

Mapping the Policy Terrain:

Political Economy, Policy, Environment, and Forestry Production in Northern Mexico¹

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Northern Mexican forests have been increasingly exploited since the Spaniards arrived in the 1600s, and more since the middle of the last century. Forestry became a topic of urgent discussion with negotiations for a World Bank development loan in the late 1980s. Environmentalists, citizens, and scientists protested that commercial exploitation had resulted in diminishing forest lands, erosion, cutting virgin forests, illegal logging, environmental destruction, and the disappearance of endangered species. They predicted that a World Bank loan would worsen environmental conditions. Rumors arose that the World Bank planned clear cutting to produce single species plantations that would decrease biodiversity. Designs for road building would increase tourism, lead to overcrowding, overuse of a delicate ecosystem, and expose indigenous people to outside conditions harmful to the preservation of their traditional culture (M. Baxter 1992; M.T. Guerrero 1990; 1991; R. Lowerre 1991; G. Nabhan 1992; L. Williams 1993). In spite of these criticisms, many Mexicans believed that forestry development had brought wealth and progress, new highways, better roads, employment opportunities, and improvements in education and health. Critics responded that benefits had gone mostly to logging companies, foreigners, and Mestizo rather than to indigenous populations.

This paper examines the political economy and policy environment of forestry production in northern Mexico. The objective is to review the multiple policy issues that impact forestry production and act together as articulatory mechanisms to move capital from periphery to core. The main point made is that a single event or activity, such as the World Bank loan, cannot account for existing conditions of forestry in the Sierra Madre Occidental. This essay is not intended for Mexicanist scholars who may know much of the information provided. The purpose is to analyze, perhaps well-known facts by mapping the policy terrain in the context of articulation theory to help scholars and policy makers gain a better understanding of linked social and historical conditions that maintain a political economy. The unique aspect of this presentation is that it brings a political economic, historical, and holistic framework to bear on the problem of policy analyses.

1. This is an elaboration of a paper presented at the Society for Applied Anthropology meeting in San Antonio, March 11, 1993. The paper is based on field work in Chihuahua since 1978, with the World Bank forestry project in January 1991 and June 1992, and as a consultant for the World Bank in October 1992 and April 1993. A fellowship in 1993-1994 at the Udall Policy Studies Center was supported by release time from the Department of Anthropology at the University of Arizona. Thanks to William Longacre, Robert Varady, and Helen Ingram for support, for comments from Michael Cernea, David Halmo, Thomas Park, James Greenberg, and for substantive help from Sandra Thourot and William L. Alexander.

Thus, policy formation is viewed from a perspective that considers power interrelations among policies and policy makers.

The policies examined that affect forestry emanate from international, national, and state levels. At the international plane are policies of the World Bank and of such multilateral and bilateral agreements as GATT (the General Agreement on Trades and Tariffs) and NAFTA (the North American Free Trade Agreement that joins the US, Mexico, and Canada,). Multinationals in northern Mexico enjoy partial ownership of sawmills, paper pulp mills, and related businesses. Economic reform schemes power the development and activities of financial and banking institutions and the policies and actions of numerous secretariats and federal agencies. Other variables in the multiple policy environment explored include the activities of the dominant national political party, *Partido Revolucionario Institucional* (PRI), the National Indian Institute (INI), private banking corporations, the Agrarian Reform Act of 1991, and of private companies. Policies from these higher levels in time influence forestry at regional, state, and *municipio* levels.

Political Economy, Modes of Production, and Articulation

Originally, the phrase political economy referred to the field of economics, and even today the dictionary definition of one cites the other. Basically, it distinguishes value based on labor power from the Neo-classical definition of value determined by market conditions. In time, political economy became associated with Marxist thought, which also subscribed to value proscribed by labor power. Today, it has a variety of meanings and national uses (W. Roseberry 1988, 1989). In general, political economy refers to unequal distribution or access to resources caused by imposition of social and political norms and policies that preclude economic and social equality. In recent years, the concept has been illuminated by modes of production and articulation theory. Modes of production, a Marxist concept referring broadly to the economic structure and social relations of a society, was clarified in the late 1960s by the French Neo-Marxists, Althusser (1969), Balibar (with L. Althusser 1970), Godelier (1966, 1972, 1977), and Meillassoux (1972). Althusser suggests the concept "articulation" to refer to linkages among modes of production. In this connection, another element important to our discussion is the modes of production critique directed at Latin American dependency theory by Laclau (1971). Relevant aspects of this argument are an insistence that a country or region is characterized by mixed modes of production, and that more attention must be given to the formation of social relations of production in peripheral areas. This theoretical framework is related to Neo-Marxist influences in American Marxism, and dependency and world system theories (K. Hart 1983; B. O'Laughlin 1975; S. Ortner 1984; W. Roseberry 1988,).

This examination of policy environment from a perspective of political economy involves reviewing the holistic and historical context of policies and institutions that impact a single policy issue. Political economy and policy environment are linked conceptual frameworks, in that political economy (viewed as the production of inequality) reflects the history of policy making. Policies have been constructed and coordinated in order to control the production, distribution, and use of resources. Policy, in this manner, can be seen as an impetus, energizer, or reflection of change. Anthropologists and other policy scientists have ignored the importance of policy in this sense with the exception of writers like Hogwood and Peters (1983:4) who call attention to the importance of policy

succession and to past policies as part of the policy environment. In our perspective, the history of past policies and the social relations among relevant international and national institutions set the stage for ongoing policy making. Viewed in this manner, the articulation process is, thus, a product of historical and current policy making, and of negotiations among elites over self-serving policies. Political economy, thus, is the product of poor access to resources orchestrated by persons who are members of politically dominant human social systems.

Unit of Analysis

The problem of unit of social analysis has troubled researchers for decades. Broad historical categories were characterized variously in Marxist thought as pre-capitalism, communism, mercantilism, feudalism, capitalism, and socialism (K. Marx and F. Engels 1970; W. Outhwaite et al. 1994:385-387). Simply put, these are economic systems that include the forces and social relations of production; together they are called modes of production. Wolf provides a convincing argument for reducing these categories to three: capitalist, tributary, and kin-ordered modes of production (1982:73-100). Dependency theorists used center-periphery (R. Prebisch 1950) and metropolis-satellite (A. G. Frank 1969) to designate the broad relationships between first and third world elements in the capitalist system. Wallerstein (1974) substituted distinctions among core, semiperiphery, and periphery as more appropriate units of analysis for dealing with a world economy.

Theoretically, the problem of unit of analysis in this paper combines articulation of modes of production with a world system approach. Such a framework must account for all relevant divisions of the social system. The units discussed above are insufficient for our study of the dynamics of a single commodity (forestry) in a delimited region. This region (northern Mexico) encompasses what would be labeled in orthodox Marxist terms as two modes of production, capitalist and pre-capitalist. Laclau's (1971) argument regarding the neglect of mixed modes of production and of the social relations of production in peripheral zones is relevant here. Alternatively, in world system's terminology the terms would be core, semiperiphery, and periphery, depending on the analytic focus. This terminology, too, must be extended for our analysis. A second problem involves identifying or tracing the social linkages among these categories, or what has been called the articulation of modes of production (L. Althusser and E. Balibar 1970). It is clear that we are dealing with dimensions of a single mode of production--capitalism--but not in the historical or developmental Marxist sense, which fails to account for the co-existence of different cultural and economic systems in the same geographic region. The question is: What are the different divisions of this single mode? Although Wallerstein's tripartite division refers mainly to broad regions of capitalist world economy, effectively they can be applied to smaller divisions. Thus, the US, broadly speaking, represented by its capitalist institutions and agents, would be the core. Depending upon the focus of analysis, the semiperiphery refers to Mexico as a whole, to Mexican urban business sectors or elites, or to the US-Mexico border region, all as intermediary agents for the core. The periphery refers to forested territories where production and its social relations occur. This can be represented symbolically as C-SP-P.

Periphery of the Periphery

The periphery, however, presents a major theoretical problem. The situation in the periphery in question, the Sierra Madre Occidental region of Chihuahua, is divided into a

Mestizo outback and an indigenous portion that is even more marginal economically than the Mestizo part. Marginal here refers to the degree of sharing in the products, and material and social resources actualized by western society. In other words, we find that the periphery, too, can be separated into several divisions. We must now speak of a fourth category in world system terminology, perhaps by adopting Wolf's (1982) kin-ordered mode of production. Wolf's category is inexact in that it does not refer to economic or subsistence features of the mode of production as do the terms capitalist and tributary, for example. It refers only to a limited set of social relations, e.g. those based on kinship in less complex social systems; there are other social relations present such as fictive kinship (blood brothers, *compadrazgo*), friendship, residence, gender, and technological.

