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FROM LOCAL TO GLOBAL:
STATE RECONFIGURATION AND SOCIAL MOBILIZATION IN AMBOS NOGALES, 1989-1996

By
Antonio Luna-Garcia

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF GEOGRAPHY AND REGIONAL DEVELOPMENT
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For the Degree of
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As members of the Final Examination Committee, we certify that we have read the dissertation prepared by Antonio Luna-Garcia entitled From Global to Local: State Reconfiguration and Social Mobilization in Ambos Nogales, 1989-1996

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ABSTRACT

This dissertation examines the social construction of geographic scale by different actors in Ambos Nogales during the period 1989-1996. This period coincides with major changes in bilateral relations between Mexico and the United States resulting from negotiations prior to NAFTA, 1989-1994, and the first two years of the new agreement after it was passed in 1994. Transformations of community politics included changes in the conceptualization of space by local political agents (government officials, local NGOs, environmental groups and professional and economic associations). In the face of, or resulting from the institutional and socioeconomic changes produced in the border region, local groups are now pushed to present their specific demands in international forums. Working in new "spatial schemes, they now make efforts to connect their local realities and needs with the general framework of international institutions like NAFTA and the Border Environmental Cooperation Commission (BECC).

The transformation of economic, political and social space has important implications for the social production of scale. Scales are divided into scales of regulation, which define landscapes administered by distinct decision-making bodies, and scales of meaning, which are collective or individual beliefs based on daily life experiences. After analyzing changes in the political strategies of local NGOs and government officials, I argue that the production of scale is an intrinsic element in social mobilization, providing the spatial construct that connects the different spaces where social movement find community support, political opportunities and mobilizing resources.
This research expands our understanding of social mobilization processes by incorporating space and the conceptualization of space in the analysis. Space and scale are not ontological categories but social constructs with powerful discursive power for both state institutions and social movements.
Chapter 1

INTRODUCTION

The twin cities of Nogales, Sonora and Nogales, Arizona (also called Ambos Nogales\textsuperscript{1} or both Nogales) form one of the largest binational urban centers along the United States-Mexico border. During the last thirty years this border region has experienced intensive political, economic and demographic transformations, becoming one of the most dynamic industrial areas for both nations. This region's industrialization process is part of a larger process of economic restructuring worldwide, characterized by the relocation of labor intensive industries from highly industrialized economies like the United States, to less developed countries like Mexico.

Recent economic restructuring is the direct consequence of new forms of capital accumulation. Capital is constantly searching for new ways to maximize the rate of accumulation either by changes in the organization of production or by new geographic strategies of production and distribution. One of the ways this process unfolds geographically is by locating certain phases of production in places where economic and

\textsuperscript{1} Ambos Nogales is the Spanish term for "both Nogales" that is usually cited in the literature of the border region to refer to Nogales, Arizona and to Nogales, Sonora as a unity. This is a common way to talk about communities that share the same name like Ambos Nacos also in the Arizona-Sonora border (Martinez 1994; Ingram et al. 1995).
political conditions are more favorable. Moreover, an increasing flexibility of the methods of production has characterized the logic of capital in the last part of the twentieth century. One of the most important changes of this flexible accumulation has been the process of vertical disintegration wherein the production process is divided in different “just in time” production factories specializing in specific phases of production.

Modern corporations have become international players with branches in different nations and economic interests across nations. Neil Smith describes this process of the location of economic activities as the inherent tendency of capital to increase the rate of exploitation by relocating in different places across the world (mobility). This process is opposite to the more traditional tendency for capital to immobilize itself in particular places to enable the process of capital accumulation (Smith 1984; Smith and Dennis 1987). These two opposing tendencies are translated spatially at different material scales creating spaces of uneven development (Herod 1997), and therefore, different geoeconomic strategies to maximize the rate of capital accumulation. Technological changes, such as those in the field of telecommunications and transportation, have also favored these multinational corporation strategies (Castells 1989).

---

2 The location strategy of multinational corporation is to locate certain production phases in places with lower labor costs, and lax labor regulations, while other phases are located in places with higher innovation capacity, skilled labor and adequate financial services.

3 The process of flexibilization of capital accumulation and its impact in all sectors of the economy was reviewed by David Harvey in *The Condition of Postmodernity* (1990). In the second part of this book, Harvey analyzes the political and economic transformation of late capitalism in the labor process from Fordism to Post Fordism and to the new forms of flexible accumulation.
During the 1960s the U.S.-Mexico border became one of the new spaces that offered good opportunities for these new industrial strategies. The Border Industrialization Program (B.I.P.), which was initiated in 1965, took advantage of the availability of inexpensive labor in border communities as well as the proximity of U.S. markets. Several firms established their assembly factories (or maquiladoras⁴) in Mexican border towns like Nogales, Sonora and maintained the capital-intensive phases of production in the United States. This process of economic development and industrial restructuring on the border has intensified in quantity and complexity during the last thirty years as the bilateral relations between the two governments have improved. In 1994, the United States, Canada and Mexico agreed to sign the North American Free Trade Agreement (N.A.F.T.A.) reinforcing the economic integration of the three economies, and strengthening the economic activities on the U.S.-Mexico border. This region offers an interesting social and political laboratory in which the activities of highly industrialized countries like the U.S. are only yards away from the developing world. It is a unique area in which the North meets the South (Herzog 1990).

NAFTA has been a turning point in the history of the border region. Economic organization, government institutions and community groups in Ambos Nogales have all been affected through increased interaction. Additionally, since the maquiladora program started, the relationship has become increasingly formal and institutionalized, especially

⁴ These Mexican assembly plants have been called maquiladoras and in most cases BIP is better known as "maquiladora program".
since NAFTA and its side agreements. Community participation has been facilitated by organizations such as the Border Environmental Cooperation Commission (BECC) and the Commission of Environmental Cooperation – (CEC). Community leaders, local and regional officials, government institutions and economic organizations have modified their political strategies and agendas in order to meet the requirements of these new institutions. In 1996, Nogales, Sonora presented the first public infrastructure project to the recently created BECC. This project involved people and institutions from both sides of the border in a single and open forum. The groups that participated offered a new perspective on the way of doing community politics in the area. I use this particular example to illustrate the changes in the political and social arena of the U.S. Mexico border towns.

The transformation of community politics has also included a change in conceptualizations of space. Since the institutional and socioeconomic changes in the border region, local groups are now pushed to present their specific demands in international forums. They have been forced, therefore, to new “spatial schemes” to connect their local realities and needs to the general framework of international and supranational institutions. In these new schemes, the local and regional scale have become the source of empowerment for community activists à la Wallerstein (1979); these are the spaces of reality where local activists identify and frame local grievances in ways that allow them to mobilize. In contrast, the global and national scales are increasingly used in their activities to legitimate demands on national and international institutions. Consequently, “scale becomes the arena and moment, both discursively and materially where sociospatial power relations are
contested and compromises are negotiated and regulated. Scale, therefore, is both the result and the outcome of social struggle for power and control” (Swyngedouw 1997). According to this conceptualization, scale becomes a relational framework, rather than a neutral and simple ordering framework. This new conceptualization of geographic scale refuses scale as a set of nested hierarchies and supports a more dynamic conception of the term. It is the linkage between "people’s everyday lives in their communities and the large scale forces that shape them and are shaped by them" (Howitt 1993:40). I argue in this dissertation that the analysis of the discourses and practices of local community groups and institutions can contribute to understand the process of construction of scale. The analysis of the case of Ambos Nogales shows us how scale is constantly shaped by a network of social, economic and political relations that takes place at the local level. Globalization has altered the socioeconomic space of the border and has transformed the spatial organization of the state apparatus. The transformation of economic, political and social space has important implication on the social production of scale, as George Towers notes:

“The social production of space invests the landscape with meaning and regulation and divides the landscape into scales of meaning and scales of regulation. These scale categories intersect geographically and politically, generating analytical complexity and productivity” (Towers 2000: 26).

Scales of regulation define landscapes administered by distinct decision-making bodies; while scales of meaning are collective (or individual) beliefs based on daily life experiences. The scales of meaning are more flexible and social actors may geographically expand or constrain them in order to respond to the particular sets of resources and political
opportunities available. The social process of producing and reproducing spatial scales for local social actors starts with their conceptualization of the “local” but also occurs through the scaffolding of the rest of meaningful spatial scales (regional, state, national, international, etc...). This process is constantly changing, responding to particular spatial and temporal correlation of power (scales of regulation) and social meaning (scales of meaning). The most recent phase of capitalism has altered the scales of regulation (Brenner 1997a), with new transnational or supranational organizations like NAFTA. These changes in the organization of the state have forced new scales of meaning among local political actors in places like Ambos Nogales. Scales of meaning have also has an impact on the creation of particular institutions like BECC, which embrace a new scale of regulation based on previously created scales of meaning by local and regional environmental activist and grassroots organizations.

The purpose of this dissertation is to examine the process of the social construction of geographic scale by different social actors in Ambos Nogales during the period 1989-1996. This period coincides with changes in bilateral relations between Mexico and the United States including negotiations prior to NAFTA, 1989-1994 and the first two years of the new agreement after it was finally passed in 1994. The period between 1994 and 1996 was very important locally as the first infrastructure project for Nogales Sonora was proposed for consideration by the newly constituted Border Environmental Cooperation Commission. Local groups and officials from both sides of the border were actively involved in this political process modifying their traditional strategies and agendas to
interact with the new transborder institution. Space and scale were fundamental elements in
their discourses as part of their new agendas and their political strategies.

For this reason, I argue that the construction of a system of interconnected scales became an
intrinsic part of the process of mobilization allowing the different social groups to connect
local grievances to the type of national or global discourses included in the new institutions
created by NAFTA. I adhere to the position that scale is not an ontologically given
hierarchy but a social process and it is therefore an important element of analysis for
understanding the processes of social mobilization in a changing institutional framework
characterized by the internationalization of social, political and economic relations. As
Towers suggests "because social processes are articulated across scales and agents' interest
spread amongst scales, political action may be strategically targeted at a range of
geographical scales" (Towers 2000: 27). The social production of scale in a border
community like Ambos Nogales is the outcome of a particular interaction between the
scales of regulation present in the community and the scales of meaning crafted by local
political actors. This relationship between the regulatory power of the state apparatus and
civil society marks a particular conceptualization of space (and scales) by local political
actors. Institutional changes open new scales of regulation, which in some cases are based
on previously and locally constituted scales of meaning. In turn, the new scales of
regulation also altered local social movements creating new political opportunities and
resources. The changes produced by NAFTA in Ambos Nogales' local politics have altered
the spatial framing of local political actors creating new scales of meaning around environmental and economic issues.

1.1. PROBLEM STATEMENT

Since the crisis period in the 1970s, capitalism has entered a process of restructuring. The Fordist-Keynesian institutional technological model of economic development that contributed to the redevelopment of West European and Japanese economies after the Second World War reached a point of exhaustion at the end of the 1960s. The saturation of internal markets along with increasing inflation rates and increasing international competition created the basis for the 1970s crisis of this model of development. Finally, the rise of oil prices by the members of the OPEC and the end of Bretton Woods agreement on stable exchange rates of international currencies precipitated the economic depression and the following political and financial crisis.

---

5 The Fordist/Keynesian institutional technological model was the predominant economic policy among industrialized countries during the first six decades of the twentieth century. Fordism is a term created by the Italian Marxist theorist Antonio Gramsci. Fordism is a set of industrial and broader societal practices based on Taylorism in the organization of production (introduction of new technologies and the fragmentation of production activities into their simplest constituent components) and the mass production and consumption of goods for the working class. Western Europe and the United States combined this type of production practices with Keynesian economic policies (following the principles of British economist John M. Keynes) which favored a major involvement of the public sector to fight against depression and unemployment (Brenner 1997a; Harvey 1990).

6 The United Nations Monetary and Financial Conference held in Bretton Woods, N.H in 1944 instituted a stable exchange rate among the most important currencies of the WWII's allies. The devaluation of the dollar at the beginning of the 1970s marked the end of almost thirty years of predominance of the U.S. dollar as a stable international reserve currency and "de facto" end of the Bretton Woods agreement (Harvey 1990; Castells 1996).
Prior to the 1970s, the territorial state was the basic container of social life and the major scale at which economic, cultural, and political processes were organized (Taylor 1994). The crisis of the 1970s brought a new international order and the rise of the global scale as a prominent level of political and economic organization. Long term and large scale fixed capital investments that characterized Fordist industries in core countries saw the emergence of new “just in time” production strategies. At the same time, corporations started a period of rationalization and restructuring, searching for new product lines and market niches. They also initiated a strategy of geographical dispersal to zones with more adaptable and unregulated labor markets (Harvey 1990).

The expansion and reorganization of production, consumption, and circulation, which now more fully integrates the globe than ever before, have characterized the new economic restructuring (Castells 1989; 1996; Ó Tuathail1998). As in other phases of capitalist development, the present process has also transformed cultural and urban environments (Harvey 1990; Knox, 1995) and has modified the organization of the State (Lefebvre, 1976; 1977; 1978; 1991; Agnew 1997; Brenner 1997b). NAFTA is one example of the global reconfiguration of state power to accommodate new forms of economic development.

The recent phase of capitalist expansion has become a common focus for social scientists in general and geographers in particular. Much geographic analysis has focused on the “globalization” of economic relations emphasizing the capitalist economy’s expansion into new places and the increased speed of flows of money and information (Cox 1997). As
Castells (1989) noted, what is new in the new phase of capitalist development is the interpenetration of economic activities such that at the international level, the system works as a unit, worldwide, in real time. But as Brenner argues:

“One of the major dimensions of these transformations have been a rescaling and reterritorialization of global social space. Local and regional social relations have become increasingly intertwined with global processes, and meanwhile world-scale dynamics appear to be impacting subglobal practices with increasing regularity and intensity (Brenner 1997a: 136).

Ambos Nogales has experienced the process of global economic integration intensively. The recent process of industrialization on the U.S.-Mexico border has had two important impacts since the introduction of the border “maquiladora program” in 1965. The first is the political and institutional change that has brought the two nations closer economically. The creation of NAFTA in 1994 and its side agreements is the culmination of this process. The second important impact has been the creation of the Border Environmental Cooperation Commission (BECC) in 1996 which has been an important influence on changes in civil society in Ambos Nogales.

As a result of these transformations, social actors in the form of Non Governmental Organizations (NGOs), environmental groups, urban popular movements, professional and economic associations and local and regional officials have adapted their agendas and discourses to the new institutional framework. A reconfiguration of economic space and the transformation of state institutions on the border have created different political
opportunities for these social actors. New institutions like BECC have also created new binational patterns of community participation. Mexican and American activists have started to interact in open forums and work together on committees. The interplay of (at least) two different traditions of community participation, project design and decision making processes have also modified the political practices of groups on both sides of the border. Moreover, border communities have started to attract the attention of federal politicians and national or international NGOs, which in turn have started to fund different projects in border communities.

Recent work in social movement theory points to three important factors for the emergence of new types of mobilization (McAdam et al. 1996). The first factor is a framing process through which people agree to a common understanding of the world in ways that legitimate and motivate collective action. The second factor refers to the forms of organization available to individuals seeking to organize themselves for a cause, that is, mobilizing structures, or resources available for mobilization. The final factor is the sets of political constraints and opportunities that enable different types of political structures

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7 Some of the most relevant studies on the effects of cultural framing on social mobilization came from studies on the gay movement and different types of women movements. Other types like the peace movement or certain types of environmental movements combine cultural framing with political opportunities to project their grievances (Klandermans 1994; 1996; Mueller 1994; Damovsky et al. 1995).

8 Mobilizing structures is also another widely used element of analysis to understand social mobilization (Morris et al. 1992). Some examples of this type of work are the political strategies of the American labor movement at the beginning of the twentieth century (Clemens 1996) or the role of local black institutions in the development of the American Civil Rights movement (McAdam 1982).
that can be used by only certain types of social movements.\textsuperscript{9} None of these approaches, however, considers the central importance of space for social mobilization. Political opportunities can appear at different spatial scales within the state and political actors can frame their grievances in a way that can include multiple scales of action. Moreover, multinational or global processes have added complexity to certain types of collective action such the ones I examined in Ambos Nogales. The spatiality of social movements have been overlooked by sociologist who are more interested in the dynamics of collective action. For this reason, I argue that the geographic concept of scale is also an important element to explain these dynamics.

I locate my work at the intersection of sociology and geography by linking social movements with the dialectical process of the social production of scale. I explore in this dissertation how social movements are affected by, and at the same time create, different scales of social interaction. I also analyze the importance of local political tradition in creating or constructing particular spaces for struggle. My theoretical question derives directly from these two different disciplinary traditions (geography and sociology), focusing particularly on local social movements and the different forms of the state, especially the local state, as a complex of both institutional actors and civil society. I have therefore a dual theoretical question that links the debate on social movements and the debate on scale. By focusing on the local state, I explore a particular political space in

\textsuperscript{9}The role of the political opportunities in favoring or stopping social mobilization has also been widely studied (Tarrow 1996). A recent example of these processes are the types of social movements that appeared
which the limit between the state and civil society is blurred. Moreover, in binational communities like Ambos Nogales, the political discourses and practices (of both government officials and local activists) incorporates a dynamic conceptualization of spatial scales in order to be able to link local grievances with transnational or national issues. Scale is therefore used as a relational framework by local political actors in Ambos Nogales. I want to explore, therefore, how scale is relevant to social movement theory.

This main question includes additional subsidiary questions. From a more geographical point of view I am particularly interested in understanding how globalization has altered state structures and how these alterations have enabled new types of strategies by local actors such that they now use multiple scales to connect the different spaces of struggle. A second set of questions rises from the sociological side of this research and these include: how does the production of scale affect new types of social movements?; and how are space and scale included in the discourses of these new types of social movements?

In order to study this complex set of questions I use the case of Ambos Nogales. My research question is therefore: how have the processes of internationalization of the economy (the maquiladora program) and the transformation of the state (NAFTA and BECC) in Ambos Nogales modified the mobilizing strategies of local social movements and other local agents during the period 1989-1996. And how did these changes unfold during the negotiations of the first local project following BECC’s criteria? I have studied in Eastern Europe during the 1980s and 1990s (Oberschall 1996; Zdravomyslova, 1996).
the transformation of political space in Ambos Nogales during the period that goes from the NAFTA negotiation (1989-1994) to its two first years of existence (1994-1996). I use NAFTA as an example of the process of transformation of the state under globalization. The process of globalization has created new political and material opportunities at different locations and these particular localities have also responded to, and helped to shape, these opportunities. More specifically, I explore how NAFTA has enabled new discourses and political practices among activists' organizations in Ambos Nogales by looking at local NGOs, local government and a range of activists groups and their negotiations around the first infrastructure project (the "acuaférico") created under the supervision of the new set of binational institutions (BECC and CEC).

In Ambos Nogales, the creation of NAFTA and its impact on Mexican and US state forms has created new political opportunities for social actors. The binational state institutions of BECC and CEC have opened up new forums for public participation and resource mobilization. As a result, local NGOs and local and regional officials on both sides of the border have changed the way they frame their political agendas. These new state forms and political institutions and practices have also created in Ambos Nogales new spaces for economic and political action.

10 The project's official name is "Proyecto Integral para uso de Agua Potable y Tratamiento y Recarga de Agua en Nogales, Sonora- Primera Etapa" (Integral Project to Potable Water Use, Treatment and Recharge of Water in Nogales, Sonora-Phase I)
These new spaces for economic and political action have enabled local political actors to adapt new strategies. Economic and business leaders have been at the forefront of this process, creating the first transborder linkages long before the first maquiladora was built. Business people have also been very active politically at the state and local level. They have favored the creation of informal channels of communication among government officials, and they have participated in setting up new commissions and committees on local cooperation (like the Arizona-Mexico Commission or the Southeastern Arizona and Northeastern Sonora Mayors’ forum). Thus at the same time that a supranational state form has reconfigured political, economic and social relations, local state forms and practices have also been affected.

Kirby has shown that the local state is a central piece in the restructuring of the state (Kirby 1993) under globalizing processes. In the case of the US – Mexico border, local politics and economic leaders are active in fostering federal agreements and international treaties to favor local economic development and transborder cooperation. The creation of new transborder institutions fosters in turn the mobilization of local community leaders that eventually start to cooperate with similar groups on the other side of the border. These groups have had to change the way they frame their grievances to get political attention and economic resources. One of the biggest changes is how these groups have integrated different spatial scales in their discourses. Their source of empowerment is the local community, and very concrete sectors within that community. Regional and local institutions have been their traditional targets. New types of transnational institutions
however open a different political space. Local groups and city officials have begun to modify their spatial discourses to integrate local needs within new global parameters.

The plan for a new water treatment and distribution facility for Nogales, Sonora (the “Acuaférico” project) for example, brought together for the first time local and state officials and NGOs from both side of the border. The spatial strategies of the different collectives are the focus I use to analyze the impact on civil society of the new configuration of the state under globalization. I have also conducted an extensive analysis of the impact of the internationalization of the economy since the late 1960s and the reconfiguration of the state since early 1990. My analysis of the impact on civil society of these changes has been concentrated in the period of 1994-1996 in which the “Acuaférico” project took place. This particular case provides illustration of the complex changes that have occurred in Ambos Nogales' civil society as it was the first major public work certified following the binational environmental criteria established by BECC.

1.2. METHODOLOGY

This study incorporates survey, in-depth interviews and documentary research to understand the relationship among changing states, social mobilization and the social construction of scale. This research occurred in several phases according to a grounded theoretical framework. This methodological approach is an ongoing process of research, analysis and theorization, the purpose of which is to define new elements of the theory (the
social production of scale by social movements) inductively derived from the study of the phenomenon it represents. This method unfolds in a constant process of discovering, development and verification through systematic data collection. This method does not begin with a theory that is then proved empirically. "Rather, one begins with an area of study and what is relevant to that area is allowed to emerge," (Strauss and Corbin 1990: 23).

Phase one of my research was the creation of a documentary database derived from daily newspapers published on both sides of the border during from 1990 - 1996 period. These newspapers include: *Arizona Daily Star* from Tucson; *Nogales International* and *Nogales Herald* from Nogales, Arizona; *El Imparcial* from Hermosillo (Sonora); *Diario de la Frontera* and *La Gaceta* both from Nogales, Sonora. I used these newspapers to identify the most significant phenomena in this border community as well as the changes in the political and economic arena at the state, nation or international scale which had some impact on Ambos Nogales. This database was also created to identify the most relevant local actors in border community politics that included institutions, non-governmental organizations, popular movements, and environmental groups and commercial enterprises.

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11 *Arizona Daily Star* is the most important newspaper I used in this area. Although it covers a large area, it usually has news and sections about Southern Arizona and Northern Mexico. I have reviewed the *Arizona Daily Star* from 1981 to 1996 in order to get some background information on political, economic and social change in the area (1990-1996). The two newspapers from Nogales, Sonora have not been published for the entire period of this study. They are however, a very important source of information for this research. Some of the information gathered from Mexican newspapers came from the Sistema de Información Fronteriza -S.I.F.-, a database of newspapers articles about the border region gathered by the Colegio de la Frontera Norte in Nogales, Sonora from 1990 to 1995. I have also used a database of government documents and
In the second phase I conducted a survey (see appendix A for the questionnaires) of some of the leaders of the groups identified in phase one. I extended the survey to include local government officials, business owners, members of the Chamber of Commerce in Nogales, Arizona and the Cámara Nacional de la Industria de la Transformación in Nogales, Sonora and scholars from the Colegio de la Frontera Norte and Universidad Pedagógica Nacional in Nogales Sonora. In this phase the intention was to elaborate a first approximation of the impact of NAFTA on different sectors of civil society on both sides of the border. I have also collected information about the different institutions that have been working on the border and across the border such as the International Boundary and Water Commission, the Arizona-Mexico Commission, the SouthEastern Arizona Governments Organization, the Commission for Environmental Cooperation (CEC), the Border Environment Cooperation Commission.

In the third phase, I selected six groups from each side of the border to interview in greater depth. I have chosen three environmental NGOs and other grassroots organizations; and three economic and professional organizations on each side of the border. These include the following:

- **Comadres**, a Mexican popular and informal organization devoted to helping women and with an incipient environmental agenda.

*newspaper articles on border issues created by the Udall Center for Public Policy from the University of Arizona.*
• **Dignidad.** (dignity in Spanish) a formal Mexican NGO with two areas of interest: environmental issues and domestic violence.

• **La Red Fronteriza de Salud y Ambiente.** (Environmental and health border network) a Mexican environmental organization with areas of interest along the entire border region.

• **Border Ecology Project.** (BEP) a small American environmental organization with important institutional contacts on both sides of the border. It is highly involved with the effects of industrialization on the border environment.

• **LIFE.** “Life Is For Everyone”; a small local organization in Nogales, Arizona, that addresses itself to pollution-related cancer and other sickness cases.

• **Friends of the Santa Cruz River.** a small conservationist environmental organization in Arizona centered around the protection of the Santa Cruz River basin.

**Professional and economic organizations.**

• **CANACINTRA.** the local branch in Nogales, Sonora of the Mexican Chamber of Transformation Industry in which maquiladoras are included.

• **Patronato de Turismo.** a Nogales, Sonora organization to promote and protect the tourist and commercial sections of the city.

• **Asociación de Maquiladoras in Sonora.** a powerful association of border manufacturers that acts as a lobbying group to get services from local and regional authorities.

• **Border Trade Alliance.** a binational private organization created to foster development along the U.S.-Mexico border region.
• **Fresh Produce Association**, a long-established Nogales, Arizona professional organization created to provide services to fruit and vegetable brokers of the region.

• **Santa Cruz Economic Development Foundation**, a government funded organization created to help promote Santa Cruz County.

Each group is representative of a different type of social activism in Ambos Nogales. I have interviewed the leader of each organization when it has been possible. In some cases I have also interviewed other members or staff persons (Appendix B contains a complete list of the people interviewed). The objective of these interviews was to explore the following characteristics of each group:

- How do they make decisions? How are they organized? How do they elect their leaders?
- What is the relationship with other social movements on both sides of the border? What kind of impact has NAFTA had on each organization? How has NAFTA changed the political content of discourse and the spatial framing of that discourse?

The final phase of this research was to assess the impact of BECC certification procedure on the agendas of each of the social actors involved in the development and decision making process of the Acuaférico project. I have examined technical documents on the project as well as several publications about the project that appeared in some of the informational channels of BECC (BECC-net a listserver in INTERNET maintained by the UDALL Center for BECC, and other more traditional publications). I have also conducted
in-depth interviews with central administrators of the project. The purpose of these interviews was to understand the ways they conceptualize and talked about the project in local, national, binational or international terms.

1.3. ORGANIZATION OF THE CHAPTERS

The purpose of this dissertation is to identify the changes that the globalization process, as manifested by NAFTA and subsequently BECC, has had on Ambos Nogales. In Chapter Two I provide a description of my study site, Ambos Nogales. I begin with the creation of the border as a frontier space. I focus on regional, historical and cultural features of the area. I then turn to a detailed description of the physical characteristics of Ambos Nogales with special emphasis on problems of water scarcity and pollution. Finally, I analyze the recent economic, demographic and political changes that have occurred in these twin cities particularly since the 1960s.

In Chapter Three I provide a theoretical framework for this study. I start with an overview on the geographic debates on globalization and the explanations geographers have provided for the internationalization of the world economy. I then review geographic literature on economic development and geographic scale. I explore the different uses of scale analysis in recent political and economic geography. I end this chapter by addressing the geographic debate on the social construction of scale and the effects of globalization on
social movements. I show the importance of the production of scale by social movements and how this phenomenon is a dialectical process.

In Chapter Four I analyze the changes in the political economy of the U.S.-Mexican border and its effects on Ambos Nogales during the last thirty-five years. I distinguish two main periods 1965-1989 and 1989-1996. During the first period I analyze the Border Industrialization Program, started in 1965, which produced a significant transformation of the social, political and economic context of the border. The second period includes the NAFTA negotiations during the presidency of Carlos Salinas de Gortari in Mexico (1989-1994) and the first years after NAFTA was passed (1994-1996). These two periods were very important in the changes in the political economy of the region in general and for Ambos Nogales in particular. I end this chapter by analyzing the impact of certain economic sectors in creating transborder linkages and changing the scale of economic activities in the region.

The final two chapters present the results of my empirical research. In Chapter Five I describe the local political arena in Ambos Nogales. I present in this chapter the findings of the first phases of my empirical work. I introduce the changing nature of the State in the U.S.-Mexico boundary by providing a review of recent significant changes in Mexican political organization. I also analyze the evolution of different binational institutions like the International Boundary and Water Commission or the Arizona-Sonora Commission. I then review the evolution of different economic, professional and environmental
organizations on both sides of the border and the impact of NAFTA on them. Finally, in the last section of this chapter I analyze how the changes in the regulatory space have transformed the spatial conceptualization of these groups.

In Chapter Six, I review the effects of BECC on Ambos Nogales’ local politics and summarize the findings of the final phase of my empirical research. The focus of this chapter is the negotiations around the Acuaférico project. I introduce the basic features of the environmental institutions created after 1996 and summarize the political environment that involved BECC’s process of certification of the Acuaférico Project. Finally, I theorize about changes in the conceptualization of space by all the relevant political actors involved in the negotiations of this project.

In Chapter Seven I summarize my findings and present my conclusions, arguing for the importance of scale as a relational framework to social movement theorizing. I discuss the different types of spatial strategies displayed through economy, the state and civil society within the context of recent changes in the configuration of the state.
Chapter 2

THE AREA OF STUDY.

Ambos Nogales is the biggest binational community of the Arizona-Sonora border, and Ambos Nogales is also an important spatial node connecting multiple scales of social, political and economic activities. The recent process of internationalization of the economy has even further connected Ambos Nogales to multiple scales, in spite of limited environmental resources, especially water. These factors make Ambos Nogales a relevant case study for understanding the social production of scale by civil society under conditions of globalization.

Geographic scale and the process of internationalization of capital are the basic theoretical and discursive elements of this dissertation. The impact of the internationalization of the local economy on Ambos Nogales' civil society and the use of geographic scale by local political actors are its empirical objectives. The changes in the economy of the U.S.-Mexican border have become a popular example of the effects of the new organization of the world economy (Herzog 1990; Kopinak 1997; Cravey 1998). Furthermore, the size of Ambos Nogales enables a manageable but comprehensive analysis of the community as a whole and, at the same time, an in depth study of the most important actors during the period of the study. Ambos Nogales is therefore, a small social laboratory of the type of social relations that are present in other communities along the border.
Ambos Nogales is also an important location because it links points of different discursive spatial scales. At the global level, it connects a highly developed nation with developing nation. Nowhere else in the world is there another example of an extensive border region separating two countries with such dramatic difference in the level of economic development. Ambos Nogales is also located on the political boundary between two important nation-states with different political, legal, and cultural traditions. At the regional level, Ambos Nogales is part of an interconnected environmental, historical, cultural, and economic region. And finally, Ambos Nogales is also a border community that historically has functioned as a single locality while maintaining a binational political and administrative status.

In this chapter, I discuss the formation of different scales of meaning based on collectively held beliefs and cultural and historic traditions. I also describe the historic impact of some of the most relevant political changes in the organization of the state and its implications for the creation of new scales of regulation. For example, the creation of the political boundary between the U.S. and Mexico in the nineteenth century (as a transformation of the scales of regulation) and the gradual integration of the region within the two national economies allowed new localities like Ambos Nogales to appear. The process of urbanization and the introduction of the railroad to the area integrated even further the border region with national and international trends of the economy. The limited natural resources of the Ambos Nogales’ region, however, challenged the
The development of this region and provided an additional source of conflict and collaboration among people and institutions from both sides of the fence. Although the relationship between the U.S. and Mexico governments has been characterized by conflicts, the interaction at the regional and especially at the local level has often been marked by collaboration and common understanding among institutions and civil society from both sides of the boundary. The evolution and nature of these binational relations has worked as a breeding ground for new scales of meaning. In the second part of this chapter, I present an overview of the recent economic, demographic and urban effects of the rapid industrialization process which started in the 1960s in Ambos Nogales, and which transformed the conceptualization of space by local political actors. The new industrial activities modified the patterns of collaboration between both communities and added additional stress to the limited natural resources of the valley. This has favored the creation of new scales of meaning and eventually new scales of regulation.

