Mathews, Andrew. Mexican Forest History: Ideologies of State Building and Resource Use.

30th Anniversary Special Issue, 2014, pp. 50–54

(Article Originally Published in 1999, TRI News Vol. 18, pp. 21–25)
Introduction

Throughout its history, forestry has been closely associated with state projects of resource control in the countryside, and foresters have acted as agents of a centralizing state (Scott 1998). During the nineteenth and early twentieth centuries, one of the main justifications for protection of forests was the globally reproduced myth of desiccationism, which connected climate with forest cover (Grove 1995). Forest removal was said to cause declines in rainfall, lower water tables, and declines in river flow. As a scientific theory, desiccationism has generally been discredited since the 1920s (Smith et al. 1986), although in certain circumstances (e.g., cloud forests) condensation on trees can amount to about 20 percent of total precipitation (Larcher 1995). However, as a political myth desiccationism has remained the justification for forest management, long after it has ceased to be supported by science (Saberwal 1997).

In this paper I look at the relations between forest science, forest politics, and wider political history in Mexico. I link narratives of forest decline and management with political narratives of social reform and development and of indigenous conservationism, looking at two key episodes in Mexican forest history: the closure of the Mexican forest department in 1940 and the move towards community forest management in the 1980s. The political history and experiences of the participants in forest management continue to affect how they perceive the forests. Using interview data I collected in Mexico in the summer of 1998, I trace the links between present day struggles over forest management and the historical experiences and political locations of the different stakeholders.

Mexican Forest History:
Ideologies of state building
and resource use

Andrew Mathews
Doctoral Student

Early Mexican Forest Conservation

A key figure in the history of Mexican forestry is Miguel Angel Quevedo (1862–1946) (Simonian 1995). Quevedo founded the Mexican forest service and fills a similar historical position to that occupied by Gifford Pinchot in the United States. Quevedo was trained as a civil engineer (with a specialization in hydraulic engineering) in France in the 1880s, at a time when desiccationism was a well-accepted scientific theory both in France and in Mexico. On his return to Mexico he noticed environmental degradation caused by deforestation, attributing flooding in the valley of Mexico to deforestation on the surrounding hills. In Mexico the mountainous terrain and erratic rainfall makes deforestation a much more catastrophic event than in temperate Europe. Quevedo was all the more aware of possible human impacts upon the environment as a result of his involvement in large-scale projects to drain the lakes of the valley of Mexico.

Quevedo warned of the negative effects of deforestation on climate. The human interactions with nature that he observed would have negative repercussions upon society, and only conservation and forest protection could prevent it. Between 1901 and the outbreak of the Mexican Revolution in 1910, Quevedo was successful in increasing public parks in and around Mexico City and in founding tree nurseries.

In general, the Diaz regime was not sympathetic to managing forests, as forest concessions were in the hands of large foreign corporations and Mexican elite capitalists (Lartigue 1983; Espin Diaz 1986). Diaz seems to have been primarily interested in parks near cities as a measure of public hygiene and an effort to beautify and modernize Mexico City. However, Quevedo succeeded in gaining support from the Mexican government, ultimately founding a forestry school with French forestry professors in 1908. The Mexican Revolution forced Quevedo into exile in 1914, and forced the forestry school to close.

In the 1920s Quevedo continued his support for forest protection, founding the journal *Mexico Forestal* in 1923. This journal was to be an influential voice for a group of desiccationist conservation scientists for the succeeding 20 years. A statement in the first issue of *Mexico Forestal* summarizes the thinking of this group:

> the conscientious citizen must think of the future and thus "must clamour against the silence in our country against the national suicide that signifies the ruin of the forest and the scorn of our tree protector." (*Mexico Forestal*, p. 82, cited in Simonian 1995)

This statement shows the way Quevedo and the conservationists were using a narrative of destructive human/environment interactions to claim legitimacy for certain environmental politics: protection of forests. The forest is described as the "tree protector" which should not be "scorned." This moral language placed nature as an agent that protected society, and forest scientists claimed the right to speak for this agent.

The forest scientists convinced the Calles government (1924–1928) to pass a forest law in 1926 which regulated forestry activities on private lands, required plans for forest activities, and pledged the federal government to create a forest service, reestablish
Ixtlán community forester Sergio Pedro looks at a recently treated pine stand, Ixtlán de Juárez, Oaxaca, 1998. The foresters had applied a prescribed burn after the overstory removal, and he was worried about the lack of regeneration.

the forestry school, and establish tree nurseries. However, this law was not enforced, and the forestry school was closed again in 1927. At a time when the Mexican state was just beginning to establish itself in rural society, the implementation of the law was neither politically nor financially possible.