The usual, more direct terms used to designate technologically simple economic systems are hunting and gathering (or foraging), pastoralism, horticulturalism, and fishing. One could describe such economic systems as modes of productions, as in a foraging or pastoral mode of production. A better designation that would incorporate all simple economic systems might be an indigenous mode of production, but it, too, poses problems. Indigenous might be objectionable because it brings into being an "Other," suggesting people distinct from "Us." By the term "indigenous" I refer to an original or aboriginal population that is narrowly circumscribed geographically. The use of indigenous mode of production, however, presents the same problems as Wolf's kin-ordered mode. Notwithstanding these problems it is useful to use the indigenous mode of production to refer to part of the periphery, the part I refer to as the periphery of the periphery.

This distinction becomes clear when one considers this concept in the context of the movement among world system categories, such as from semiperiphery to core, periphery to semiperiphery, or the reverse. Thus, one could also speak of the movement of an indigenous mode of production to a peripheral status, or even the reverse. Looking at the problem from another dimension, just as the core extracts resources and value from the semi-periphery, and the semiperiphery extracts resources from the periphery, the periphery, or a privileged part of the periphery, extracts capital and labor resources from the periphery of the periphery. This is what I call an indigenous mode of production. This relationship can be depicted as C-SP-P-I, with I referring to indigenous, or, C-SP-P-KO, with KO referring to Wolf's kin-ordered mode of production, or even as C-SP-P-PoP, for the periphery of the periphery.

An issue which needs to be addressed in this context is the cultural variation found among the Tarahumara of the Sierra Madre. The aboriginal pattern consisted of horticulturalism, but this was modified by Hispanic introduction in the 17th and 18th centuries of pastoralism, agricultural crops, religious practices, and technology. Perhaps, as much as 10 percent of the population still practice a "traditional" subsistence economy of mixed pastoralism and horticulturalism in an isolated environment. This group is relatively isolated from other populations. Another 10 percent of the population is relatively "acculturated," that is, practice a cultural system that is similar to the modern, urban-based, Mestizo culture. The majority of the Indian population occupies a middle cultural ground, representing an amalgamation of Spanish, Mexican, and traditional Tarahumara features, but one that is distinct from the surrounding Mestizo culture. A contributing factor to Tarahumara cultural variation is their residence in and influence from the half dozen Mestizo towns which pepper the indigenous area internally (T. Weaver 1992). It is the amalgamated society involved in forest production in some 17

remote land units called *ejidos* that is considered the periphery of the periphery addressed here.

The Policy Environment

A policy is an implicit or explicit representation in the form of an act, statement, attitude, regulation, law, or rule of an ideology, belief, doctrine, conviction, or philosophy used to guide public agency or private corporate action. Excluding minorities and women from employment in some agencies or corporations in the United States is usually not written or discussed, but its understanding, perhaps expressed only in remarks or attitude, has the same end as if it were chiseled in stone. The usual approach in policy studies is to focus analysis on a single regulation or guideline, or a particular policy issue and actors in a specified place or geographic region (W. Coplin and M. O'Leary 1978). This may serve a limited objective of isolating a central problem with singular and clear focus, but it ignores the societal context of the multifarious elements that may be just as important in understanding the policy issue (T. Weaver 1985a, 1985b, 1990). Thus, questions raised about the potential impact of a pending World Bank loan obfuscated the complexity and intertwining of many other policies and institutions that could explain the political economy of forestry production in northern Mexico. Rarely is the total policy environment assessed. We suggest a better understanding requires examining broader factors and policies, such as declining economic conditions or political ideologies that help set broad agendas. A reasoned, but detached examination of the policy environment surrounding the World Bank project makes clear that present and past, public and private policies have combined to formulate the current political economy. The focus of each policy is selective and timed; not all operate at the same moment or with the same impact or specific focus. Some focus on a singular issue (economy, education, taxation, or migration, for example), but all operate in ideological consonance.

Policy Ideology and Policy Diffusion

In addition to basic policy concepts such as policy issue, policy actors, values, and policy environment (W. Coplin and M. O'Leary 1978; T. Weaver 1985a, 1985b), two other concepts are important in the present context--policy ideology and policy diffusion. Policy ideology refers to a central conceptual notion or idea that sets the policy agenda in numerous sectors of society, but is especially evident in the economic, political, and social arenas. Reaganomics, as it was popularly called, characterized by a free market, export-led economy, privatization, and support for business rather than the social sector, is an example of a policy ideology that permeated many aspects of US society in the 1980s. Policy diffusion alludes to the transmission of a central policy ideology, policy principle, or a particular policy to different levels of society, and its gradual acceptance in the hindmost parts of a bureaucracy, and other countries. An example of policy diffusion within a bureaucracy is given by Hoben (1980) who shows how environmental impact assessment procedures took five years from initiation in Washington, D.C. to implementation in the foreign field offices of USAID (United States Agency for International Development).

Other examples of policy diffusion that caused enormous changes in Mexico, especially during the presidency of the US-trained economist, Carlos Salinas de Gortari, include Reaganomics, environmental impact assessment, and endangered species policies. An example of a linkage between policy ideology and policy diffusion is the introduction

in 1985 of “Mexican Reaganomics” that promoted monetary and political reforms favoring business, especially foreign business. The goal was to stabilize the Mexican economy through economic deregulation, fiscal reform, privatization, and realistic budget management. These reforms are the same as those promulgated by the World Bank and other development agencies; thus, they have had far ranging economic, social, and political consequences. Ecology Based Multiple Systems is another policy now being diffused to Mexico. It is also known as the New Forestry, a policy which considers forestry in the context of ecological variables (A. Gillis 1990; T. Weaver 1993). The creation of the NAFTA itself constitutes an instance of policy diffusion modeled after the European Economic Agreement (N. Lustig et al. 1992; R. Pastor 1993). NAFTA will have a great impact by setting regulatory guidelines in years to come and will facilitate the entrance of foreign capital into Mexico, foreign ownership of Mexican businesses and property, and a reduction of tariffs on a myriad of imported goods. It represents a conservative business orientation that permeates elements of Mexican society from banking to services, and from trade to agriculture and forestry.

In summary, it can be said that a policy ideology sets the policy agenda for a society. Strategies to place the policy agenda into action take form in bilateral or multilateral agreements such as GATT and NAFTA, banking regulations, the development of appropriate organizations (environmental and forest bureaus, for example), and special laws (laws permitting assembly plants on the Mexican border, for example). The goal of a policy strategy is to integrate appropriate segments of society into a common policy agenda. Strategies may also involve placing sympathetic personnel in positions of authority, creating new agencies, opening new offices or branches, and by influencing elections and the selection of appointed officials.

Finally, a word on the lack of information on the “intent” of policies in the development of inequality. We would require access to ministerial or board room meetings, internal memoranda, private correspondence, telephone discussions, party chatter, secret-off-the-record conferences, back room dialogue, innuendo, and information on relevant organizational culture to support the basic premises outlined in this paper. A complete picture of the political economy of forestry would show efforts to distribute income by class, culture, and ethnicity; this requires income data from corporations and *ejidos*. The sharing of common values and social class status may be sufficient for individuals, governments, and corporations to cooperate in creating a policy ideology and political economy. Because these materials are not readily accessible, the next best analysis must be based on available data. Extensive information may not, in fact, be necessary. The recent investigation of information revealed on institutional racism in Texaco in the US demonstrated that the data for implicit policies are sufficiently available to support “intent” and revealed an ideology that created a political economy discouraging the employment or advancement of Blacks (Associated Press 1996a, 1996b; C. Deutsch 1996; K. Eichenwald 1996).

The Political Economy of Forestry

Forests occupy more than 70 percent of Mexico’s land mass, and temperate forests account for three fourths of that, or about 28 million hectares. Deforested areas amount to about 17.8 million hectares (World Bank 1989:3). The agricultural sector, which includes forestry, accounted for 18.6 percent of Gross Domestic Product (GDP) in 1986, with forestry alone representing 1.8 percent of GDP. This low production is attributed to poor

technology, poor management, business, and technical skills, scarcity of development capital, poor forestry management plans (a practice of “high-grading” removes the largest trees causing forest degradation), poor transportation technology, and bad roads. Chihuahua contains one of the best stands of productive forests in the country, and produces 25 percent of the nation’s output. Manufacturing is ranked first in Chihuahua because of the presence of assembly plants, and therefore, exportation only involves products assembled from materials acquired from the US. Thus, GDP from manufacturing comes only from value added by labor (T. Weaver 1983). Mining, although diminished in recent decades, still ranks second. Forestry, as part of the agricultural sector, ranks third (Subsecretaría de Cultura 1988:26).