2.1. THE U.S.-MEXICO BORDER.

Although nowadays, the U.S-Mexico border region (see Figure 2.1.) is an important economic region for both countries (Herzog 1990), it used to be a poorly developed frontier zone isolated from national political centers and characterized by scarce economic resources and harsh living conditions. Therefore, when the present political boundary between the United States and Mexico was established in 1848, the border region was very sparsely populated, with minimal economic interest for both nations.
This situation remained until the arrival of the railway at the end of the century. The first activities on the border region were related to the defense and protection of the new

**Figure 2.1. The U.S.-Mexico Borderlands.**

Source: Kirby 1993
national boundary, and as a result, the first settlements on the border region after 1848 were military garrisons (see table 2.1) and border outposts. In fact, the US-Mexico borderlands were (and in some cases still are) no more than a buffer zone between the two different nations. The dichotomy between local and national issues became evident with the development of the first border communities at the turn of the century. As in any other border community, residents, businesspersons and local officials soon had to develop strategies to coordinate their activities and services with people across the fence. These activities favored the creation of particular spatial scales with concrete meaning for people within communities like Ambos Nogales. The scales of meaning are based on the history of the region, on its people and also, on the peculiarities of the process of urbanization of the border.

2.1.1. The creation of the U.S.-Mexican border

Although some authors (Martinez 1988; Herzog 1990) consider the creation of the U.S.-Mexican boundary a long process starting in the sixteenth century, I will only consider here the creation of the modern political division by the treaty of Guadalupe Hidalgo in 1848 (and the Gadsden Purchase in 1853) because the creation of this boundary enabled the birth of Ambos Nogales.

Most of the present boundary between the U.S. and Mexico was established after the Mexican war (1846-1848) with the treaty of Guadalupe-Hidalgo in 1848, which gave to
the U.S. the present states of California, Arizona, New Mexico, Nevada and Utah and parts of Wyoming, Colorado, Kansas and Oklahoma. The area where Ambos Nogales is located, however, was acquired a few years later after the Gadsden Purchase in 1853. The Gadsden Purchase or Gadsden Treaty\(^1\) was signed in 1853 to solve some of the ambiguities of the delimitation of the political boundary created by the Guadalupe-Hidalgo Treaty. With the 1853 agreement the border was moved some miles to the south incorporating into the U.S. territory the Mesilla strip in southern New Mexico and Arizona (Martinez 1988).

The U.S.-Mexico border divided in two a vast territory that has been historically characterized by its isolation from the political and economic centers of the colonial powers in the first place and from Mexico and the United States later in the nineteenth century. It also split apart a geographical and cultural region inhabited by indigenous peoples and by some Mexicans farmers and ranchers. The indigenous people (Apaches, Pimas, Tohono O'odham, Yaquis) of the region faced restrictions on their mobility with the new border, creating problems also for the farmers and ranchers on both sides of the line.\(^2\) Problems with Indians raids were among the first issues that the two nations had to

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\(^1\) The Gadsden Treaty (or “El Tratado de La Mesilla” as is known in Mexico) was signed in Mexico December 30, 1853 and was ratified and entered into force in 1854 (Moyano-Pahissa 1985). Mexico transferred additional lands to the United States in exchange for $10 million. The Gadsden Purchase affected a territory of 29,640 square miles, which were parts of the Mexican states of Sonora and Chihuahua. This area encircles and area rich in agricultural and ranching lands as well as rich silver and copper mines (Martinez 1988; Moyano-Pahissa 1996).

\(^2\) In fact, the Gadsden Treaty besides incorporating more than 29,000 square miles of a flat and rich terrain to the United States also released them from the obligation (incurred in the previous treaty of Guadalupe Hidalgo in 1848) to restrain Indians residing on the U.S. side from launching raids into Mexico (2nd Article
solve in the new established border. Other issues in the early bilateral agenda were filibustering (or unlawful invasions by adventurers), banditry (especially cattle rustling), and later, ethnic conflicts with Mexicans —particularly on the Texas-Mexican border.\(^3\)

The Gadsden Purchase also demonstrated the interest of the United States in this isolated region. The area included in the new treaty was relatively flat terrain, very convenient for the development of a new U.S. transcontinental railroad line to the Pacific. This area also connected important copper and silver mines recently discovered in Southern Arizona and Northern Mexico with major industrial centers and harbors. These new activities and other economic opportunities like commercial agriculture, cattle ranching and trade started to attract people, and new settlements to the border.

Most of the political boundary between the US and Mexico follows natural division of the Rio Grande river from El Paso-Ciudad Juarez downstream to Brownsville-Matamoros and the Gulf of Mexico. The rest of the boundary is an artificial straight-line connecting El Paso and San Diego (the only two major cities in the area at the time of the treaty). The

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\(^3\)The creation of the US-Mexico border separated those Mexican who lived north of the border from their motherland converting them into an ethnic minority in the United States. By maintaining their own cultural heritage, Mexican Americans have been involved in all sorts of disputes with the Anglo majority. Oscar Martinez notes "Territorial disputes, banditry, irredentism, and revolutionary activity engendered intense nationalism and anti-Mexicanism among the Anglo public, continuously placing the group on the defensive. (1988: 104)." These conflicts were more relevant in the areas where the Mexican community was bigger like the Texas border.
boundary had, therefore, different consequences in these two sections of the community. The Rio Grande river valley crossed several cities created during the colonial period (between the late seventeenth century and the early nineteenth century) such as Ciudad Juarez, Reynosa, Laredo or Matamoros (See Table 2.1). The region between the states of California, Arizona and New Mexico in the United States and Chihuahua, Sonora, and Baja California Norte in Mexico, was very remote. There were no physical or economic elements to attract settlers to the region, until the new boundary, the mines and the railroad created some economic expectations. Even then, isolation from political and institutional controls remained, and has forced a distinctive pattern of collaboration among institutions and people in this region as I show later in this chapter.

2.1.2 The Urbanization process on the Arizona-Sonora border.

The urbanization of the Arizona-Sonora border started with the development of the railroad system at the end of the nineteenth century. The changes in the politic and economic relations between the United States and Mexico introduced by the Mexican president Porfirio Diaz (1876-1910) accelerated the creation of urban infrastructure and new settlements on the region. At the end of the nineteenth century, Mexico started a new program of urbanization and economic development based on the export of mineral resources to foreign markets (chiefly the United States) and the development of a railroad system to connect these mines with Mexican ports and with American markets. As a result, several communities appeared along the boundary line in those places where either
Table 2.1. Border Settlement Founding

<table>
<thead>
<tr>
<th>Period</th>
<th>Name</th>
<th>Date</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>COLONIAL SETTLEMENTS</strong></td>
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<tr>
<td></td>
<td>Ciudad Juárez</td>
<td>1659</td>
<td>Mission Presidio</td>
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<td></td>
<td>Matamoros</td>
<td>1700</td>
<td>Mission</td>
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<td></td>
<td>Sonoita</td>
<td>1701</td>
<td>Mission</td>
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<td></td>
<td>Camargo</td>
<td>1749</td>
<td>Villa</td>
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<tr>
<td></td>
<td>Reynosa</td>
<td>1749</td>
<td>Villa</td>
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<tr>
<td></td>
<td>Ojinaga</td>
<td>1773</td>
<td>Mission Presidio</td>
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<tr>
<td><strong>AFTER THE U.S. MEXICAN WAR</strong></td>
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<tr>
<td>Tijuana*</td>
<td>1848</td>
<td>Border Town</td>
<td></td>
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<tr>
<td>Nuevo Laredo*</td>
<td>1848</td>
<td>Border Town</td>
<td></td>
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<tr>
<td>Piedras Negras</td>
<td>1849</td>
<td>Military Garrison</td>
<td></td>
</tr>
<tr>
<td>Ciudad Acuña</td>
<td>1877</td>
<td>Military Garrison</td>
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<tr>
<td>Nogales Son</td>
<td>1882</td>
<td>Gateway</td>
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<tr>
<td>Agua Prieta</td>
<td>1899</td>
<td>Gateway</td>
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<tr>
<td>Naco</td>
<td>1901</td>
<td>Gateway</td>
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<tr>
<td>Mexicali</td>
<td>1903</td>
<td>Agricultural Colony</td>
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<tr>
<td>San Luis R.C.</td>
<td>1917</td>
<td>Military Garrison</td>
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<tr>
<td>Tecate</td>
<td>1918</td>
<td>Gateway</td>
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</tr>
<tr>
<td>Las Palomas</td>
<td>1921</td>
<td>Gateway</td>
<td></td>
</tr>
<tr>
<td>Miguel Alemán</td>
<td>1921</td>
<td>Military Garrison</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted after a table in Arreola and Curtis (1993).
*Tijuana and Nuevo Laredo were created right after the U.S-Mexico war as Counterparts of the colonial towns of San Diego and Laredo.
roads or railroads crossed the boundary. Ambos Nogales was established when the train connected the state of Arizona with the port of Guaymas in Mexico.

The communities that appeared along the U.S.-Mexico border at the turn of the century were inhabited by people who had migrated from the interior Mexico and from Mexican towns close to the border region. As a result, most of the first inhabitants on both sides of the line were Mexicans who maintained their cultural and social ties to Mexico in spite of the political division. As Martinez points out, those links to the motherland shaped, to a significant degree, their marginality within American society, which has been perpetuated even into the present (Martinez 1988).

Around the same time that Nogales, Sonora was founded (1882), connecting Northern Sonora mines with the United States, two other towns were also forming: Agua Prieta (1899) and Naco (1901). San Luis del Rio Colorado, the other major Arizona-Sonora border town, was founded in 1917 as a military garrison during the Mexican revolution. Like Ambos Nogales, these towns have U.S. and Mexican components: Naco, Sonora and the small community of Naco, Arizona (also known as Ambos Nacos); and Agua Prieta-Douglas. These three sets of twin towns shared a similar origins and experienced the same types of economic activities until the introduction of the “maquiladoras” in the region. The only another town on the Arizona-Sonora border, Sonoita is an old colonial mission, and it has no American counterpart. (See figure 2.2)
Figure 2.2. – The Arizona-Sonora border
Ambos Naco, Ambos Nogales and Douglas-Agua Prieta were founded during the same period under similar circumstances: twin town railroad junctions connecting Mexican mines with the United States. Nevertheless, Nogales had a locational advantage becoming the main gateway in the area connecting the interior of Mexico with Sonoran ports on the Sea of Cortes. Nogales grew rapidly as people were attracted to the new opportunities opened by the train and the copper mines. The newly arrived United States residents were (and still are) a minority within Nogales, Arizona favoring a process of cultural lending and borrowing that began at the end of the nineteenth century and it is still happening (Meyer 1987).

The urbanization of the Arizona-Sonora border was the consequence of the new forms of economic and political organization of the region. Ambos Nogales always has been an important connecting node among different administrative and economic scales. The changes that are taking place now are only reinforcing a pattern already present in this locality at the time of its creation. The relationship among local officials, businesspersons and civil residents across the boundary is in part the result of years of informal contacts favored by a very distinctive society in an isolated location.

2.1.3- The making of a distinctive society on the Arizona-Sonora border.

Life in places along the Arizona-Sonora border has since the beginning revolved around their economic roles as border cities. Both settlements, Nogales, Arizona and Nogales,
Sonora, depend on each other for their existence. While businesses on the American side flourished through the border Free Zone⁴ (Zona Libre), Mexican “Nortenos” brought American goods and adopted North American values and customs in their daily life.

For most Americans and Mexicans the border region was (and in many respects still is) a trouble zone associated with international disputes, banditry, racial conflicts, illegal immigration and smuggling. Many also consider the people who live in the region very different from the average American or Mexican because they have developed distinctive economic interests, customs and traditions creating a unique borderlander (southwestern, nortenos or fronterizos) subculture.

Nortenos, as Northern Mexicans are called, are also seen by the rest of Mexicans as very different from them, and they are accused of being too “Americanized” or “Agringados”. As Tinker-Salas says, Sonoran “[u]pper classes readily accepted American customs, utilizing them to augment their traditional cultural repertoire. They saw no contradiction in the incorporation of American foreign customs and norms as part of their Sonoran lifestyle. In everything from education, language, luxury, and consumers’ goods, and even dress, this group looked north. Gradually, common folk also became exposed to foreign influences,” (Tinker-Salas 1996: 87).

⁴ Zonas Libres or Free Zones were created in the state of Tamaulipas in 1858 along its boundary with Texas; by 1884 the Mexican federal Government extended these zones to the entire border. People within “zonas libres” were allowed to buy goods from the U.S. without having to go through customs or pay taxes (Martinez 1988: 112-113; Mendoza-Berrueto 1979:8-10).
The changes in the political climate between the United States and Mexico at the end of the nineteenth century favored the flow of capital to the borderlands. Throughout the Porfiriato, Mexico opened its economy to foreign investment and for the first time Anglo American businesspersons ventured south of the border investing in transportation (mainly railroads), mining, ranching and agriculture. Along the Sonora border, William C. Greene built the Cananea Consolidated Copper Company. The Atchinson-Topeka Company built the Sonoran railroad connecting the port city of Guaymas with Southern Arizona. All these investments linked the economy of northern Sonora with the United States and created an environment of permanent economic interaction.

Sonora supplied (and still does) raw materials and cheap labor to the industrial United States. Some Mexican workers started to go to the cattle ranches and farms that were emerging in Arizona and California. For both states, Arizona and Sonora, the border is the only connection to international economic opportunities, and consequently business leaders and state officials have always been very sensitive to the opportunities that constantly appear on either side of the border.

As mentioned, the constant flow of people and goods from one side of the border to the other also favored the creation of a distinctive border culture. The international division
of labor is not simply a transfer of labor power; it is also a transfer of culture across boundaries, and thus an indicator of economic social, and geographic interdependence. As Kirby says, "the explicit interlocking of the Mexican and American economies in this region is leading to provocative cultural collisions and social transformation," (Kirby 1993:121). In relation to this, Tinker-Salas notices that in places in which Americans concentrated such as Cananea, they sought to recreate their former lifestyle by organizing baseball teams and celebrating holidays such as Thanksgiving. In other places, Americans attended Christmas events such as dances and "posadas"[^6], which were held by the Mexican community on both sides of the border. Sometimes in both sides of towns like Ambos Nogales celebrated a Latin American carnival that attracted tourists from throughout the southwest United States (Tinker-Salas 1996).

Retailers from Ambos Nogales agreed as soon as 1909 to regulate the hours that stores would be open in order to avoid undue competition and the mid-day heat. By closing during the noon hours, American businessmen incorporated a Mexican tradition (Tinker-Salas 1996). Dollars and Pesos were and still are freely accepted by merchants on both sides of the border.[^7] Kirby notes that McDonalds is not only the place to get gringo food but also to exchange pesos for dollars (Kirby 1993).

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[^5]: Porfiriatia is the common name for the period 1872-1911, in which Mexican president Porfirio Diaz was in office. It is called Porfiriatia acknowledging that although Diaz reached the presidency democratically, he remained in office using undemocratic tools, becoming a dictator (Skidmore and Smith 1996).

[^6]: Posadas are a traditional Christmas celebration in Mexico.

[^7]: This process of cultural assimilation affects all aspects of daily life since the early years of border towns. Tinker-Salas (1996) reports that during an official inspection in Naco-Sonora in 1901, the district prefect
Language also became another important element of the distinctive identity of this bilingual region. While in most parts of southern Arizona and most of the urban centers close to the border, Spanish is often the first language of many residents, English at the end of the nineteenth century was the language of business, and Mexican elites incorporated it into their vocabulary. Sonoran children were sent to Catholic boarding schools in the United States to learn English. Knowledge of English or Spanish is still required for many jobs on both sides of the border, and being bilingual has always been a way to improve employment prospects and in some cases to raise one’s social standing (Kopinak 1997). Today, about 80 percent of Nogales-Arizona residents speak Spanish, and about 60 percent of the families living there are binational and have members on the other side (Ingram et al. 1995).

The towns along the Arizona-Sonora border appeared simultaneously on both sides of the border, and neither side had at that moment a long history of established conventions. Despite each side representing their own national traditions, these towns also borrowed from each other and created a cultural fusion of new practices. The existence and use of informal networks of social contacts and family ties across the border has proved to be very efficient to solve shared problems. Local institutions have favored these types of informal relationships to solve local issues. The distinctive border society of Ambos reported the general use of the Imperial system rather than the metric system. House lots were measured in feet, merchants sold goods by the pounds, and most of the signs were in English.
Nogales has developed a sense of multiple social and political spaces in which they are able to interact formally or informally.

2.2. AMBOS NOGALES

Ambos Nogales is the most important commercial connection between Arizona and Sonora with a population of more than 150,000 inhabitants. This western industrial corridor links the metropolitan areas of Alburquerque, Denver, Phoenix and Tucson in the U.S. with Hermosillo, Guaymas and central Mexico (Kopinak 1997). Ambos Nogales is also an important transportation center connecting the two countries: the most important highway and railway connection between Arizona and Sonora and one of the most important ports of entry of the border between Mexico and the United States (Herzog 1990).

2.2.1. The natural environment.

Ambos Nogales is located in a narrow valley of 15 miles (24 Km) long and half a mile (0.8 Km) wide. A small watercourse, the Nogales Wash runs north through the Nogales valley, crossing the political boundary until its confluence with the Santa Cruz river a couple of miles north of Nogales, Arizona. The average altitude is 3500ft (1200 m) and

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8 The latest censuses for both cities (1990) report 107,000 inhabitants for Nogales, Sonora and 29,000 for Santa Cruz county (over 19,000 in the city of Nogales, Arizona). There is no doubt that the official figure for Nogales, Sonora is not accurate as public officials and border scholars demonstrate (Luis Cervera, personal communication). There is not, however, a reliable figure of the population of Ambos Nogales for the late 1990s although some authors estimates that is over 250,000 people (Kirby 1993).
the valley is surrounded by the Patagonia Mountains and the Pajarito Mountains in the Coronado National Forest, in the U.S. and the Sierra el Pinito, Las Avispas and La Esmeralda in Mexico with altitudes reaching 7000ft (2000m). The topography of both towns is very steep, especially on the Mexican side. There are changes in altitude within the urban area of more than 300ft and some of the streets climb 20 percent grades. As a result, water distribution and wastewater canalization have always been major problems for urban planning on both towns.

Ambos Nogales, located at 31° North Latitude and 108° West Longitude, is at the center of the high Sonoran desert. The yearly average temperature is 17.8 °C, and the yearly mean precipitation is 428 mm (half of this rain falls during the summer monsoons of July and August). It is also occasionally snows during the winter months (Figure 2.3). The irregular distribution of the precipitation combined with the topographic relief of this locality produce problems of both water scarcity and dangerous flooding during the rainy season. At the same time that water availability and provision has been a constant problem in "Ambos Nogales", it has also been a point of conflict between the two sides of the border. The reason of these disputes is the shared watershed of the Santa Cruz River the main source of water for both towns.

The Santa Cruz starts in the mountains of the Coronado National Forest in Arizona and flows South through the San Rafael Valley to cross the border about fifteen miles east of Ambos Nogales, and after a few miles turns back north crossing the border again three
Figure 2.3. Mean monthly values of precipitation and average temperature.

Source: INEGI 1995
miles east of both towns (see Figure 2.4). Just after crossing the border, the Santa Cruz River receives the water from the Nogales Wash and other tributaries and continues North up to Tucson and Casa Grande to its confluence with the Gila River just south of Phoenix. Eventually the water of the Santa Cruz River flows back to Mexico because the Gila River is a tributary of the Colorado River. A few miles south of Nogales, Sonora there is another watercourse "Los Alisos Wash" a tributary of Rio Magdalena, which since 1992 also provides water to the Mexican town. While both communities share the Santa Cruz watershed, Los Alisos only provides water to the Sonoran side.

The course of the Santa Cruz River creates a quite unusual situation along the U.S.-Mexican border. As mentioned, it flows from Mexico to the U.S., and allows Mexicans to appropriate water before Americans, according to the Prior Appropriation Rule used by both countries for the rest of binational watersheds along the border. This measure favors the U.S. in most of watersheds along the border, and has always been a source of conflict between the two nations. Mexican authorities at the local and regional level have been negotiating the use of the water in the Nogales wash and the Santa Cruz river with their counterpart in the U.S. Binational institutions such as the International Boundary and Water Commission (IBWC) or the recently created Border Environmental Cooperation Commission (BECC) have been in charge of the regulation of transboundary water resources.
Fig. 2.4. Ambos Nogales watersheds and watercourses.

Source: Ingram et al. 1995
A desert stream, the amount of surface water in the Santa Cruz River is very limited and variable, although important quantities of groundwater are stored in some areas of the valley. The vegetation of the area depends on the amount of water available. The differences in altitude in the area also creates differences in precipitation and vegetation. The higher mountains surrounding the valley have dense pine forest, the lower slopes have chaparral and oak trees and the lower valley (at 800m or 2400 feet) is covered with characteristic high Sonoran desert vegetation, grasses, shrubs, and cacti.

The riparian areas provide a distinct habitat for the flora and fauna of the desert. Cottonwoods, sycamores, willows, ashes, walnuts trees (walnuts are called nogales in Spanish) as well as smaller trees, shrubs grasses, flowers and plants cover the edges of the watercourses of the valley. Riparian areas are increasingly recognized as a complex and productive ecosystems vital to desert plant and animal life. The riparian area of the Santa Cruz river Valley is also very important for the flora and fauna of the upper Sonoran desert. The impact of the recent urban growth on the river valley has caused diminished flow of surface water and increased pollution, damaging some of the riparian areas especially downstream on the U.S. side of the river valley. Some of the communities along the Santa Cruz river valley in Arizona have expressed their disagreement with the way Mexico manages the water resources of the region. The protection of the riparian areas of the river is the objective of groups like the Friends of the Santa Cruz River as I discuss later in chapter five.
2.2.2. The history of Ambos Nogales.

Mexican President Porfirio Diaz created the Nogales Customs in 1880 to control the border crossing. At the same time the first administrator settled on the Mexican side, some commercial and trading activities (trading post, hotels, and roadhouses) started to develop on both sides of the border. The municipality of Nogales, Sonora was established in 1884, two years after the completion of the Sonoran railroad. In 1893, the town on the other side of the border Nogales, Arizona became incorporated. Although Ambos Nogales was formed by two independent political entities, both communities grew sharing public facilities and services such as water supplies, fire fighting facilities. In fact, during this first period the relation between them was so good that there was no physical boundary. "Little if any effort has been made to physically separate the two cities of Nogales in the early years, and residents of either nationality were free to build homes or establish businesses on whichever side of the line they chose," (Ingram et al. 1995:33). As a matter of fact, the first fence between the two countries was built during the Mexican revolution in 1917, more than thirty years after the towns were established (Rochlin 1976; Arreola and Curis 1993).

The most important change in the basic activities of both communities during the first two decades of this century was the growth of tourist and entertainment activities on the Mexican side as a result of the prohibition on alcoholic beverages in the U.S. during the 1920’s. The 1930’s depression stopped those activities and the growth of both
communities for a period of ten years until they benefited from the settlement of American army bases in southern Arizona during the Second World War.

The scarcity of labor during the war years favored the "Bracero Program" an agreement between Mexico and the U.S. by which employers from the southern states of the U.S. could hire Mexican workers. Most of these workers were employed in the agricultural fields of southern California, Arizona, and Texas. Some of the hiring agencies were located in cities along the border such as Nogales. The new economic situation after the war facilitated the hiring of even more Mexican workers in the fields and other labor-intensive economic activities. This new situation created a flow of migrants from several northern states of Mexico towards the border where the contracting offices were located.

In spite of all this, Ambos Nogales remained a fairly small community during its first fifty years and maintained this size until the early 1960s and the beginning of the Border Industrialization Program in Mexico. Until 1965, Ambos Nogales industry was mainly food processing and shipment (Arreola and Curtis 1993). There were also other activities commonly associated with the border, such as commerce, tourism, and trade.

In 1965, the "Bracero Program" was suddenly stopped, and most of the Mexicans working in the United States were forced to go back to Mexico. Many of the braceros stayed in the border towns waiting for either an eventual change of immigration policy or an opportunity to cross the border illegally to go back to their old jobs. The border towns,
especially the large ones such as Tijuana and Ciudad Juarez experienced the sudden arrival of many unemployed workers, aggravating the living conditions of these communities.

Some businessmen in Ciudad Juarez, using their political contacts in Mexico D.F., proposed a new program of industrial and economic development for the impoverished border region. The Border Industrialization Program was created in 1965 in order to create employment for the braceros. The fundamental element of this economic development plan for the border was the creation of American assembly plants. These assembly plants were also called ‘maquiladoras’;\(^9\) and the Border Industrialization Program was also known as the Maquiladora Program. I explain the impact of the maquiladora program on the border region in chapter four.

Ambos Nogales was one of the first towns benefiting from the new industrialization program. The process of industrialization changed completely the economic base of the town and generated large-scale migration, with resulting demographic growth during the next three decades. Although, the maquiladora favored new local economic development and created thousands of jobs on the border, the living conditions of the maquiladora workers and the infrastructures of their neighborhoods did not develop concomitantly.

\(^9\) Maquiladora is a new form of the old Spanish word “maquila”. The maquila is the portion of flour, grain or oil that the miller gets after each mill operation. The modern meaning of the word “maquiladora” evolved from its use to designate any partial activity in an industrial process, such as assembly or packaging effected by a party other than the original manufacturer (Kopinak 1997)
Eventually, the increasing demographic and industrial pressures on the natural resources of the valley, particularly water, led to escalated tensions between the two sides of the border and fostered the creation of binational infrastructures such as the Nogales International Wastewater Treatment Facility (NWWTF) (Varady and Mack 1995; Denman 1990)

2.2.3 The industrial development of Ambos Nogales.

As mentioned, the traditional activities associated with border towns on the Arizona-Sonora boundary were mining, trade, tourism, custom brokers and fresh produce transshipment. Manufacturing activities were limited for the first half of the twentieth century and represented a very small percentage of the local economy until the maquiladora program started in 1965.

In 1967, the first maquiladora was established in Nogales Sonora; this event started a period of accelerated industrial and demographic transformation that, with slight changes, has been maintained through to the present. The first twin plant in Nogales appeared just one year after Interstate 19 connecting Nogales with Tucson and Phoenix was opened to traffic.10 In 1969, Nogales opened the first Industrial Park on the entire border, PINSA (Parque Industrial de Nogales, Sociedad Anonima) with 46.14 hectares (113 acres). The

10 The I-19 was a big improvement in the communications of southern Arizona and demonstrated the interest of State official in Arizona to strengthen the links with Mexico. The I-19 is the only Highway in the United States that is signed in the metric system.
new park promoted an increase in the number of maquiladoras in Nogales Sonora, from only 12 plants in 1968, to 29 in 1970.

The 1970s were years of industrial and economic development and consolidation in Nogales, Sonora despite the industrial crisis that hit western capitalist economies worldwide during mid-1970s. The total number of plants went from 29 in 1970 to 55 at the end of the decade.\textsuperscript{11} Ambos Nogales also presented certain peculiarities in the types of industrial strategies that local businesspersons were able to launch. As some authors note, Nogales is considered the birthplace of the shelter company concept (Sklair 1989; Kopinak 1997). In the first years of the industrial parks in the early seventies, few investors wanted to enter into the Mexican border economy due to their lack of knowledge of how to handle the complex Mexican bureaucracy. A businessman from Nogales, Arizona, R. Campbell Sr., a producer of plastic baskets for strawberries in Arizona and Sonora, offered to handle the labor force, warehouse and industrial space, and process the paperwork for businesses interested in opening a maquiladora in the new industrial park. He started a company, Collectron, in Arizona and Sonitrones, in Mexico, which is the prototype of a shelter company. As Sklair describes it;

"[A shelter company] carries out a form of subcontracting in which a foreign company wishing to operate in Mexico supplies materials and components, while the shelter contracts with its own Mexican company to provide plant, labor, and administrative

\textsuperscript{11} However, the 1974-76 period Nogales lost about 10\% of the total number of jobs of the city and more that 4500 job losses in the maquila industry alone (Lara-Valencia 1993).
services. By protecting foreign companies from the necessity of legal involvement, shelter companies have made it easier for foreign capital to relocate to Mexico, temporarily or permanently" (Sklair 1989:48).

The entrepreneurship of Nogales residents and their ability to handle legal and bureaucratic requirements from both sides of the border favored the industrial development of this community. The binational nature of the local business culture has been a major force behind the success of early industrial development in Ambos Nogales.

The 1970s was also the decade of major public investments in support of industrialization. Beside the new industrial parks created during these years (Parque Industrial El Cid in 1974, Sanchez Bustamante in 1980), the city also created a new border crossing gate, the Mariposa Road crossing, to the west of the city. It is served by a new perimeter road, Camino Libramiento (now called Libramiento Luis Donaldo Colosio after the PRI local political leader killed in 1994), that connects with the Avenida López Mateos (the main commercial street of Nogales, Sonora) and I-19 in the U.S. side. The new gate was originally intended as a truck route to carry winter produce from across the border into the U.S. In 1980 however, it was expanded to accommodate the traffic of maquiladora goods (Fig. 2.5.).
Figure 2.5. Ambos Nogales border gates

Source: Adapted from a map of the Arizona Department of Environmental Quality
The new industrial parks, the new perimeter road, and the new gate changed patterns and practices in both communities, but particularly on the Mexican side. The new road reduced the traffic of heavy trucks in the downtown area and also promoted commercial growth in the area surrounding the new road. Francisco Lara-Valencia (1993) notes that most of the public investment in urban development by the Mexican federal and state government was directed towards the expansion of economic infrastructure and toward acquiring the best locations for industrial parks and transportation. In contrast, the public investment in residential services and housing was minimal to begin with and decreased over the years. The effects of minimal public investment in the residential areas and in social welfare eventually lead to social conflict among the residents of Nogales, Sonora. Moreover, it has also favored increasing binational tensions around issues such as the use of natural resources and pollution control.

During the 1980s, the industry of Nogales, Sonora consolidated the industrialization that had started during the previous decade. In 1990 there were 78 maquiladoras in Nogales and more than 16,000 jobs in that industry. At the end of 1997, the number of maquiladoras was 99 with 27,564 employees (Almaraz-Alvarado 1998), specializing in electronic equipment, auto parts, medical equipment, and miscellaneous products such as luggage, and machine parts. The number of industrial parks also expanded (299,865m² in 1997) during this period, as four more industrial parks were created. During the 1980s (and again during the second half of the 1990s), however, economic crisis hit Mexico accompanied by the steady devaluation of the Mexican currency (as I explain in Chapter
Four). Although, the economic crisis attracted even further investment to the border due to the relative reduction of the production costs for American companies operating on the border, the Mexican government was in a situation of virtual bankruptcy and was forced to reduce the investment in social infrastructures.

As a consequence, Nogales, Sonora suffered a paradoxical situation during this period. While the rate of private investment increased, the economy of the town boomed, and the total population grew to more than 100,000 people in 1990, the public investment in housing and residential services stagnated. Furthermore the centralized system of taxation in Mexico prevented local authorities from increasing taxes to firms and businesses so that infrastructure needs could keep pace with economic development. (I expand on the structure of local government in Mexico on Chapter five).

