the initial sawmill managers had once worked in the United States as *braceros*, and their organizational skills helped to get the enterprise up and running. Another factor that helped was the Purépecha tradition of transparency and widespread consultation among stakeholders in collective endeavors. The communal assembly met regularly and had the final word on how to use the woods and where to invest profits. Villagers elected to use some income to buy cattle, machinery, and logging trucks, but they also kept aside some funds to send promising students to study forestry at the federal agriculture school in Chapingo. Most of these young graduates returned home brimming with ideas and technical expertise. By the late 1980s, they had improved the millwork to the point that San Juan Nuevo was producing export-quality products that found buyers among transnational corporations such as Home Depot. Yet the village continued to harvest its woods sustainably, with minimal damage to communal forests.⁸⁵ Development experts from the National Autonomous University of Mexico (UNAM) and international funding agencies recognized San Juan Nuevo as one of the nation's most successful experiments in community forestry and strove to translate its lessons in forest ejidos located in Guerrero, Oaxaca, Durango, Quintana Roo, and the Federal District.⁸⁶ Yet the community's idiosyncratic experience with the volcano and the selective cutting of fly-infested trees makes it hard to see how easily reproducible the community's experience really is.

NEOLIBERALISM AND COMMUNITY MANAGEMENT

Two trends pulled forest rural society in seemingly opposite directions in the late 1970s. On the one hand, a generation of resistance to blunt and unresponsive development programs such as the UIEFs and *paraestatales* had opened political space for local forestry enterprises like San Juan Nuevo's. Indeed, many experts suggested that community forestry not only met rural demands for greater economic autonomy, but also plotted a blueprint for conservation on a national scale. Unlike the earliest generation of conservationists, which regarded peasants as backward-looking enemies of nature, the environmentalists of the 1970s suggested that

campesinos' own self-interest could be harnessed to the goal of sustained-yield forestry. Since land reform beneficiaries had the most to gain from environmentally responsible logging, why not finally teach them how to do so? This logic had been articulated by a previous generation of ecologists, such as Enrique Beltrán, who had argued a quarter-century earlier that uncompromising conservationism merely promoted illegal and ecologically harmful logging, along with widespread scorn for the woods. Now environmentalists and activist foresters (especially graduates from the national agricultural university at Chapingo) were inclined to agree. An increasingly influential line of reasoning held that rural people, rather than logging companies, held the key to environmentally friendly forestry. In 1980 politicians followed suit and passed a new forestry code that explicitly ordered the Secretariat of Agriculture (SARH) to offer "technical assistance and financing for the production, manufacture, and marketing of forest products" to anyone who owned forestlands, including ejidatarios and comuneros.⁸⁷ Six years later, the federal government passed an entirely new forestry code that ordered the eventual elimination of UIEF concessions and paraestatales. It authorized ejidos and indigenous communities to contract with independent foresters for the environmental studies and management plans necessary to log their woods. For the first time since the land reform had begun, rural people achieved a degree of independence from the forest service.⁸⁸

On the other hand, neoliberal restructuring of the national economy put the squeeze on budgets for social services, and soon the funds to implement a coherent national program of community forestry began to disappear. An economic crisis engulfed the nation in 1982, after the federal government announced that it could no longer service its foreign debt and suspended payments to North American banks that had lent the nation billions of dollars at egregious interest rates. Investment disappeared and inflation spiked, leading to a "lost decade" of turmoil, characterized, among other things, by economic restructuring that pinched federal budgets and forced the state to abandon its efforts to manage the national economy. Presidents de la Madrid and Carlos Salinas de Gortari (1988–1994) made a virtue of austerity by embracing a neoliberal doctrine that promised to unleash the power of the free market by shrinking the public sector, deregulating the economy, and opening Mexican markets to international competition.

Neoliberal austerity measures spelled trouble for the bloated and increasingly problematic paragovernmental forestry enterprises. Micho-

acán's public corporation (PROFORMICH) collapsed in 1980 as a result of a boycott by its own members, but the ones in Durango and Chihuahua lived on. So too did the logging and paper concerns that had received federal subsidies in Oaxaca, Puebla, and Quintana Roo. While some of those semipublic companies turned a profit and became candidates for privatization (which effectively transferred public investment to private hands), nothing could make the largest paraestatales viable. By 1988, they stood as costly reminders of another epoch, and federal authorities finally cut off subsidies altogether. Durango's PROFORMEX collapsed the following year, when members of its own producers union invaded administrative offices in search of management plans and logging permits that would allow them to sell their timber on the open market. The Secretariat of Agriculture capitulated in a matter of days, dooming PROFORMEX to irrelevance. The union continued to press its cause and eventually convinced authorities to turn over the corporation's sawmill and plywood plant as well, making the new communally owned enterprise one of the state's largest producers of finished wood products.⁸⁹ Something similar happened in Chihuahua, albeit without a direct confrontation. Between March 1988 and May 1989, PROFORTARH transferred control over the forests to a series of producers unions that comprised the Asociación Rural de Interés Colectivo (ARIC) "General Felipe Angeles," a collective of 21,000 people grouped in 180 ejidos, which took possession of the corporation's production permits, along with its network of increasingly obsolete mills. As it turned out, the new ARIC reproduced the unresponsive bureaucracy of the old paraestatal, and it, too, failed within a year.⁹⁰ In 1990 the INI once again took charge of forestry in Rarámuri ejidos of the Sierra Tarahumara.