Indian Institute personnel discovered that 70 percent of the native groups are located on 4 percent of the nation’s forest lands (S. Nahmad et al. 1993). As a consequence they have shown renewed interest in forestry production in the last decade. As indicated above complete information is not available to complete the picture of the political economy of forestry. Optimally, income data for corporations and *ejidos* would be useful for this analysis. For the present we must be satisfied with a general analysis of the patterns of production and distribution technology (T. Weaver 1994). Mexican Indians have continued to be the poorest of the poor by any census or other measurements. Forest *ejidos* comprised of mostly Indians are characterized by the poorest technology and skills, and by having to contract with private corporations for most production and distribution processes because they lack the skills and technology. The highest profits come from the finished and manufactured wood products. Indian enterprises usually only cut unfinished logs, leaving transportation, lumber production, and finishing and manufacture to urban-based Mestizo companies (S. Nahmad et al. 1993; T. Weaver 1994; World Bank 1989). The political economy of forestry production in northern Mexico historically, thus, represents a social, cultural, and economic pattern that makes it difficult for small producers, whether Mestizo or Indian, to gain much from their activities.

It is clear that the totality of the policy environment dictates the current condition and outcome of production. Historically, forestry is embedded in a long chain of interactions among provincial, national, and international elites (particularly with Mexican and American business connections). The history of Mexico reveals important factors that forge a political economy linked with the Mexican Revolution including the establishment of *ejidos* (communal land tenure) and the creation and subsequent domination of the dominant political party (PRI). Also related is a social history of domination of economic activities of Indians by elites and *caciques* (political and economic bosses, or patrons). The resulting culture of domination involves Mestizos of all classes, indigenous groups, and Americans. *Caciques* and regional power groups provide an important linkage as intermediaries to centrist, national forces (G. de la Peña 1989). An oppressive psychological environment of privilege, corruption, domination, racism, and subservience is maintained by the policies and actions of a Mexico City based government and political party. Likewise, international economic conditions play a part in this multiple policy environment. The search for new resources because of diminishing forest reserves in Canada and the United States, for example, have had important impacts on northern Mexican forestry production since the middle of the prior century (T. Weaver 1994).

Forest Policy and Organization

Mexican regulations on forestry are contained in three main instruments: the Forestry Law of 1986, the National Forestry and Jungles Program (PRONABOSE) of 1984-1988, and the General Law of Ecological Equilibrium and Environmental Protection of 1988. The last law was modeled after the US National Environmental Policy Act of 1970. These policies provide regulations and guidelines for management plans for harvesting, environmental protection, environmental impact assessment, and sustained economic development. Provisions also include improvement of employment and living standards for workers, and adequate financing for forestry development through various federal funds (R. Pastor 1993:53-61; World Bank 1989:6-8). In some sense, these laws are stronger than those of the United States. For example, where the US only requires environmental impact assessments on projects with federal funding, Mexico additionally requires them on any investment involving hazardous wastes (R. Pastor 1993:57).

Forest policies of the mid-1980s called for creating bureaus responsible for the enforcement of regulations. Governmental and private credit and lending institutions were to administer trust funds for development and protection of the national forests. These agencies are often restructured after each presidential election. Existing entities include the Secretariat of Agriculture and Water Resources (SARH), with a Subsecretariat of Forestry (SFF) responsible for forestry programs. Through a Forestry Development Program SFF approves management and harvesting plans developed by local service organizations called UCODEFOs (Unidades Cooperativas para el Desarrollo Forestal) (World Bank 1989:5-8). Mexico was one of the first nations to establish a ministry dedicated solely to the environment. The new ministry SEDUE (Secretariat of Urban Development and Ecology) was replaced by SEDESOL (Secretariat of Social Development). It is a weakened bureau with two divisions, one dealing with research and regulations and another with enforcement. In the preliminary phases leading to approval of the World Bank loan, SEDESOL contracted with the Centro de Ecología of the National University (UNAM) for endangered species studies and the Universities of Chihuahua and Sonora for environmental studies of impact zones.

The bureaucracies that form federal government ministries, with offices throughout the Republic, promote formal and informal regulations and guidelines on forestry. Regulations may be interpreted and enforced differently. For example, SARH officials in the Durango offices would not transfer funds to the Secretariat of Roads and Transportation (SCT) for rehabilitating roads. They held that budgeting entities are strictly accountable for funds received by that agency and this can not be done with money transferred between agencies. In Chihuahua, on the other hand, with more experience in interagency matters, funds involving the same agency and circumstances were transferred to other agencies without loss of accountability.

Early local instruments of forestry policy were government parastatals, called PROFORTARAH (Programas Forestales de la Tarahumara), who were supposed to assist forest *ejidos* manage production and profit. They engendered dependence by fixing prices, purchasing ejidal products, and providing other services. Generally, they were staffed by elites and characterized by mismanagement and corruption. The distrust engendered by the parastatals transferred to the private service affiliates that replaced them called UCODEFOs (World Bank 1989:3-5). They conduct studies of forest conditions using survey mapping, computer techniques, select and mark trees for cutting, generate management plans, oversee operations, prevent illegal logging, and provide related

services. UCODEFOs are supported by fees paid by subscribing *ejidos*. The director is usually hired and paid by SARH and SCT, to whom they are legally responsible. Complaints are plentiful. The foresters are mostly from out of the region and look down their noses at Indians, “rustic” Mestizos, and unsophisticated Norteño urbanites. They support each other “since they come from the same school,” and seldom go to the field. They are accused of receiving payment from lumber companies to illegally mark accessible or larger trees. UCODEFO’s require the unprofitable cutting of smaller trees to encourage growth and laying branches crosswise on a slope to prevent erosion. The expense for environmental protection is, thus, transferred to *ejidos*. They are accused of not providing timely information regarding forest management and environmental protection to Indian *ejidos*. Some INI representatives supported these accusations, but SARH officials denied that UCODEFOs were neglectful (T. Weaver 1994).

Forestry Corporations (*Empresas*)

Private forestry corporations have operated in northern Mexico since the last decades of the prior century (F. Lister and R. Lister 1966; C. Sonnichsen 1974). Regional resources became important to Americans after the late 1800s when forests of Appalachia and the Northwest were overexploited. In 1897 lumber concessions were granted to foreigners during the presidency of Porfirio Diaz. His goal was to modernize Mexico by developing business and industry through foreign financing and technology. Large haciendas fell into the hands of Americans, railroad interests, and local elites (F. Almada 1955:335-336, 1946). The entrance of the railroad into the southwestern United States, and construction of a railway line from Mexico City to Juarez on the US border in 1881, simplified their extension in 1907 into northwest Mexico to access lumber and minerals (J. Coatsworth 1976; D. Pletcher 1958; C. Sonnichsen 1974). Railroad stations at first, then towns and cities, were founded along rail lines, and they were instrumental, as articulatory mechanisms, in moving goods and profits to the core (F. Almada 1955:331-332, 1945, 1971).

The foremost families involved in business alliances with outsiders were also affiliated by marriage, kinship, and friendship (F. Almada 1955; J. Alonso 1976; F. Jordan 1956; F. Lister and R. Lister 1966; M. Wasserman 1984). At the turn of the century, two lumber companies were formed through alliances of Americans and Mexican families. (F. Almada 1955:331-332). Today, their descendants and other elites monopolize a diversified economy (A. Aziz Nassif 1985; Subsecretaria de Cultura 1988:53). Modern companies cut trees in the mountains, transport logs, operate sawmills, and manufacture useful products, including creosoted railroad ties, telephone poles, furniture, door and window casings, and finished building materials (F. Lartigue 1983; F. Lister and R. Lister 1966:298).