The consequence of increased economic growth and suboptimal infrastructure investment has been the constant deterioration of living conditions for many Nogales residents and the increasing pressure on existing infrastructures and services. The lack of comprehensive urban planning on the Mexican side of the border has also produced serious harm to the Arizona side as air and water pollution spill over the border into the U.S.. The successful industrial and economic development of Ambos Nogales has had its negative counterpart in uncontrolled urban expansion.
2.2.4. Population and urban growth in Ambos Nogales

Significant population and urban growth have followed the industrial development of Ambos Nogales. The two sides of the border, however, have experienced different rates of growth, as we can see in table 2.2 and figure 2.6.

The two communities grew at somewhat similar paces during the first twenty years. By 1920, however, the effects of the Mexican Revolution and the American Prohibition Law fostered growth on the Mexican side, and for the first time the Sonoran population was about three times that of Nogales, Arizona. Santa Cruz County and the municipality of Nogales Sonora however, remained fairly constant until 1950.

After the Mexican Revolution and during the 1920s, the mining industry revived. The U.S. Army also built a military post on the outskirts of Nogales, Arizona, which remained for more than 20 years. At its peak, the post contained 12,000 troops and became an economic and social boon for the town (Ingram et al. 1995). Moreover, during the 1930s, the transshipment of Mexican produce also became an important source of U.S. customs revenue (Rochlin 1976). Finally, as mentioned previously, when the sale of alcoholic beverages was prohibited in the U.S. between 1920 and 1933, Mexican liquor manufacture and sales increased along with the development of tourist and entertainment activities.
### Table 2.2

**POPULATION GROWTH IN AMBOS NOGALES**

<table>
<thead>
<tr>
<th>Year</th>
<th>Nogales, Son. Municipality</th>
<th>Sta. Cruz County</th>
<th>Nogales, Az County</th>
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</thead>
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<td>1890</td>
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<td>1500</td>
</tr>
<tr>
<td>1900</td>
<td>3310</td>
<td>4545</td>
<td>1761</td>
</tr>
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<tr>
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<td>14635</td>
<td>12689</td>
<td>5199</td>
</tr>
<tr>
<td>1930</td>
<td>15605</td>
<td>9684</td>
<td>6006</td>
</tr>
<tr>
<td>1940</td>
<td>15422</td>
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</tr>
<tr>
<td>1990</td>
<td>107119</td>
<td>29674</td>
<td>19489</td>
</tr>
</tbody>
</table>

Source: Inegi, and U.S. Census Bureau.

### Figure 2.6. Population growth of Ambos Nogales

![Population Growth in Ambos Nogales](image-url)
In the period between 1910 and 1920 both communities experienced unprecedented population growth. The rate of growth was over 200 percent for Sonora and about 100 percent for Arizona. At the same time, urban infrastructure development lagged (water supply and distribution, wastewater management and flood control) for both communities. To answer the pressing demand for growing services the two communities coordinated their efforts.

The first private water company was created in Arizona in 1896, using some urban wells in the Nogales basin and providing service to both sides of the border. The City of Nogales bought this company in 1911, adding new wells and investing in new pipes and pumping stations. Nogales, Sonora relied on private wells and communal wells until the first federal project was finally developed in 1949.

Between 1930 and 1950, the population of Ambos Nogales remained fairly stable due to the effects of the depression and the Second World War. The lack of basic urban infrastructures on the Mexican side however, started to be a problem for both communities. The first cooperative plan was the project of flood control developed by the International Boundary and Water Commission in 1930. Officials from both sides pointed
out to the IBWC that the two cities are built almost entirely in the valley of the Nogales wash, and were susceptible to damage from floods during the periodic rainy seasons\textsuperscript{12}.

The effects of the Bracero program in Nogales, Sonora produced important population growth during the 1940s and 1950s. Some of the hiring agencies for the braceros were in Nogales and people from the interior of Mexico moved there in search of American jobs. Meanwhile, the population of the Arizona side remained fairly constant. By 1960, the population of the Mexican side surpassed the 30,000 inhabitants while Santa Cruz County only had 10,000. The 1960s marked the beginning of a tendency that has been continued to the present. The population of the Sonora side has been growing very quickly while the Arizona side has experienced a much more moderated growth. It is important to note that Nogales, Sonora is the only major town in northern Sonora, and therefore there are no other alternatives to people moving to this region. In contrast, Santa Cruz County is only a few miles away from Metropolitan Tucson, an area that has experienced a very fast rate of growth during the same period (1960-1990).

Water supply and wastewater management served almost all the population of Nogales, Arizona by 1940. The first water distribution project for Nogales, Sonora however, was not completed until 1949 and with minor changes it is still the one in use today, fifty

\textsuperscript{12} In fact major floods have been recorded by IBWC in 1905, 1909, 1914, 1915, 1926, and 1930. Some of these floods caused some personal casualties and major property damage. It has been reported that 1930 floods claimed five lives and most probably precipitated a binational action to solve this problem. As a
years later. For Nogales, Sonora, the lack of comprehensive planning for urban infrastructure, such as water distribution and sewage, is due in part to the lack of coordination among different levels of government in Mexico and the scarcity of resources available to local government. Ingram notes that public works “[p]rojects are initiated independently by federal or state officials in response to political pressure or the temporary availability of funds rather than as part of a comprehensive and coordinated development plan. At best, the situation results in lowered efficiency and productivity; at worst, the different levels of government may actually operate at cross-purposes,” (Ingram et al. 1995:72). The low level of public investment in Nogales, Sonora continued even while the industrialization process stimulated economic growth in the region. During the 1960s, 70s and 80s, Mexican federal government has given priority to investment in roads, industrial parks, energy, communications, etc., and reduced the resources for social infrastructure and environmental protection (Lara-Valencia 1994).

Eventually both communities have been forced to solve some of their shared problems using the mediation of binational institutions such as the International Boundary and Water Commission or the Border Environment Cooperation Commission. For instance, wastewater management could not be solved independently by any of the two city governments. Most of the wastewater from Nogales, Sonora was pumped into the Nogales Wash which eventually crossed the border to the Arizona side. Arizona officials

result, a 5 kilometers (3.2 miles) covered channel and a 2.1 km (1.3 miles) of lined channel underneath of downtown Ambos Nogales were built by IBWC during the 1930s (Ingram et al. 1995).
urged their Mexican counterparts to find a solution during the 1930s and 1940s. Nogales, Sonora planned first to build their own facility but the town topography and location made it obvious that the most efficient treatment plant would have to be located across the border. The first shared wastewater treatment facility was built in 1951, 2.4km (1.5 miles) north of the border and funded by the IBWC. The total capacity of the new plant was 6000 cubic meters per day (1.6 million gallons) and its initial flow was 100,000 gallons from Nogales, Sonora and 700,000 gallons per day from Nogales, Arizona. Both communities expanded their sewage systems during the following years and the capacity of the plant was exceeded by 1958.

In 1967, IBWC approved Minute #227 allowing the expansion of this sewage treatment facility. The new plant was completed in 1971 in Rio Rico near the confluence of the Nogales Wash and the Santa Cruz River, 12Km (8 miles) north of the border. The capacity of this new plant was much larger than the previous one (8.2 million gallons per day) and was funded by IBWC (46%), Mexican federal government (29%), EPA (8%), and the city of Nogales Arizona (17%). This new treatment plant was over capacity only a few years later and in 1988 IBWC started to design a new $11 million project for a new treatment plant. In 1994, the Nogales International Wastewater Treatment Facility (NIWWTF) was in full operation in a site of 33.6 Ha (83 acres) near Rio Rico a few miles north of the border.
Water supply and distribution has been also another source of conflict among local officials and residents of Ambos Nogales, particularly in Nogales, Sonora where the system is quite inefficient and the residents have to rely on alternative such as illegal connections, connections to the Arizona system, private water supply systems and especially water delivered by truck (Ingram et al. 1995). As a result of this, most of the people in the poorest and more isolated colonias or neighborhoods, have to rely on their own sources distribution and on the water trucks (pipas) which are much more costly than the regular water rates charged by the public system.

Although officially more than 80% of the Nogales, Sonora households are connected to the public distribution system most of them have to find other alternatives during the days (or the hours of the day) that there is no water (COLEF 1992). As a result Mexican officials have undertaken several projects to assure the water provision to the whole community. The last of these projects is the “Acuaférico project” a project that was presented to the newly created Border Environmental Cooperation Commission (BECC) for approval and funding. This project wants to rehabilitate and expand the water system of Nogales. As we will see in Chapters Five and Six this project is an important breakthrough in the decision making process of public facility design. For the first time since NAFTA started, a public project was open to public participation in Ambos Nogales.
Chapter 3

STATE RETERRITORIALIZATION AND SOCIAL MOVEMENTS: A THEORETICAL FRAMEWORK.

During the last three decades, social scientists have become increasingly interested in analyzing the recent social, economic and political dimensions of the internationalization of capital. Today, it is widely recognized that world capitalism has entered a new phase of economic restructuring that began with the economic crisis of 1970s (Brenner 1997a; Castells 1996; Harvey 1990; Ó Tuathail 1998; Taylor 1994). This process of economic, political and social restructuring and reterritorialization has been generally called globalization in academic and non-academic literature. As with many other widely used terms, however, globalization has diverse meanings and has been used in different and even contradictory ways. While some politicians and media sources use it as a synonym of neo-liberal reform, others think about globalization as a wider phenomenon involving all spheres of human activity worldwide. The latter conceptualization is the source of a very interesting interdisciplinary academic debate.

Many scholars agree that globalization is a direct outgrowth of the crisis of the Fordist/Keynesian type of economic development and capital accumulation predominant in Western Europe and North America for most part of the twentieth century (Brenner 1997a; Castells 1996; Harvey 1990; Johnston and Taylor 1989; Johnston et al. 1995; Smith 1984; Taylor 1985). Historically, capitalism has gone
through different phases of spatial expansion and restructuring, periodically involving a process of relocation of activities at different geographic scales. The most recent phase of this process is characterized as being global in scope. As Castells writes, this process is global "because the core activities of production, consumption, and circulation, as well as their components (capital, labor, raw materials, management, information, technology, markets) are organized on a global scale, either directly or through a network of linkages between economic agents" (Castells 1996:66). Globalization also involves a modification of the political and social space, creating new international institutions and new political entities to institutionalize the recent wave of transnational economic linkages. Organizations like the European Union, or NAFTA are examples of these types of political institutions.

In addition, understanding and explaining globalization is an interdisciplinary academic phenomenon involving different sciences with very heterogeneous approaches and traditions. All these approaches, however, agree on the importance of geographic parameters for explaining the dimensions of globalization. Marxist social scientists have been at the forefront in analyzing the spatial characteristics of capital accumulation. Many have been very skeptical, however, about the originality of this recent globalization process. For these social scientists, capitalism has always been characterized by a process of spatial mobility (Taylor 1985). The spatial logic of capital is, therefore, to find the activities and the locations where the rate of accumulation can be maximized. In relation to this logic we can distinguish two main tendencies: while capital tends to immobilize itself in a particular place to facilitate
the process of capital accumulation, it also increases the rate of exploitation by relocating in different places across the world (Smith 1984; Smith and Dennis 1987). Historically, these two contradictory tendencies have been the main elements of the spatial logic of capital. Under the present phase of capitalism, mobility has become increasingly predominant as capital can now be immobilized in "virtual" locations for its accumulation. Capital no longer needs to be immobilized in a particular place to enable the process of accumulation since most of the financial markets are now electronically interconnected, and anyone from almost anywhere can invest their capital into practically any location in the world. As a result, one of the characteristics of this new phase of capitalism has been the homogenization of economic as well as political, social and cultural practices enabling increasing mobility of capital, information, ideas, and people. This process has been enabled in part by a progressive reconfiguration of the territorial state.

Historically, capitalism consolidated around the nation-state. The recent process of capitalist development however has opened up, expanded and reconfigured the role of the state to other spatial scales. The different forms and functions of the state and the process of economic development under capitalism maintain a dialectical relationship; the state is shaped, and at the same time shapes, the different phases of capitalism. Therefore, the present phase of capitalism has also its own configuration of the territorial state based in transnational and international organizations, which try to regulate the increasing mobility of capital, goods, information and people.
This new state, however, is not necessarily located in a defined space, its power is not necessarily tied to a particular territory or to a certain group of people. It is part of those flows of exchange regulating extensive geographic areas without direct control by its residents. Now physical presence in almost any type of economic activity is no longer required due to a process of time-space compression (Harvey 1989). Certain types of economic powers act worldwide through telecommunications networks, while areas poorly connected to this power network are increasingly underdeveloped. Therefore, an intrinsic element of the process of capital accumulation is the creation of spaces of uneven development (Smith 1984). As Castells argues, power has increasingly become placeless, while certain places have gradually become powerless (Castells 1997).

These multiple scales of socio-spatial organization also open up new opportunities for resistance. Social groups have noticed this changing political framework and have started to modify their mobilization strategies to interact with these new types of placeless powers. As a result, social movements have been increasingly interested in creating a new political agenda connecting place-based grievances with globalized political and economic structures. Globalization, therefore, has become a powerful discursive frame with enormous ideological power for social movements and government officials. Some of these new types of mobilization have been grouped under the name of "new social movements" and have been extensively theorized by sociologists and political scientists (Laraña et al. 1994). The connection between these
new types of social mobilization strategies and the spatial arena in which they perform their activities, however, remains mostly unexplored.

Thus, at the same time that globalization has modified the economic sphere, it has also introduced important changes in the organization of the state and, consequently, in social space. The political and social dimensions of the globalization process are the two elements most relevant to this dissertation. In this chapter I analyze how recent changes in the organization of the economy have modified the organization of the state, reviewing the work of political geographers and other social scientists. Geographers have developed the concept of geographic scale to express the hierarchical organization of space in political institutions and economic structures (Smith 1984; Taylor 1985). Recent developments in this area, however, have opened new perspectives on the concept of scale, and especially with respect to the social construction of scale, usedg examples not only from the economic and political sphere but also from civil society (Adams, 1996; Howitt 1993; Towers 2000). The analysis of civil society nevertheless, has focused mostly on production activities. Recently there have been efforts to connect theorization about the social construction of scales to reproduction and consumption activities (Marston, 2000). I introduce the concept of scale as an intrinsic element to understand the dynamics of social mobilization and to do so I use the different perspectives on social mobilization developed by sociologists and add the spatial dimension and the concept of scale.
3.1. GLOBALIZATION AND THE RECONFIGURATION OF THE STATE.

The transformation of the territorial state is one of the most important and more characteristic elements of the recent wave of globalization. If the nation-state was the basic container of social relations under capitalism until the 1970s, scholars now argue that the regulatory power of the nation-state has been reconfigured in favor of other spatial scales such as the global or the local (Swyngedouw 1997; Taylor 1994; Brenner 1997a). The analysis of the role of the state for the development of capitalism is by no means a recent phenomenon and has been on the agenda of geographers since the nineteenth century (Taylor 1985). The introduction of Marxist theory into geography, however, has encouraged the idea of the state not as a neutral referee of economic activities but as a significantly active actor in the process of capital accumulation.

From a Marxist point of view, the capitalist state derives from the capitalist mode of production at the same time that it maintains and supports the conditions favorable for capital accumulation (Short 1982; Soja 1980). The capitalist state has a double function in its role of maintaining the rate of accumulation. First, it contributes to capitalist reproduction by ensuring a capable workforce (controlling labor regulations and preparing workers for the labor market through the education system). Second, it also favors capital accumulation and production by providing essential services and infrastructure. Usually, these functions of the state took place at the nation-state level,¹

¹ The American state is one of the few exceptions in which most of the functions of service provision have been decentralized to State and local governments.
and many social scientists have analyzed the spatial structures of the state and its role in the development of capitalism.

Among all these analyses, Henri Lefebvre's is one of the most relevant and thoughtful studies of the importance of space in our society (1991). He refuses the simple conception of space as just static container of social relations. Instead, space for Lefebvre is a fundamental dimension of social relations under capitalism. The process of the production of space is a fundamental phenomenon for the development of capitalism, fixing social relations in the landscape. Under this process, empty and primary space (Lefebvre's first nature) is physically transformed to generate another kind of space with certain types of social relations, meanings and regulations attached to it. This socially modified space is what Lefebvre calls the "second nature". Moreover, and as Soja has stated (1980; 1985), this second-nature space is created through a socio-spatial dialectic. In other words, it is not only the outcome of social processes but the medium for social practices as well. This socially created space, therefore is itself produced, reconfigured and transformed by social practices (Towers 2000; Smith 1984; Lefebvre 1991).

Lefebvre was also interested in explaining the survival of capitalism through the production of space (Peet, 1998). One of the most important resources of capitalism is to control the process of production of space through the capitalist state. In order to analyze this position I turn now to the work Neil Brenner who has summarized the
positions of Lefebvre with respect to the state. More interestingly, he offers a thoughtful conceptualization of globalization and its relationship to both capital accumulation and the state.

Brenner shows that the relationship between globalization and the reterritorialization of the state, as described by Lefebvre, is an intrinsic process of capitalism.

Lefebvre conceives globalization as a process of worldwide spatial restructuring that unfolds in part through reconfigurations of state sociospatial organization. In Lefebvre's framework, therefore, the globalization of capital and the re-scaling of state territorial power are viewed as two intrinsically related processes within the same dynamic of global sociospatial restructuring (Brenner 1997a:139).

In relation to the state, Lefebvre conceives the relationship between space and the state as an alliance (Lefebvre 1978). The state was created in and through a certain space and it will probably perish with it. He also defines three fundamental elements of this relationship: material space, social space and mental space. The state produces a material space, the national territorial space, framed by boundaries, and modified and transformed by the resources and the flows of communication and transportation networks (roads, railroads, telephone lines, etc.). This physical space is where the commodity production and circulation takes place. In addition, social space is also produced by the state through the creation of an artificial hierarchical organization of institutions and bureaucracies (schools, courts, universities, policing districts, policing districts,

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1 Neil Brenner (1997a, 1997b) in a couple of interesting articles has explored the position of Lefebvre about the role of the state in the development of capitalism. Brenner bases his analysis in a exhaustive revision of the work of Lefebvre including lesser known works like the four volumes about the state (Lefebvre 1976a; 1976b; 1977; 1978). These are still not translated into English.
municipalities, etc.). For Lefebvre this social and monumental architecture is the state itself. It is a pyramid with a spatial base and a political head (presidents or kings or parliaments) at the apex. The social space is also abstract and is suffused with symbols and ideologies and it is the source of the intense circulation of messages and exchanges. On top of the material space and the social space, however, the state needs to build a minimum consensus level, to raise the feeling of belonging among the citizens and to enable mass support for state operations. In order to reach this consensus the state produces a mental space based on its historic antecedents but transformed to fulfill the needs of present times. Lefebvre suggests that the state space occupies everyday consciousness to generate a mental space, which establishes both social consensus and mass support for state operations (Brenner 1997a). All three levels of space production are closely connected and one cannot exist without the others.

Recent capitalism has also been characterized by the interrelation of territorial states, capital and urban agglomerations at a global scale (Agnew 1997; Castells, 1989; Cox 1997; 1998; Harvey 1990; Knox 1995). As such, the globalization process has created (produced) new social spaces in which the state has been restructured. At the same time, these new spaces have been an important instrument for the state to control social relations among individuals, groups, and classes. Therefore, the different scales in which the state operates are products of each historical and geographical configuration of capitalist development. And, following Lefebvre conceptualizations,
the capitalist state needs to maintain the social production of space and that precise
collectional configuration of the state is itself a socio-spatial configuration.

Neil Brenner applies this Lefebvrian conceptualization of the state to the different
policies of urban and regional planning in the Federal Republic of Germany (FRG)
between 1960 and 1990 (Brenner 1997b). For Brenner, the transition between a
Fordist and a post-Fordist regime of capital accumulation has favored differentiated
state intervention in Germany. He distinguishes between spatial tactics (techniques
used by the state to regulate produce and reproduce configurations of social space) and
spatial targets (the territorial matrices within which state intervention occur). The
FRG has gone from a state policy characterized by the redistribution of resources and
the attenuation of regional differences to another that favors uneven geographical
development and encourages competition among regions. For Brenner, the German
case is a good example of how each historic period of capitalism has its own socio-
spatial configuration and how this process is articulated through state intervention.

Globalization analyses have also favored a discussion about the progressive erosion of
the nation-state as a basic container of social and economic capitalist relations. It is
now clear that in the present global economy, production and finance are organized in
cross-border networks that can escape national level regulatory powers. Globalization
therefore, marks a crisis of nationally constituted territorial rules and regulations with
respect to economic relations (Castells 1996; Johnston and Taylor 1989; Johnston et
al. 1995; Ó Tuathail 1998). Some geographers, however, have also stated that the
reterritorialization of state power does not just mean a shift of power from the national to the global scale but a reconfiguration of all spatial scales.

Globalization is a "reconfiguration and reterritorialization of superimposed spatial scales, not as a monodirectional implosion of global forces into subglobal realms..." (Brenner 1997:159). This idea goes back to the Lefebvrian conceptualization of social space as "scaffolding of spatial scales". Therefore, the recent wave of globalizing capitalism involves all spatial scales: global, national regional and local (Brenner 1997b; Cox 1997; Smith 1984; Swyngedouw 1997). Thus urbanization is as much a component of globalization as the emergence of supra-state forms like the European Union or NAFTA (Marston 2000). Under globalization, corporations, finance and even politics are reorganized as increasingly global in scope. Local and regional responses to globalization and restructuring processes have also attracted public and scholarly attention. "There is, in other words, a double movement of globalization on the one hand and devolution, decentralization or localization on the other" (Swyngedouw 1992:40). In order to emphasize this multiscalar articulation of capitalism some authors have called these restructuring mechanisms "glocalization" to show how the local and the global are deeply intertwined (Swyngedouw 1997). At this point, I would like to emphasize the local effects of this process of state restructuring and intervention before moving to the geographic debate on scale.
3.1.1. The role of the local state under globalization

With the end of the Cold War in the late 1980s, capitalism losts its main ideological enemy, and has become the predominant economic system worldwide. The state, however, has entered a legitimacy crisis, "[s]tates must now choose whether they represent the interests of territorially circumscribed populations or the interests of businesses that operate globally but which originated within their confines," (Agnew 1995). In the context of state transformation under globalization, national policies of economic liberalization contradict local interests. The local state has been one of the areas in which this conflict between state and civil society has become more evident. State theorists are increasingly arguing the importance of the configuration of local space for maintaining and controlling social reproduction while the central state remains responsible for the rate of accumulation (Cockburn 1977).

Theorists also argue that the state is a vertical structure of public authority, while the nation is a horizontal network of trust and identity (Castells 1997; Kirby 1993). The state in all its forms has to cope with the tension produced by a vertical organization over a horizontally or geographically dispersed population. This tension is probably more evident at the local level in the space where local state institutions, economic agents and civil society are more intertwined. Andrew Kirby (1993) has explored the relationship between civil society and the local state under the process of globalization. Building his argument on work by sociologists and political scientists (Cockburn 1977; Saunders 1986), Kirby defines the local state as a social construction
that goes beyond the simple local government to include other local organizations dealing with water, education, recreation and employment.

Despite the displacement of regulatory power from the nation-state to new supranational and international organizations under the recent wave of globalization, several authors have argued that national-level economic processes remain central and, therefore, major nation-states still have a pivotal role sustaining international economy (Hirst and Thompson 1995). Within, its boundaries the nation-state has also increased its power using a higher technological strength to control and regulate civil society. Physical presence, however, is no longer required as new improvements in transportation and communication technology brings peoples and spaces closer. This process has been defined by social geographers as "time-space compression" (Harvey 1990). State institutions for example, are now able to control violence by means of preemptive control such as electronic methods of data collection, identification and monitoring (Kirby 1993).

Despite the state goals to increase control and uniformity, civil society has become more complex and more diverse under globalization. Contemporary civil society has new technologies to become informed and to disperse their ideas (from the photocopy machine to the internet), which can be used to resists globalizing tendencies. In fact, patterns of resistance to displays of power can develop within neighborhoods and localities without being crushed by the state. As Kirby notes "these developments [of local resistance] represent a continual procedural challenge to the legitimacy of the
states; they constitute difference and otherness within a bureaucratic system that yearns for order and standardization” (Kirby, 1993: 76). The present tendency towards global economic and political standardization is constantly challenged by the different forms of place-based collective action.

For Kirby the local state is an important political arena for the development of the state apparatus. In this space, localities and the regulatory state come into contact. The local state is a juridical entity defined by formal deliberations, agreements and disagreements — it is one spatial piece within the general scaffolding of scales of regulation of the state. In contrast, localities are social constructions based on collective meanings formed by social, political and economic interactions. Civil society lives with these dual conceptions of their space — the juridical framework of the different scales of regulation and their own conceptualization of space based on certain scales of collective meaning. The relationship between these two spatial elements is constantly discussed by local civil society and therefore, the local political arena is crucial to understand the processes of state coercion and social resistance. The geography of social mobilization is also a very important element in explaining civil society resistance to the regulatory state. Social action continually tends to reinscribe the relationship between place-based grievances and the different social spaces created by the state and society.

The local state therefore, occupies an important place in the relations, between the state, the economy and civil society. The local state is part of civil society and is also a
jurisdictional unit of the state. I return later, at the end of this chapter, to Kirby’s conceptualization of the relationship between resistance in the form of either spontaneous and disorganized collective action or purposive social mobilization, and the local state to build my own theoretical framework to analyze social movements in Ambos Nogales. Before reaching that point I summarize two different debates: the geographic debate on scale and locality, and theories of social mobilization.

3.2 THE GEOGRAPHIC DEBATE ON SCALE AND THE SIGNIFICANCE OF LOCALITY

As a result of the debates about the re-territorialization of the space under capitalism and about the dialectical relationship between spatial and social structures (Soja 1989), a new theoretical and methodological debate has emerged within geography. This new debate focuses on the role of scale and the significance of localities as agents and as containers of localized social structures (Cox and Mair 1991; Duncan 1989; Howitt 1993).

Cox and Mair (1991) have discussed this dual function of localities. For them, locality acts as localized social structure when it is treated as a set of social relations at a particular spatial scale, such as ‘the economy of Ambos Nogales’, ‘the border region political system’, or ‘the social environment of border towns’. They also argue that locality as agent is then given coherence and further mobilized via various local

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1 Social movements are processes of purposive social mobilization, organized in a given territory, oriented towards specific goals (Castells 1997). Collective actions are all the forms (organized or disorganized, purposive or not) of social mobilization.
organizations, which implement strategies on behalf of an alliance of locally dependent actors. For locality to become an agent does not require every single actor to act in union; like most social structures the locality contains many points of internal conflict,” (Cox and Mair 1991, 204). These two meanings of locality are therefore highly related. “Locality as agent presupposes locality as localized social structure,” (p.198) although the opposite does not apply.

Locality studies have also identified the importance of geographic scale as a social construct. Another of the main issues in the scale debate is not only how the state orders social processes at different scales but also how social actors create geographic scales through their activities (Herod 1997a). In this sense, local organizations along the US-Mexico border have changed their strategies and discourses in response to NAFTA, as I will discuss in Chapter Five.

The most significant example of theoretical attempts to conceptualize scale are from Peter Taylor and Neil Smith. Peter Taylor developed new theories of political economy of scale based on Wallerstein’s theory of world-systems analysis (Taylor 1989). His formulation posits three different scales of analysis: the scale of reality (the world economy); the scale of ideology (nation-state); and the scale of experience (the urban). Taylor argues that the process of capital accumulation is experienced locally, justified nationally and organized globally. By exploring the process that connects the different scales, Neil Smith goes a step further in developing a political economy of scale.
Smith contends there are two main tendencies within capital: the tendency to equalize the rate of exploitation across the world (mobility); and the tendency for capital to immobilize itself in particular places to enable the process of capital accumulation (Smith 1984). These two opposing tendencies are translated spatially at different material scales (Herod 1997a). Smith differentiates a global scale where the universalization of the wage labor takes place, the national scale where labor is controlled politically, the regional scale where product differentiation occurs and the urban scale where daily labor markets occur. As a result, "uneven development is the process that both integrates the different scales and produces differentiation on the basis of scale," (Jonas 1994: 258).

Although Smith's conceptualization of scale is more dynamic than that of Taylor, it is still quite functionalist. Both approaches consider the logic of capital as the only causal mechanism for the operationalization of the different scales. More recently, there has been a reformulation of the concept of scale towards a more pluralist and relational conceptualization.

The proposed reconceptualization of geographic scale and locality within a relational framework facilitates a new synthesis of focus and context which can encourage geographers to engage with, rather than avoid questions of appropriate praxis. The emergence of new forms of social struggle at all scales, and particularly the political possibilities associated with the growth of green politics which assume a simultaneous, rather than sequential political agenda around several core issues (environment, women, human rights, indigenous peoples and other marginalised groups, peace, etc.), none of which has inherent causal primacy or political privilege, affirms the need for research to assimilate relational thinking (Howitt 1993:41).
In this article, Howitt unfolds a critical description of scale evaluating the difficulties in conceptualizing it. He analyzes the most common meanings of scale as 'nested hierarchies', as a microcosm, as labels or as dialectical categories. He proposes a more relational model of social process that makes the linkage between “people’s everyday lives in their communities and the large scale forces that shape them and are shaped by them,” (Howitt 1993, 43). Scale is seen more as a social force than as an ordering framework.

These new conceptualizations of geographic scale and locality provide interesting new tools for understanding the dynamics of social movements. Scale is a social product that is generated by social agents but also helps to shape them. The constant dynamic of society creates changing scales of interaction (Agnew 1997; Delaney 1997; Herod 1997b; Miller 1994; 1997; 2000). The purpose of my research is to further explore how local political actors change their spatial conceptualization under NAFTA as a representation of the global forces. I want to analyze how local social movements modified their scales of action to cope with the different limitations and opportunities opened by new reconfigurations of the state. In order to do so, I need to explore some of the most important positions within social movements theory.

3.3. SOCIAL MOVEMENT THEORY.

Social movement theorists have been involved in one of the most dynamic debates within the social sciences. The debates have been fostered by new types of activism
worldwide in the last two decades (especially in Western societies), which have called into question the traditional explanations. Three approaches have dominated the explanation of social mobilization in Western Europe and North America: i) Marxist Theory, ii) Resource Mobilization Theory (RMT); and iii) New Social Movements Theory (NSMT).

3.3.1. Marxist Approaches on Social Movement Theory.

The traditional Marxist analysis of social movements places class struggle as the main force behind social mobilization. The analysis of capitalism and the ways that capital structures social life is the main focus of this analysis. “Marxism leads one to look towards the working class as the dominant influence within social movements, and to look towards the formation of a working-class party oriented towards seizing power and establishing socialism” (Epstein 1990: 36). Traditional Marxist approaches were largely shaped by the development of capitalism in Western Europe during the nineteenth century; New Marxist approaches have been more heavily influenced by the structural changes in the sources of capital accumulation during the second half of this century. While traditional and New Marxist theories of social mobilization share the same structural conception of the society, they differ in terms of their interpretations of the regimes of late capitalism.4

4 New Marxist analysis can be traced back to the work of the Italian Marxist theorist Antonio Gramsci. He described early twentieth century capitalism as “Fordism” which includes two very important elements: Taylorism in the organization of production (introducing new technologies and fragmentation of production activities into their simplest constituent components) and the mass production and consumption of goods by the working class. The Fordist regime created an important link between the
In the New Marxist analysis the category of working class is still maintained, but is expanded to include other aspects of society beside production, like the reproductive sphere, the community, or the household (Katzenelson 1981) and the realm of collective consumption (Castells 1983). In addition to an emphasis on production, reproduction and consumption within the new working class, New Marxist analysis stresses the importance of the nation-state and the launching of the welfare state as critical conditions for the success of Fordist types of capitalist accumulation (Harvey 1990). New Marxist theory posits an important model for collective action based on the development of common material interests and the struggle for the provision of certain collective services by the state (Castells 1983). The biggest challenge to neo-Marxist theory is “to find a way of retaining Marx’s notion of an objectively constituted social formation with a material base (which is what generally meant by ‘class’), while removing the theoretical bias of a necessary connection with productive property” (Davis 1991: 26).