Although state forestry failed in both Michoacán and Chihuahua, the precise cause of death was different in each case. In Michoacán healthy traditions of local production—above all, in the tree-tapping industry—underpinned the expansion of community forestry projects. Federal officials found themselves on the defensive as expanding avocado groves claimed some of the best forests in the state and created a new class of smallholders. Villagers abandoned PROFORMICH at the same time as commonholders in places like San Juan Nuevo Parangaricutiro chipped away at top-down structures of forest management. Much of this popular resistance was a response to the politicization of forests, which had become spaces subject to laws that rural people could not control, and over which federal officials, timber companies, and (eventually) environmentalists claimed some degree of authority. Yet a renaissance of small-scale produc-

tion displaced at least some environmental decisions to the local level and opened the potential for a viable alternative to state forestry.

Not so in Chihuahua, where native people never developed the same degree of local expertise or appetite for community forestry. Village landscapes remained divided and politicized over questions of resource use, the ongoing influence of outsiders, and ethnic cleavages. The forest itself almost always lay at the center of these debates. By the early 1980s, smaller Rarámuri ejidos, such as Cusárare, that had the longest history of local production had all but exhausted their relatively small forests, whereas the larger ones, such as Chiantú, were only beginning to work their own land. Yet a long history of work as lumberjacks, road builders, and hewers of railroad ties had not been enough to give most Rarámuri villagers the expertise to manage communal forests. And while a handful of communities continued logging and requested credit for new sawmills, many others continued to chafe under a productive scheme that made them bystanders in the decades-long effort to “develop” the woods on their behalf.

A LAST HURRAH FOR DEVELOPMENTALISM?

Forestry megaprojects had not yet breathed their last in the Sierra Tarahumara, despite the advent of neoliberalism. The collapse of state forestry ironically coincided with the most ambitious project yet envisioned for Mexico’s great northern woods. In 1985 the de la Madrid administration approached the World Bank for a loan to rehabilitate the timber industry in Chihuahua and Durango. Three years later, the organization agreed to supplement the federal government’s own funds with a \$46.6 million line of credit that would bring a total of \$91.1 million to the woodlands. The project had an eerily familiar ring, beginning with its primordial goal of “improving productivity and environmental protection by introducing rational forest management practices”—words that easily could have been written by Antonio Sosa half a century earlier.⁹¹ A more recent antecedent was the Inter-American Development Bank’s somewhat similar project to inject \$51.4 million into the cellulose industry in Guerrero and Oaxaca. Forestry experts had concluded that these states’ “underused” resources (including the Chimalapas rainforest) represented ideal candidates for commercial logging and new paper mills; according to one observer, however, the real purpose of these funds was to build logging roads that the military could use to traverse the impoverished and politically restive Costa Grande of Guerrero.⁹²

Like its forebears, the World Bank project in the Sierra Madre promised that a reinvigorated timber economy in the northern forests was a win-win scenario that would promote national development and provide jobs for poor rural people. After a century of industrial logging, it was not clear that the forests could withstand another round of intense extraction, however. In many places, timber companies and clandestine logging had either denuded forests or left behind spindly trees that dotted an increasingly eroded landscape. The few old-growth forests that remained were located in the indigenous regions of southern Chihuahua and northern Durango, where few roads existed. Yet some experts continued to envision the woods as a vast untapped source of raw materials and employment opportunities. In 1985 the newspaper *Excelsior* cited a United Nations report that suggested that Mexico could potentially place another 143 million hectares into production—enough to put a substantial dent in rural inequality—if it had the political will to acquire proper technology and teach campesinos to use it.⁹³ World Bank experts were more circumspect. They recognized that decades of high grading (logging the largest, most easily accessible trees) had compromised ecosystems throughout the sierras. Where logging was still ongoing, ancient trucks rumbled down poorly maintained roads and delivered sawlogs to small and inefficient sawmills. Bank experts estimated that poor forestry techniques limited regrowth to half of its real potential. But they reckoned that this could all be fixed. The World Bank's initial report concluded that capital investment would redress production difficulties and ultimately improve the overall quality of life “by increasing rural and urban employment and family income, especially in the traditionally impoverished Amerindian communities.”⁹⁴