Grupo Industrial Bosques de Chihuahua, also called El Grupo, largest of the “*empresas*” (corporations) as they are called, is one of the most important national financial, industrial, and commercial conglomerates. It had its beginnings with the founding of the Banco Comercial Mexicano in 1934 by Eloy Vallina and three partners. In 1946, El Grupo acquired the large forest properties of Northwestern Railroad, Ltd., a primarily British holding, and renamed it Bosques de Chihuahua. In 1952, Celulosa de Chihuahua was formed, followed by another Vallina corporation, Plywood Ponderosa de Mexico, which became the most important fabricator of plywood in the nation. One of the subsidiaries of El Grupo contracted with an Italian company for a paper pulp mill near

Cuautemoc called Celulosa de Chihuahua, S.A. A beautiful structure in the best Italian architectural tradition, it did not function well until experts from Kimberly Clark redesigned the plant and trained Mexican technicians. The nearby town of Anahuac became a show place with modern conveniences, schools, hospitals, and hotels. Two more industries were developed during the same epoch: a rayon factory and a plywood factory (F. Lister and R. Lister 1966:299-300). Recent reports suggest that these industries have all but disappeared leaving the town in disrepair (Personal communication, H. Bleibtreu 1995). In the early 1960s, El Grupo had 6000 workers. By 1985, it had 24,000 workers with a capitalization of 3,600 million pesos and 260 branches in 160 cities. El Grupo has diversified into other businesses, directly or indirectly under its control, such as industry and industrial parks, retailing, ranching, insurance, construction, cement, mining, automotive, communications, transportation, and machinery (A. Aziz Nassif 1985:75-87; Chihuahua Hoy 1984-85; F. Lartigue 1983:41-43).

The activities and policies of such corporations as El Grupo are, perhaps, more important for regional forestry operations than those of national institutions. They have been in the region longer and have established strong kin-, marriage-, and friendship-based business bonds. Networks extend into small settlements in the Sierra, and through the placement of relatives and friends, operate small businesses as “branches” of larger interests. The companies are able to control the distribution of profits and the economy throughout the region. In a sense, it does not matter what policies are established in Mexico City, actions at the local level can subvert high-minded intentions about the environment or the distribution of profits. *Ejid*os and *comunidades*, as well as small private operators, become indebted through cash or credit advances for future timber production to the point that independent, competitive decisions are impossible to make or are made under pressure or threats. Given this local picture, one must keep in mind that the profits that are kept by local entrepreneurs are small compared to the profits and resources that leave the state.

International Policies

Multilateral and bilateral treaties and trade agreements are policy initiatives that create economic and political situations that favor First World over Third World economies. Multilateral agreements originate in international organizations such as the United Nations, where international policy instruments are generated through the World Trade Organization, the World Bank group, the Organization of American States, and others (T. Spybey 1992). As part of the World Trade Organization, GATT shapes an environment favorable to international trade by reducing taxes and tariffs, with nearly two hundred countries having signed the agreement. NAFTA substantially reduces trade barriers. It is modeled after an agreement of the European Economic Community, and eventually may include other members in the western hemisphere. Bilateral agreements and policies come from efforts of a nation to sway the policies of other countries to improve political and economic conditions. In addition to such international policy instruments, every first world nation has a development body that influences the political and economic acts of countries receiving aid. Tied to development agencies, it is another major international force that dictates national and local forestry production. Yet to be examined in future research is the operation of large multinational corporations.

World Bank Policies

Most influential in international development circles, undoubtedly, is the World Bank (its actual name is the International Bank for Reconstruction and Development, or IRBD), and its sister constructs, the IMF (International Monetary Fund), the IFC (International Finance Corporation, and the IDA (International Development Agency) (P. LePrestre 1989; A. van de Laar 1980). Indirectly they control where private banks invest. Once one of the World Bank assemblages makes a development loan to a country following extensive study and negotiations, other regional and national development, and private banks follow with additional loans and investments. A central ideology that dictates development policy and lending patterns is a constantly adjusting variation of the modernization development model created after the second World War (T. Spybey 1992).

Since, 1978 the World Bank has financed 94 forestry projects at a cost of almost \$2.5 billion (The World Bank 1991). Policy guidelines cover protection of forest resources, conditions for potential borrowers, the welfare of Indians, resettlement, and others (N. Kardam 1993). There are guidelines for protection of biological diversity, assistance in making resource inventories, support for complementary programs such as population planning, assessment of social issues, alleviating poverty, and employment opportunities in other sectors. The Bank places priority on policy reform and institutional building, preservation and creation of parks and reserves, and finances pilot projects to support these goals. It supports social forestry on family farms, women's groups, and the establishment of plantations in degraded areas and abandoned farmlands (S. Guggenheim and J. Spears 1991). Bank involvement favors nations with an institutional capacity and willingness to formulate designs for environmentally sensitive and sustaining forestry projects and to undertake social and environmental impact assessments (The World Bank 1991:18-21).

The existence of regulatory policies is one side of the equation; fulfillment is the other unequal side where conditions of a political economy are produced. Enforcement depends upon conditions and situations in the provinces which are generally out of control of outside policy makers. Enforcement of forest protection laws and regulations rely on existing institutions, how well they are organized and directed, and on informal social structures that may have other agendas. More is said about this in the discussion on national policies. The most important aspects of World Bank policy do not involve the thoroughness of coverage or topic, whether environmental protection, indigenous rights, or resettlement (also Bank policies), but the consequences and outcomes of local conditions and activities involving enforcement of intent.

The World Bank Loan

Under conditions of the loan negotiated in 1989, the World Bank would furnish \$45.5 million to be matched by Mexico (R. Salomon 1993). Fifty-three percent of the funds would go to *ejidos* and private producers for equipment, transport, and maintenance, 37 percent for the rehabilitation of forest roads (1215 km in both states), four percent for environmental protection, and six percent for technical assistance and training. Of this money, 230 credit loans were set aside for beneficiaries in the impact zone in the northern Sierra Madre. A Mexican consulting firm was contracted to conduct an institutional study of forestry with suggestions to better meet obligations under the proposed loan. The Bank also commissioned and financed a forest sector review of Indian forestry to assess the total context, experience, goals of and capacity for national development (S. Nahmad et al.

1993). Early distribution of funds provided for environmental and baseline studies, social impact assessments, and monitoring instruments. The Bank rejected several drafts which did not cover the full range of concerns required in environmental, social impact, and endangered species studies. Failure to complete these studies satisfactorily and Mexico's inability to come up with matching funds were reported as reasons for the loan's cancellation in 1994.

GATT, NAFTA and Forestry

GATT, a United Nations policy initiative and a regional treaty, and NAFTA, are linked trade agreements in that what was covered in the first did not have to be addressed in the second (T. Josling 1992; N. Lustig et al. 1992). Mexico signed the GATT agreement with a provision that surcharges on forest products be reduced from 33 percent in 1985, to 20 percent in 1987, and eliminated by 1989. NAFTA became effective on January 1, 1994 (Office of the US Trade Representative 1992a; 1992b:12-14; R. Pastor 1993:44-45). The impact on Mexican forest producers of NAFTA will be secondary by influencing other sectors of society such as working conditions and opportunities that will, in turn, affect forestry. The major regulations were established by the 1989 GATT treaty. Even before approval of NAFTA and negotiations for the World Bank loan, however, Mexico's northern frontier forest industry was not competing effectively with Canadian plywood and paper pulp products from the southern United States (The Economist 1993; Office of the US Trade Representative 1992a, 1992b). The most sensitive issue in NAFTA deals with the side agreements on labor and environmental co-operation, especially dealing with dispute settlement over non-enforcement and disciplinary measures (C. Cadsby and K. Woodside 1993).

Treaties and industrial work programs are not the only articulatory mechanisms. Also included are business conditions such as control and ownership or possession of land and worker benefits. Although they exist, laws prohibiting foreign ownership of land and businesses have always been circumvented through bank trust agreements and "bogus" ownership papers. The blueprint followed by foreign business intrusions associated with NAFTA was produced at the turn of the century during the Porfirio Diaz regime. This pattern was emulated by the more recent border industries program initiated in 1965 (called PRONAF, Programa Nacional Para la Frontera) that now places assembly plants throughout the country (M.T. Fernandez-Kelly 1983; T. Golden 1993; R. Pastor 1993; D. Peña 1989; J. Maggs 1993; J. Nash and M.T. Fernandez-Kelly 1983; A. Silvers and F. Lara Valencia 1994; T. Weaver 1983, 1984). Generally, the Mexican government maintains low minimum wages and benefits as inducements to foreign investment. Complaints in 1993 by Mexican unions of labor conditions expected under conditions of the NAFTA agreement and pressures for adjustments do not appear encouraging for companies anticipating lower wages. Korea, Taiwan, and other newly industrialized countries, and even the older industrialized Japan, find that low wage labor is a luxury that lasts only until workers begin to demand the employment benefits and working conditions found in developed economies. In 1992, the creation of pension funds was mandated for private companies. This will add to operation expenses of domestic and international corporations and may offset expected wage advantages. So far, such minor adjustments have not impeded the movement of businesses into Mexico from the US, Japan and Europe.