The emergence of new theoretical insights within Marxist theory has opened up new objects of analysis as well. For example traditional Marxism has consistently avoided the analysis of the residential community. As Ira Katzenelson states; “this omission has been due in part to a theoretical relegation of community to the superstructure and in part the teleological ‘class in itself-for itself’ formulation which has been more interested in what workers might do (act in revolutionary fashion to achieve their fundamental interests in socialism) than in what they actually do in all facets of their production and reproduction spheres. The new conditions of work were seen to be inseparable from the new ways of living and thinking.”
lives,” (Katznelson 1981). Additionally, New Marxist theory emphasizes elements of ideology, commitment, and partisanship, stressing the conflicts in social structure as the source of movement formation, dissent and protest activity. “What it ignored [however], [is] the importance of organization and the consequences of organizing into group associations. It assumed that the existence of potential conflicts and strains would automatically generated associations of people to correct them,” (Johnston et al. 1994: 4). One of the most important contributions by Marxist sociologists to social movement theory is the analysis of the city as an important source of mobilization and struggle in modern capitalist societies. The French school of urban sociology has analyzed the process of social production of space and its impacts on social activism (Castells 1979; Lefebvre 1991).

The rise of new types of social movements in the last two decades has encouraged two different theoretical approaches to social mobilization. American resource mobilization theory avoids the focus on the economic structures of Marxist approaches and stresses the fundamental importance of pre-existing organizations and the availability of resources (money, professional expertise or recruitment networks) for mobilization. In contrast, the European approach of new social movement theory moves away from an exclusive focus on class issues as the only element in meaningful social mobilization and stresses other sources of social mobilization such as identity based on cultural constructs.
3.3.2. Resource Mobilization Theory

The emergence of resource mobilization theory (RMT) came as a response to the rise of social movements that swept the U.S. during the 1960s. This approach moves away from a long standing pluralist assumption that all interests are likely to find representation in the democratic system, and also dismisses the Marxist view that the increase of social grievances during the 1960s was generated by the structural strains of rapid social change. RMT therefore, focuses on the availability of resources and organizational patterns as ways of explaining collective social action rather than pluralism and ideology.

As a corrective to dominance of ideas and structural strain in the older theories, the resource mobilization perspective was a welcome addition and substitution. Sociologists, especially Charles Tilly and John McCarthy and Mayer Zald, pointed out that there was always strain in the society and that mobilization required both resources and a rational orientation to action (Johnston et al. 1994: 5).

As Mueller states, resource mobilization theory is based on a strategic approach to the study of social movements; it emphasizes the mobilization and allocation of resources by movement actors in the context of opportunities and constraints imposed by the social and political environment, (Mueller 1994). This theoretical approach attempts to understand how social groups assemble resources for action within the context of social and structural constraints. Mobilization is then the process in which a group secures collective control over the resources needed for collective action (Jenkins

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5 Pluralist analysis of social movements depicts them as extensions of more elementary forms of collective action. Movements participation was relatively rare, discontents were transitory, movement
1983; Miller 1992; Mueller 1994). RMT emphasizes the political, organizational and network/structural aspects of social movements, ignoring the cultural and identity issues of such movements, which are precisely the focus of the third theoretical approach, the New Social Movement Theory (McAdam 1994).

3.3.3. New Social Movement Theory.

NSMT posits that neither RMT nor Marxist theory has been able to respond adequately to the question of what has caused the types of social movements of the 1970s and 1980s. In these new types of social movements (the environmental movement, the peace movement, the gay and lesbian liberation movement) ideology is replaced by issues of group identity. (Epstein 1990; McAdam 1994). New social movement theory has tried to incorporate the complex force of identity in mobilization.

New social movement theory linked Fordist/post-Fordist political economy with an analysis of the state, culture, and ideology and a concern with the construction of community and collective identities as important terrain of struggle. Because the New Social Movement theorists emphasized culture as a terrain of struggle equal in importance to politics and economy, and they rejected the Marxist concept of broadly predetermined stages of history, they have tended to see their work more as a critique of, or alternative to Marxism that is a helpful revision of it (Epstein 1990:36).

Social action therefore, is not a given fact for NSM theorists, it is always socially produced. The rise of new types of collective action has been tied to changes in conceptions of society, which traditionally have been capitalist and socialist models of and institutional actions were sharply distinct, and movement and actors were irrational if not outright irrational (Jenkins 1983).
modernity. NSM theory can be seen as the expression of the postmodern turn in social sciences applied to the analysis of social activism. In doing so, theorists stress the importance of three recent processes in western society. First, there is the increasing importance of information as a core resource (Castells 1989; Melucci 1996), upon which the productivity and competitiveness of different units of the economy (firms, cities, nations) depend for their capacity to efficiently generate, process and apply knowledge-based information (Castells 1996). Second our world has become global, a completely interdependent world system in which the core activities of production, consumption and circulation are organized on a global scale. Finally, the main actors within this global informational world no longer belongs to groups defined by class consciousness, religious affiliation or ethnicity, but are instead individualized by their participation in various forms of social action.

Other analyses of social movements focus on groups with shared grievances and perceptions of injustices. New social movements theory includes under the same label movements as different as the civil rights movements in the U.S. and worldwide environmental movements. NSMT tries to explain a fragmented reality that in many cases does not fit within traditional theoretical paradigms.

NSMT emphasizes the importance of the globalization of political, economic and social structures as new groups became aware of the global dimensions of their local issues. "Grass-roots mobilizations are the product of, and are deeply affected by, the international transformation of a global economic base and its mediation through
national/local political context and people’s everyday actions and activities” (Fisher and Kling 1993). Accordingly, as Alberto Melucci has argued, changes in the forms of state control requires new forms of response some of the new characteristics of these new types of social mobilization are:

1. Their social base transcends class structure and they do not stress struggles over the production and distribution of material goods and resources.
2. They are pluralistic instead of ideological focusing more on present issues and not in an eventual future order.
3. Their mobilizing factors tend to focus on cultural and symbolic issues in which the relation between the individual and the collective is blurred, emphasizing personal and intimate aspects of human life (age, sexuality, gender).
4. They tend to use new mobilization patterns, characterized by nonviolence and civil disobedience, as a reaction to the crisis of credibility and accountability in Western democracies. In that sense, they are more interested in showing disapproval than gaining state power.

New social movements activists are interested in constructing forms of organization which are segmented, diffuse and decentralized and, although these forms are not totally instrumental for their goals, these new type of organizations become also new ways of experiencing collective action by all the individuals (Melucci 1994).

More recently, a new theoretical synthesis of social movements has been developed by NSM and RMT scholars (McAdam 1996a), which relies on comparative studies of
different case studies in Western European countries and in North America. This new synthesis focuses on three important factors in the emergence of new types of mobilization. The first factor is a framing process through which people agree to a common understanding of the world in such a way that legitimates and motivates collective action (Darnovsky 1995). The second factor refers to the forms of organization available to individual seeking to organize themselves for a cause, e.g. mobilizing structures or resources available for mobilization (Morris and Mueller 1992). The third factor incorporates the constraints and opportunities that create different types of political structures which can be used by only certain types of social movements (Tarrow 1996).

Marxist approaches, RMT, and NSMT have made a clear distinction between the kind of social movements of core countries such as the U.S. (Melucci 1989) and those of the periphery such as Mexico. While theorists associate the rise of NSM with the recent globalization of the world-economy, they also tend to link NSM with a certain level of political and economic development at the scale of the nation-state. The conditions required for the emergence of these new types of mobilization are political stability, democracy and a high level of economic development, all of which occur at the nation-state level (Ellner 1994; Hellman 1992; Slater 1994). As a result, we can conclude that while most of the new types of social mobilization in core countries reflect the theoretical frame of NSM, social movements in countries like Mexico do not necessarily fit within its theoretical confines.
3.4. TOWARDS A GEOGRAPHIC ANALYSIS ON THE PROCESSES OF SOCIAL MOBILIZATION.

As we have seen, globalization and its impact on the state and the sources of social mobilization have been studied widely from very different perspectives and theoretical frameworks. The process of globalization in the last twenty years has created a set of supranational institutions to protect international economic flows and the global process of capital accumulation. These new institutions have created new economic spaces primarily, but additionally, they have created new social and political spaces. In order to embrace those spaces as new political opportunities for struggle, social actors have constructed different scales of action, such as global, national, regional, urban or local.

The social construction of scale among local activist and political actors is an intrinsic part of the process of social mobilization. Following the synthesis on social movements unfolded by McAdam, McCarthy and Zald (McAdam 1996b), the three main components on social mobilization are political opportunities, the framing process and mobilizing structures. I argue that the social construction of scale is important at all three levels. The conception of scale and scope of the movement opens up political opportunities under different sets of institutions (such as the ones created by NAFTA). The changing spatial forms of state regulatory power allow or constrain different mobilizing structures. And finally the articulation of their discourses around a particular area (Ambos Nogales, or the Border Region) is part of the framing process. Neither geographers nor sociologists have given enough thought
to the relation between social mobilization and the social construction of scale. Social movements take place in one particular place and are shaped to impact another space. The case of Ambos Nogales allows us to explore this issue because in a single community we have expressions of the global, bi-national, national, state, regional, or local scale and some others in between as I will discuss in the next chapter.

Recent geographic analyses on the relationship between social mobilization and scale have added new insights to this topic (Towers 2000; Marston 2000; Miller 2000). Scales are defined by their social content and therefore we can distinguish between two major categories: scales of regulation and scales of meaning. These scales respond to the same logic as Lefebvre's social and abstract space or Habermas' spheres of society, (systems and lifeworlds). The scales of regulation define the landscape administered by distinct decision-making bodies. Regulation is one of the main functions of the state and, therefore, the scales of regulation are the organization of the overlapping scales of legal authority in order to control and regulate civil society activities. The organization of the scales of regulation responds to the needs of capital accumulation in particular spaces and times. Economic globalization has modified the scales of regulation, adding supranational and international regulatory bodies to enable and ease the circulation of capital.

The limits to the scales of regulation are fixed, limited and organized hierarchically (Towers 1999; Brenner 1997a). The changes and transformation of these scales have an immediate effect on the rest of scales of the system. In the contemporary state, all
geographic space and all the spheres of human activity need to be regulated by different governmental bodies. The changes introduced by globalization alter the equilibrium of the system and shift power either upwards to new transnational government bodies like NAFTA or BECC, or downwards to smaller units of government like State governments, school districts or municipalities.

Scales of meaning are also the result of the production of space. By living in a place and interpreting a particular landscape, people attach certain meanings and values to their space. The scales of meaning are based therefore on collective values and on cultural or historic traditions. The scales of meaning are much more flexible and can be easily modified to include or exclude certain areas or social groups. The scales of meaning are the scales used by social mobilization to frame the spaces of struggle in order to mobilize resources. Political action is also targeted to take advantages of certain political opportunities and because social processes and political opportunities, are articulated across different scales, the actions of social movements are targeted at different political scales.

These two scale categories intersect geographically and politically. Scales of meaning are shaped by different scales of regulation and in some cases, scales of regulation are modified by certain scales of meaning. This process of social production of scale is especially relevant at the local level. Returning to Kirby’s conceptualization (1993), the local state is one of the scales of regulation present at the local level. The intertwining network of social relation and economic interests between government
institutions and the community, shape a particular meaning of locality. In border places, like Ambos Nogales, the number of intersecting scales of regulation and meaning is even more complex. The transformation of the state under globalization enables new strategies and alliances among social groups creating new spatial conceptualizations.

The different perspectives on social mobilization tend to neglect the importance of space in social mobilization. Geographers on the other hand, have given minor attention to the process of social mobilization. They have studied social movements as elements of a particular landscape but they have not analyzed the spatial elements of social mobilization. The geographic debate on scale has opened a new epistemological approach to analyze social movements from a geographic approach. The geographic analysis of scale focuses on two main areas: meaning and regulation. However, both types of scales are present in place and the importance of the local is often neglected.

The process of social mobilization is a geographical process, since social movements are organized in particular places and frame their agendas with concrete spatial goals. The state, on the other hand, regulates the resources and opportunities available for mobilization. My approach to the study of social mobilization moves away from analyzing the evolution of a particular social movement (Miller 2000; Herod 1997) to focus on the social relations of one community. By using the local lens, I can define the multiple processes of social production of scale by either political actors and by the state. The process of globalization has modified the spatial organization of the
state creating new scales of regulation. These new scales are based in part on social, political and economic relations at the local level. The modification of the political environment with new government institutions regulating new spaces also modified the political strategies and the spatial conceptualization of social movements.

This approach to the study of social movements contributes to the epistemological debate among sociologists on the process of social mobilization by incorporating space and scale in the analysis. On the other hand, it also makes a methodological contribution to both geographers and sociologists by focusing on the social production of scale in the local arena rather than on one particular movement. I argue that this approach is much more geographic and unfolds the dynamic relation between the state and civil society. In the following chapters I analyze how globalization has modified the economic (Chapter Four) and political (Chapter Five) environment of one particular community. Finally, I analyze (Chapter Six) the changes and modifications of the spatial conceptualization of local political actors under the new economic and institutional climate that took place during the negotiations of a new urban/environmental project.
Chapter 4

SOCIOECONOMIC CHANGES IN THE U.S. - MEXICO BORDER.

As I showed in the previous chapter, the process of internationalization of the economy reached a new dimension with the effects of the economic crisis of the 1970s. This process caused global economic restructuring involving new and extensive geographic areas of the world. During the last thirty years, corporations have increasingly become multinational and transnational and the world market is being gradually structured at a global scale that brings national finances under the hegemony of transnational corporations. This process of globalization of the world economic relation has also reached other spheres of human activity such as social relations and cultural trends and has also had an impact on the way society is organized politically worldwide (Harvey 1990; Castells, 1996).

These new types of economic relations have involved a new spatial configuration of economic activities, especially a new organization of production. Some authors have called this new organization of production, flexible accumulation or Post-Fordism (Taylor et al

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1 The role of the state under globalization is the subject of a very intensive scholar debate in social sciences. (Hirst and Thompson 1992; 1995; Harvey 1990; Brenner 1997a; Castells 1997). The dismantling of the welfare state after the 1970s economic crisis have increased the importance of private multinational corporations on public finances. While public services have increasingly become privatized in most western nations; most of state own companies have been acquired by multinational corporations and as a result, individual nation-states are increasingly losing the control over fundamental elements of their economic policies. By developing supranational institutions to reassert its power, nation states also undermine their sovereignty. As Castells notes "the intertwining of national economies, and the dependency of government finance on global markets and foreign lending, have created the conditions for an international fiscal crisis of the nation-state, including the wealthiest and most powerful nation-states" (Castells, 1997: 252).

2 Flexible accumulation is a collection of business strategies (industrial technologies, labor practices, inter-firm relations, and marketing practices) characterized by the pursuit of greater flexibility. In contrast to the rigidities of the Fordist (particularly on labor markets and labor organization), this types of strategies have open a new era in the development of capitalism that have been called post-Fordism. (Harvey 1990).
The most important geographic effects of the process of flexible accumulation are the vertical disintegration of production or the creation of areas in which a certain phase of production is concentrated. Following general rules of capital accumulation and taking advantage of more flexible trade regulations, low-skill labor-intensive activities are increasingly concentrated in areas with the lowest wages. Other phases of the production will move wherever the productivity and the accumulation rate are higher. Peripheral nations that were traditionally the providers of primary goods and raw materials have increasingly, through a new International Division of Labor, become the source of inexpensive workers. The result is that now areas not previously relevant for the global markets have become central for the production of certain goods as well as components. This process of vertical uncoupling and subdivision of production creates a concentration of low skilled standardized operations (manufacturing assembly or routine data entry) in peripheral nations, and higher skill knowledge or technology intensive industries in the core (Barff 1995).

As I showed in Chapter 2, Ambos Nogales is one of those location areas in which assembly plants have started to concentrate. As a result, this border community has gone through a very dramatic economic and urban transformation during the last thirty years. The maquiladora industry introduced a totally new dimension to the relationship between both sides of the border and gave the local economy a new position in the global economy.

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3 One of the most important outcomes of the new regime of flexible accumulation is the changes in the organization of production and the disintegration of the organizational model of vertical, rational bureaucracies, characteristic of the large corporation under the conditions of Fordism. The new system is
Although most of the twin communities along the U.S.-Mexico border were created as a consequence of the connection of this area to the world economy at the end of the nineteenth century the process of globalization did not reached Ambos Nogales until the creation of the Border Industrialization Program (B.I.P.) or Maquiladora Program in the US-Mexico border in 1965.

This program was first created as an economic alleviation plan for Mexican border towns to create new sources of employment for its residents. The first political measures about the maquiladora program limited its scope to a very narrow region in Mexico and established strict labor and production regulations with respect to the plants that could be included under this program. The changes in the national and international economy encouraged BIP to expand into new geographic areas and deregulate the types of manufacturing activities that could be considered part of the maquiladora program. Therefore, although the BIP officially started in 1965, it did not take off until the 1980s when Mexico went through a financial and monetary crisis and the United States started a new phase of economic expansion and both countries began to realize the possible benefits of these types of companies. As a result of BIP, the border region has become one of the most dynamic economic regions in both countries and has attracted investors and workers from far away places to this isolated region. This progressive process of integration of the border in the global economy reached its highest peak when Mexico finally joined the North American

characterized by multiple corporate solutions like subcontracting networks or horizontal networks of small
Free Trade Agreement (NAFTA) in 1994. As I develop later in this chapter, I believe that the success of the maquiladora program created a favorable climate for the signing of the economic agreement between the United States and Mexico.

In this chapter I analyze the changes in the political economy of the border region during the last thirty years focusing on the effects of the Border Industrialization Program (BIP) and its relation to the changes that were taking place at the national level in Mexico and with respect to bilateral relations between the United States and Mexico. I start with the antecedents of this process of internationalization of the border economy after WWII that set up the basis for the process of industrialization of the border. I have divided the BIP into three phases following changes in the national and international economic and political sphere. Finally I analyze the institutionalization of this process with NAFTA and its side agreements with special emphasis on environmental issues and urban planning.

4.1. SETTING THE GROUND FOR THE MAQUILADORA INDUSTRY:
1945-1965.

By the end of the WWII the U.S. Mexico border region remained underdeveloped and isolated from economic trends at the national and international scale. However, this period is very important for the development of certain activities that eventually became the precursors of the Border Industrialization Program. In the next two sections I focus on two main geographic aspects of BIP: the regional scale and the national scale. More

specifically I look at the effects of the “Bracero Program” on the border region that consolidated the flow of workers between Mexico and United States; as well as the transformation and development of Mexican economic policies during the same period.

4.1.1. The “Bracero” Program, 1942-1965

Until the 1930s, the U.S.- Mexico border was quite permeable allowing workers from Mexico to cross the border on a daily basis to work mostly in fields in Texas or California. Border towns benefited of this constant flow of people providing services for these workers. Prohibition in the United States between 1920 and 1933 contributed to the concentration of tourist related activities in most Mexican border towns and the movement of people across the border. During the 1930s, the first restrictive border crossing regulations were established as a response to the depression in the United States (Martínez 1994; Herzog 1990; 1996). The depression and the end of prohibition created a severe economic crisis in many border towns that was locally compensated by the establishment of important army bases close to the border⁴. As a result of the WWII, the scarcity of labor in the fields of Southern California and Texas forced United States government to create a new policy that allowed Mexican peasants (“braceros”) to work in US agricultural fields.

The Bracero Program was signed in 1942 between Mexico and the Unites States. In 1951, a new agreement was reached (International Agreement on Migrant Workers Law 78)

⁴ Fort Huachuca in Arizona is one of these army bases that favored the local economies of Nogales and Agua Prieta.
allowing the Mexican government to intervene in the hiring process of a complementary labor force for agricultural activities (Mendoza-Berrueto 1980). As a result of this, many border towns established hiring agencies attracting workers from many Mexican regions south of the border. Border towns grew during these years as a direct consequence of this program. Under this agreement, the U.S. federal government issued entry permits and in some cases residency status to Mexican peasants who were living in the U.S. and also to those who choose to live on the Mexican side⁵. In a way, the Bracero Program institutionalized a very old practice among border workers, the commuter worker phenomenon where workers crossed “the fence” each day looking for temporary jobs in American fields (Herzog 1996).

The program, which ran from 1942 to 1965, attracted especially large numbers of unemployed Mexican laborers to the border. Contracting offices were located in border cities like Nogales, and created a flow of migrants from the interior of Mexico to the northern border. The state of Sonora grew rapidly, at an average of 3.4 percent per year during the 1940s. The city of Nogales grew even faster, at a rate of 5.4 per year (Ingram et al. 1995; Lara-Valencia 1993). Other cities along the border like Tijuana, or Ciudad Juarez experienced even more dramatic growth during the 1940s and 1950s (see Table 4.1).

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⁵ Between 1951 and 1964, the U.S. federal government issued 4,216,754 working permits to Mexican peasants but during this same period almost 3.5 million illegal aliens were deported back to Mexico (Mendoza-Berrueto 1980).
TABLE 4.1.  

Mexican Border Towns Population Growth  

<table>
<thead>
<tr>
<th></th>
<th>1940</th>
<th>1950</th>
<th>1960</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tijuana</td>
<td>16486</td>
<td>59952</td>
<td>152473</td>
</tr>
<tr>
<td>Mexicali</td>
<td>18775</td>
<td>65749</td>
<td>179539</td>
</tr>
<tr>
<td>San Luis R.C.</td>
<td>910</td>
<td>558</td>
<td>4079</td>
</tr>
<tr>
<td>Nogales, Sonora)</td>
<td>15422</td>
<td>26012</td>
<td>39708</td>
</tr>
<tr>
<td>Agua Prieta</td>
<td>4674</td>
<td>4106</td>
<td>10471</td>
</tr>
<tr>
<td>Ciudad Juarez</td>
<td>39669</td>
<td>48881</td>
<td>122566</td>
</tr>
<tr>
<td>Nuevo Laredo</td>
<td>28872</td>
<td>57668</td>
<td>92627</td>
</tr>
<tr>
<td>Matamoros</td>
<td>15699</td>
<td>45846</td>
<td>92327</td>
</tr>
</tbody>
</table>

Source: Arreola and Curtis 1993.

Initially braceros used the border cities as way stations in their journey to the U.S., but eventually large numbers of these workers made border towns their permanent home, especially after the termination of the program in 1964 (Martínez 1994). In the 1960’s the program was highly criticized by U.S. unions and Congressmen and was abruptly terminated by President Johnson in 1964 as the braceros were forced to go back to Mexico. Some of these workers and their families remained in the border cities waiting for an eventual change in the U.S. migration policy or (most probably) an opportunity to return to the U.S. and to their houses and jobs as undocumented workers. The displaced braceros expanded the labor force of many Mexican border towns raising the level of unemployment in the area. Moreover, most of these workers were firmly oriented towards the U.S. economy. While some of them reinvested their dollars into housing other started businesses in Mexican border towns.
The bracero’s program is an important phenomenon for the history of the border region not only because its termination is the cause of the Border Industrialization Program but also because it set up a series of institutional relationships between Mexico and United States opening the path for the future industrial and labor relations. Both federal governments agreed to cooperate on bringing people from the interior of Mexico to the fields and the food production industries in the United States. Local entrepreneurs and government officials discovered during this period the enormous opportunities that a big reservoir of labor supply could mean for the economic development of the region. In fact, the successful economic development of many regions in the Southwestern U.S. after the WWII can only be explained by considering the importance of the availability of inexpensive Mexican workers in the border region. At the national level, the bracero’s program also consolidated the northern border as a regional growth pole for people of the rural interior of Mexico. The Bracero program is the first example of official binational collaboration for economic purposes and it sets the path for future developments.

During the same period, Mexico was experiencing important economic transformations that also favored the eventual industrialization of the border region and the opening of its economy to foreign investment. As a result of this economic development certain areas of Mexico became industrialized while others not.

4 In 1964, United States unilaterally denied to extend Law 78 on migrant workers program on the border. The termination of the ‘Bracero Program’ supposed an estimated loss of 185,000 jobs for Mexican workers (Mendoza-Berruto 1980; South 1990)

Between 1950 and 1970, Mexico experienced fast economic growth coupled with social and political stability. The economy grew at an average rate of 6.4% annually while the inflation rate stayed at very low levels (3.1%) and the exchange rate was stable at 12.5 Mexican Pesos to the U.S. dollar (Warnock 1995). At the same time the one party political organization in Mexico was also stable during this 20 years period and there was no major social unrest. Because of the growth and stability, this period is called the ‘Mexican miracle’ (Warnock 1995).

Politically, Mexico entered in a period of stability after the administration of the charismatic Lzaro Cárdenas (1934-1940) under the rule of one single party, the Partido Revolucionario Institucional (PRI) the political heir of the Mexican revolution. Most of the policies during those years moved between a strict political control of unions and the opposition, and the continuation of rural reform and a plan for the modernization of the country. For the first time since the revolution, Mexican presidents were not members of the army and one of the characteristics of these administrations was pragmatism. Between 1952 and 1970, Mexico maintained very strict monetary control on inflation, interest rates and external debt. The different administrations of this period applied a model of state control over society and the economy very similar to the corporatist states in southern Europe like Spain or Portugal (Warnock 1995; Skidmore and Smith 1996).
The economic policy during the post WWII era in Mexico as well as in other Latin American countries was characterized by "protectionism". Key sectors of the economy were controlled by state-owned corporations like PEMEX (Petroleos de Mexico) or the development Bank NAFINSA (Nacional Financiera, Sociedad Nacional de Crédito). The state also heavily influenced the agriculture sector by subsidizing irrigation programs, or by supporting export oriented production (fruit, tomatoes, or strawberries for the U.S. market). Despite all this state intervention, the level of the state involvement in the economy was smaller than in other countries in Latin America. For instance, the public sector spending was limited to a 2.5% of the gross domestic product. (Warnock 1995)

The most important industrial regions during this period were located in the central area of the country between the big metropolitan area of Mexico D.F. and the industrial cities of Guanajuato, Puebla and Guadalajara. This large central industrial area specialized in manufacturing, especially auto manufacturing and food processing. Other important economic regions were based on petroleum industry located on the Gulf of Mexico in the states of Tabasco and Veracruz. Finally, mining and related industries were located in and around the city of Monterey. More recently this area has expanded into chemical, machinery and auto industries.

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7 Protectionism is a type of economic development based on the control of foreign exchange and the flow of capital in and out the country and the creation of import substitution industries to provide for the interior market (Skidmore and Smith 1996)
The northern border was left out of the economic development that other parts of Mexico experienced between 1940 and 1970. In fact, the US Mexico border region was poorly integrated with the rest of the Mexican economy. In an attempt to correct this problem, the National Border Program (Programa Nacional Fronterizo, PRONAF) was created in 1961 to promote the economic and social development of this region. But in general this national program was aimed at cleaning up the image of border towns among American tourists with little real intention of developing the local economy beside traditional border related activities (trade, custom services, tourism). The development of the Border Industrialization Program was fostered by Mexican federal government as a small regional measure to enhance the economic conditions and the labor opportunities of this underdeveloped region.

4.2. THE BORDER INDUSTRIALIZATION PROGRAM 1965-1989

The sudden termination of the “Bracero Program” in 1964 created a dramatic situation in big border towns like Tijuana and Ciudad Juarez. The end of the “Bracero Program”, moreover, coincided with a crisis in cotton production in Baja California Norte, Chihuahua, and Tamaulipas (Warnock 1995). It has been estimated that in 1966 the unemployment rate in some of the Mexican border towns reached between 40 and 60

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5 PRONAF had a wide variety of objectives, from tourism promotion, infrastructure development, education and industrial development. Unfortunately, PRONAF only materialized some discrete projects like “Puertas de Mexico” (Gates of Mexico) a program to build new (and beautiful) border entries to give a better image to eventual tourist (Mendoza Berrueto 1979).

9 In 1989, Mexico started the negotiations to join NAFTA. Although BIP has been active beyond 1989, the new type of political and economic relations between the U.S. and Mexico created by NAFTA opened up a new institutional framework for industrial development in the U.S.-Mexico Border. I have decided to analyze in depth this period in a different section.
percent of the active population (Mendoza-Berrueto 1980). In smaller communities, the flow of unemployed braceros was also dramatic, as the sources of local employment were very limited. The sources of employment in Ambos Nogales before the BIP were mostly concentrated on food processing and transshipment (Almaraz-Alvarado 1998; Arreola and Curtis 1993), while manufacturing jobs were less than 100 for a population of over 50000 (Bosse 1973; Sokota 1991).

To counter the loss of employment, Mexican entrepreneurs from Ciudad Juarez conceived a new industrialization program for their city (Martinez 1994). This project was called Border Industrialization Program (BIP) and was rapidly endorsed and extended to the entire border region by the Mexican federal government in 1965\(^{10}\). The main objective of the BIP was to create jobs on the border area, and it did so through a growth pole model intended to create economic development in one of the more isolated and underdeveloped areas of the country.

The BIP allowed U.S. companies to establish assembly plants or "maquiladoras"\(^{11}\) along the Mexican border corridor (up to 22 km from the border). These plants were also called

\(^{10}\) Coincidentally, about the same time, a Mexican government delegation headed by the Minister of Industry and Commerce (Octaviano Campos Salas) visited the new export processing zones in Eastern Asia which was attracting foreign investment (mainly from the U.S.) for assembly manufacturing (Warnock 1995). Mexicans also took advantage of the modified sections 806 and 807 of the U.S. custom code that allowed overseas manufacturing by American companies.

\(^{11}\) Maquiladora is a new form of the old Spanish word "maquila" which was the portion of flour, grain or oil that the miller got after each mill operation. The modern meaning of the word "maquiladora" evolved to designate any partial activity in any industrial process, such as assembly or packaging affected by a party other than the original manufacturer (Kopinak 1997). As a result of this the Border Industrialization Program was also called the "maquiladora program".
“twin plants” as the companies usually had one assembly factory on each side of the border; while the American side was in charge of the capital-intensive activities the Mexican counterpart was assigned with the labor-intensive activities. The investment in fixed capital was always very low allowing the company to modify its production or even move to other location when there were changes in the economic situation (as it happened during the economic crisis in the mid 1970s). Eventually, most of twin plants in the US became mere warehouses where the final products from Mexico were stored before shipping them to their final destinations in the U.S. urban markets.

BIP initiated a breakthrough in Mexican protective economic policies. For the first time since the revolution, foreign owned companies were allowed to settle in Mexico. The U.S. side also took advantage of some articles of its own legislation (tariff schedules 806 and 807) by which American companies could assemble in foreign countries certain parts of a commercial product and import the goods back without taxing them. The BIP had at the beginning very limited regional scope and included only assembling activities. The changes in the world economy after the 1970s crisis, together with important structural changes in the Mexican economy, favored the expansion and the consolidation of this regional program as one of the most successful economic ventures initiated by Mexico during the last three decades. Therefore, changes on the international economic scene and in Mexican politics revolved around different phases of the development of the maquiladora program (Carrillo 1989; Kopinak 1997).
The evolution of the maquiladora industry can be divided into three main periods. Between 1965 and 1976, the first industrial parks were created in several border towns and the maquiladora industry became an important boost for the local and regional economy of the border. At the end of this period the maquiladora industry suffered the effects of the international economic crisis. The second period between 1976 and 1982 was characterized by the flexibilization of political regulation and the expansion of the program to other areas and to other economic sectors. Finally the last period ran from 1982 to 1989 and was characterized by the “maquiladorization” of the Mexican economy as a consequence of the Mexican economic and political crisis. The success of this final period favored the negotiations by Mexican federal government to join the North American Free Trade Agreement.