Forest Conservation and Agrarian Reform

Genuine efforts to enforce the law and train foresters remained on hold until the administration of Lázaro Cárdenas (1934–1940). Cárdenas had become aware that forest degradation and soil erosion were serious problems during his time as governor of Michoacán from 1928 to 1934. However, his governorship of Michoacán was also a starting point for his program of agrarian reform that was to collide with his interest in conservation. In Michoacán he had actively supported the creation of links between the government political party and peasant groups, creating a contract of mutual loyalty and support. He nominated local leaders who would organize the agrarista (agrarian) land reform factions in the rural communities, and they moved to claim land that had been alienated from the community. The agrarista leaders were tied into a system of obligations of clientage to Cárdenas, the peasant unions, and the institutions of the Mexican state, especially the Instituto de Reforma Agraria, which oversaw the repartition of large land holdings and the allocation of legal titles to land. Cárdenas’s period in office was marked by the transfer of control of vast areas of land to a new legal form of community, the ejido. In distributing land, Cárdenas created a myth which supported the legitimacy of the Mexican state: that it had fulfilled the promise of the Revolution, and given land to the landless. When Cárdenas turned to forest protection in the late 1930s, he risked treading on that myth, with potentially explosive results.

In 1935, Cárdenas created an autonomous Department of Forestry, Fish, and Game, with Quevedo as its first head, using as a rationale the desiccationist discourse which Quevedo and the conservationists had been adhering to for so long. Quevedo then set about implementing the program of forest conservation he had advocated for so many years. The forestry school was reestablished and over a thousand foresters were trained. They were given the responsibility of enforcing the 1926 forestry laws, restricting logging, resin tapping, and conversion of forests to agriculture. Large numbers of trees were planted and educational programs were set up to teach landowners how to plant trees and protect their land. In his efforts to enforce the forestry laws, however, Quevedo soon ran into political opposition. Poor peasants needed to exploit the forest to survive, and in 1938 Cárdenas made exceptions for them, allowing them to exploit the forest free of taxes. Cárdenas’s supporters also informed him that the complete ban on forest extraction was untenable, and he gave legal authorization to the ongoing pine resin extraction (Espin Díaz 1986).

In 1939, Cárdenas closed the Department of Forestry, Fish, and Game, and passed its responsibilities for forest protection over to the Ministry of Agriculture. There was to be no independent forest department until 1951 (Mejía Fernandez 1988). Quevedo had been denounced for misconduct and administrative errors. The accusation which carried the most weight, and which was probably the reason for his loss of power, was that he had failed to allow the proper development of natural resources, and therefore held “anti-revolutionary” beliefs. Quevedo did not favor Cárdena’s land reform program because he feared that peasants would expand their fields at the expense of the forests. In disagreeing with land reform Quevedo had threatened the legitimacy of the Mexican state, which Cárdenas was trying to build. Subsequent to Quevedo’s loss of power, desiccationism was attacked by agronomists whose central focus was agriculture, not forestry. The 1926 forestry laws remained largely unmoldified, but they generally were not enforced. Agriculture was the focus of government attention; forest concessions were often used as political rewards for powerful supporters.

When forestry rose again in the 1950s, it rose in a new form, and explicitly repudiated forest protection as a rational policy, advocating industrialization and technical forestry instead. The official silvicultural system chosen by the Mexican state in the 1950s was the Metodo Mexicano de Ordenacion de Montes (Snook 1997). This diameter limit selection system removed technical judgement from the forester; his only responsibility was to see that small trees were not taken (which was, in any case, unprofitable). This system made the forester a bureaucratic functionary who did not claim any particular ecological expertise. Claims of expertise had to be linked to the project of building a modern bureaucratic state, not to an independent ideology of environmental degradation.

Logging Concessions and Exploitation

In Mexico during the 1950s and 1960s, forest exploitation was in the hands of concessionaires, both foreign and national. Local level utilization of forest products was officially forbidden, although cutting for charcoal, firewood, and timber continued. State functionaries blamed forest destruction upon “irrational peasants,” and later upon foreign timber concessions. Many areas of forest were theoretically closed to extraction, but little effort was made to enforce these bans, which provided a source of income for corrupt local officials and for forest entrepreneurs who colluded with them (Simonian 1995; Klooster 1997).