National Policies

Many national policies act as articulatory mechanisms that facilitate the movement of resources and labor from forest lands to national and multinational corporations. Laws and regulations that built forestry bureaus and guidelines, and laws on wages and worker benefits were discussed above. Other examples are the economic reform and denationalization measures commenced in the early 1980s. The privatization of nationally owned corporations and of highway construction are part of the policy environment. Others provide a milieu within which all national activities operate. These include a long standing and domineering single party system, national banking institutions, the National Indian Institution, and the new land tenure law (B. DeWalt and M. Rees 1994; T. Weaver 1994).

Economic Reform and Privatization

Reform in Mexico began with economic restructuring imposed by the IMF in 1983 including provisions for instituting free-market processes and privatization. Policy reforms began during President de la Madrid's term and continued with vigor after Salinas de Gortari became president in 1988 (B. Bosworth et al. 1992:8). Nearly three-fourths of once-nationalized industries were privatized beginning with communications, telephones, banks, and agriculture, and in recent times continuing with parts of the oil industry. Most of the income from sales of these businesses went to reducing the national deficit from 16 percent of GDP in 1987 to 1 percent in 1994. The share coming from the sale of banks alone came to \$12.4 billion. Reform led to an improved economy with a rate of growth of 3.7 percent between 1989 and 1991, a reduction in inflation from 159 percent in 1987 to 12 percent in 1992, and increased foreign investment (B. Bosworth et al. 1992:8). Mexico's national debt is now much better than many developed countries--39 percent of GDP compared to 63 percent for the United States and 65 percent for Japan (The Economist 1993:3).

The Salinas government privatized highway construction and management. More than 5,000 km of paved toll roads were constructed by private companies that recuperate costs and make profits by imposing fees. A toll highway links the capital with the important north central city of Cuautemoc, and from there through improved secondary roads to interior mountain towns. The highway is a boon to the forest industry in many ways. It facilitates movement of products over the last few hundred kilometers to finishing mills and markets. Toll fees in 1992 of 15,000 pesos (about \$5 US) seem high, but vastly improved multi-lane smooth highways permit autobahn speeds and make communication between cities more efficient. Improvements of paved streets, and new businesses, hotels, restaurants, and schools, and federal offices provide an improved economy for the northern gateway towns at the edge of the forests of the Sierra Madre.

National Banking Institutions

Privately owned banks were nationalized in 1982; some privatized in 1983, and then all banks privatized beginning in 1988. World financiers now view banking conditions as quite favorable for investments in Mexico. The reform of banking left a tiered system in the industry. At the top is the development bank named Nacional Financiera (NAFIN), which has operated for over 50 years to develop a healthy investment climate, and to assist foreign investment through advice, information, venture capital, and joint enterprises. The agency maintains offices in major world cities such as London, New York, Tokyo,

Washington, and Milan. It is the agency through which funds from the World Bank forestry loan were to be channeled to commercial banks and trusts. In 1993, NAFIN received international attention, an American rebuke, and was forced to bail out of a venture with a North American corporation. This occurred after widespread media attention to advertisements sponsored by NAFIN to assist international companies by blatantly advertising the advantages of Mexico's low labor costs (T. Golden 1993; J. Maggs 1993). The only element unusual about this arrangement was the publicity. Private American and Mexican corporations have been aided by government agencies such as NAFIN in the same manner under prior programs such as the Border Industries Program.

The Bank of Mexico operates as the highest banking institution and lender of last resort, and is instrumental in developing national banking and financial policy. In mid-1992, the Bank tightened monetary strategy to make the peso more competitive in the international monetary market. The government issued short-term bonds with interest rates of 18 percent or higher, and this, along with a generally healthy economy, helped the Mexican stock market outperform the Dow Jones average until 1994, when a financial and political crisis arose (The Economist 1993:7). The Bank of Mexico is the trustee for agricultural funds administered by FIRA (Trust Fund for Agriculture). The trust funds are FICART (Trust Fund for Credit in Rainfed and Irrigated Areas), FODEF (Trust Fund for Forestry Development), and BANRURAL (National Bank for Rural Credit). FIRA supports agricultural activities and low-income borrowers. It discounts short-, medium-, and long-term loans to participating banks for crops, livestock, agroindustry, and loan guarantees. FIRA maintains branch offices to supervise and evaluate loans, conduct training programs, and provide technical assistance. FICART is a separate source for agricultural credit and channels low-interest loans to low-income families through BANRURAL.

BANRURAL is the largest agricultural bank in Mexico, is government owned, and has an extensive presence through its regional offices. Until recently, its operation was inefficient, corrupt, and mismanaged. In the last decade, it reorganized, became more efficient, and recuperated some of its lost prestige. Commercial banks, such as the largest--Banamex and Bancomer--receive funds for agricultural and forestry development from federal banking institutions. This support requires the maintenance of departments for technical assessment and loan evaluation in forestry and agriculture. Regulations govern the distribution of funds from trusts and their accountability by banks. Escrow deposits are withheld from bank portfolios if a stipulated percentage of loans is not made to poor and rural borrowers. The decks, however, are stacked against the productive use of banks by rural poor and Indian people; these people lack financial expertise, and the banks are urban based and urban biased.

An insight into the relationship of banking and forestry can be gained from plans for disbursement of funds from the World Bank forestry development loan. The flow of money was to go from the World Bank through NAFIN to the Bank of Mexico. One stream of money would go to various trust funds and banks (FIRA, FICART, FODEF, BANRURAL). The funds were then spread to private and commercial banks, who would make loans to *ejidos*, *comunidades*, and small producers, but not to large enterprises. The second stream was to move money to participating secretariats for performing specific tasks. Administrative costs were covered for the Secretariat of Finance and Public Credit (SHCP). Funds were allocated and disbursed to SEDESOL for studies conducted by the National and provincial universities, to INI for operations costs and to SARH for salaries of the World Bank Forestry Project staff. Money was to be directed to SCT for

rehabilitation of forest roads. SARH was to receive support for administrative and supervisory costs, and salaries.

The PRI and the President

The national political party--the PRI--articulates all power and influence from the president to the smallest *municipio*. A few years ago it could boast that it had not lost an election from national to *municipio* office. Large amounts of money are channeled to support PRI candidates all over the country. Suddenly, highways are constructed, roads repaired, schools built, and public works appear in pre-election time like flowers blooming in early spring. PRI posters dominate the scenery, loud-speakers mounted on vehicles break the morning silence in every village, and party officials glad hand everyone. The Party is headed by an elected leader who directs the National Executive Committee (CEN) that controls all nominating conventions and can remove party officials. CEN has representatives from the Senate, the Chamber of Deputies, and three subunits of the Party--workers, farmers and peasants, and middle class groups (R. Gamer 1976:157-164).

The Party controls all elections, appointments, and public employment, as well as the distribution of government funds (S. Dillon 1996; J. Preston 1996). It influences agencies that assign contracts for forestry, road, and other projects. Political life in Mexico operates through an intricate system of patron-client relationships (R. Gamer 1976:100-107; G. de la Peña 1989) epitomized by power networks centered on rising stars linked by kinship, friendship, and favors. An ambitious person wishing to succeed in party politics starts by distributing pamphlets, working in small elections, and ultimately receives an appointment in a bureaucratic post where they devote their time to political party matters. This person joins a patron who forms a cohort that rises with him through the political system. Some members of this cohort may, themselves, form a circle of control and patronage (R. Gamer 1976:159). Similar patron-client relationships, also based on principles of affiliation and loyalty, permeate other institutions such as the patron-client institution called *caciquismo*.

Notwithstanding the power of the party (which appears all encompassing) there is also the considerable authority of the President. As leader of the nation, and selected by the outgoing president in consultation with the highest clique within the PRI, he maintains absolute control over appointed and elected offices, including legislative and judicial branches of government. The President can remove any elected official accused of conducting a fraudulent election, violating the law, or his trust. The party has been accused of election fraud and manipulation (New York Times 1996a, 1996b), including during the election of President Salinas de Gortari in 1988. Helpful in mitigating criticism was President Salinas' success in reversing a poor economy (A. Guillermprieto 1992). Confidence in the president and the party diminished severely after the 1994 elections when Salinas' brother was accused along with others of having engineered the death of prominent politicians, including the PRI's candidate for president and the attorney general who was investigating the assassination. This occurred despite pledges by President Zedillo to stop corruption and reform the party system (J. Anderson and M. Moore 1997; Cox News Service 1996; San Antonio Express-News 1997).