Under the new program, final products as well as unfinished components were shipped back and forth across the border without incoming any imports or exports tariffs. Mexico charged only a tax on the value added portion of the final product (VAT). However, Mexico still applied strict foreign investment controls following the post-war national economic policy of protectionism. The scope and the level of foreign investment was limited to certain activities and to a narrowly described region. During the first years of the

\[12\] During a short period of time the companies' foreign ownership was limited to a maximum of 49% of the capital.
program all the products and materials that were shipped into Mexico had to be processed and shipped back in their totality (final product and industrial waste) to the United States. Moreover, BIP also had a very narrow regional focus limiting the installation of maquiladoras to a strip of land along the border. In spite of all these limitations the program was an immediate success and, by 1974, there were already 455 maquiladoras along the border employing over 75,000 people only on the Mexican side (Carrillo 1989).

By the end of this period, however, between 1974 and 1976, many assembly plants were closed and more than 30,000 maquiladora employees lost their jobs in less than ten month as a result of the international economic crisis in United States (Kopinack 1997). The reaction by the Mexican government was to ease the regulations and limitations of the working conditions of the maquiladora in order to attract new investments to the border region. In fact, some of the initial limitations of the BIP were abolished years before the crisis struck the region, when the Mexican government found out the potential benefits of the new industrialization program for the border and elsewhere in the country. Therefore, the maquiladoras were allowed to settle in the interior of Mexico in 1972 and in 1973, they were also exempted from the law that limited foreign ownership to a maximum of 49 percent of Mexican firms. Only some industrial sectors like the textile and apparel industry had still some ownership limitations (Kopinak 1997; Warnock 1995)

One of the main reasons for this rapid success was due to labor costs. Although B.I.P was created to alleviate unemployment among braceros, the truth is that most of the new border
industries employed young women without previous labor experience with the aim of avoiding unionization and the higher wages of more skilled workers (Kopinak 1995). Although, this policy was highly criticized by unions and labor activists in Mexico it has been successfully implemented since the creation of the BIP. Eventually, as a result of the economic crisis in the 1970s, labor regulations in the maquiladora industry became increasingly flexible. The probation periods for the workers were lengthened from thirty to ninety days\textsuperscript{13}. Moreover, companies laid off the employees they consider inefficient without giving them the severance pay required by Mexican labor law. Maquiladora companies were also allowed to adjust the size of their workforce and the length of their workday according to their needs. And finally they applied one-sided clauses on the collective agreements that set conditions under federal labor law standards. Most of these practices were against the Mexican labor law, but became \textit{de facto} a general practice during this time. This short period of BIP history started to show that maquiladoras could increasingly operate outside Mexican federal law, a trend that was intensify even further during the following years (Warnock 1995).

At the national level, Mexico benefited from the rise of international oil prices during the 1970s, becoming one of the world's largest suppliers. Its economy started to rely heavily on its oil exports to support a program of high public spending to modernize the country. President Luis Echevarria's administration (1970-1976) started a modernization program

\textsuperscript{13} During those days, the workers do not have to be paid the minimum wage and the company does not need to provide them with any benefits package that is legally due for full-time employees. Full time employees of the maquiladora industry usually had a benefit package including health care, pay for maternity leave, and one day paid holiday per week (Kopinak 1995).
in rural areas by introducing electricity and new roads to the poorest areas of the country. The program also expanded the role of government in the economy through the creation of over 800 state-owned enterprises. Thus the entire nationalist economic policy of the Mexican miracle was maintained favoring a strong currency and a fixed exchange rate with the U.S. dollar. Unfortunately Mexican foreign debt also grew considerably during this period reaching almost $20 billion by 1976. As a result, the inflation rate rose (averaging 16.7% between 1973 and 1976) and Mexican industrial and agricultural products lost competitiveness in the international markets creating a profound crisis for these economic sectors. These issues eventually favored the expansion of the BIP to other regions and to other economic sectors of the country.

Echevarria also increased taxation on luxury goods and capital gains and thus, some private capital left the country as rumors of devaluation begun to circulate. At the end of this period, the peso was finally devaluated by 60% in September 1974 and an additional 40% a month later. In spite of all these problems economic growth was still an impressive 4% thanks to the effects of the oil export industry. The Mexican economy however, became more and more sensitive to fluctuations in international oil prices. During the years of the oil boom in Mexico, only the maquiladora industry maintained certain dynamism and independence from oil prices which favored its expansion and consolidation.
4.2.2. Expansion and deregulation of the maquiladora industry 1976-1982

The growth and consolidation of the maquiladora industry characterized the second period of BIP. As the U.S. economy started to revive, so did the Mexican industries along the border. In contrast, Mexico more generally entered into an economic recession as the price of petroleum (its primary source of foreign exchange) dropped in the international markets. As a response, the Mexican government initiated a change in its economic policy towards foreign investment and moved away from the strategy of import substitution industries in favor of export-led industries.

In spite of its success however, Mexican officials still considered the maquiladora program a transitional stage in the economic development of Mexico and particularly of the border region. In fact, they were quite disappointed with the dynamics of the BIP after the mid 1970s recession because it was felt that border development was too dependent on the U.S. economy. Mexican officials realized that maquiladoras had little fixed capital and therefore tended to close as soon as the economic environment was not favorable. The northern border zone was quite vulnerable to these changes due to its dependence on this type of industries and its historic lack of integration with the rest of the Mexican economy. The Mexican federal government however, did not find a successful alternative solution and continued to encourage the growth of maquiladoras as a source of employment and foreign investment in the region. The types of maquiladoras created during this period were basically electronics, apparel, and furniture, transport equipment, toys and leather. The type of workers were still basically unskilled and mainly (over 75%) women (Warnock
In spite of the deregulation on labor issues, the wages among maquiladora workers were comparatively higher than those of many Asian nations. The maquiladoras located in the border region during these years tried to compensate for the higher wages through reduced transportation costs and close control by the company headquarters over its assembly plants. As a result, maquiladora industries experienced during this period a still impressive growth of 13.8% annually (Kopinak 1997).

This period was still characterized by a national economic policy of high public spending and a strong and overvalued peso. Nevertheless, inflation kept rising and reached 60% annually by the end of Portillo's administration (1976-1982). Economic growth averaged 8.5% annually during this period as the Mexican economy became more dependent on its oil revenues (oil revenues were 75% of all the exports in 1981). The foreign debt also rose to $57 billion as the international monetary crisis began to raise the interest rate in international loans. Moreover, the decline in the price of the oil in the international markets created a new threat for the Mexican economy and finally the Peso was devaluated 75 percent in 1982.

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14 The interest rates of international loans at the end of the 1970s rose as most of the core countries (particularly the U.S.) were fighting against high inflation rates with strict policies of monetary control. Moreover, the stable system of exchange created after the WWII in Bretton Woods cracked as international competition intensified. "Floating and often highly volatile exchange rates thereafter replaced the fixed exchange rates of the postwar boom" (Harvey 1990:141).

15 By early 1981, the world recession had resulted in a excess of oil on the international markets. Mexico as well as other oil producers countries decided to reduce their prices breaking the floor set by OPEC and creating a trickle down effect in other areas. In a short period the prices dropped from $38 a barrel in 1981 to $25 in 1982 and this falling tendency continued during the 1980s. (Warnock 1995)
One of the last economic measures of Lopez Portillo's administration (1976-1982) was to suspend foreign exchange operations for the first time in history. All foreign currency accounts were frozen and the private banks were nationalized. International financial institutions feared that the Mexican government would not be able to pay back its debt and pressed the International Monetary Fund (IMF) to intervene and force the Mexican government to take strict austerity measures. These measures favored the growth and consolidation of the maquiladora industry fostering that other industries in Mexico adopted the model of the border assembly plants to a point that some authors talk of a process of maquiladorization of the Mexican economy (Kopinak 1993; 1997).

4.2.3. The maquiladorization of the Mexican economy 1982-1989

During the presidency of Miguel de la Madrid (1982-1988), Mexico went through a very difficult economic period. At the beginning of his mandate, the accumulated public debt reached an unprecedented $82,000 million. The government was virtually bankrupt and public funds were insufficient to pay the interest due on international loans. The inflation rate was running at more than 100 percent and economic growth rate was negative. The Mexican currency that had been devalued by more than 80 percent against the dollar during the last year of President López Portillo was forced to several new devaluations during this period.¹⁶.

¹⁶ In 1982 the exchange rate between the Peso and the dollar was 26 pesos per dollar, by the end of 1988 it has fell to more than 1000 pesos per dollar (Rodriguez 1997:40).
Mexico responded with a set of policies that eventually would turn maquiladoras into permanent industries and consolidate the economic growth on the border region. These policies support more capital-intensive plants with fewer workers, and favor industries like machinery, electric and electronic supplies and automotive equipment. The old constitutional rule that restricted foreign corporations from owning more than 49 per cent of the capital of the companies located in Mexico was also abolished. These changes in investment policy favored even further the expansion of the maquiladoras in the northern border.

These policies proved to be very successful attracting foreign investment to Mexican non-maquiladora industries and transforming them into new maquiladoras. Some authors called this process the “maquiladorization” of the Mexican industry (Kopinak 1993:13). With these new policies, a growing number of transnational non-maquiladora plants (settled in Mexico during the 1960’s and 1970’s to serve the domestic market) were transformed gradually to become new “maquiladoras”. The automobile industry is one of the best examples of this process (Carrillo 1990).

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17 One dramatic social result of the economic measures required by the World Bank and the IMF was drastic budget cuts in public spending especially in poverty alleviation programs. These neo-liberal economics policies created a climate of social discontent and political unrest. The nationalist leaders of the PRI were very critical about the effects of liberalization that allowed foreign capital to invest in Mexico. The PRI political establishment considered the new policies a betrayal of the spirit of the Mexican Revolution, and the process of nationalization of the Mexican economy started by President Lorenzo Cárdenas (1934-1940). The PRI’s Labor Unions also opposed the process of privatization of the state-owned companies (Skidmore and Smith 1996).

18 American automobile industries (Chrysler, Ford, General Motors) established factories in the interior of Mexico during the seventies and eighties. They settled in Mexico taking advantage to the reduced tariff under the General System of Preferences (GSP) rather than under maquiladora legislation. GPS is a policy applied by the United States to stimulate exports from less developed countries by reducing tariffs on certain quotas of goods (Kopinak 1997).
The devaluation of the peso also favored foreign investment in the country. In 1986 Mexican wages\(^{19}\) were more competitive than those of South Korea, Taiwan, Hong Kong, Singapore or Brazil (González-Aréchiga and Ramirez 1989). The increasing openness of the Mexican economy and the competitiveness of the Mexican labor force attracted hundreds of ‘maquiladoras’ to Mexico. Between 1982 and 1986 one maquiladora was created every five days (almost 800 plants were created in that period) and the number of jobs in the maquiladora industry almost doubled (Ramírez 1988).

The process of maquiladorization has introduced new sectors in the maquiladora industry. Although electronics was still the most important sector in the maquiladora industry (40% of the plants in 1987 compared to the 59% in 1979), the automotive industry was the fastest growing sector during the 1980s (tripled the number of plants). The level of capital investment was raised in this new wave of maquiladoras, wages became higher and the percentage of women decreased. The recent phase of maquiladora history was characterized by the continuous growth and expansion of maquiladora industries along the border as well as in other parts of Mexico. Maquiladoras are now regarded as an essential part of the Mexican economy and are considered an instrument necessary to improving the international competitiveness of Mexican industry. Since 1989, however Mexico has started a series of political and economic reforms that have affected its international

\(^{19}\) Wages fell from a $2.96 per hour in 1980 to $1.37 in 1987 (Warnock 1995). Some authors consider even a greater loss, South reported that fully fringed hourly rate fell from $1.67 an hour in 1981 to $0.91 in 1983. To calculate the hourly wage rate in U.S. dollars is proved difficult during this period due to the devaluation of the peso and the changes in the costs included in fringe benefits (South 1990).
relations. I analyze the local and national impact of the maquiladora industry as well as the effects that NAFTA has had on the economy and the society of the border in the following section.


During the presidency of Carlos Salinas de Gortari (1989-1995) Mexico was undergoing a process of political and economic transformation that reached its highest peak when the country finally joined the North American Free Trade Agreement (NAFTA). NAFTA has been a turning point in the economic and political relations between the United States and Mexico that have been traditionally characterized by mutual distrust and by border conflicts (Martinez 1988).

This agreement, however, could not have been possible without the previous experience of the B.I.P. The economic growth created by the maquiladora program on the U.S. Mexico border positively influenced the United States and Canada to include Mexico in NAFTA. The economic effects of the Border Industrialization Program have changed dramatically the social and economic conditions of the northern Mexican states as well as some urban areas in the American Southwest. While BIP introduced dramatic changes in the economy of the border, NAFTA opened up a new dimension in social, economic and political relations of the border region. In the following sections I analyze the other dimensions of the BIP and NAFTA in the border region and in the relationship between the two countries.
4.3.1. The spatial impact of the maquiladora.

Border cities and towns were relatively small and growing very slowly until the 1960's. The size of most of these cities did not remarkably change during the first part of the twentieth century. However the changes in the new economic environment and the creation of new jobs in the area attracted a great number of Mexican workers and their families. The border region was also a free trade area and Mexican workers could benefit from some products that were less expensive or less taxed in the U.S. (appliances, electronics, sport goods, or garments).

At the same time, on the U.S. side, some changes produced in the national economy started to change the geography of industrial activities. The growth of the cities of the "Sunbelt" (Sawers and Tabb 1984) responded to a transformation of the regional structure of the US economy. From 1950 to 1990, the population growth in the Southwest states (Texas, New Mexico and Arizona) was twice the national average. The population redistribution from the Northeastern States to the Southwest is the result of a complex set of factors; the improvement of transportation, lower land, energy and living costs, the growth and expansion in the regional industrial base (agriculture, defense, technology, petroleum, real state, and the leisure industry).

As a result of all these factors, in 1990 almost nine million people (3.8 in the Mexican municipios and 5.1. million in the U.S. counties) lived in along the border between the
United States and Mexico. Between 1980 and 1990 the U.S. border counties grew 30% while Mexican municipalities experienced a 20% change.

Not all the border cities however, have experienced economic development and population growth. Only a few towns along the border have been affected by the maquiladora industry and those are the only ones that have experienced the most dramatic changes in population during the last thirty years. The maquiladora industry has been concentrated along four commercial corridors (see figure 4.1.) that connect Mexico and United States: the Pacific corridor, the Western corridor, the Central corridor and the corridor of the Gulf of Mexico (Kopinak 1997).

The Pacific corridor stretches from the Tijuana, Tecate and Mexicali in Mexico to San Diego, Los Angeles, San Francisco and Sacramento. Since the establishment of NAFTA this corridor has been lengthened to the North (Portland, Seattle and Vancouver) and to the South (Ensenada). Some goods are shipped from Canada to Mexico where they are processed and shipped back to the United States or Canada. The border towns in Baja California have one of the most important maquiladora concentrations along the border. In 1986, Tijuana had 238 plants employing 30,248 workers and was the major concentration of maquiladoras in a single city. The maquiladoras of Tijuana, Tecate or Mexicali are Mexican owned, fairly small (between 70 to 150 employees) and tend to be scattered around the city. However in the last ten years this area has started to attract multinationals from East Asia and the United States (South 1990).
The second corridor goes from Phoenix, Albuquerque, Denver, Tempe and Tucson in the United States to Nogales, Agua Prieta, Hermosillo and Guaymas. Some authors have

Figure 4.1 Map of the Western Industrial Corridor on the U.S.-Mexico Border

Source: Kopinak 1997
suggested that this corridor has also been elongated to connect Calgary and Edmonton in Alberta, Canada (Kopinak 1997). Nogales is the major border city in this commercial corridor, and is one of the urban areas that experienced a faster growth rates among all the major border cities. The impact of the maquiladora industry in border towns like Nogales, Sonora has transformed drastically these relatively small communities. In 1990, the percentage of people working in the maquiladora was one of the highest of all the border towns (20% of the total population of Nogales and 43% of the city’s workforce)

The average size of the maquiladoras in this region is also bigger than in Tijuana (between 240 and 300 workers).

Ciudad Juarez is the most important city on the Central corridor that connects Kansas City, San Louis, Dallas and El Paso in the United States and Chihuahua and Mexico City in Mexico. Ciudad Juarez is one of the most important commercial ports of entry between Mexico and United States; railroads and highways connect this city with the interior of Mexico. Ciudad Juarez is also the place where the maquiladora industry was born. The average size of the industrial plants is the largest of all the major border towns (over 500 people), and it has the largest number of maquiladora employees of all (86,000 in 1986).

Finally, the Gulf of Mexico corridor connects Chicago, Detroit, Kansas City, Houston, Austin and Dallas in the US with Ciudad Acuña, Piedras Negras, Nuevo Laredo, Reynosa.

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20 In 1994, Nogales Sonora had 19404 workers employed in the maquiladoras. That represents 40% of all the maquiladora related jobs in the state of Sonora. We can not calculate the ratio of maquiladora employment since there are not reliable figures on the population for that year (Inegi 1996).
Matamoros, Monterrey, Saltillo, Torreón, Gómez Palacio and Lerdo in Mexico. The number of maquiladoras in this region is relatively small in relation to the other three areas although this corridor does connect one of the most important industrial regions in Mexico (Monterrey) with Texas and the rest of United States. Monterrey has been one of the most important industrial regions in Mexico long before the maquiladora industry. The existing industries and labor relations of this area have slowed down the development of the maquiladora program in the region (at least during the first years of BIP). The economic and commercial ties along this corridor started long before the development of the Border Industrial Program and still remain one of the most important economic corridors between Mexico and United States.

The border development is therefore a heterogeneous process; not all the border has experienced the maquiladora phenomenon equally. The cities that are located in one of these four main corridors have experienced economic and population growth. The rest of border towns maintained traditional activities like agriculture, tourism and trade and have either maintained a stable population or have slowly started to lose some of it.

4.3.2. Social dimensions of the maquiladora industry.

The maquiladora program’s main objective was to create new sources of employment and income in the border region. It also was intended to increase the level of private and public investment, to improve living conditions, and to create a labor force of industrial skilled
workers. The maquiladora program however has reached those objectives only partially while it has created thousands of industrial jobs, the cities on the border received millions of dollars in public and private investment but neither the social nor labor conditions nor the living standards improved (Denman 1990; Kopinak, 1997).

Compared to traditional Mexican industry, the "maquiladoras" pay lower wages, its workers tend to be non unionized, and its workers are mostly unskilled and most of them are women21 (Carrillo 1990; Kopinak 1995; Williams 1991). Moreover, the process of technology transfer has been very scarce and only in the last years has it started to be more important (Sargent 1997). Most of the activities of maquiladora's workers are to assemble isolated components of a certain product (in some cases are high-tech components) but not to involve a transfer, absorption or development of new technologies and industrial processes.

The process of 'maquiladorization' has introduced maquiladora labor and production characteristics in other sectors of the Mexican economy. The labor deregulation and the higher rate of women in the maquiladora industries have been two of the most important changes introduced by the B.I.P. Since the B.I.P started in 1965, maquiladoras have been characterized by employing mostly young, unskilled women (more than 80% of the maquiladora workers are women in some areas). The reason behind this policy was clear:

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21 Recent studies show a change in the types of workers employed as maquiladoras became more specialized. The relative proportion of women has also decreased although salaries still remain low. (Kopinak 1997; Cravey 1998).
lower wages, non-organized labor force, and a more flexible labor force. In some cases, when the availability of this type of labor was scarce in the smaller border towns, the maquiladoras recruited women from the interior rural areas and housed them in some of the company dormitories for employees. One of the results of these employment policies has been the high level of labor turnover (from 60% annually in Nuevo Laredo to 180% in Nogales). However, companies do not consider labor turnover a major problem for their activities, and at the same time favor the flexibility of labor conditions and the lack of unionization among workers (South 1990). Some authors have pointed out that foreign capital has taken advantage of the Mexican patriarchy to exploit women (Warnock 1995). In contrast it has also been argued that maquiladoras have opened new opportunities to increase women's status and have improved their financial independence (Kopinak 1995).

As we have seen before, Mexican government has played a significant role in the development of maquiladora labor conditions by allowing certain practices that were outside federal labor law. The government has helped to decrease the wages among maquiladora workers by setting wage ceilings below inflation rate\(^{22}\), by reducing government spending in social services and the privatization of some infrastructures, and by the constant devaluation of peso. As a result, maquiladora’s workers have been forced to work larger turns and extra days to survive. Mexican households have also developed other survival strategies by taking advantage of economies scale of larger families

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\(^{22}\) The buying power among Mexican workers in 1993 was reduced one third of its level in 1982. The new Peso devaluation in 1995 has probably reduced even more their buying power. Some commercial businesses in the U.S. side have reported a drastic reduction in the amount of the total sales since the most recent crisis of the Mexican economy. This has been a traditional set back among businesses in the U.S. side.
(household size range from one to thirteen and the average is around 4.5) where everyone is contributing to the household income pool independently of their age, gender or position in the family.

The traditional relation between labor unions and the State has also favored the success of the maquiladora industry. The most powerful union federation is part of the ruling party, the PRI. The leaders of the CTM (Confederacion de Trabajadores Mexicanos) or the CROM (Confederacion Regional de Obreros Mexicanos) are important and influential members of the PRI. The CTM and the PRI use their power on the Boards of Conciliation and Arbitration to stop any struggle. The workers' collective bargaining process is frustrated by declaring any mobilization, or strikes illegal. Under Mexican labor law, anyone participating or organizing an illegal strike could be dismissed by his or her employer at will. Mexicans scholars called to this link between labor and the State 'corporativismo' or the corporate state. These unions are also called 'official unions' to describe their connection with the ruling party and the government (Warnock 1995).

During the years of industrialization and economic development (1950-1970), official unions were able to obtain certain benefits for the Mexican workers, and also raises in the wages and in the fringe benefits. Organized workers received higher wages and more benefits than those without unions did. When the Mexican Institute of Social Security (IMSS) was created in 1943, it only offered services (pensions, medical care or family planning) to the workers affiliated to one of the official unions. Today the IMSS provides
services to all full time workers. Despite a very progressive labor code inspired by the Mexican revolution, the trade union movement in Mexico is relatively weak, and capital is often favored by not enforcing labor laws.

Maquiladora industries have benefited from the lack of organized labor forces in Mexico and particularly on the border region. However, some areas with a longer industrial tradition like Tamaulipas (Matamoros, Reynosa and Nuevo Laredo) have been able to have an organized labor force in the assembly industry. In the Western border region from Ciudad Juarez to Tijuana most of the maquiladora labor force is not unionized. The maquiladora industry usually prefers urban areas with a weak presence of unions and also avoids those other areas with a history of labor and union conflicts like in Nuevo Laredo.

The 'official' union position about the maquiladora industry has traditionally been supportive. The philosophy and the leaders of some of those unions are quite nationalist, and they refuse any intervention of foreign capital (especially from the U.S.) in Mexico. However, the maquiladora is considered a necessary evil to assist the battered Mexican economy during the economic crisis in the 1970's and 1980's. For the unions, the maquiladora was an economic transition but not a long-term strategy (Williams 1991).

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23 During the 1970's Nuevo Laredo had several work stoppages and strikes which coincide with recession in the U.S. economy. Some plants closed using the union conflict as the main reason, although the truth was the economic crisis in the U.S. side. As a result, in 1986 the city only had 25 assembly plants employing 5600 workers, a small number for one of the largest cities on the border (South 1990).
When the De La Madrid administration (1982-1988) started several austerity programs and new policies of economic liberalization like the privatization of some important public corporations in Mexico, workers and unions were highly dissatisfied with the new neo-liberal measures of the ‘technical’ government. When Salinas was proposed as the official PRI candidate some union leaders campaigned in favor of another PRI candidate outside of the new ‘technocratic’ establishment. The 1988 presidential election was the most difficult election for any PRI candidate in history and some analysts attributed this to the impact of the union’s leaders among the ‘battered’ working class.

Salinas's administration (1989-1994) was characterized by supporting the maquiladora industry as a long-term strategy to internationalize and liberalize the Mexican economy. At the same time, Salinas started a process of political modernization and reform of the state. Labor unions were also affected by this reform and some of the most critical labor leaders were substituted, imprisoned or co-opted by the PRI. According to some authors, Salinas used this new policy in the unions as a ‘political vengeance’ to the most critical voices within the PRI (Williams 1991, 54). The regions on the border with a longer tradition of active labor movements (Reynosa, Matamoros) were the main target of this new political trend towards weakening the power of the local union leaders. Salinas's administration was clearly hostile to unions in the maquiladora union while it was clearly sympathetic with the companies. Subsequently, the process of ‘maquiladorization’ of the Mexican industries has extended these labor and union practices to other sectors of the economy.
Recent trends in the maquiladora industry have started to change some of the traditional labor conditions. In order to reduce labor turnover, companies have started to offer benefits and services to their employees (childcare services, subsidized meals, transportation etc.). Labor turnover has been the only way maquiladora workers can show their dissatisfaction with company policies. As a response, maquiladoras offer an attendance bonus to the workers who have perfect attendance during a two weeks period. If they miss one day, they lose the bonus for the entire two weeks. Meals are provided in the plant cafeteria or in some of the food stands in the industrial park. Sometimes they also get grocery coupons that can only be exchanged in a limited number of stores specified by the plant (Kopinak 1997).

The new maquiladoras, especially those in the automotive industry have started to reduce the percentage of women workers and started to hire also more skilled workers. Women however usually remain in the lower skill tier of the company and very rarely they receive promotions or more responsible positions. There has been also a rise in the average wage rate. This increase is due in part to the effect of the automotive industry and the changes in the gender composition of the labor force (Warnock 1995).

The maquiladora industry has incorporated new labor practices in Mexico that eventually have been transferred to other sectors of the economy. The process of political restructuring and economic liberalization started in 1982 by Miguel de la Madrid has favored the increase of maquiladoras plants in the border. Although maquiladoras are now allowed to settle anywhere in Mexico the main border cities (Tijuana, Mexicali, Nogales,
Agua Prieta, Ciudad Juarez, Matamoros, Reynosa or Laredo) still concentrate most of the maquiladora industry in Mexico.

The maquiladora industry has also transformed the economic and social conditions of the cities on the American side of the border. American cities have experienced the effect of growing number of Mexican shoppers in their retail shops and supermarkets boosting the local economy. Ayer and Layton (Ayer and Layton 1974) reported during the early that maquiladora workers in Nogales, Sonora spent between 50 and 70 per cent of their wages in shops across the border. More recent studies (Lara-Valencia 1990; Pavlakovic and Kim 1990), confirmed the importance of daily Mexican shoppers for the local economy of Nogales, Arizona and how sensitive the border economy is to changes in the exchange rate.

Changes in the exchange rate have an immediate effect on consumer patterns of Mexican workers all along the U.S.- Mexican border. Over the years, border residents have created household strategies for survival by shopping and doing certain activities on the other side of the border. Although this is true for residents on each side, it is particularly important for Mexican women (Hansen 1998; Hansen 1999). Mexicans also cross the border to get services like health care, prenatal care, and education for themselves or for their children.

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24 The constant changes on the exchange rate has produced bitter reactions by some of the business leaders of border communities. Local newspapers also report the economic effects of Peso devaluations on both sides of the border (Panzarella and Rosenblum 1982; Panzarella 1983; Rosenblum 1987). The effects of the sudden Peso devaluation in Mexico in early 1995 was dreadful for local businesses in Ambos Nogales. The Nogales, Arizona chamber of commerce denounced to the State and Federal administration the critical situation of some the business in the area (Flores 1995; Flores 1995; Viana and Torres 1995).
Residents of Mexican border towns may also cross the border in a daily basis to work in the United States. This phenomena also have an effect on the labor market of American border towns although its effects are more relevant in bigger cities like San Diego or El Paso than in places like Nogale, Arizona (Ruiz 1987; Bean, Parker et al. 1992; Tuirón 1992). The economic development and social transformation of the northern border of Mexico, therefore, has also modified the economic structures and social relations in the American side of the border.

4.3.3. The environmental impact of the maquiladora industry.

As we have seen, the border zone has become highly populated since the development of the B.I.P., but the area is largely arid and suffers from water scarcity in most of the urban areas. Water resources management has been a traditional source of binational cooperation between the two countries, but the new industrialization program has put an extra stress on water resources (Ingram et al. 1995; Sánchez-Rodríguez 1990).

Maquiladoras took advantage of lower salaries in Mexico but also of less exigent environmental regulations. Moreover, the process of urban development that has resulted from large influx of workers on the border is highly disorganized (Christopherson 1983). As a result, environmental and health conditions in places like Nogales, Sonora have deteriorated as the population increased the pressure over natural resources like water. Maquiladora workers are paid such low wages that many of them have to live in
shantytowns with no water or sewage services. This process goes something like this: the new arrived worker settles in some open land without holding a property right on the land. The process of getting the ownership could take from several months to (more often) several years. During this early phase the colonia is still an “irregular settlement” such that neither local government nor public service companies can provide them services and utilities. By the time the colonias’ residents get the ownership of the land, the whole neighborhood is settled and is usually very costly to introduce services like sewage, water or even electricity. Further, there is no established tax base to provide for that infrastructure needs (Warnock 1995).

The lack of urban planning in Mexican cities has created some of the most important environmental problems on the border region. In 1992, for example there was not one municipal sewage plant along the entire border. Most of the towns in the border dumped their raw sewage into local rivers and washes. The sewage infrastructure in areas such the border towns is usually very old, inadequate to carry the need of growing community. Moreover some of the industrial waste from the assembly plants is also dumped into the local sewage system with no previous treatment.

25 This process could vary from one town to another but usually the PRI organizes this process. In fact, the new resident that want to be a new shanty house talks first to a ‘land invasion’ association (most of the times organized by a local PRI committee) to know which area is getting invaded, and where they can settle. The owner of the land usually negotiates with the PRI to get their land invaded as a way to requalify usually from rural to urban. The whole process is another example of the clientelistic and paternalistic structure of the Mexican government.

26 PRONAF (National Program for the Border) between 1960 and 1965 funded some infrastructure projects in some of the Mexican border communities.
In the last twenty years, there have been several studies about the health-related effects of the deplorable environmental conditions of the Mexican border towns (Denman 1990; Kopinak 1997; Varady and Mack 1995). As a result, U.S. officials and non-governmental organizations in both sides of the border have started to pressure both countries to try to address the problems (Kurzinger-Wiemman 1990). Moreover environmental issues have become an increasingly important element in the binational agenda of the two federal governments. In fact, since the 1970's Mexico has started to create environmental ordinances as a response to U.S. demands (Mumme et al. 1988; Sánchez-Rodriguez 1988). This tendency was intensified even further during the Salinas administration when Mexico started the negotiations to join NAFTA (Mumme and Sanchez 1989).

### 4.3.4 Maquiladora industry and NAFTA

Salinas' political and economic project followed the same trend initiated by his predecessor. One of the main objectives during his administration was to recuperate credibility in the international markets. The economic and austerity programs launched during Salinas's administration succeeded in controlling inflation. By the end of his administration in 1988, the inflation rate was under 10 per cent annually and a stable economic environment begun to emerge.

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27 Salinas was in charge of the Secretary of programming and budget under de la Madrid, and was responsible of some of the austerity programs like the Programa Inmediato de Recuperación Económica (Program for the Immediate Economic Recovery).
With the national economy under control, Salinas focused on the liberalization of the Mexican economy. NAFTA was arguably his most significant accomplishment but he also managed to sign other trade agreements with Chile (1992) and with the G3 group (Mexico, Colombia and Venezuela) in 1990. Salinas showed that Mexico was determined to dismantle the traditional protective tariffs barrier system. Moreover, NAFTA showed to foreign investors the commitment of the Mexican government to a long-term economic liberalization policy beyond the six-year term of one president.