During the 1960s the Mexican state set about remedying this
situation by setting up forest exploitation industries. These were large parastatal corporations, which held monopolistic purchase powers and logging concessions over large areas of forest. In 1958, 261,000 hectares of forest in the Sierra Juarez of Oaxaca were given in concession to the parastatal Tuxtepec Paper Company (FAPATUX) and the private Oaxaca Forestry Company (Bray 1991; Chapela and Lara 1995). By far the largest concessionaire was FAPATUX, with over 240,000 hectares (personal communication, Ramirez Santiago, 1998). FAPATUX extracted timber for pulp production from the oak/pine forests of the Sierra Juarez, negotiating yearly contracts with the communities who nominally owned the forests. A government commission set the prices for timber and kept them artificially low, thereby inflating profits for FAPATUX (personal communication, Escarpita 1998). To add insult to injury, what revenues were received as logging dues were paid into a central fund administered by the government. Communities had to apply to this fund for money for approved activities such as building schools and roads. The communities that owned the forests received few benefits as a result of logging (Bray 1991; Klooster 1997).

During an extended interview during the summer of 1998, Jaime Escarpita, a former director of FAPATUX told me:

We built the roads for each community. Half were tar roads, for all season supply. They were well built, and we would also negotiate to build schools and churches in return for a contract [annual permit to extract timber], but that isn’t recorded in history.

Escarpita describes the relationship between FAPATUX and the communities as a paternalistic one. The communities had no choice but to sell timber to FAPATUX. They received benefits in kind from FAPATUX, and some comuneros (community members) got to work as loggers for the company. However, in the view of the former director of FAPATUX, the comuneros had no experience or knowledge about the forests: “they learned how to use chainsaws from us.” The official view was that the comuneros had no useful knowledge about the forest and that their political agency and technical knowledge was irrelevant to managing the forests.

However, the inhabitants of the Sierra Juarez had a long history of resistance to central government claims over natural resources. In 1944, massive flooding in the Papaloapan valley was blamed on deforestation in the watershed, and the Papaloapan Commission was set up to coordinate development of the region (Tamayo and Beltran 1977). The project was not a success; villagers resented being asked to build terraces and change agricultural practices which they saw nothing wrong with. When I asked about this period, a village leader pointed to some abandoned terraces as remains of the project: “It failed, and actually it caused more problems than it solved, as erosion is not really a problem up here.” What this project did teach comuneros was that the government viewed their land use as potentially damaging and that the government might use arguments of forest destruction to justify development projects. The government could claim land from peasants both because they deforested it and because they were not developing it properly. The linkage of forest protection and development was to reemerge in the discourses used by local communities to claim control of the forests.

Peasant Communities and the Narratives of Local Control

During the 1960s, the government tried to relocate settlers who had been displaced by the enormous Miguel Aleman Dam on the lower Papaloapan into the Sierra Juarez. The communities of the Sierra Juarez protested vigorously. They said “they were there to defend the forest, and that the forest was theirs; no outsider had a right to control it.” (personal communication, Ramirez Santiago, 1998). In the end, the government backed down, and the settlers were relocated elsewhere. These experiences taught comuneros that the quality of their management of the forest was a political tool, and that they could claim control of the forest by claiming to be the legitimate guardians of the forest.

By the 1970s, discontent with FAPATUX had boiled over; the community of San Pablo Macuilianguis organized 14 other communities to boycott FAPATUX. Initially, these protests were aimed at securing a better deal on the logging contracts, but as the concessions came up for renewal in 1983, an organization was formed to claim control of the forests. The name of the organization was Organizaci6n en Defensa de los Recursos Naturales y Desarrollo Social de la Sierra de Juarez (Organization to Defend the Natural Resources and Social Development of the Sierra Juarez). The name alone shows how the comuneros were self consciously adopting the government rhetoric of development and protection of natural resources to support their claim to the forests. A vigorous protest was launched with the grassroots magazine Tequio (Comunal Labor). A statement from the first edition summarizes the aims of the organization:

We will no longer permit our natural resources to be wasted, since they are the patrimony for our children. The forest resources should be in the hands of our communities, and we will struggle for greater education that will permit rational expansion. (Tequio, cited in Bray 1991)

The comuneros were adopting the rhetoric of rational use and environmental protection in order to support their claim to the forest.