Consejos Directivos. A program called PRONASOL (National Program for Solidarity) that impacts forestry production was introduced by President Salinas. The President bypassed bureaucracies to place power and money in the hands of poor people. *Consejos Directivos*, the administrative groups of this program, were made up of elected representatives from neighboring *ejidos* or *comunidades*. Elsewhere in the country they

included non-Indian poor people. The *Consejo* (Council) allocates funds for purchasing equipment, installing community water supplies, electricity, sewer systems, school rooms, laboratories, mechanical shops, and similar activities (A. Oppenheimer 1993). Some *ejidos* were helped to purchase road graders, bull dozers, and to set up community stores to sell food cheaper than commercial or government stores. The community was obligated to provide free labor for funded projects, serve on the *Consejo* without compensation, and repay the loans at a nominal interest rate. *Consejos*, serving a primarily Indian constituency, were assisted and advised by INI. Experience with the Councils empowered regional groups, developed leadership, and provided management skills. The annual budget for the national program was about 3 billion dollars. The small economic gains allowed, however, were quite useful for these generally impoverished people. In 1993, INI was made accountable for these funds, dampening INI support, and reducing the availability of funds. Although no longer in force due to the change in presidents, recent heads of state have always had similar programs.

The National Indian Institute (INI)

The Indian Institute is important in the present context because recent data show that most of the nation's Indian population live in the nation's much sought after forest lands (S. Nahmad et al. 1993). The central office of the National Indian Institute in Mexico City approves budgets, makes appointments, employs workers, institutes regulations, and supervises all matters dealing with Indians. In the early 1950s, INI decentralized activities by creating regional administrative centers (*Centros Coordinadores*) and branch offices to improve services (Instituto Nacional Indigenista 1962, 1976, 1978). Although the diffusion of the activities of the Institute to the *Centros* brought the grave conditions of Mexico's Indian people to public attention, it has been relatively ineffective in allaying these problems (T. Weaver 1992, 1994). There are *Centros* in Chihuahua with suboffices located near Tarahumara, Northern Tepehuan, Guarijio, and Pima Bajo Indians. A *Centro* was established in Durango after the Institute received moneys for coordinating World Bank baseline studies and social impact assessments. This *Centro*, with two substations, improved services to Southern Tepehuan, Huichol and Mexicanero Indians (T. Weaver 1992, 1994).

Significant programs attached to INI include a division of SEP (Secretariat of Public Education) called SEP-INI (because it is tied with the National Indian Institute). The main goal of the subagency is to provide education to Indians, mostly in boarding and day schools. This program trains indigenous bilingual educators (*promotores bilingues*) who act as change agents in Indian communities. They teach in Spanish and the native language, construct bilingual educational materials, and assist INI in its mission. Indian education receives operations support from INI and salaries from SEP. Also attached to and supported operationally by INI, but in separate offices, were the World Bank field teams, which included social scientists, anthropologists and *promotores bilingues*. The forest project offices assumed some INI responsibilities during their field visits, such as holding workshops, delivering supplies to INI suboffices, gathering useful information, and transmitting messages. However, their main responsibilities were to collect social, economic, and cultural baseline data in order to assess the potential impact of the World Bank loan on the Indian populations. Also they were supposed to provide information on loans and develop a monitoring instrument to be operated by Indians.

Until recently, the Indian Institute was headed and staffed by some of the nation's best known anthropologists, who carried much political clout and were held in high national esteem (S. Nahmad y T. Weaver 1990). The current secretary of Agrarian Reform is an anthropologist with much experience as a researcher and scholar, and more significant, as director of the Indian Institute immediately before assuming his current post. The political ideology represented in the new post may not be helpful to Indians (B. DeWalt and M. Rees 1994; T. Weaver 1994). The administration of Indian affairs in Mexico is almost totally staffed by non-Indians, mostly middle class urbanites and bureaucrats. Most, today, are not trained in anthropology. Attempts to bring more Indians into INI resulted in the jailing of a previous director on trumped up charges. The World Bank teams charged in 1992-93 with conducting baseline studies were composed of social scientists, a few anthropologists, with only three of the 45 members in Chihuahua being Indians. *Promotores bilingues*, as mentioned before, are indigenous bilingual teachers and culture brokers who are very knowledgeable of both cultures and could serve in more important capacities than they now do. There are many Indians who have held public office in other agencies and institutions and who could be utilized profitably in Indian affairs.

Although much impugned for its ineffectiveness and past failures, INI is one of the few agencies that help Indians. The activities of the human rights groups in the recent decade is doing much to mitigate the most heinous human rights violations. As it now stands, although, the best solution available, the Indian Institute inadvertently acts as another articulatory mechanism for facilitating the movement of resources to semiperiphery and core. It does this by not having empowered and educated the indigenous people and by not representing them more vigorously. The Indians of the Sierra have been starving for the past decade and little is done to mitigate this condition. The decade long drought in the north has added immensely to the problem (J. Simon 1996). INI salaries go to outsiders; supplies are purchased from Mestizo companies, no Indians own stores or businesses, few are employed by INI, and on and on.

Land Tenure Policies

The new Land Tenure Law of 1991 is another clear demonstration of an ideology that articulates institutions with the purpose of maintaining the political ecology of the poverty of Indian and rural people. As a result of the new law, people will be displaced from forest lands that will be taken over by large corporations. Migrants will crowd border cities and provide cheap labor for Mexican border and US agricultural and service industries.

The Constitution of 1917, after the Revolution, provided for land redistribution by eliminating large private hacienda and Church-held estates. Three types of land tenure were produced: public, (small and large) private property owners, and communal lands (*ejidos* and *comunidades*). Almost half of the nation's lands were in ejidal or comunidad status in 1988, with only one-fifth of these lands arable. The average *ejido* holding was 6.6 hectares. The 28,058 *ejidos* and *comunidades* include about 27 million people (Centro de Investigación 1992:16-17; B. DeWalt and M. Rees 1994:4). *Ejidos* were created by constitutional law with usufruct-based (use it or lose it) membership rules unlike the lifetime membership of *comunidades* which is not based on the necessity for continuous use. *Ejidos* may be held by Mestizos or Indians, or both together (B. DeWalt and M. Rees 1994:14-16; T. Weaver 1994). The *comunidad* is an older land tenure form, sometimes called an agrarian community, found among the Tepehuan in southern Chihuahua and southern Durango, and elsewhere in the country. The term "*comunidad*" is misleading in

that it may be used to refer to any group of people with a commonality of purpose, values, or residence. In this case, the definition of the term is more restricted in that membership in *comunidades* is usually entirely Indian.

The *ejido* lacked credits, capital, technology, irrigation, fertilizers, and other necessities to make them more than subsistence farms. Use as loan collateral was almost impossible because of the difficulty of pinning responsibility for repayment to individuals living communally. This meant that loans were generally not available to poor *ejidos* and Indian *comunidades*. The new land tenure law stipulates that communal lands, with the possible exception of forest properties, now become rentable, can be divided and owned individually, sold, and pledged as collateral for loans (Centro de Investigación 1992:17). Members of each *ejido* or *comunidad* can decide to accept privatization; however, most appear to favor adopting *comunidad* status.

The new land tenure law will affect the future of rural and indigenous peoples, and, in fact, all peoples of Mexico, as well as the operation of the country's forest industry. Inevitably, people will be dispossessed or choose voluntarily to relinquish their lands. Ninety-five million hectares of *ejidal* lands will be subject to privatization (Centro de Investigación 1992). Land will be concentrated in the hands of a few; this happens in nations where agricultural lands are opened to capitalist penetration (T. Nava Vasquez 1993:38). It is estimated that three million families will be displaced, which represents 4.5 million unemployed persons. Rural poverty will increase. The Mexican economy would have to grow at an incredible rate of nine percent for the next 35 years to accommodate this number of new workers (T. Nava Vasquez 1993:39).

Migration to urban and border areas will increase if people living in forest *ejidos* are forced off the land as the result of the new land tenure regulations and land encroachment by large corporations. The movement of people will be to a staging area on Mexico's northern border cities for continued migration to the United States. This will exacerbate problems in border towns of substandard housing and sanitation, inadequate social and human services, and urban poverty and crime. Increasingly, more Indians are found living in enclaves on both sides of the border. In California, Mixtec Indians from Oaxaca have replaced the lower skilled and more difficult work of undocumented Mestizo agricultural workers (M. Kearney 1986, 1991). Tarahumara and other Indians are also found in smaller numbers. Official Mexican attitude regarding the movement northward of undocumented workers, at best can be characterized as *laissez faire*. The only official government actions are protests over civil rights violations of workers in the United States that ignore their own less than favorable civil rights conditions (M. Arcadia 1994; Associated Press 1993, 1994). This political stance derives from the pressure to reduce internal dissension over high rates of unemployment and poverty.