Salinas also negotiated Mexican foreign debt with the United States and through foreign banks and participated in the Brady Plan created by the U.S. Secretary of the Treasury, to renegotiate the debt of all the Third World debtor countries. The result was that Mexico was able to reduce the interest rate of some of its debt and also free up some $20 billion for public expenditure in Mexico. In return, Salinas agreed to carry out further liberal economic reforms. He removed most restrictions on foreign ownership at the same time that he also managed to erode the power base of several entrenched leaders in key unions and continue the privatization of state-owned companies (TELMEX -the telephone company-, steel plants, airlines companies, insurance, telecommunications and banks).

In 1994, when NAFTA was finally implemented, Mexico entered into a new economic, political and institutional crisis. In January, Salinas had to face a revolutionary uprising in Chiapas that received worldwide media attention. In March, the designated presidential candidate for the PRI, Luis Donaldo Colosio was assassinated in a still unsolved case. In
September, the secretary general of PRI, José Francisco Ruiz Massieu was also killed in another strange case. Finally, after the elections, the new president Ernesto Zedillo faced one of the most important (and sudden) economic and financial crises in Mexican history. The peso lost 40% of its value to the U.S. dollar in less than three months, and the foreign debt, inflation and interest rates went also up accordingly.

The first two years of NAFTA have been characterized by economic and political crisis. The number of maquiladora plants was reduced slightly during these years until the economic situation stabilized and the U.S. intervened with additional low interest loans. The U.S. loan would be covered by requirements that U.S. importers of oil related products deposit their payments in the U.S. Federal Reserve Bank (Warnock 1995). Zedillo also allowed a greater foreign ownership of Mexican banks and privatization of transportation and telecommunications.

NAFTA also has introduced a new institutional framework to solve certain problems on the border. It also incorporated new patterns of social participation, policymaking and conflict resolution. Labor organization cooperation has been one of the results of the new institutional setting. The North American Agreement on Labor Cooperation was created to address labor standards issues of the three participants' countries. The new cooperation has posed a challenge to the state-labor relations in Mexico, traditionally characterized by clientelism and coercive relations. The new institutional setting has favored raising issues such as litigation of cross-border disputes, international organizational linkages,
independent unionization campaigns, international union strategies or government policies (Perez-Lopez 1996; Reza 1996). Moreover, NAFTA has also promoted cooperation among public managers from both sides of the (Saint-Germain 1995).

The other change introduced by NAFTA has been with respect to the environment. In the early 1990's, during negotiations for the North American Free Trade Agreement, several environmental groups and activists from the United States, Canada and Mexico denounced the treaty's lack of environmental provision. Of special concern was the United States-Mexico border because its notoriously poor environmental infrastructure and its wanting condition. Governmental and non-governmental organization from both sides of the border started an intense campaign to push the United States and Mexican governments to reform and upgrade the existing environmental-management institutional apparatus. One of the most important demands of all these organizations was the creation of a more open and community responsive institutional regime to manage the United States-Mexico transboundary resources.

The response of the governments of Mexico, Canada and the United States was to create a side agreement, "North American Agreement on Environmental Cooperation" that provides for the creation of the Commission for Environmental Cooperation (CEC). The Commission is designed to ensure the environmentally proper application of NAFTA and as focal point for environmental cooperation among the three countries.
The United States and Mexico created an additional binational environmental agreement and two new institutions: the Border Environmental Cooperation Commission (BECC) and its financial arm, the North American Development Bank (NADBank). BECC's mission is to help, preserve, protect and enhance the environment for the border region. It also certifies project applications for financing by the NADBank and other sources (Varady et al. 1996). I review the main features of these new institutions and their impact on Ambos Nogales in the next chapter.
Chapter 5

STATE RECONFIGURATION AND PLACE POLITICS: THE CONCEPTUALIZATION OF THE LOCAL STATE IN AMBOS NOGALES.

In chapter four I summarized the effects of the process of internationalization on the economy of Ambos Nogales. This process has been triggered by the maquiladora program and, as a result, the entire border region has suffered dramatic economic and social transformations since 1965. As mentioned, Ambos Nogales is one of the border localities in which this economic process has had the most impact. The reason for the success of Ambos Nogales in the new economic geography of the border is based, in part, on certain locational advantages but also, as I have shown in chapter two, on certain historical peculiarities in the relationship between local political actors on both sides of the border.

In this chapter I analyze the changing nature of the state within the area of Ambos Nogales since the maquiladora program was launched. I also identify, during the period of NAFTA negotiations and the first years under the new agreement (1989-1996), the main political actors operating in this binational locality. Local politics in Ambos Nogales has been transformed by the new institutional framework created by NAFTA. The period 1989-1996 was a very crucial period in the transformation of local, regional,
state and national politics in both countries due to the incorporation of Mexico into the North American Free Trade Agreement and its collateral agreements. As a result, some local political agents have been gradually absorbed into the new institutions created by NAFTA while others have maintained a more critical position creating or transforming their organizations by incorporating a wider and more complex geographical scope into their agendas.

In the first section of this chapter I introduce the changing nature of state institutions on both sides of the border and the type of strategies that business leaders and government officials launched in order to solve some of the problems generated by the maquiladora industry and by rapid urban growth. Before analyzing these institutional changes, however, I summarize important political traditions in Mexico and the border region. Mexico has a long tradition of political centralism that contrasts with the decentralization of the state institutions in the United States. The concentration of power at the federal level, and in the executive branch has favored a “clientelistic” structure of the political process. In the last few years and as a consequence of the rapid industrialization of regions such as the border and the growing internationalization of its economy, Mexico has moved towards decentralization. I review some basic elements of these decentralization policies because I have found them crucial in the building of social and political framework at the local level that favor changes in the mobilization strategies of groups in Ambos Nogales. The other institutional framework that I describe is the role of
historical binational institutions as the only institutional structures that border localities had to address transborder issues prior to NAFTA.

In a second part of this chapter, I focus on the impact of NAFTA on some the most relevant social and political actors at the local level. I have divided them into three different groups: government officials and agencies, economic and businesses organizations, and finally non-governmental organizations and other types of local social movements. The result is a map of local politics before and after NAFTA in Ambos Nogales. The analysis of their agendas and their actions reflects the changing nature of their conceptualization of political space. In the following chapter I follow even further some of these groups through the first relevant transnational issue that took place in Ambos Nogales after the new binational institutions were created. I analyze how this conceptualization of space has been transformed and how the different political actors create a particular scaffolding of geographic scales to empower themselves and to legitimize their demands of the newly constituted institutions.

5.1. THE CHANGING NATURE OF THE STATE ON THE U.S.-MEXICO BORDER.

As I showed in Chapter Four, the process of economic internationalization on the border started with the Border Industrialization Program in 1965, and was institutionalized in 1994 with the NAFTA. This agreement and the rest of bilateral side agreements are good examples of the forms in which the state adapts its regulatory power to the new spatial
configurations of capitalism. In short, the changes in the political economies of both
countries affected a modification in the spatial organization of the state apparatuses in
both countries, though more significantly in Mexico. The border region, and Ambos
Nogales in particular, has been affected by the reconfiguration of government institutions
and by new trends in the diplomatic relations between Mexico and the United States.
Mexican municipalities have gone through a reformation process over the course of the
last twenty years. The impact of industrial and urban growth in some of the cities on the
border region has precipitated a new model of political organization in Mexico.

Another state reconfiguration has been the binational institutions that have changed over
the last thirty years to deal with the challenges of the economic activities of the border.
Both elements are important to an understanding of the many dimensions of the changes
produced by NAFTA and its related institutions. I review first the basic features of the
political policies in Mexico as they devolved towards decentralization and the
empowerment of local government. Next, I analyze the main features of a traditional
binational institution, the International Boundary and Water Commission in order to
show how it has progressively been adapted to the new demands of the communities of
the border.

5.1.1 The transformation of Mexican political tradition.

As mentioned already, the U.S.—Mexico border is a point of contact of two very different
states. In theory, both countries have a very similar spatial political organization with
three basic levels: federal, state, and local (municipalities in Mexico, and counties and cities in the United States). In fact, the Mexican constitution adopted some of the decentralized scheme of its federal organization from the American model. While the U.S. is a popular example of political decentralization and public democratic participation in local policy making, the Mexican political system has historically been characterized by the centralization of decision making at the federal level,\(^1\) the concentration of the political process in the hands of a single party (the PRI\(^2\)), and by a system of clientelist relationship between government officials and their support groups or "camarillas".\(^3\) The clientelistic structure of Mexican politics extends all the way down the political hierarchy, enabling even further the centralization of the decision making process. State governors can appoint and remove officials at the state and municipal level, and municipal presidents are empowered to do the same locally. The camarilla members show their gratitude to their appointees by following their policies without questioning. This system also allows for a selective distribution of government benefits to the states and municipalities more loyal to the president. In this centralist system of

\(^1\) It has been calculated that around 85 percent of all government revenue goes to the federal government, while the states only administer 12 percent and municipalities the remaining 3 percent (Warnock 1995).

\(^2\) The Partido Revolucionario Institucional (PRI) has been the ruling party in Mexico during the last 75 years. Although its ideological roots are based on the Mexican revolution its policies have moved from very progressive and socially concerned periods to pure neoliberal reforms. The PRI has favored both the clientelistic structure of Mexican politics and the centralization of the state. This situation has started to change over the last 10 years allowing the rise of certain opposition parties and a more democratic electoral system, however the claims for electoral fraud and political corruption has been a constant issue in recent Mexican politics (Rodriguez and Ward 1995; Warnock 1995).

\(^3\) This system extends from the president itself it is called the "camarilla" system to all the levels of government. The camarillas are the teams or groups of people within the PRI, which support the new representative in a public office. Once a particular camarilla’s candidate is empowered with a high political status then it is his or her turn to pay back to the members of his/her team (Cornelius and Craig 1991; Rodriguez 1997; Rodriguez and Ward 1995, Smith 1979).
policy making, the decisions made at the local level are made by those who have political or economic relations with PRI elites at the federal or state level. Although Mexican municipalities are the equivalent to U.S. counties, their functions and executive power is very limited due to the organization of Mexican political system.

In the last ten years, Mexico has started a series of policies to decentralize government institutions and the decision-making process. Although the Mexican constitution emphasized the importance of the municipio libre (free municipality) as an independent political cell able to control its own affairs, in practice, the decision making process has been concentrated at the federal level in the executive branch. Moreover, the municipalities are financially dependent on transfers from the federal government. Ultimately, the political structure of the government and the hegemonic PRI use these transfers as a mean of political control.

The increasing population of Mexico City and in other major metropolitan areas of the country during the 1960s and 1970s created many social and economic problems in Mexico. Moreover, the urban areas became the source of social unrest and political opposition (Bennett 1992; Farrera-Araujo 1997). The new technocratic elites of the PRI started to include in their agendas programs for regional development and political decentralization that concluded in 1984 in countrywide municipal reform. The main

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4 A good example of this process is the creation of the Border Industrialization program by a group of business leaders in Ciudad Juarez with good political connections with the federal government. The idea of
objective of this reform was to guarantee fixed sources of revenue to municipalities that would allow local authorities to provide public services and also would strengthen their political independence. Unfortunately for the PRI, one of the immediate effects of this reform was the rise of opposition parties in certain regions. By the end of the De la Madrid administration (1984-89), some important urban areas like Ciudad Juarez or Hermosillo and some States like Chihuahua, for the first time were not controlled by the PRI. Coincidentally, most of these municipalities and states were concentrated along the northern border (Rodriguez and Ward 1995). In spite of all the aspirations of the new decentralization policies started under the De la Madrid’ administration, very little political and financial autonomy has materialized. In fact, as Rodriguez argues the reform “was designed to grant a measure of autonomy to local governments by transferring some powers and resources, but with the underlying provision that the center would retain ultimately control,” (1997: 115).

A second intent, to provide municipalities with more resources and to increase public participation in the decision making process, was manifested in the Programa Nacional de Solidaridad or PRONASOL or simply “Solidaridad” (National Program of Solidarity). This program was launched by the Salinas’ administration in 1989 and coincided with the NAFTA negotiations. PRONASOL has two main foci: material (social services, infrastructure provision, poverty alleviation) and institutional (the arrangements of state-society relations and of the coalition supporting the PRI). During the 1989-1994 period the program was presented to the Mexican federal government and was quickly adopted and applied to the
this program was responsible for a series of social development projects including: building and refurbishing public schools, promoting projects of community electrification, paving streets and constructing roads, expanding the availability of potable water, improving health care, nutrition, housing, legal aid, regularize the establishment and transfer of land titles in both rural and urban areas, improving agricultural infrastructure, and preserving natural resources (Cornelius, Craig and Fox 1994).

PRONASOL was a personal project of President Salinas, designed as a way to create a new generation of local leadership that could serve as better interlocutors between citizens and the state. At the same time this program also aimed to reinforce PRI support at the local and regional level after the increasing presence of opposition parties in some municipalities and states. In fact it has been argued that although PRONASOL provided immediate poverty relief to communities, it was also a way to rebuild traditional clientelistic structures by reincorporating grassroots organizations and popular movements within the state (Dresser 1994). Salinas' administration tried to expand popular participation in policymaking by encouraging the creation of local instances of decision-making – the local Solidarity committees. For six years (1989-1994), PRONASOL succeeded in organizing numerous neighborhood groups all over Mexico, whole U.S-Mexico border (Warnock 1995, Martinez 1994).

5 In fact, the conceptual underpinnings of the program can be found in Salinas’ doctoral dissertation at Harvard. In his research he conducted extensive research in rural areas and concluded that the unsatisfactory popular support for the political system was due to the deficiencies of local leadership in rural Mexico, which eroded the relationship between the state and the community (Cornelius, Craig and Fox 1994).
including the border region. The level of community participation in the Solidarity committees, and its impact on decision-making, however, varies substantially from region to region, depending, among other things, on local officials' responsiveness to community inputs (Contreras and Bennett 1994).

PRONASOL was particularly active in regions in which Salinas' administration was more interested in regaining public support. The border region was one of these areas that, during the 1980s, became one of the most important electoral strongholds of the opposition (mostly PAN). Solidaridad was used by the PRI to regain popular support on the border region, not only among Mexicans but also among U.S.-border city officials. It was also a strategy to displace traditional leadership and weaken local and regional organizations (unions, urban groups, etc.) that could pose a threat to maquiladora industry development (Contreras and Bennett 1994; Kopinak 1997).

As a matter of fact, PRONASOL was very active in Ambos Nogales, offering resources to fund public projects such as new water distribution systems, street paving and lights, and more importantly, the regularization of land titles and the distribution of urban land among Nogales residents. A research project conducted in Nogales Sonora in 1991.

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6 The research project called "Manejo Transfronterizo de Agua en los dos Nogales: Estrategias para Nogales, Sonora" was conducted by the Colegio de la Frontera Norte in Nogales, under the direction of Francisco Lara. In this study, COLEF conducted an extensive survey of urban popular groups in Ambos Nogales to identify their interest with water distribution and sewage issues in their community. Most of the materials for this study have appeared in a series of articles in different publications (Lara-Valencia and Sanchez 1994; Lara-Valencia 1993; Sanchez and Lara-Valencia 1993). During my research in the summer of 1996 and the spring of 1997 in the COLEF of Nogales I was able to look at some of the unpublished
identified 83 different grassroots organizations created between 1985 and 1990 (COLEF 1992). In this list of organizations there are ten solidarity committees involving over 2000 families in different areas of the town. Most of these committees were created between 1990 and 1991. Only two of them were created in the mid 1980s as neighborhood associations, and were then transformed into a Solidarity committee. In the same study, the authors concluded that over 60% of the groups identified in a 1991 survey were funded totally or in part by some government agency. Only around a 30 percent were defined as independent, although some of them were affiliated with some of the opposition parties in Mexico (PRD or PAN).

As in other areas, in Nogales, Sonora PRONASOL opened up a new type of collaboration between federal, state and municipal governments. It endorsed more state and municipal control over public investment decisions and improved input in planning and implementation of public works and social programs at the community level. Moreover, this program has also strengthened municipalities as service providers through the creation of Fondos Municipales de Solidaridad or FMS (Municipal Solidarity Funds). The FMS have encouraged public participation in the process of project design. Any organized group (state agency, municipal office, residents group or local association)
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\(^7\) Municipalities’ budgets were traditionally very small and therefore the local governments in Mexico had a very limited capacity to create their own projects of urban infrastructure and they gradually became the administrators of public accounts at the local level. One of the roles of Solidarity has been to increase the capacity of decision making of municipalities by creating a special funding program (Fondos Municipales de Solidaridad or FMS) to support basic and social infrastructure at the local level (Fox and Moguel 1995;
may approach Solidarity officials and present a project for any type of public works. Once the project is approved, Solidarity provides the financial support required for the project. Ultimately, the communities are able to identify, design, implement, and evaluate each project.

In spite of the successful projects funded by Solidarity, however, this program has also fostered a new form of patronage and a clientelistic structure. The solidarity committee maintained and reproduced the vertical and hierarchical organization of the existing political system. In fact, even Solidarity’s decentralization goal can be questioned as it de-concentrates without decentralizing administration, thus reinforcing executive control. Finally, PRONASOL has proved to be useful tool in rebuilding clientelistic structures by either replacing local leadership with new leaders or by coopting them. In Ambos Nogales, PRONASOL was able to create strong support for the PRI in some of the poorest colonias after a long period of conflict relations between Nogales, Sonora residents and the PRI.

In summary, although Mexico has started a very tentative movement towards democratization and decentralization of political power, local governments are still in the weakest position in the Mexican pyramidal organization. Neither municipal reform nor federal programs such as Solidarity have been able to empower municipal government with real executive and planning powers. The most recent policies, however, have started

Cornelius, Craig and Fox 1994). FMS were distributed over two thousand poor municipalities in twenty
to create a new relationship between the different tiers of government as well as foster a new type of relationship between the state and civil society particularly at the local level. These changes have also started to modify the nature of the relationship with American officials and institutions. One example of this can be found in the changes that binational institutions have gone through in the last twenty years.

5.1.2. A trans-border political tradition: the international boundary and water commission.

Since the creation of the border in 1848, the governments of Mexico and the United States have been forced to collaborate to administer and control the political boundary and its surroundings. As I showed in chapter two, the U.S.-Mexico border lies in a semiarid region in which water resources are scarce. Both countries have tried to address water management conflict through the negotiations of different agreements since the creation of the border. The International Boundary and Water Commission (IBWC or CILA) is the result of one of these agreements and it has proved to be quite efficient and reliable in solving transborder problems for almost a century. Recent urban and industrial growth in some border communities however, has begun to challenge the institutional capacities of the IBWC.

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states for a total of 240 million dollars in 1991.

8 Also known as Comisión Internacional de Límites y Aguas (CILA), the IBWC is the oldest binational institution on the border region. Although it was created in 1945 as a result of the U.S. Mexico water treaty, the Commission was the last configuration of a series of institutions created to solve boundary litigations conflicts along the border (Jamail and Mumme 1982; Mumme 1986; Sanchez-Rodriguez 1990)
This international commission has been the only functional binational institution to solve transboundary issues during the last hundred years. In the last three decades, however, the border has suffered a dramatic transformation that has come to modify, to some extent, the Commission’s functions. The IBWC is classically organized. It is composed by two national sections headed by an Engineer-Commissioner appointed respectively of the president of each country. Rather than a single institution, the IBWC and CILA are two parallel national institutions with the same capabilities that coordinate their actions.

The functions of the commission are defined in Article 3 of the 1944 Treaty for the “Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande”. These functions can be divided into three broad categories: liaison-investigation, adjudication, and administration (Mumme 1993). Since its creation, the Commission has had to deal with two very incompatible roles: the control of the integrity of a political boundary and the management of scarce water resources. It has had to protect the territorial integrity of the state while managing natural resources across boundaries. Moreover the two responsibilities reflect the differences in approaches and interests of their respective national systems especially in issues of water administration and policy. In spite of all this, the IBWC has developed a reputation as a highly effective diplomatic and administrative agency in transboundary cooperation. Most authors however, have

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9 Both commissioners operate under the direct supervision of the Secretariat of Foreign Affairs in Mexico and the Department of State in the United States. Each section represents its own country and is responsible
credited the IBWC's success to its low visibility, operating usually at a technical and bureaucratic governmental level (Ingram and White 1993; Jamail and Mumme 1982; Mumme 1986; Sanchez 1993; Szekely 1993). The commission has interpreted its jurisdiction very narrowly and has limited its functions to technical and engineering aspects operating far from the public at very elite governmental levels. The commission, therefore, does not represent a concession of power from the national level to a supranational organization, but an instrumental agent from each government to solve shared problems along the border. The IBWC is a good example of bilateral cooperation at the federal level (with two independent and parallel commission on each side of the border) but unlike BECC, it is not a true supranational institution (with boards and councils with representatives from both countries).

The structure and activities of both commissions have received criticism for their failure to address problems before they become critical. The technical emphasis of IBWC does not allow it to regulate urban and economic growth on the border or to plan the required infrastructure for future developments. The actions of IBWC in Ambos Nogales are a good example of its poor ability to forecast population growth and infrastructure needs. The first international wastewater treatment facility for Ambos Nogales was completed in 1951 under the support of the IBWC, and was enlarged and improved twenty years later. Only five years after this last improvement, the plant was again close to maximum capacity. The IBWC was unable to forecast the impact of the maquiladorization of its own government. The Mexican headquarters section of the Commission is located in Ciudad Juarez,
Ambos Nogales on water needs. This process was again repeated in 1988, when a new bilateral agreement was signed to further expand the wastewater plant that was completed in 1991. Only two years later, however, the new plant was also reaching its maximum capacity\(^\text{10}\) (Ingram et al. 1995).

IBWC is a federal institution that has been challenged by the magnitude of the rapid industrialization of the border region. Changes created in the political and economic spheres in both countries have also challenged the rigid structures of these twin commissions and have elevated binational cooperation to a new level. Urban growth on the border has put additional stress on the already scarce natural resources (especially water) of the region. As a result, the IBWC has become increasingly occupied with urban support services (sanitation and sewage problems) and water quality problems. Additionally, the two commissions have also been affected by the restructuring of national institutions dealing with environmental and resource management issues as we will see in the following section.

The nature of state institutions of the border region has evolved over the last thirty years for different reasons. While municipal reform and Solidaridad are two examples of

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\(^\text{10}\) In fact, between 1988 and 1992, there are several articles on local and regional newspapers in which different political actors denounce the inefficiencies of the treatment plant and the lack of forecasting by local, regional and federal authorities from both countries. Moreover, the international treatment plant has been one of the most controversial issues in transborder cooperation in Ambos Nogales. AzDS 1988 Carmen Duarte pg 1b Officials Hail U.S. Mexican Sewer Pact; AZDS 1991 Sewage Project Near Obsolete Before It is done. Nogales expansion is urgent but it may not meet standards Laura Brooks.
political reform in Mexico, institutions such as IBWC have also started to incorporate new issues and new forms to integrate public participation in their political design. None of these policies, however, are directly related to maquiladora industrialization. In the following section I analyze the changes in the organization of the state and civil society generated by the internationalization of the economy of Ambos Nogales.

5.2. MAQUILADORAS AND THE CHANGES IN LOCAL POLITICS IN AMBOS NOGALES

As I showed in Chapter Two, people and institutions in Ambos Nogales have traditionally collaborated to solve local and regional problems (Ingram et al. 1995; Martinez 1994, Lara-Valencia and Pavlakovich 1996). Although local and state officials have to adhere to the stipulations of their national constitutions that limit transborder agreements and collaboration to federal government agencies, municipal and city officials have overcome these institutional obstacles by maintaining informal contacts with their counterparts on the other side of the border (Hansen 1986a, 1986b; Saint-Germain 1995). Milton Jamail calls these informal agreements "de facto rules", and defines them as the "behavior patterns that emerged and continues to emerge in the borderlands, which attempt to either circumvent laws or to smooth over complex jurisdictional issues" (Jamail 1985).

1b; AZDS 1991 Nogales wants Mexico to pay bigger share costs of joint sewage plant unfairly divided city insists 1b;
Local and state officials in Ambos Nogales have regularly maintained informal meetings to share their point of views about water resources, wastewater management, crime, drug smuggling, economic development and illegal immigration. The rapid process of industrialization and urban growth of Nogales, however, has generated a need for more formal forums to coordinate different local or regional policies in the area. Local businesspersons have also started to create organizations to defend their interests in the region. I have followed the nature of these organizations as an example of how the state and the economic actors have gradually adjusted their strategies to the new economic structure of the locality.

Businesspersons and professionals from both sides of the border have also been engaged in transborder cooperation since Nogales, Arizona and Nogales, Sonora were created. Since the late 1960s, however, they have maintained formal organizations on both sides of the border to foster trade and attract more activities to the region. These groups have been very successful in stimulating binational cooperation at the state and local level. In fact, the Arizona-Mexico Commission and the Southeastern Arizona and Northeastern Sonora Mayor's forum have all been initiatives nurtured in part by organizations such as the Santa Cruz County Economic Development Foundation, the Chambers of Commerce, the Border Trade Alliance or the Association of Maquiladoras. Local businesses and professional organizations and the local government agencies are closely linked and in many cases the same people sit on the managing boards of several organizations. At the local level, personal networks connect large number of institutions and organizations
even across the border creating a particular local political discourse (Logan and Molotch 1987, Kirby 1993). The maquiladora industry has generated in Ambos Nogales a common objective among city officials and business leaders to foster economic development by easing transborder cooperation. I review now the most basic characteristics of these groups and their main activities.

5.2.1 Local and regional government strategies

Local and state government institutions and officials face a very difficult task while solving border issues. While local and regional issues are under their regulatory jurisdiction, any agreement across the border needs the supervision of the federal government. In isolated and sparsely populated regions like the Arizona-Sonora border before the Border Industrialization Program, there were few, if any major problems to solve across the border. Transborder commissions were created to attract investment and promote tourist activities. An example of this is the Arizona-Mexico commission, which during the last twenty years has become a binational forum for local and state officials as well as local business leaders. Local governments in the border region in Southeastern Arizona have also created an organization to coordinate their actions and they have also organized yearly meetings with officials of municipalities across the border. Both initiatives, the Arizona-Mexico Commission and the Southeastern Arizona Governments Association, are examples of how the lower tiers of the state have reorganized to face the challenges of globalization.
The Arizona-Mexico Commission (AMC)\textsuperscript{11} was first anticipated by former Arizona governor, Honorable Paul J. Fannin in 1959 during the first ever Arizona-Sonora International Conference on Regional and Community Development, held in Tucson in March of 1959. Fannin and the Governor of Sonora, Alvaro Obregon (1955-1961) agreed to create the Commission in 1960. It is still active 40 years later in spite of all the economic and political changes experienced by the Arizona-Sonora border. The AMC is a non-profit corporation created as a forum for social and cultural exchange and economic development in both states. AMC’s Executive Committee is formed by a group of public and private sector individuals appointed by the Governor of the State of Arizona or by the Governor of Sonora for the Comisión Sonora Arizona (CSA). It consists of a Vice-Chair, President, Vice-President, Secretary, Treasurer, Past President and five at large members. The present members of the Executive Committee are representatives of state businesses and corporations.\textsuperscript{12} The Commission also receives funds from several corporate sponsors such as Bank One, Lewis and Roca, Tucson Electric Power, Bank of America, Weyerhauser or Salt River Project.

The AMC and CSA have several working groups that consist of government, business and university representatives. Each group has a co-chair from the public sector and another from the private sector. Between 1991 and 1997, Governors Fife Symington of

\textsuperscript{11} The Arizona-Mexico commission first name was the Arizona - Mexico West Coast Trade Commission. The Mexican counterpart is known as the Comisión Sonora-Arizona.

\textsuperscript{12} The President Mr. José Cárdenas is a partner at the law firm of Lewis and Roca LLP in Phoenix; the Secretary is Mr. Jess Valenzuela, chairman and COO of Southwest Harvard Group in Phoenix; the Vice
Arizona and Manlio Fabio Beltrones of Sonora expanded and strengthened the principles of regionalization and binational cooperation of the Commission. Presently, there are fifteen different committees: Agrobusiness, Art and Culture, Education, Environment, Financial and Business, Health Services, Legal Advisory, Livestock, Manufacturing and Maquiladora industry, Media and Telecommunications, Mining, Quality of Life, Small Business, Tourism and Transportation.

Some of these AMC committees launched binational programs like the Binational Border Health and Environment Task Force, or the Maquila Development Supplier Program. Moreover, the Arizona Mexico Commission has also favored contacts among education institutions. The University of Arizona supported several transborder projects with academic institutions on the Mexican side such as the Colegio de la Frontera Norte, the Universidad de Sonora or the Universidad Pedagógica Nacional. The Arizona Sonora Commission has been very important in building up a continuous relationship among public officials and the businesses across the border. It has limited itself, however, raising concerns and making recommendations to the federal level whenever important issues threatened the inter-state relationship.

President Mr. Russell Jones is also president of R.L. Jones Customs Brokers in San Luis, AZ; the Treasurer Mr. Thomas R. Woods is also partner at the law firm Epstein, Woods & Dwayer, PLC in Phoenix. The result of the academic participation in border issues remains still unexplored, but has produced an important number of reports and scholarly articles. In the case of Ambos Nogales I found certain departments of the University of Arizona have been especially important in shaping social activism. These departments are: the Bureau of Applied Research in Anthropology, Borderlands Section, the Latin America Area Center, the Documentary Relations of the Southwest, the Mexican American Studies and Research
The Southeastern Arizona Governments Organization. SEAGO is a regional planning agency that was created in 1972 to provide a forum for regional policy development and serve as a coordinating link between cities, counties, regional, state and federal agencies. It covers four counties and fourteen cities and towns in southeastern Arizona. SEAGO is a private, non-profit corporation owned and operated by these cities, towns and counties. In addition to the representatives of the eighteen local governments, there are five representatives of the private sector. It provides regional planning to the localities in the following areas: Aging Programs, Community Development Block Grant Program, Economic Development Programs, Environmental Programs, Housing Programs, International Trade Assistance Programs, Social Service Block Grant Program, State Data Center Affiliate and Transportation Programs.

On October 1996, SEAGO organized in Cananea, Sonora the first Southeastern Arizona and Northeastern Sonora Mayor's forum. Twenty-three binational municipal and local government representatives participated in this forum. They discussed issues of waste management, water management, economic development and trade, and tourism. In this first meeting one of the guest speakers was a representative of NADBank who briefly introduced the history and functions of that institution. SEAGO's president, Joe Brannan (personal communication 1997) reported that the Cananea meeting was a first step...
towards creating a binational forum of local officials on the Arizona-Sonora border. The municipal leaders that attended that meeting showed interest in maintaining periodic meetings.

All these governmental initiatives (the Arizona-Mexico Commission, SEAGO and the mayors' forum) are clear examples of how the lower tiers of the organization of the state have been adapted to the new needs of the economy. As we have seen, these organizations have been modified by the impact of the maquiladora industry. And, as I will show in the following chapter, these local and regional initiatives have been the basis for the design of the new transborder institutions created by NAFTA. These organizations are also good examples of how local business leaders and local and regional institutions interact to create organizations that promote development. The role of local business leaders has been fundamental in the social construction of regulatory scales. Business leaders' initiatives have been usually supported by local or regional government agencies in order to foster economic development and to ease regulations across the border. I review now the role of the most important professional and economic organizations during the period before the NAFTA agreement.

5.2.2. Local business strategies on transborder cooperation.

As I have shown, businesspersons and professionals from both sides of the border have been engaged in transborder cooperation since Nogales, Arizona and Nogales, Sonora were created. Since the late 1960s, however, when the economy of the border region took
off, they have maintained formal organizations on both sides of the border to foster trade
and attract more investment to the region. These groups have been very successful in
stimulating binational cooperation at the state and local level. As I have also shown
previously, the Arizona-Sonora Commission and the Southeastern Arizona and
Northeastern Sonora Mayor’s forum have been initiatives of local and state governments
nurtured in part by organizations such as the Santa Cruz County Economic Development
Foundation, the Chamber of Commerce, the Border Trade Alliance or the Asociación de
Maquiladoras.