The project sparked unease on both sides of the border, however. North American environmentalists worried that commercial logging would continue to degrade forest ecosystems and run roughshod over indigenous rights. While they sympathized with the ideals of sustainable development, most balked at the World Bank project's cost, which would need to be recuperated through profits, and pointed out that it put little real premium on environmental sustainability or on addressing native people's wishes. One watchdog group discovered that environmental and social safeguards were either ignored or poorly implemented. It concluded that the World Bank had violated every one of its own objectives, except for that of increasing timber production.⁹⁵ Other observers found it remarkable that so few funds would remain in the countryside, because the terms of the loan made it impossible to extend credit to ejidos that already had

debts to repay, meaning that the investments would bypass most rural communities.⁹⁶ Some Mexican critics took a harder line and questioned the very concept that capitalist development could benefit the rural masses. The economist and public intellectual Cuauhtémoc González Pacheco, who was also a veteran of the 1968 student movement, wrote that the World Bank project was an excellent model “for extracting more wood . . . but not for social or environmental development, because it was never conceived as a means of strengthening popular organization or enhancing their technical competence.”⁹⁷ These skeptics drew inspiration from an emerging consensus on the Mexican Left that neoliberal restructuring tended to reward corporate interests at the expense of the environment and of the poorest social groups. On the global level as well, critics charged that World Bank loans for highway projects, dams, and resource extraction facilitated commerce while disregarding the bank’s primary goal of alleviating poverty.

Stung by the scale of criticism, the World Bank announced that it would commission the INI to investigate how the logging project would affect native people in the Sierra Tarahumara. The task fell to the Chihuahua City branch of the National School of Anthropology and History (ENAH), which hired cadres of anthropologists and bilingual native schoolteachers (*promotores*) to visit the forests of Chihuahua and northern Durango, beginning in 1989. As the first logging roads began to be built, INI operatives held a series of meetings to gauge native people’s thoughts about the project. Most were skeptical. They told the anthropologists that the World Bank-funded outreach project to teach them management techniques was poorly executed and spotty. They worried about losing their woods to contractual obligations they did not understand. Many of them asked the anthropologists to tell them more about legal options to halt the World Bank program, so they could work the woods themselves. In a few instances, activist villagers incorporated community enterprises in a bid to head off commercial loggers. The leaders of Chiantú, for example, decided to structure their local forest company around family units that would extract relatively small amounts of timber close to their homes, rather than follow the traditional logging practice of rotating logging sites from one part of the forest to the other. Further north, villagers in Guachochi and Cusárese insisted that outsiders did not understand the local ecosystem well enough to selectively log the delicate, second- (or third-) growth communal forests. To the INI anthropologists, it seemed clear that most native people were simply not interested in the World Bank’s offer of commercial logging.⁹⁸

On 11 November 1992, three thousand Rarámuri gathered in Guachochi

to mark the fortieth anniversary of the CCIT. The World Bank project was not their only point of concern: the rise of drug trafficking in the sierras, police repression of indigenous activists, and the reconfiguration of the Supreme Council of the Tarahumara to include more young, bilingual schoolteachers at the expense of elder governors (*siriames*) all came under discussion. But control of the forests generated the most debate, and the governors agreed that the main issue was to ensure that “we, as owners of forest resources, should have in our hands the authority to ensure that their management respects indigenous knowledge about their ecologically balanced use.”⁹⁹ In this meeting and subsequent interviews with the INI anthropologists, one Rarámuri leader after another explained the basic inconsistency between the World Bank’s goals and their own. Whereas the best practices of commercial forestry envisioned maximum-sustained-yield logging that would guarantee as much income as possible, most of the Rarámuri felt it was better to cut as little as they needed in order to sustain themselves and their *rancherías*. For them, logging complemented herding and agriculture and allowed for collective survival. It was a means to an end rather than an end in itself.

Faced with the evident lack of local enthusiasm and an increasingly combative stance by the INI anthropologists, the World Bank quietly shelved the project in early 1993. The national forestry plan published two years later still referred to possible reinvestment in the Sierra Tarahumara, but it no longer described it as a massive venture to develop the woods. Instead, the Secretariat of Agriculture demoted it to a mechanism of bringing “alternative” forestry practices to the woodlands.¹⁰⁰ Two years later, the project was formally canceled. Fifteen years after a broad-based campaign of passive resistance had undermined PROFORMICH in Michoacán, a coalition of native people and anthropologists had accomplished something similar on a much grander scale in Chihuahua as well.