The Land Tenure Law provides safeguards and monitors for proper voting, assent to sell, the power of *ejidal* and communal assemblies, and makes legal recommendations. However, the new law threatens to reverse the intentions of the Revolution. It does so because of the social and political context within which the law will be activated. This context includes a centralized bureaucracy, a dominant one-party political system, the manipulation of elections, rural isolation, and corruption. In addition is the fact that many *ejidal* and communal land owners are impoverished, illiterate or marginally literate, and are people under the influence and domination of *caciquismo*. There are suspicions that conditions that prevailed at the turn of this century under Porfirio Diaz are being replicated and may end in an upheaval similar to the 1910 Revolution. Indeed, this is a revolution in land tenure rights comparable to the one that followed that Revolution; only it is one that

reverses direction. Uprisings in Chiapas and elsewhere in 1994, and the destabilization of the 1994 elections by the murder of the PRI presidential nominee, may be early stirrings of a conflagration such as accompanied that revolt (A. Guillermoprieto 1994; N. Harvey 1994).

State Level Policies

Control is maintained of all significant economic resources and political decisions down to the *municipio* by Mexico's centralized government and bureaucracy. This is accomplished through representatives of national and local agencies, as mentioned before, as well as private companies (*empresas*) with interests in forest production. Policy making at *municipio* and indigenous levels is limited because of the dominance of national policies and bureaucracies (T. Weaver 1994). Profit and power is controlled by patron-client networks linking *caciques* to poor people and to outsiders. Thus, rather than control over national and international policies, provincial institutions and mechanisms expedite the exploitation of local resources and the movement of value and capital up the ladder of profit and exploitation.

Caciquismo

Caciques (bosses) form a dominant force and an informal power structure throughout the Sierra, and run many of the forest *ejidos* and business enterprises. Their control is not limited to, but here focuses on, what I have called the periphery of the periphery, the poorest of the rural poor. Because of their education, power connections, and information control, they are able to ally with and quickly control outside businesses and new programs. They have a patron-client relationship with Indian groups, especially in *ejidos* where they may be dominant although minority members. *Caciques* are allied in networks of power and influence connecting urban corporations and elites with a one room general store in the smallest mountain community. Through advances for future timber sales, *ejidos* and *comunidades* become indebted to these small stores and to private corporations to the point that independent decisions about contracts are difficult to make. The perpetuation and extension of elite networks is made possible by kinship, *compadrazgo*, friendships, patronage, politics, loans, personal favors, debt peonage, corruption, and illegal payments. Pressure, threat, violence, and murder render the people of the mountains powerless and diminish their share of equitable economic benefits (G. de la Peña 1989; F. Lartigue 1983, 1990; F. Lister and R. Lister 1966; F. Vatant 1979; M. Wasserman 1984). Becoming a *cacique* is not limited to Mestizos. An occasional *promotor bilingue* (bilingual teachers) returns to control their community as a *cacique*. This institution has been extended into the control, production, distribution, and profit from drugs in the remote Sierra. Some *caciques* use sophisticated irrigation techniques, small aircraft, and modern trucks, and coerce Indians through violence to grow and transport their drugs (A. Weisman 1994).

Local Governments

Municipios, *ejidos*, and *comunidades* are political and administrative units. *Municipios* are county-level political units with limited command over forestry development. Significantly, most residents of small towns and *municipio* headships are Mestizos (C. Martinez Assad 1985). All *municipio* officers are Mestizos and all business is conducted in Spanish. Retail stores, health and educational bureaucracies, and other service facilities

are located in the main *municipio* town, which acts as the administrative and political center. Remoteness, isolation, illiteracy, and *caciquismo* separate indigenous residents of the *municipio* from the daily running of affairs, including *ejidal* matters, and the distribution of resources. *Municipio* officials allocate funds for road construction and maintenance and other services. Decisions not to construct or maintain roads in remote indigenous portions of the *municipio* have unmistakable impacts on forest development, and specifically on transporting lumber. At other times it is informally sanctioned activities that harm the Indians such as *caciquismo*, corruption, illegal logging, and bypassing laws protecting forest lands. However, it is not always decisions made by Mestizos that impede indigenous development. Sometimes it is benign neglect, looking the other way, or simply a concern for their own interests in a remote frontier where making a living is tough, and good is, indeed, limited.

Increasing numbers of Indians maintain residence in a few mostly Mestizo towns and cities. Most live in smaller Indian communities of from 20 to 600 persons called *rancherías* (W. Alexander and T. Weaver 1995; T. Weaver 1994; T. Weaver and W. Alexander 1995). Mestizos with a minority membership in *ejidos* control decision making and profits by virtue of their greater knowledge of Spanish and of political and business matters. When composed solely of Indians, however, elected officers of *comunidades* and *ejidos* make independent policies and decisions. They decide on construction of sawmills, purchase of trucks and equipment, and negotiations with private lumber companies. *Comunidades* and *ejidos* contract with outside lumber companies for a part or the whole of the lumber production operation, from cutting logs, transportation to sawmills, or to paper pulp installations. A few *ejidos* perform all tasks except for fine cutting and marketing finished products. The decision to cut their own logs, transport, and manufacture products is predicated on available technology and capital. Most Indian owned sawmills have circular rather than the more efficient band saws, and their equipment is poorly maintained. Employment options are limited for Indians, but choices they make also result in lower wages. Work is arranged to avoid Mestizo contact. This results in taking the hardest and lowest paying jobs in isolated mountain areas, leaving higher wages, easier tasks, and decision making to Mestizos.

Tepehuan *comunidades* are governed by an elected *Asamblea* (assembly) that represents member *rancherías*. The *Asamblea* makes all decisions affecting the *comunidad*, hires and appoints employees, and conducts all ceremonial and public business. The most important of the appointed personnel are the *jefe de aserradera* (director of the sawmill), *jefe de monte* (supervisor of activities in the mountain), and *comiserario* who negotiates with lumber companies on prices and services. The *Asamblea* approves, modifies, or rejects the *comiserario's* recommendations. A similar process is followed by *ejido* governments with a comparable set of personnel. Tarahumara living with Mestizos in the same *ejido* sacrifice their decision making and do not have official decision-making bodies equivalent to the Tepehuan *Asambleas* or Mestizo township councils or *municipios*. Decisions are made individually. Each person decides where to work, to immigrate, sell logs, and matters of this kind. The Tarahumara, however, have further decision making opportunities. Beer drinking festivals are organized around communal work activities and provide opportunities for information sharing about forestry and other matters (J. Kennedy 1978; W. Merrill 1988; P. Velasco Rivero 1983; T. Weaver 1992, 1994). Medicine men are also important in information sharing and the crystallization of decisions. Finally, Sunday meetings held in central towns for resolving conflicts by elders provide other opportunities for making decisions.

Summary and Conclusions

The main thesis of this paper is that multiple policies emanating from the international organizations, and national and state governments construct a general milieu within which the forest industry operates in northern Mexico. Together, the articulation of these policies constitute the dynamics of political economy. Political economy is defined as the study of unequal access to resources orchestrated by politically dominant human social systems. Among the pertinent policies discussed are those of the World Bank. The policies encourage a prospective borrower to institute regulations for environmental, social, and endangered species studies, and the protection of the needs of indigenous peoples. On the downside World Bank loans tend to support the status quo, established institutions and norms, and loans continue policies that are not supportive of Indian and poor people. Too much of the information gathering and negotiation by the World Bank is with government officials and agency officials. Policies established by international agreements or treaties such as GATT and NAFTA also act in consort with dominant economic ideologies. Contributing to this milieu are the activities of national institutions such as banking, multinational and national forest corporations, and governmental agencies. They originate or activate political ideologies that set policy agendas and strategies. In Mexico, they include economic reform, privatization, the power and dominion of the president and of the PRI, the construction and management of toll roads by private companies, the new land tenure law, and *caciquismo*. Very little power or sway over the production of forest products is found in *municipio*, town, *ejido*, and *comunidad*. Decisions with limited local outcomes are made by individuals, families, and small groups in allocating goods and services, employment, migration, contracting services, and the purchase of equipment.