In spite of all these initiatives, however, local and regional organizations have maintained
different types of organizations on each side of the border. In fact, although most of them
tried to promote transborder economic linkages, none of them in Ambos Nogales are
truly transborder organizations. Due to their importance and their availability I reviewed
four organizations in Arizona and three in Sonora.

5.2.2.1. American business and professional organizations

The most important economic activities in Nogales, Arizona are represented in four
organizations: the Nogales - Santa Cruz County Chamber of Commerce, the Border
Trade Alliance, the Fresh Produce Association of the Americas and the Nogales Santa
Cruz County Economic Development Foundation. The Chamber of Commerce represents
small business in the area. They work and collaborate through the Arizona-Mexico
Commission with business people across the border. The Chamber of Commerce receives
most of its funding from the membership fees that the associated businesses pay annually. It produces some tourist information about the county and also about the business and recreational activities across the border.

The Chamber of Commerce also collaborates with the Border Trade Alliance (BTA), a regional organization of economic development corporations, chambers of commerce, trade associations, banks, industrial parks, service providers, manufacturers, and state and local government agencies founded in 1986. The BTA has become a very important advocate for the maquiladora program although its agenda also includes transportation, health, and environmental issues. In 1992, the BTA had 2200 members representing small and medium sized businesses from the U.S. side of the border. BTA has a grassroots approach: no dues are charged and no hard rules are written about participation (Lazaroff 1992). During the peak period of the NAFTA negotiations, BTA became one of NAFTA's most important advocates in the border region (Gonzalez 1991; Iyengar 1990). The president of the local section of the BTA is William Joffroy Jr. from William F. Joffroy Inc. Customs Brokers in Nogales Arizona, who is also a member of the Asociación de Maquiladoras de Sonora in Nogales, Sonora.

The Fresh Produce Association of the Americas represents the interests of fruits and vegetable import companies. Its main objective is to facilitate the flow of Mexican produce into the United States. This is the oldest organization in Nogales. It was created by American vegetable distributors in the 1930s, long before the bracero program started.
The Fresh Produce Association (FPA) has maintained an important role among Nogales' business organizations. The FPA symbolizing one of the more traditional economic activities of the border region—the import and export of agricultural products. In 1996 the FPA had over one hundred members, all of them from the United States (two thirds of them in the Nogales area). The board of directors has twelve members elected by the general membership. The board appoints an executive director for the Nogales, Arizona office. This association also participates in other local economic organizations such as the Border Trade Alliance and the Chamber of Commerce.

Finally, the Nogales Santa Cruz County Economic Development Foundation (NSCCEDF) exemplifies the intertwined relationship between local businesspeople and local and state officials in the United States. This association serves the community by primarily marketing both the city and the county to industry (domestically and internationally) in an effort to improve local economic conditions. The NSCCEDF is a non-profit organization that derives its funding from the City of Nogales, Santa Cruz County, and local and private sector businesses. It provides information and services for local businesses and maintains an updated inventory of all industrial buildings in the city and the county.

In general, all these U.S. organizations maintain an informal relationship with economic groups and officials in Mexico but none of them have any Mexican representatives. They all collaborate very closely and each of them was very aware of the agendas of the other
groups. In addition, all of them have a close relationship with local officials and government agencies. They all advocated for a free trade agreement with Mexico long before the first NAFTA talks started in 1990.

5.2.2.2. Mexican economic and professional organizations

The three Mexican organizations I have analyzed also represent the most important economic sectors in Nogales, Sonora: tourism and industry. The first one is tourism and recreational activities represented by the Patronato de Turismo. The maquiladoras are represented by two organizations: the official CANACINTRA (Cámara Nacional de la Industria de la Transformación) and the more independent Asociación de Maquiladoras de Sonora. The maquiladora industry has favored the creation of two different types of organizations in Nogales, Sonora: one supported by the Mexican government and another politically independent. While CANACINTRA is closely controlled by the federal state, the Maquiladora Association is an independent professional organization.

The Patronato de Turismo is an organization formed by businesses owners located in the commercial area closed to the border fence in Nogales, Sonora. It was created in 1995, as part of a local business people’s initiative to promote and enhance tourism in Nogales, Sonora. The President of “Patronato” is Antonio Kyriakis, owner of two of the most popular restaurants in the commercial area close to the border fence. Kyriakis is a well-known member of one of the most influential families in Nogales, Sonora. He is a good example of a Mexican binationalist following Oscar Martínez’s typology (Martínez
In 1994, the city mayor asked Kyriakis to conduct a study of the potential for tourism in Nogales. One of the major problems found by the study was crime and its negative impact in attracting tourism from the United States (Olivares 1995). As a result, the business owners in the area created the Achilles Heel Program (Programa Talón de Aquiles) to increase visitor security in that area. The Achilles Heel Program was a sort of private tourist police funded by the members of the Patronato (Kitching 1995a; Kitching 1995b). The Program received immediate attention by U.S. reporters, thanks to the good connections of the Patronato and its active role in informing local newspapers and chambers of commerce in Arizona of the new initiative. The Patronato also maintains a close relationship with the Arizona Department of Tourism and with all the Chambers of Commerce of Southern Arizona. In 1997, when I interviewed Mr. Kyriakis, he described a project to create a new organization (Scenic Arizona and Gateway to Mexico) with the Chambers of Commerce of Southern Arizona and the Patronato de Turismo de Nogales Sonora (Antonio Kyriakis, 1997 personal communication) to promote tourism in Southern Arizona. The Patronato has over three hundred and eighty affiliates; thirty of them form the board of directors. Anyone interested can become a member and there are no annual or membership fees. All its funding comes from donations from its members. It does not receive any subsidy from any government agency in Mexico, although it
maintains a very close relationship with city officials and the local branches of the PRI and PAN.

CANACINTRA or Cámara Nacional de la Industria de la Transformación (National Chamber of Industry of Transformation) is involved in promoting industrial development. CANACINTRA represents medium and small size industries in Mexico. This industrial sector has pressured the Mexican federal government to decentralize economic activities from the Mexico City metropolitan area by promoting industrialization in other regions. Small and medium sized industries are in favor of industrial decentralization as they are much more affected by the growing cost of locating in big cities. CANACINTRA was involved in the development of the Border Industrialization Program during the 1960s and 1970s and became one of its most important advocates. It has also maintained a good relationship with the PRI being one of the most important supporters from the business sector. In exchange PRI has helped CANACINTRA by encouraging financial support from BANAMEX (Banco Nacional de Mexico - Mexico National Bank) to promote new industrial ventures.

CANACINTRA was created during the 1950s as a result of the economic depression and the Second World War, and has been highly supportive of the state and of state interventions in the economy (Teichman 1995). In fact, it was the only Mexican business group that supported the nationalization of private banks in 1982. CANACINTRA has also been one of the most ferocious opponents of trade liberalization in Mexico, and in
some states such as Chihuahua, some of its most prominent business leaders have become members of the opposition party, PAN (Mizrahi 1995).

The CANACINTRA office in Nogales, Sonora was created in 1977. It provides training courses for plant managers and secretaries. All maquiladoras in Ambos Nogales are required to join this organization. In 1997 there were eighty-seven maquiladoras affiliated with the Nogales, Sonora office. There are other industrial sectors affiliated with the Chamber but in this case their affiliation is not mandatory (concrete industries, and wood industries). The Nogales office provides services to several towns in northern Sonora (Santa Ana, Magdalena, Imuris and Benjamin Hill). The membership fee depends on the number of employees of the industry but in 1997 was between 8,700 and 2,800 pesos per year (between $1050 and $350 U.S.). CANCINTRA counterpart is the Maquiladora Association that maintains a good balance in the relationship with Mexican government and its own independence.

The Asociación de Maquiladoras de Sonora (Maquiladora Association of Sonora) is probably the most important independent business association in Nogales. In contrast with CANACINTRA, not all maquiladoras are members of this association since affiliation is totally voluntary. In 1997 the Asociación de Maquiladoras de Sonora had 57 members representing mostly maquiladora industries in Nogales. There are 21 associate members representing all types of business activities in the border region (custom brokers, communications, transporters, banks). The majority of its affiliates are managers
and directors of maquiladoras and almost all of them are Americans. The Board of Directors has a President, a Vice President, a Secretary/Treasurer and six board members, none of whom is Mexican. However, the executive director until 1997 was a Mexican. The maquiladoras run by Sonitrones (one of the shelter companies) are not associated with the Maquiladora Association.

The members of the Asociación de Maquiladoras de Sonora have to pay a membership fee. The Association has subcommittees on unions, environment and customs. Usually about twenty members attend the open meetings although when a critical issue is on the agenda the attendance increases to almost the total membership. Some of the associate members are also important members of other organizations in Arizona like William Joffroy Jr who is also the president of the Border Trade Alliance. The Maquiladora Association in Nogales is widely respected among maquiladoras associations in Mexico. As Kathryn Kopinak suggested (1997) their members are very proud of keeping Nogales as a union free zone. They also maintain a close relation with CANACINTRA and with the Border Trade Alliance as well as with federal and state agencies in Mexico.

5.2.3. The social construction of the local by professional and economic organizations.

Among all these groups and associations analyzed in the previous sections, the ones that have been operating for the longest period are the professional and economic associations from Nogales, Arizona. The Fresh Produce Association was created during the 1930s and the Chamber of Commerce and the Nogales-Santa Cruz Economic Development
Foundation have been active in one way or another since the 1940s. These last two organizations have defended the interests of local business in the area. The traditional companies of the border town have always been retailers, customs brokers, restaurants and other tourist-related businesses. These first organizations maintained a separate policy for each side of the border. Their construction of the local political and economic arena was inevitably divided by the political boundary. Their activities were nevertheless conditioned by a very specific regulatory space and although they maintained informal contacts with the other side, their most important activities where organized around the different tiers of government in each nation. The Maquiladora Program in 1965, however, changed the economic base of Ambos Nogales and also favored the creation of new associations to lobby in local and state governments.

The crisis in the maquiladora industry during the mid 1970s favored the organization of the Maquiladora association and the opening of an office of CANACINTRA in Nogales, Sonora. The Maquiladora Association is likely the first case of transnationalism in Ambos Nogales. Although it is an asociación civil, its members are mainly Americans. The Maquiladora Association also helped to create the Border Trade Alliance among business leaders on the American side in 1986. The Maquiladora Association and the Border Trade Alliance have developed a very good relationship with local and state officials. Both organizations have participated in different meetings and committees of the Arizona-Sonora Commission, invigorating this organization. The activities and
contacts of business organizations across the border have constituted the informal foundation in which more formal binational agreements have been based.

Local and state government officials have been also become members in some of the economic organizations on the American side and they have favored government initiatives such as the Arizona Mexico Commission, the SouthEastern Arizona and NorthEastern Sonora Mayors Forum, and the Ambos Nogales Commission. Business leaders in Arizona and Sonora have always been very interested in transborder cooperation as a way to internationalize their activities. It should be noted that for both states the Arizona-Sonora border is their only direct link with the global economy.

The impact of NAFTA has been very minor among these organizations. Lee Frankel from the Fresh Produce Association was very clear in saying: "for us the only changes are the new forms we have to fill in," (Frankel, 1997 personal communication). The Maquiladora Association and CANACINTRA also feel that NAFTA has only changed certain procedures and that the relationships with people and institutions across the border have remained unchanged by NAFTA. For the Nogales, Santa Cruz County Economic Development Foundation, the free trade agreement was much more important for business leaders from places far away from the border. Steve Collantonio, executive

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15 The mayors of Nogales Sonora and Nogales Arizona formed the Ambos Nogales Commission in the mid 1970s. They meet regularly to discuss issues of mutual interest for both sides of the border.
16 Arizona and Sonora maintain major ports of entry of goods and services along the border, and Ambos Nogales is the most important of all them. In contrast, California major ports of entries are the harbors of
director of the NSCCEDF (personal communication, 1997) believes that now people from Phoenix and Albuquerque are finding out about the potential of a business relation with Mexico. The NSCCEDF is trying to attract these people to the border. In some cases, however, they prefer to move further south to the interior of Mexico.

The only professional and economic organizations created recently are the Border Trade Alliance and the Patronato de Turismo. The Border Trade Alliance has become a strong advocate for free trade in the border region since the mid 1980s. The BTA was created just after the economic crisis that hit Mexico during the 1980s. Mexicans could not afford to shop on the U.S. as the peso suffered a dramatic devaluation. The businesses owners on the American side of the border experienced a drastic reduction in customers and sales from Mexico. American business leaders became organized in the Border Trade Alliance in order to foster new economic development along the border. The Patronato de Turismo is the only economic organization that was created in reaction to the new institutional relationship between Mexico and the United States. Tourism is one of the things that the new treaty could bring to the cities, and the Mexican tourist sector in Nogales wanted to present a new face of Mexico to potential visitors to the border town. The Mexican business leaders have been very successful in creating a good relationship with U.S. business leaders, organizations and government officials.

Los Angeles and San Francisco as its main international economic relations are with Asia. Texas has also important harbors with connection with the Caribbean and Latin America.
The geographic scale at which these organizations work are very different, and their reactions to the new Free Trade Agreement also differ. Most of the organizations are regional; their area of activity is the border region from California to Texas. And although they are locally based they are interested in changes and potential opportunities at the regional scale. CANACINTRA is the only national organization and is strongly connected to the government. The Maquiladora Association, the Border Trade Alliance and the Chamber of Commerce and the NSCCEDF are examples of organizations with a regional emphasis. Only the Patronato de Turismo is basically local, although its president Antonio Kyriakis shows great interest in the economic trends of the whole United States Southwestern region. In any case, tourists spend their money locally but they need to be drawn regionally.

Another trend is that all the American organizations and the Maquiladora Association (which is basically formed by Americans) have a regional perspective, however Mexican organizations are either local or national. The Maquiladora Association has also focused on the local scale trying to maintain Nogales’ maquiladoras free of unions. They have worked to differentiate that particular local space from the rest of the border region. Mexican business leaders believed that the hierarchical and centralized nature of the decision-making process in Mexico is the main reason they need to get organized at the national level. Only very localized activities such as tourism can be organized by independent organizations such the Patronato de Turismo.
Economic and political organizations are clearly changing and their construction of what remains as the local political arena is also evolving towards a transborder reality. Most of the people interviewed, however, state that nothing has changed as a result of NAFTA and they do business the same way as before. The reality is that most of these business leaders and organizations have long been interested in transborder cooperation and NAFTA has only institutionalized an economic reality in Ambos Nogales. Their scales of business have always been integrative, considering the economic potential of the other side of the border. In spite of all these changes most of the organizations are still either Mexican or American, although they have gradually strengthened their contacts with people and organizations across the border. During the time of my research the impact of the new transnational institutions had not yet been able to foster other types of transnational economic organizations. The links between each side of the border, however, have increased in all aspects and have become more formal.

From an analysis of the evolution of economic organizations and local and regional institutions in Ambos Nogales we can infer that the social construction of local space is a dialectical process. In other words, the traditions and the personalities of local actors interact with the regulatory power of the state and the forces of economic development to create and recreate a constantly evolving and changing conception of what is local. Moreover, this local construct needs to be included within a larger scaffolding of spatial scales in which local, regional, national and international scales are represented. What is quite evident in Ambos Nogales is that this process has been powered by the economic
changes introduced by the maquiladora, and that both the state and civil society have
adjusted their spatial constructions to the new reality. The transformation of Ambos
Nogales’ civil society is fundamental to understanding the specific transformations of
local politics in this locality.

5.3 POPULAR AND ENVIRONMENTAL GROUPS IN AMBOS NOGALES.
The local and regional popular environmental groups form the other side of the spectrum
in social mobilization in Ambos Nogales. During the period of my study six groups were
especially active in the community, three on each side of the border: the Friends of the
Santa Cruz River, the Border Ecology Project and LIFE in the United States; and
Dignidad, Comadres, and La Red in Mexico. In order to organize all the information I
have divided them by nation-state. We can see, however, that all the U.S. groups
analyzed are based on environmental issues while Mexican groups have a wider scope of
interest —although they have recently evolved toward more environmental positions. The
other striking commonality is that no group is a binational and no group has active
conjoined memberships on both sides of the border.

5.3.1 environmental groups in Nogales, Arizona
Of the three groups I have analyzed on the Arizona side, the Border Ecology Project
(BEP) is the one that has been active for the longest period. It was created in 1983 in
Bisbee, Arizona by Dick Kamp as a reaction to the air pollution produced by the three
smelters that surround the Southeastern corner of Arizona. These three smelters are known as the "Dirty Triangle" (Douglas in Arizona and Naco in Sonora) and were a cause of concern among U.S. and Mexican authorities who signed the La Paz Agreement on border environmental control. As a result of the actions of BEP and other environmental groups, the smelter in Douglas was shut down and the one in Naco invested in new technologies of pollution control. Since its creation the BEP has maintained an emphasis on environmental and health problems in the U.S.-Mexico border.

BEP is a non-profit research and advocacy organization. Kamp considers his organization binational although none of the members are Mexican. He has been involved, however, in the creation of other environmental organizations across the border like Enlace Ecológico in Naco and Agua Prieta, and La Red Fronteriza de Salud y Ambiente in Hermosillo. BEP is not a membership organization although it does organize outreach programs in the community and conducts informational meetings with local government leaders. In fact, BEP is basically Dick Kamp. He has four staff people (one full time and three part time) but he is the "father, the founder, the director and everything else" (Marc Coles-Ritchie 1997, personal communication). Besides Dick Kamp, the other four people in BEP are: Marc Coles-Ritchie, border coordinator; Caroline Hotaling, researcher and community health outreach specialist; Aurora Chipres, office manager and translator; and Chantal

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17 The Dirty Triangle case has been studied by several scholars as one of the first cases of air pollution solved by the IBWC. Steven Mumme and Roberto Sanchez Rodriguez have studied this case intensively
Cicchellu, accountant. No one on the staff is originally from Southern Arizona although they all live now in Bisbee, except the accountant who lives in Oregon. BEP also has an eight-member board of directors (Table 5.1) and a ten-member advisory board (Table 5.2) without any formal function.

Table 5.1

<table>
<thead>
<tr>
<th>Members of the BEP Board of Directors</th>
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<tbody>
<tr>
<td>Laura Durazo (President)</td>
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<tr>
<td>Debra Mues (Secretary)</td>
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<tr>
<td>Bruce Carey (Treasurer)</td>
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<tr>
<td>Bob Wick (Chairman)</td>
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<tr>
<td>Debbie Nathan (Vice Chairperson)</td>
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<tr>
<td>Gildardo Acosta Ruiz</td>
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<td>Karlene McCabe</td>
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<td>Catalina Denman</td>
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<th>Name</th>
<th>Position</th>
<th>Organization</th>
<th>Year</th>
<th>Country</th>
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<tbody>
<tr>
<td>Laura Durazo</td>
<td>President</td>
<td>Proyecto Fronterizo de Educación Ambiental, Tijuana</td>
<td>1992</td>
<td>Mexican</td>
</tr>
<tr>
<td>Debra Mues</td>
<td>Secretary</td>
<td>Teacher in Houghton, MI</td>
<td>1989</td>
<td>U.S.</td>
</tr>
<tr>
<td>Bruce Carey</td>
<td>Treasurer</td>
<td>Labor placement and computer specialist, Cochise County</td>
<td>1988</td>
<td>U.S.</td>
</tr>
<tr>
<td>Bob Wick</td>
<td>Chairman</td>
<td>Wick Communications Inc., Los Angeles, CA</td>
<td>1988</td>
<td>U.S.</td>
</tr>
<tr>
<td>Debbie Nathan</td>
<td>Vice Chairperson</td>
<td>Journalist, El Paso, TX</td>
<td>1990</td>
<td>U.S.</td>
</tr>
<tr>
<td>Gildardo Acosta Ruiz</td>
<td>Enlace Ecológico/Chemical engineer</td>
<td>Agua Prieta, Sonora</td>
<td>1993</td>
<td>Mexican</td>
</tr>
<tr>
<td>Karlene McCabe</td>
<td></td>
<td>Greenbelt Land Trust, Corvallis, OR</td>
<td>1995</td>
<td>U.S.</td>
</tr>
<tr>
<td>Catalina Denman</td>
<td></td>
<td>Colegio Sonora in Hermosillo, Sonora and La Red Fronteriza de Salud y Ambiente</td>
<td>1992</td>
<td>Mexican</td>
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Table 5.2

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<th>Members of the B.E.P. Advisory Board</th>
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<tr>
<td>Lilia Albert</td>
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<tr>
<td>Chantal Cicchelli</td>
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<td>Irisema Coronado</td>
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<td>Alberto Durazo</td>
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<td>Miguel A. Gonzales</td>
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<td>Michael Gregory</td>
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<td>Dick Kamp</td>
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<td>Wendy Laird</td>
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<td>Enrique Medina</td>
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<td>Roberto Sánchez</td>
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<tr>
<th>Name</th>
<th>Position</th>
<th>Organization</th>
<th>Country</th>
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<tbody>
<tr>
<td>Lilia Albert</td>
<td></td>
<td>Toxicologist, Mexico City</td>
<td>Mexican</td>
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<tr>
<td>Chantal Cicchelli</td>
<td></td>
<td>B.E.P.</td>
<td>American</td>
</tr>
<tr>
<td>Irisema Coronado</td>
<td></td>
<td>Incarnate Word College, San Antonio, TX</td>
<td>American</td>
</tr>
<tr>
<td>Alberto Durazo</td>
<td></td>
<td>Neuropediatrician, Tijuana</td>
<td>Mexican</td>
</tr>
<tr>
<td>Miguel A. Gonzales</td>
<td></td>
<td>City Manager of Naco, Sonora and Enlace Ecológico co-director</td>
<td>Mexican</td>
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<tr>
<td>Michael Gregory</td>
<td></td>
<td>Arizona Toxics Information</td>
<td>American</td>
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<tr>
<td>Dick Kamp</td>
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<td>B.E.P.</td>
<td>American</td>
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<tr>
<td>Wendy Laird</td>
<td></td>
<td>Tucson Audubon Society and International Sonoran Desert Alliance</td>
<td>American</td>
</tr>
<tr>
<td>Enrique Medina</td>
<td></td>
<td>Levine-Frick environmental consulting firm San Francisco.</td>
<td>Mexican</td>
</tr>
<tr>
<td>Roberto Sánchez</td>
<td></td>
<td>North American Commission for Environmental Cooperation</td>
<td>Mexican</td>
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emphasizing the role of the Smelter Crisis Project and Dick Kamp’s involvement in the process of raising public awareness on environmental problems (Mumme and Nalven 1988; Sánchez-Rodríguez 1990).
Neither one of these two boards have a defined function in the organization. Dick Kamp as BEP director communicates with both boards. There are usually informal discussions with some of the members of the advisory board and in some cases they collaborate with BEP's projects. Funding for BEP usually comes from grants from private foundations and donations from people and businesses of the area. BEP has applied for several private foundation grants and has received funding from the Ford Foundation, North American Fund for Environmental Cooperation, Barbara Delano Foundation, Wick Communications Corporation, C.S. Mott Foundation, Western Governors’ Association, and Riverside Church.

BEP's goal is to create cross-border coalitions to develop concrete strategies to reduce or prevent pollution hazards created by industry, urban development, natural resource exploitation, and just plain poverty. Its geographic focus area is the Arizona-Sonora border, particularly Douglas, Agua Prieta and Naco, but it also includes Bisbee, and Ambos Nogales. The people from BEP have also been involved in environmental issues in other places along the border such as Tijuana or Ciudad Juarez. They tend to focus on environmental issues in Mexico although they do not participate directly on any action and usually coordinate their tasks with Mexican groups such as Enlace Ecológico or La Red.

BEP began in 1983 as the Smelter Crisis Education Project. One of the objectives of this project was to raise public awareness in the community about the expansion of air
pollution levels from the three smelters in the Douglas, Cananea and Nacozari. The Education Project initiated a close collaboration with several networks, coalitions and councils involving Mexican researchers, advocates and environmental groups in Northern Mexico. As a result of their activities, a new Annex (Annex IV on air pollution created by copper smelters on the border) was added to the La Paz Border Environmental Cooperation Agreement in 1987.

In 1987, the Smelter Crisis Education Project became the Border Ecology Project. The new name indicated a broader focus on environmental problems beyond air pollution, and a larger geographic area. Since 1987, BEP has included in its agenda hazardous materials, waste management, water quality, and NAFTA environmental policies. BEP has also promoted the creation of environmental groups in Mexico and has participated in the creation of a network of non-governmental organizations that has favored the incorporation of community participation in the decision-making process of environmental infrastructure in the border. The best example of this process is the representation of community leaders from Mexico and the United States on the BECC board of directors and advisory council. The BEP has been mainly involved in activities on the Arizona-Sonora border but it has also participated in activities in Tijuana, San Manuel, Arizona, Hermosillo, the Canadian-U.S. border and Latin America.\textsuperscript{18}

\textsuperscript{18} In 1994, Dick Kamp was requested by municipal government officials in PERU to assess the environmental impacts of mining and the recommendations for potential solutions.
**LIFE (or Living Is For Everyone)** is a grassroots environmental/health advocacy group based in Nogales, Arizona. In 1991, a trio of native residents of Nogales met for the first time to discuss the high rate of rare types of disease among local residents. Jim Teyechea, Susan Thomas Ramirez, and Anna Acuña founded LIFE at the end of 1992. All three were suffering from cancer. Jim Teyechea died of cancer in 1994 and Susan Ramirez moved out of town. Anna Acuña is the last LIFE co-founder that is still active. She also suffers from lupus erythematosus, a rare type of skin cancer that has a high rate of occurrence among Nogales, Arizona residents. The other types of rare disease identified by LIFE with an unusual high ratio of incidence in Nogales are multiple myeloma and leukemia.

The three founders of LIFE worked during their first year. Gathering data and compiling a disease register. They produced a map that provided a visual picture of the disease cluster. The map still hangs in the headquarter offices, with pins showing the deceased in black and different colors for the different types of diseases. The main cluster is a neighborhood not far from the border fence. In particular, one street of this neighborhood has reported cases of cancer in every single house—the street has been called “Cancer Street”.19 As a result of LIFE’s research, health conditions in Nogales residents to receive media attention and eventually support by the Governor’s office, the University of Arizona, the Arizona Department of Health Services, the Arizona Department of

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19 Between 1989 and 1993 the University of Arizona conducted an extensive community service that confirmed what LIFE’s data had shown. The incidence of multiple myeloma was 2.4 times higher than the
Environmental Quality, the Environmental Protection Agency and the City of Nogales and the Santa Cruz County government.

In 1997, LIFE had over twenty active members, and a support group of over fifty individuals. Only Anna Acuña is working full time for the organization now. Most of their original funding came from donations from different agencies at the local, state and federal level and other non-governmental organizations that participated in their projects. By the time of my interview with Anna Acuña in February 1997, however, most of this funding was gone and LIFE was forced to start charging a membership fee of $10 per year. They also started to organize raffles and other activities to collect money for the group. The building where LIFE has its headquarters is owned by the City of Nogales. The Chamber of Commerce has also helped them economically.

Anna Acuña (personal communication 1997) reported that although many people support the activities of the group, they do not like to be associated with it. LIFE has been approached by economic organizations in the community, such as the Chamber of Commerce, asking LIFE to keep its actions quiet. The economic leaders of the community are concerned that the publicity around health problems in the community will negatively effect on businesses, real estate and tourism. Their relations with local leaders and local government officials became especially difficult when their activities received media attention at the national level.

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expected rate. The cases of Lupus were 94 per 100,000 that are almost double of the highest published rate
LIFE has established itself as a credible watch-dog group providing information to the community, conducting educational programs, and providing healthcare services to the residents of Ambos Nogales. Although LIFE has provided some services to residents in Nogales, Sonora, its presence on the other side of the border is very limited. In the LIFE support group there are a few residents from Nogales, Sonora. Anna Acuña is not aware of how many cases of cancer that have appeared in the Mexican side of the town. She is confident that there are several cases on the other side and for that reason LIFE provides brochures about LUPUS in Spanish to health activists in Mexico. LIFE, however, has never conducted research in Nogales, Sonora. The basic activities of LIFE are concentrated in Nogales, Arizona. Most of its contacts with other NGO organizations are within Arizona.\(^\text{20}\) LIFE has collaborated with the Border Ecology Project, the Audubon Society, and Southwestern Environmental Justice, a religious group from Phoenix.

The Friends of the Santa Cruz River (FSCR) is another active community organization in southern Arizona. Its headquarters are located in Tubac, a community a few miles north from Nogales, Arizona on the banks of the upper Santa Cruz River. The FSCR is a membership organization whose main objective is the preservation and improvement of medical literature of 50.8 per 100,000. This information appears in one of the LIFE’s brochures.

\(^{20}\) The services that LIFE provide to the community are: a) Environmental and Health Education: chronic disease management training, participation in community activities, printed material, organizational newsletter, resource library, presentations. b) Outreach: home visits, referral to other appropriate services (housing, medical, government services, etc.), transportation, support group, translations. c) Case Management: emergency hospital loan, equipment program, emergency medication program, counseling. d) Advocacy: community liaison with local, state and federal authorities, serve on environmental and health oriented boards/task forces, solicit private sector donations and government grants.
the flow and the quality of the water of the Santa Cruz River. The group had several informal meetings after 1989 and was officially incorporated in 1991. Sherry Sass, (personal communication, 1997) the chairperson of the group, became interested in environmental issues when she took classes on environmental policy at the University of Arizona. When she moved to Tubac she motivated by the beauty and the vegetation and wildlife diversity of the Santa Cruz River Valley to meet with other residents and land owners to discuss the preservation and improvement of the natural ecosystem of the river valley.

In 1997 the FSCR had around 200 members who pay a US $15 membership fee. Eight people, mostly from Tubac and Tucson, form the core group. There are no members from Mexico, although FSCR would like to include Mexicans in the organization. In fact some of their informational brochures are printed in Spanish. Sass, however, believes that Mexicans have different agendas than those of the Santa Cruz River. In spite of these differences, she says, both Mexicans and Americans share the same watershed in a region where water is a scarce resource. The FSCR has tried to maintain informal contacts with people and NGO's from Mexico, but FSCR has not been successful. The group has attracted property owners in the upper middle class subdivisions along the river valley (as the Tubac Contry Club where Sherry Sass lives) and also cattle ranchers and farmers. In fact, FCSR's efforts have been directed more towards farmers and ranchers than to Nogales, Sonora residents.
The main activities of the group are educational programs for landowners and government officials in the area. The FSCR organizes guided hikes along the river, public presentations, workshops and community presentations. They also publish a newsletter "The Flow", conduct periodic analysis of the quality of the water in the river and organize frequent litter removal teams on the Santa Cruz River banks. FSCR was actively involved in the process of the negotiations of the new wastewater management facility (the Nogales International Wastewater Treatment Facility - NIWWTF.). They have also collaborated with different research projects from the University of Arizona and from the Arizona Department of Environmental Quality.

In October 1997, FSCR received a grant from EPA Wetlands Protection for the Santa Cruz Riverway Partnership program. The goals of this program are: (1) to help private landowners along the river in Santa Cruz County protect and enhance riparian habitat in ways compatible with their own land use goals; (2) to educate landowners about riparian values and to encourage landowners investment in conservation principles; (3) to encourage partnering, both with the partnership and agency resources and with other landowners so that in the future these landowners will actively participate in locally-controlled river and watershed conservation actions and improve river resource values over the long term.
5.3.2. Popular and environmental groups in Nogales, Sonora.