The grassroots movement for control of the forests came to a head when there was a group of reform-minded bureaucrats within the forest service, including Cuahtemoc Cárdenas, the son of Lázaro Cárdenas, director of the forest service from 1976 to 1980 (Mejia Fernandez 1988). The reformist bureaucrats had a number of justifications for their policies, but one important strand was the ideology of indigenismo: the belief that the indigenous communities were ecologically sensitive guardians of nature and should be given land to compensate for their past sufferings. This ideology is reproduced in international policy documents, national level policy statements (Chapela and Lara 1995), and at local levels in the Sierra Juarez. In my conversations with the comunero/biologist Gustavo Ramirez in the summer of 1998, he repeatedly stated that indigenous communities were the best protectors of biodiversity and the forests.

The reformist bureaucrats succeeded in pushing through the cancellation of most of the concessions between 1983 and 1986, so that the forest could potentially be handed over to the communities which theoretically owned it. However, the government still
required that the forests come under management plans written by foresters. A rapid succession of forestry laws since 1983 has served to assert the rights of communities to own and manage their forests (Bray 1996). There is a wide range in the degree of organization of the communities, from those that sell standing timber to outside contractors to those that employ their own foresters and process the timber in their own sawmills.

The Future of Mexican Forestry: Ideology and conflict

The experience of struggle to gain control of forest resources has created a particular understanding of the forest for the communities of the Sierra Juarez. I have only been able to interview foresters, but the disputes between foresters and comuneros over forest management reveal quite different understandings of what the forest is and how it should be managed. In 1998 I interviewed foresters in two communities in the Sierra Juarez. Both foresters told me that a key problem for them was getting the communities to accept the seed tree system of regeneration that they were trying to apply in the pine forests. This system requires the removal of 60 to 80 percent of the adult trees, leaving a scattering of parent trees to produce seeds, which germinate on the scarified soil below. Pines are light demanding pioneers, so the seed tree regeneration system is designed to mimic the ecological requirements of the species. The previous selection system only took a few large trees, but prevented regeneration, and encouraged non-commercial oak species to proliferate at the expense of the pines (Snook and Negrotos 1987).

In the eyes of the two communities, the seed tree system was unacceptably harsh: one community fired their forester; in another, the foresters repeatedly told me that the silvicultural system was the greatest source of friction between them and community members. In some meetings the foresters had been heavily criticized by the comuneros for overcutting. Why the conflict? Although I have not interviewed any comuneros on the subject, I have a tentative explanation.

The history of struggle for control of the forests has taught the comuneros that they can gain control of the foresters by being ecological guardians and by preventing deforestation. Deforestation has become a political symbol used to claim control of the forest. The comuneros have gained control of the forest by claiming to be its guardians and linked to the land in a special way.

I have a better idea of the way foresters see nature: they claim to understand it and to have the ecological knowledge to manage it wisely. Ironically, the foresters are applying a silvicultural system that is based upon Finnish experience of pine management, which is not necessarily the most socially or economically appropriate for the Sierra Juarez. They too bare the scars of past history: since the closure of the forestry department in 1940, foresters have had little training in the then-controversial ecology, which was linked to the discredited doctrine of desiccationism. Thus, their relative lack of ecological knowledge is in part the product of the battle between Miguel Angel Quevedo’s conservationism and Lázaro Cárdenas’s agrarian reforms.

Conclusions

In this paper I have linked the historical experiences of the different stakeholders in Mexican forest management with their present day interpretations of how the forest should be managed. I have shown how technical knowledge is interpreted within a wider political and economic context, and how a lack of awareness of the political context can result in the rejection of foresters and forestry. This points towards the need for a more politically astute forestry. Foresters need to self-consciously analyze the histories and political narratives of the people they work with if they are to succeed in building the broad consensus that is essential to successful forest management. Rather than bewail the politicization of forestry, we must recognize that science has always had to contend with competing political narratives. Foresters, if they wish to achieve their goals, must also be competent political actors.

Acknowledgements

This work was partially funded by the Tropical Resource Institute of the Yale School of Forestry and Environmental Studies. Many thanks to my in-country collaborators, especially Leopoldo Santiago Pérez and Sergio Pedro of UCODEFO and Gustavo Ramirez Santiago in Ixtlán. Many thanks also to Heidi Asbjornsen for introducing me to a network friends and contacts in Mexico.

References


Concejo Civil Mexicano Para La Silvicultura Sostenible.