The general conclusion to this survey is that social issues exist in a multiple policy environment. No single policy by itself can dictate the dimensions or final outcome of a social activity. Different institutions in a complex society support policies based on a common ideology. The resulting policy regulations compete, must be negotiated, changed, or amended in order to successfully provide a positive outcome to an economic endeavor such as forestry production. At presentations of these materials, I was asked which policies had the greatest impact on forestry production. At the beginning of this research, I hypothesized that if the World Bank loan were to be canceled, the conditions under which forestry production operated would continue unchanged. In fact, the loan was canceled, and the result was accurately predicted (T. Weaver 1994). The major conditions or policies that impact forestry production in ranked order from most to least important would be land tenure laws first, followed by *caciquismo* and Mestizo dominance, lack of education and experience, paucity of information, corruption, political centralization, dominance of the PRI, inadequate political participation, poor access to loan capital, poor technology, non-enforcement of forest and environmental regulations, multilateral and bilateral agreements, and the World Bank policies and loan (T. Weaver 1994). Whatever conditions currently exist, whether involving the forest industry, the environment, indigenous matters, or the inequitable distribution of profits, in short--the political economy, are constructed by linked ideologies, activities, pre-existent conditions, and policies.

A Theoretical Afterword

How are institutions of articulation related to commodity chains? Commodity chains refer to the commercial exploitation of particular resources over time. The Spaniards in colonial times began with a search for precious minerals: gold and silver first, then copper,

and cattle were the most important. Copper exploitation on a larger scale began in the late nineteenth century with the coming of the telephone; forestry was added as an important commodity with the advent of the railroad. Some of the exploitative, or articulatory institutions developed in the earlier period sometimes carried over into the next commodity. In the Spanish colonial period, the institutions of articulation included missions, presidios, towns, agricultural and cattle haciendas, and various religious, political, and military administrative units. Indentured and de facto slavery and debt peonage were also instruments of colonialization. The late nineteenth century institutions of articulation included mining towns, mining and railroad companies, banking institutions, labor recruiters, and multinational corporations. In the present context of forestry, the institutions and mechanisms of articulation include the World Bank, multilateral and bilateral trade agreements, policies dealing with economic reform, and privatization. Also included are political parties, national banking corporations, federal agencies such as ministries dealing with agriculture and forestry, the Indian Institute, land tenure laws, and informal arrangements of patron-clientage called *caciquismo*. Racism is an institution of articulation in that it categorizes and treats Indians as uneducated, incapable, stupid, untutored, and generally inferior. This dehumanizes them and renders them susceptible to exploitation as a cheap reserve labor supply, and rationalizes unequal treatment and service. These institutions, coordinated by incoming policies and guided by a central policy ideology, generate a political economy in which those at the top get most of the resources and profits, and those at the bottom get the least.

Why focus on multiple policies? What can be gained from such a holistic approach, or as the title of this paper suggests, from “mapping the policy terrain?” The naturalistic and ecological approach has proved invaluable in anthropological studies. The underlying premise to the approach taken here is that there is a whole interrelated landscape (or some would say a political ecology) of policies, and not just a single influencing feature (or policy) on the policy terrain. Another premise stipulates that a unifying ideology links these policies. Is this ideology one of capitalist conspiracy? Perhaps not a conspiracy, but certainly a broad agreement exists. Can these policies be ranked? Do some apply under certain conditions or in certain spheres and not in others? This review suggests that there is a cascading effect of policies originating at international, national, and regional points that work together to structure a political economy of inequality.

International policies such as those of the World Bank and of trade agreements initiate a policy ideology which may be called conservative or free-market economics. International entities such as the World Bank, the IMF, the World Trade Organization, and others modeled after US-led conservative economic policies work together to form this ideology. This is then translated into policy strategies such as economic reform, the privatization of industry, banking regulations, and rules and regulations of governing institutions in education, forestry, agriculture, Indian service, land reform, and labor, as well in political organization. These policies control the production, distribution, and profit from forestry through the state and regional offices of federal agencies, corporate bodies, and informal agents. The distribution of other human resources and services is also governed by this central ideology. Here we have in mind those factors that predicate access to the good life as defined by modern western society. They include basic gate keeper institutions in knowledge and education, technology, information (news media), health, transportation, political office, and others. These are all present in great quantity and better quality in urban, modern, upper and middle class society, and in lesser quantity or quality, or, absent in Indian and poor rural areas.

Where does the local level fit into this picture of policy making and political economy? The Indians and rural Mestizo poor are powerless and have very little to say about the policies that govern their lives. Here I speak not of the periphery, but of the periphery of the periphery. The few decisions they make, which is a form of policy making but one that is limited to the immediate community, are reactive for the most part, adjusted and adapted to circumstances produced by external conditions, and restrained by native resources. Some readers may object to words such as adapted and adjusted in this context as suggestive of a total powerlessness of Indians and rural poor folk. There are cases in which the "poor rise up," but these are few, and one must ask in the aftermath of the Chiapas Zapatista uprising, just how much has been achieved? Mexico, like all nations, has two cultures--a public one of laws, regulations, policies, and agencies, and a private one of influence, cohort support, networking, corruption, political chicanery, violence, and *caciquismo*. The rural poor suffer the most from the effects of operation of the informal, implicit, policies of the second culture.

Finally, is there any value to viewing a region such as the Tarahumara and Tepehuan Sierra as the periphery of the periphery? We believe that this conceptualization helps to identify internal divisions of the periphery. When one looks closer at peripheral regions one finds a segmentation in which less powerful, but still dominant groups exploit still weaker groups. In a sense, the world system division of core, semiperiphery, and periphery is reproduced at the periphery, perhaps, in a somewhat curtailed or encapsulated form. Nevertheless, the local elites and dominant groups are important because they commence up stream, where the mother lode exists, siphoning raw resources that will provide the basis for greater surplus value farther down stream. We believe that this framework combining the assessment of the multiple policy environment with articulation and world system theories helps explain the creation and maintenance of the political economy of the northern part of Mexican Sierra Madre

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Abstract

This paper examines the political economy and policy environment of forestry production in northern Mexico. The objective is to review the multiple policy issues that impact forestry production and act together as articulatory mechanisms to move capital from periphery to core. The policies examined that affect forestry emanate from international, national, and state levels. The main point made is that a single event or activity cannot account for existing conditions of forestry in the Sierra Madre Occidental. The purpose is to analyze, perhaps well-known facts by mapping the policy terrain in the context of articulation theory to help scholars and policy makers gain a better understanding of linked social and historical conditions that maintain a political economy. The unique aspect of this presentation is that it brings a political economic, historical, and holistic framework to bear on the problem of policy analyses. Thus, policy formation is viewed from a perspective that considers power interrelations among policies and policy makers

Key words: policy, forestry, Mexico, political economy

Resumé

Cet article examine l'économie politique et l'environnement politique de la production forestière au Mexique septentrional. L'objectif consiste à passer en revue plusieurs questions de politique qui ont un effet sur la production forestière et agissent ensemble comme des mécanismes articulatoires pour déplacer capital de la périphérie au centre. Les politiques examinées qu'affectent la foresterie provient des niveaux internationale, nationale, et de l'état. Le point principal est qu'un seul événement ou une seule activité ne puisse pas tenir compte des conditions actuelles de foresterie dans le Sierra Madre Occidental. L'objet consiste à analyser, des faits peut-être renommés en dressant une carte du terrain politique dans le contexte de la théorie d'articulation afin d'aider des savants et des décisionnaires à acquérir une meilleure compréhension des conditions qui, liées d'une

façon sociale et historique, maintient une économie politique. L'aspect unique de cette présentation est qu'elle apporte un encadrement politico-économique, historique et global au problème des analyses politiques. Donc, la formation de politique est envisagée d'une perspective qui prend en considération des relations mutuelles de pouvoir parmi des politiques et des décisionnaires.

Les mots-clefs: la politique, foresterie, Mexique, économie politique.

Resumen

Este artículo examina la economía política y el ambiente regulatorio de producción forestal en el norte de México. El objetivo es de revisar las cuestiones múltiples que impactan a la producción forestal y actúan juntamente como mecanismos articuladores de mover capital de la periferia al centro. Las regulaciones examinadas que afectan la silvicultura proviene de niveles internacionales, nacionales, y estatales. El punto principal es que ningún evento ó actividad singular explica las condiciones actuales de la silvicultura en el Sierra Madre Occidental. El propósito es de analizar y delinear el mapa, quizás con hechos bien conocidos, del terreno regulatorio en el contexto de la teoría articuladora y así ayudar a los científicos y a los políticos de entender mejor las enlazadas condiciones sociales e históricas que mantengan una economía política. El aspecto único de esta presentación es que se une en un cuadro holístico la economía política y las dimensiones históricas que avanza nuestro análisis de cuestiones regulatorias. Así, la formulación de reglas es vista desde una perspectiva que considera los enlaces entre sistemas regulatorias y los políticos que las hacen.

Palabras claves: ambiente regulatorio, silvicultura, México, economía política,