The groups I analyzed in Mexico vary greatly in their political independence and their economic resources. Their agendas have been modified over the years, although the ultimate goal is the same: to fight the injustices of rapid economic growth within the community. A main difference among Mexican groups is their relationship with the government and/or with the PRI. If a group is not officially recognized, it has limited capacity for receiving funding and participating in open forums. The three groups I have analyzed are three different examples of the complex relationship between the Mexican government and community organizations.

La Red Fronteriza de Salud y Ambiente (Health and Environment Border Network) also known as La Red is a non-governmental organization officially recognized by the Mexican government. Its central office is in Hermosillo, Sonora and its membership conducts activities along the western side of the U.S.-Mexican border: Agua Prieta, Nogales, Tijuana, Mexicali. In 1991, the Colegio de Sonora in Hermosillo organized a meeting to discuss the impact of the North American Free Trade Agreement on the Environmental and Health conditions on the border. As a result of that meeting a group of scholars from Sonora, Baja California and Arizona created La Red. Among the initial members and co-founders of La Red were Roberto Sanchez, Dick Kamp, Susan Kuntz, and Catalina Denman.

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21 Roberto Sanchez was the Director of Department of Environmental Studies of the Colegio de la Frontera Norte in Tijuana. He is also member of the advisory board of the B.E.P.. Between 1996 and 1997 he was
Between 1991 and 1993 this group received support from the Border Ecology Project and the Ford Foundation. At the time the Border Ecology Project was administering a grant from the Ford Foundation to help to create new environmental organizations in northern Mexico. In 1994, La Red became an Asociación Civil, and regularized its legal status in Mexico. The new organization defined three different types of members: active members, associate members, and users-members. The active members are the individuals who have been in the La Red project since the beginning and/or have an important function within the different subgroups of the network. The active members are usually local activists from the organizations associated with La Red. The associate members are the formal body of La Red and are predominantly scholars. Finally, users-members are individuals who share the same interest and concerns as La Red and who will eventually use some of the services that this organization provides.

In 1994, after becoming an official asociación civil, La Red opened a permanent office in Hermosillo where they coordinate the resources and activities of all organizations associated with La Red. The organizations that have been linked to la Red are, Proyecto

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23 Catalina Denman is a professor in the Colegio de Sonora in Hermosillo.

24 An Asociación Civil, or Civil Association is the official name that non-profit organizations receive in Mexico. The difference with a Non-Governmental Organization (ONG using the Spanish acronym) is that the ONG cannot be connected to the public sector.
Fronterizo de Educación Ambiental A.C., in Tijuana, Comité Cívico de Divulgación Ecológica A.C., in Mexicali; the Border Ecology Project and Arizona Toxics Information, in Bisbee, Enlace Ecológico A.C., in Agua Prieta, and the Coalición Binacional de Salud y Ambiente in Ambos Nogales. La Red also maintains a close relationship with educational institutions such as, El Colegio de Sonora in Hermosillo, El Colegio de la Frontera Norte in Tijuana and Nogales, the Arizona Health Sciences Center of the University of Arizona and the Sonoran Institute in Tucson. One of the most relevant features of the first phase of La Red is the interactive relationship between academic institutions and local activism.

This first period was characterized by financial dependence on the Border Ecology Project. Since La Red became an officially recognized organization, it has started to move away from BEP and also changed its main focus. La Red became more interested in conducting outreach programs in border communities and providing services and economic and professional support to local organizations. At the same time, the Ford Foundation became its only direct source of funding (without BEP as intermediary).

The main objective of La Red is to become a link between academic institutions and governmental and non-governmental organizations. In this sense, La Red has organized seminars, conducted research projects and community workshops, and has produced and distributed several publications. It has also looked for national and international financial
resources for projects related to health and the environment in the border region. The goal of La Red is to channel the activities and demands of civil society with respect to the improvement of public health and the environmental conditions of the border region and direct them to the appropriate government institutions. La Red has worked with communities needing information about health conditions and the proper handling of hazardous materials in the workplace as well as issues of public health, economic development, environment deterioration and pollution.

La Red's geographic scale is limited to the border region between Arizona and Sonora, and California and Baja California. In the last two years their efforts have focused on the Mexican side of the border maintaining only a few contacts with some American organizations in order to get collaboration on specific projects. The Border Environmental Cooperation Commission has helped them to expand the range of groups they know along the border and La Red has started to collaborate with groups outside their initial focus area.

**Grupo Dignidad** was formed by two different organizations: the Centro de Apoyo Contra la Violencia (CECOV) and the Centro de Investigación y Estudios Ambientales (CIEA). Both organizations are officially recognized *asociaciones civiles* and both are directed by Maria Josefina Guerrero. Dignidad has two sections and Josefina is the founder and the

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25 Apart from the Ford Foundation, and the Border Ecology Project, La Red has also received resources from the Southwestern Center for Environmental Research and Policy, the Friederich Ebert Foundation, the Mexico Border Health Foundation.
director of both. It is no exaggeration to state that Dignidad is Josefina. She has been living in Nogales for almost thirty years. She came with her husband from Mexico City in the early 1970s. She studied Social Psychology at UNAM in Mexico City and got involved in some of the student movements in Mexico during the late 1960's.

Dignidad started during the winter of 1984-1985, after a series of community mobilizations around public utilities. In 1984 there was only one Gas Company in Nogales, Sonora. Gas is the main energy source for furnaces and stoves in the colonias. An especially harsh winter had led to an increase in demand for gas, and the company was unable to supply it to all who required it. Women (who are traditionally the ones in charge of getting the gas) were standing in line for hours in very cold weather to get their gas containers and still they were not able to get anything to bring back home. Some of the women organized and went to the city hall to demand another gas supplier company in town. Josefina Guerrero organized a demonstration through one of the local radio stations, and she claims she gathered over 3000 women to attend the demonstration. As a result of that mobilization, a second gas company was created in Nogales in March 1985. Maria Josefina at the same time created the group Dignidad or “Dignity” to demand improvements in the living conditions of the workingwomen of the community.

Between 1985 and 1987, Dignidad also became involved in issues of domestic violence. The Centro Contra la Violencia (Center Against Violence or CECOV) became an asociación civil in 1987. In 1990, Maria Josefina Guerrero organized a new group, the
Centro de Investigaciones y Estudios Ambientales (Center for Environmental Research and Study or CIEA) that was also officially recognized in 1995. Maria Josefina explained (personal communication 1997) that she needed to register and get government approval of the second center in order to receive public funding.

Dignidad is not affiliated to any political party and Josefina declares herself politically independent. Anyone can be a member of Dignidad as long as they are not affiliated with any political party or if they are they do not bring their political agenda to the group. Members, however, are expected to volunteer for the organization. Dignidad obtains economic resources from the federal government and from the local maquiladoras. This group also receives the help of interns (usually high school and university students) that work for CECOV or CIEA to fulfil the requirements of the mandatory social service. Dignidad also organizes some events and activities to collect money for their activities.

Dignidad has a permanent core group of thirteen people, three of whom work full time for the organization. Lilian García is in charge of CECOV while the engineer, Enrique Macías, is in charge of the CIEA. Finally Maria Josefina is in charge of the institutional contacts and relations with the community. The rest of the core members are people who volunteer for the group: an attorney, a doctor, an agricultural engineer, a biologist, two specialists in chemistry, and a biologist. Dignidad also conducts outreach activities in the

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26 In Mexico, students in public institutions have to devote some of their time to work for public institutions or non-profit organizations as part of their mandatory social service. Obviously, only officially recognized organizations and with a good relationship with the government can receive social service workers.
colonias and has over thirty support committees of women in the colonias. Dignidad’s ability to mobilize the community is quite effective. In October 1994, Dignidad organized a commercial boycott (Operación Dignidad or Operation Dignity) at the Nogales border crossing as a demonstration of their rejection of Proposition 187 in California.\footnote{In 1996, California voted in favor Proposition 187 which limited the access to illegal immigrants to} For several days Mexican people did not cross the border to go shopping to Nogales Arizona (Brooks 1994).

Dignidad has always been committed to women’s issues. The CECOV was created to support victims of domestic violence (women or children) and to prevent and contest sexual harassment and other forms of domestic or work violence against women. The CECOV has several sections: attention, education and research. The Center against Violence has an agreement with the Procaduria de Justicia de Sonora (Attorneys Office of Sonora), which provides psychological and medical attention to victims of sexual harassment. The Center has an office in downtown Nogales with a dispensary, a telephone, and a permanent volunteer to keep the office open. The CECOV office also has a children’s room and a bed to provide emergency shelter to women and kids. They also offer support groups and therapy sessions to victims and provide support for battered children at public schools.

The educational program of CECOV has organized courses and seminars directed at health, law and law enforcement professionals. They have also helped start a graduate
program in domestic violence treatment at the University of Sonora in Hermosillo. They have conducted several training courses for the members of Municipal Police of Nogales. The research section of the COCEV has conducted several studies including: psychological analysis of convicted minors housed at the Consejo Tutelar de Nogales (Nogales reform school), migrant women and regional development, disability, family planning and fertility birth statistics in Nogales, Sonora.

The CIEA also originated around women issues with the aim of improving the living conditions of Nogales women. The environmental section of Dignidad has become more important since the early 1990s (it was officially recognized in 1995). The group has organized environmental educational programs for kids between 6 and 12 years of age, has created a census of the level of public infrastructure (water distribution and sewage) in town, and conducted research on the movement of hazardous materials across the Nogales border. Since 1996, Maria Josefina Guerrero has been a member of the Advisory Council of the Border Environment Cooperation Commission. The environmental section of Dignidad has become even more of a focus for the group.

Dignidad works only on the Mexican side of Ambos Nogales. The group has maintained contacts with groups on the other side over the years but they have never become involved in any coordinating actions. Since BECC was created, Josefina and therefore Dignidad have been more involved with other groups in Mexico and in the United States.

public services such education and health.
None of the members of Dignidad are American and they have never attempted to reach the Spanish-speaking communities in Nogales, Arizona. Maria Josefina is very much a Mexican nationalist and she does not like to interact with people on the other side of the border.

Group Comadres has a totally different approach to that of La Red and Dignidad. Comadres is also a personal project of one single person, Teresa Leal. Teresa comes from a family of activists. Her father and uncles were agrarian activists and members of the Popular Socialist Party in Mexico during the 1930s and 1940s. After the assassination of one of her uncles, Teresa and her mother moved to the United States, where Teresa’s mother worked as a cook for the Douglas family, who owned of the Cooper Queen mine in Bisbee. Teresa was raised with the Douglas family in Arizona and in upstate New York. She returned to Nogales to marry a local customs broker. She had eight children before getting divorced from her husband.

Teresa is completely bilingual. She went to school in both countries and she is familiar with the way of life of both sides of the border. During the time of my research she was living on the Arizona side of town a few yards from the border fence, although she maintains another house on the Mexican side. She became involved in issues around labor conditions in maquiladoras as well as in domestic violence since the early 1970s. During the first period after she returned to Nogales in 1969 she was a member of the group Mujeres Unidas, a section of the Partido Revolucionario de los Trabajadores (a
socialist Trotskyist party in Mexico associated with the American Social Workers Party). Mujeres Unidas was concerned with the health conditions of women in the maquiladora industry. Teresa started a hotline and a center for abused women. She was also the Nogales representative for a Central American information network, and wrote for *La Voz del Norte* in Sonora and *the Nogales International* in Arizona. As Alan Weisman said "Teresa did not so much join a political movement as become one" (Weisman 1991, p. 136).

The Comadres project was created in 1982 by a group of people from Nogales, Sonora. The group has been involved in a variety of community issues. The members of Comadres have worked with *colonias* leaders to demand that local and state officials in Mexico make infrastructural investments in the poorest *colonias* of Nogales, Sonora. Most of Comadres' activities involved mobilizations to demand public services and urban infrastructure. The group has also worked on other issues including human rights, women's rights, and constitutional law violations. The Comadres project is not an officially recognized organization in Mexico. Teresa Leal says that they have refused to submit the application to become an *asociación civil*, because is a very expensive process (over $500 U.S.), and involves political negotiation with the Secretaria de Relacciones Exteriores (Teresa Leal 1997, personal communications).

When Comadres started, it had over twenty members, mainly working women from the colonias in Nogales, Sonora. Most of these women had been members of the group
Mujeres Unidas of the Partido de Revolucionario de los Trabajadores. This group of women started to work on issues of domestic violence and sexual abuse. The group received the help of a wealthy woman from Nogales, Sonora who allowed the group to use her house as a refuge for battered women. As the group grew they created a new women's organization, Comadres, which had a broader political appeal. The group grew during the years and attracted more working class women but also professionals and technicians.

In 1989, a section of Comadres became the Grupo Ecologista Independiente or GEI (Independent Environmental Group). The GEI was involved in issues of public health, hazardous materials, working conditions (health and safety), and the deterioration of the environment in the workplace and at the colonias. This group has been very active. It has denounced environmental degradation, pointing out the potential risks for the health of the population. Comadres has a very confrontational attitude towards the Mexican government and the maquiladora Industry. It has also organized public mobilization in front of the Presidencia Municipal (City Council). Teresa and other members of the group have written letters to officials at the state and the federal level in Mexico, denouncing public corruption in public services development and maintenance. During the early 1990's, Comadres also maintained contacts with other groups in Mexico and the United States to oppose the NAFTA.
In 1997, the group was much smaller, and they did not have any financial support. Nevertheless, Teresa still maintained a frenzied pace, networking with other environmental groups from Mexico (Tonatierra, Frente Zapatista de Liberación Nacional), the United States (Coalition for Justice in the Maquiladoras, Global Exchange; Maquila Solidarity Network, Southwestern Network for Environmental and Economic Justice) and even from Canada (OXFAM) and Western Europe. In 1997, Comadres had about eight or nine members, three of whom were also in the GEI (Teresa Leal, Luis Sánchez and Norberto López).

Comadres is not a membership organization. When the group needs resources it asks for donations from their support groups or organizes activities to raise the money. In some cases, they have received money from other non-governmental organizations from the United States. Comadres has collaborated on projects with the Border Ecology Project and with LIFE. Teresa, however, has almost never collaborated with groups from Ambos Nogales. Comadres, moreover, like Dignidad or La Red, focuses mostly on Mexican issues, and maintains a separate agenda from groups on the other side of the border. Teresa's personality and knowledge of the U.S. political system, however, has helped COMADRES to frame their social demands in a way that sometimes could be understood better by people, NGOs and government officials on the American side. In fact, Teresa and her group have been very successful attracting the attention of regional and national newspapers from the United States to issues of their community.
5.3.3. Maquiladorization and social activism in Ambos Nogales.

The process of economic development in Ambos Nogales has created deficiencies in social and urban infrastructures as well as several environmental crises. The groups I have described in the previous sections are a product of this socio-economic context. Although there are other types of popular groups in Ambos Nogales, I have decided to focus on these six groups because they are the most directly involved in the institutions created after NAFTA. The six groups analyzed have a common characteristic: none are truly binational. Only the Border Ecology Project and La Red maintain a more formal relationship with organizations across the border but they maintain their national identity and their independence.

Another common characteristic of almost all the groups analyzed is the consolidation of the activities of the group around one single leader or a very small group of persons. Ana Acuña. Dick Kamp, Josefina Guerrero or Teresa Leal are the soul and heart of their organizations and in most cases instead of being part of a political movement they have become one themselves. For some of these people, moreover, their organizations have become their main activity and the sole source of income. They are effectively professional activists able to find sources of funding to support themselves. Dick Kamp, or Ana Acuña or even Josefina Guerrero and Teresa Leal have benefited from their popularity as local activists, and give public talks and organize educational and outreach activities for local or regional institutions.
Beside their political agenda, the level and range of resources these organizations are able to mobilize distinguished these groups. The differences between Mexican and American groups are quite remarkable. While American groups are able to get funding from private and public organizations and maintain their political independence, Mexican groups are conditioned by the clientelistic structures of the Mexican political system. Moreover, the number of funding institutions and the amount of funding available in Mexico is much more limited. Mexican organizations with a close relationship with the PRI local or regional establishment, like Josefina Guerrero, however, are able to receive not only material support but also workers and collaborators from the government. It seems quite clear, that in Mexico the level of independence of non-governmental organizations from the control of the state apparatus is crucial to obtaining popular support and community involvement. The political framing processes of most of these Mexican groups are structured around the level of political independence from the government and the PRI in order to gain public support and political accountability. Josefina Guerrero maintains and affirms that Dignidad is politically independent from any political party or government institution. Dignidad shows this attitude by maintaining a critical and sometimes confrontational position on certain local or regional issues. For most of the people interviewed for this study, however, Dignidad has been coopted by the PRI (because the leader of group maintains a fluid relationship and receives support), and follows clientelistic structures. They see her as having been bought by her appointment to BECC's advisory committee. Josefina, however, rejects these interpretations and affirms her political independence and autonomy.
The agendas of most of the groups analyzed in Nogales, Sonora—an evolution from women's issues, urban infrastructure, to environmental issues—is also a clear sign of how social movements adapt their agendas to new political opportunities. The oldest group in the area is the Border Ecology Project that started in 1983 when the United States and Mexico signed the first binational agreement on border environment cooperation (La Paz Agreement). BEP used the new political opportunities opened by this agreement to raise awareness of the environmental conditions in Cochise County and Agua Prieta. From 1983 to the La Paz Agreement in 1987, BEP was able to gain attention from media and national and international environmental organizations in the United States. Using its local agenda on the smelter pollution of the Southeastern corner of Arizona, they were able to raise regional, national and even international attention to the issues of transborder air pollution. As a result, private foundations became interested in their agenda and funded some of their activities over these years.

As with other environmental groups, BEP expanded its agenda to include other issues (health, working conditions, water) and a larger geographic area (the Arizona-Sonora border). Although BEP has not been directly involved in environmental issues in Ambos Nogales, it has become a reference for all organizations along the Arizona–Sonora border. Moreover, in the early 1990s, it helped activists in Mexico to receive funding and to organize formally. BEP helped to create two important Mexican organizations in the region: Enlace Ecológico, a local environmental organization in the area of Agua Prieta,
and La Red Fronteriza the Salud y Ambiente in the State of Sonora. BEP has also collaborated actively with groups like LIFE, the Friends of Santa Cruz River or Comadres. BEP was able to raise awareness in the region that the environmental agenda was increasingly important to transborder political relations and as a result several local and regional organizations started to appear on the Arizona side. In contrast, in Mexico existing organizations like Comadres or Dignidad increasingly included environmental issues in their agendas at the beginning of the 1990s.

The political geography of all these groups has also been modified during the period prior to the NAFTA negotiations. The creation of a new institutional framework, however, has modified even further their conceptualization of political space. We can see, for example, how groups like La Red or BEP have become increasingly involved in gathering support at a regional level rather than maintaining a local emphasis. As mentioned, BEP has become increasingly engaged with private foundations and international NGOs and its agenda has become even wider to include the whole U.S. border. As one of its members commented:

“We [BEP] focus in Bisbee, on water issues. On a larger scale in Douglas, Naco and Agua Prieta environmental and health issues and then on a larger scale in Ambos Nogales, and then we jump into [environmental] issues sometimes in Tijuana or Ciudad Juarez (Marc C. Ritchie 1997 personal communication).”
This process can be extrapolated to other environmental organizations in the area that changed their thematic focus to integrate new spatial scales into their agendas. The BEP as well as other environmental organizations have expanded their area of action and at the same time they have expanded their environmental agenda. This process of “scaling upwards” to include more regions and towns is one of the rescaling processes that most of the groups in Ambos Nogales (especially in the Mexican side) have engaged themselves in when switching from an urban agenda (demand of public utilities and/or services) to an environmental one. Although their focuses remained basically the same (improvement of water service, sewage, electricity etc.), their framing process includes a broader environmental scope and a larger region. This is especially true for groups such as Dignidad or Comadres.

Following the path marked by economic organizations first and government institutions second, popular and environmental organizations have started to reconceptualize the geography of their actions combining the new scales of regulation with the existing and evolving scales of social meaning. As I have already mentioned, this reconceptualization is a dynamic and dialectical process that evolves constantly at the local level. The transformation of state regulatory power with the creation of new transborder institutions modified the nature and dynamics of local politics in Ambos Nogales, and more importantly, the spatial framing of local and regional activism. I review in the following section the changes introduced by NAFTA in social activism in Ambos Nogales.
5.4. NAFTA AND ITS CONSEQUENCES IN LOCAL POLITICS IN AMBOS NOGALES.

The history and evolution of the different groups can also be used to illustrate the impact of NAFTA in their activities. The most recent round of capitalist expansion materialized in the border as the Maquiladora program, and later by NAFTA it has offered different opportunities to all these groups. The effects on popular and environmental organizations, however, are much more evident than on economic organizations.

The new relationship between Mexico and United States since the early 1990s opened up new opportunities to create groups on both sides of the border. Some of the groups in Mexico like Comadres or Dignidad transformed their agendas from labor and living conditions and women’s rights to a more environmental agenda. Comadres and DIGNIDAD knew they could receive much more attention if they presented their local demands as a broader environmental issue. In doing so, the local problems of public utilities and services (water supply, sewage, garbage, electricity or gas) became an international issue that could be used by groups on both sides to modify uncontrolled industrial growth and urban sprawl.

The transformation of the agenda from urban to environmental in Mexico also coincided with the new set of environmental regulations that the Salinas’ Administration initiated in 1989. The three environmental groups in Mexico, La Red, Grupo Ecologista Independiente (Comadres), and CIEA (Dignidad), started their environmental agenda
around the same time that Salinas started a series of changes in environmental law in Mexico. The process of connecting local issues to a broader environmental agenda is very clear for Teresa Leal or Josefina Guerrero. For Teresa, Comadres became more involved with environmental issues in the late 1980s.

"Muchos asuntos [de los que trabajábamos en Comadres] están relacionados con el medio ambiente como salud ocupacional, riesgo en el trabajo, ya sea para la salud o de seguridad, y el deterioro paulatino de la salud derivado del medio ambiente ya sea en el trabajo o en las colonias. Era cada vez más y más difícil enfrentarlo y remediarlo por parte de nosotros como Comadres. Entonces fue necesario empezar a entrar en el tema del medio ambiente, desde una perspectiva más política. (Teresa Leal, 1997 personal communication)."

Comadres was also reluctant at the beginning to become an environmental group, because environmental activism was linked to middle class bourgeois agendas.

"Nosotros [Grupo Ecologista Independiente] empezamos en 1988. Empezamos a ver como podríamos afectar el asunto del medio ambiente. Nosotros adolecemos de una visión clasista y veíamos que los ambientalistas son los pequeños burgueses, que no tienen otra cosa que hacer y están aburridos y se ponen a

\[28\] "Most of the problems that Comadres worked in, were related to environmental issues: health issues in the workplace, work risks (either to health or safety), and health deterioration linked to environmental
Josefina Guerero from Dignidad is also very clear about this conscious change of agenda. “Nosotros [Dignidad] empezamos a hablar del medio ambiente en 1988. En 1988, Salinas vino aquí durante su campaña [presidencial]. Nosotros exigimos hablar con él para tratar el problema social del agua. Y no nos dejaron. Y nos metemos y hacemos un plantón. [...] Salinas traía el rollo del Tratado del Libre Comercio y de la Industria Maquiladora, pero cambió el discurso totalmente. Empezó a hablar del agua, y ahí reconoció el problema, lo oficializó. Salinas cambió totalmente su discurso vino para hablar del TLC y empezó a hablar del agua y dijo que no podían entrar más industrias en México mientras no se solucionase el problema del agua[...]. Ahí es donde me di cuenta yo de la dimensión ecológica de la bronca que teníamos en toda la frontera. Me di cuenta que si seguía hablando de los

causes either at work or at home. It was increasingly more difficult to face those issues as Comadres. Then we decided to enter into the environmental agenda from a political approach”.

29 “We [Grupo Ecologista Independiente] started in 1988. We started to see how we could deal with environmental issues. We had a classist perspective on environmental movements. For us they are the middle class bourgeoisie, people that do not have anything else to do, that are bored and then they start to worry about the fish, the birds, etc. To be called environmentalist was embarrassing, for a group like ours. For us all those problems were worries of upper class people. Then we started to see environmental issues
pobres no me iban a hacer caso. Me di cuenta que tenía que hablarles de
problemas medioambientales. (Josefina Guerrero 1997, personal
communication). 30

Moreover, she also very aware of the changes to the spatial dimensions of the
environmental agenda.

"Ahora al hablar del medio ambiente se tiene que hablar de algo más integral y
más regional, se tiene que hablar de regiones. Al hablar de problemas sociales, el
problema es más pequeño. Te amplias más en el concepto al hablar de problemas
ambientales. Cuando estás hablando del medio ambiente estas hablando de algo
muy amplio, estás hablando de 'sostenibilidad'." 31

The agenda of La Red is quite different from that of Dignidad and Comadres. La Red is
the only case among the three Mexican group that was originally formed as an
environmental group. In this case the transformation is in the opposite direction. La Red

from another perspective, it was about the environment, it was about survival. It was an issue of personal
defense."

30 "We [DIGNIDAD] started to move towards an environmental agenda in 1988. In 1988, Carlos Salinas
came to Nogales during the presidential campaign. We requested to meet with him to talk about water
problems. But they did not allow us. We were able to break into the meeting and protest. [...] Salinas came
to talk about Free Trade and the maquiladora industry but then he changed his discourse. He started to talk
about the water. At that moment, he recognized the problem of water; he officially recognized it. He said
that it would be not possible to bring more industries until someone solves the water problem [...]. At that
moment I realized about the environmental dimensions of the problems we had along the border. I realized
that if I keep talking about poor people they would not listen to me. I realized that I have to frame it as an
environmental problem."

31 "Now, when we talk about the environment, we have talk about something that is more complete, more
regional, we need to talk about regions. When we talk about social problems, the problem is smaller. We
have expanded the concept when we talk about environmental problems. When we talk about
environmental problems we are talking about something very wide, we are talking about sustainability."
modified its agenda in 1994 to become more independent of American organizations and started to focus on supporting local organizations. La Red started with a very broad agenda, put together by scholars and professionals, but had little to say to popular and grassroots organizations in the colonias. The move towards to popular movements was a way to gain popular support and political empowerment. In this sense we can talk about a process of “scaling down”.

One of the common characteristics of the three Mexican groups is their interest in focusing on the poorest colonias in Nogales and in claiming their independence from American environmental organizations and from the Mexican government. The colonia became the source of popular legitimization and political empowerment. La Red was the only one created by people not directly related to people in the colonias and consequently has concentrated their efforts in organizing and connecting grassroots groups with its informational and educational network.

Groups on both sides of the border make a clear distinction on the environmental agendas of American and Mexican organizations. For Mexican groups the difference is based on a distinctive thematic focus, as Teresa Leal stated.

“I think American environmental groups are much more focused on conservation. They are very naïve in relation to the more traditional grassroots land use issues like the direct connection to the land of the Indians for example. The ones that are more into land use issues, like the farmers, are more into the economics. But I
think we are starting to connect. I think that our differences are due to the fact that we have not been connected and that we have not exchanged ideas. That is the reason we have been so far apart. But that's changing very slowly. And that's what I like about binationalism, it is giving us the forum to develop more direct strategies” (Teresa Leal 1997, personal communication).

There is also a clear difference in their relationship with the different governmental institutions.

"La diferencia no es sólo en los grupos ecologistas sino en todas las organizaciones no-gubernamentales. La diferencia que yo veo es que los grupos en los Estados Unidos son más activos, creen en su sistema de gobierno, es decir no tienen una visión de oposición gubernamental" (Rosa Delia Caudillo 1997, personal communication).32

American groups consider that their main difference is the availability of resources.

"Certainly in the U.S. we have we have more conservationist minded groups that try to protect birds or animals and their habitat. The difference [between Mexican and American groups] has to do in their financial situation. When you have a more stable situation you can worry about other things”(M.C. Ritchie 1997, personal communication).

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32 "The difference not only applies to environmental groups but to all types of non-governmental organizations. For me, the main difference is that American groups are more active, they believe in their government system. They do not have an anti-government agenda.”
American groups are also concerned about the capacity of the PRI to coopt any non-governmental organization. "In Mexico, it seems that these [popular] groups most of the time get coopted by the government like that non-governmental-governmental organization of Josefina Guerrero" (M. C. Ritchie 1997, personal communication).

The Friends of the Santa Cruz River and LIFE have differences in focus but they both have been reluctant to collaborate directly with Mexican organizations or with Mexican officials although their environmental agendas are closely related with Mexico. Both groups were born at the beginning of the 1990s, when the border started to receive broad public attention as a result of the NAFTA negotiations. Anna Acuña believes that NAFTA has not brought anything new for groups like LIFE. The problems are getting more bureaucratic and more difficult to solve. The Friends of the Santa Cruz River are much more positive about the potential changes that institutions like BECC could make for groups like themselves.

In general, all environmental and popular groups in Mexico and the United States agree that the new set of binational or transnational institutions are helping them to get in touch with organizations across the border and along the U.S. - Mexican border. They also complain, however, that NAFTA’s main focus is economics and business and they need to fight to include the people and the environment in the agenda. Mexicans are more interested in the new organizations although they are still reluctant to trust the new institutions. They also believe that they are more accountable than the Mexican
government. They believe that American officials and environmental groups in both sides of the border can become watchdogs for the fulfillment of the environmental agreements in Mexico.

In 1992, several organizations from Mexico and the United States tried to organize the first binational NGO in Nogales. The Binational Coalition for Health and Environment was organized with the support of academic institutions like the Universidad Pedagógica Nacional, COLEF, Colegio de Sonora or the University of Arizona. They also involved local and regional activists and NGOs like La Red, or BEP. The group, however, could not be recognized in Mexico because of bureaucratic problems. Maria Elena Burruel from the Universidad Pedagogica Nacional in Nogales, Sonora said that the main problem was that the Secretaria Federal de Relaciones Exteriores did not approve the proposal for the new organization because there was already an organization like the Binational Coalition in Nogales, Sonora that was officially recognized by the Mexican government. Since 1992, there has been no other attempt to create a binational organization in this border town.

Since the creation of BECC, most of the interaction among environmental groups on both sides of the border has been channeled through that organization. The difficulties of creating a binational organization in Mexico are only part of the reason why they do not exist in Ambos Nogales. The most important reason lies in the differences in agendas and in sources of funding among groups on both sides. In the following chapter I review how
the different political actors have modified their agendas and their spatial parameters when the first public project for Nogales Sonora was supported under the newly created Border Environmental Cooperation Commission.
Chapter 6

BECC AND THE IMPACT ON SOCIAL MOBILIZATION IN AMBOS NOGALES: THE DEBATE ON THE “ACUAFÉRICO” PROJECT.

In November 1993, the governments of Mexico, Canada and the United States signed the new configuration of the North American Free Trade Agreement (NAFTA), integrating Mexico into this agreement. The passage of NAFTA was the culmination of a long negotiation process started by the Salinas administration in Mexico in 1989. The international negotiation raised national (both in Mexico and the United States) awareness of the deterioration of environmental and health conditions caused by rapid and uncontrolled economic development.

Local officials and environmental organizations also insisted that the structure and activities of traditional binational organizations like IBWC or CILA failed to address problems before they became critical. The technical emphasis of these institutions had not stressed the regulation of urban and economic growth on the border region. The changes created in the political and economic sphere in both countries and especially on the border region were challenging the rigid structures of these two commissions elevated binational cooperation to a new level. The IBWC and CILA were also criticized for their failure to include state and local governments and non-governmental organizations in the decision-making process (Mumme 1993; Sanchez 1993).
As a result of this political new environment, the Commission of Environmental Cooperation (CEC) was established to supervise the enforcement of the environmental laws of United States, Mexico and Canada. Moreover, the particularities of the impact of trade and industrialization along the U.S.-Mexico border forced a binational (U.S.-Mexico) agreement on environmental cooperation. Both governments agreed to create the Border Environmental Cooperation Commission (BECC) and its financial counterpart, the North American Development Bank (NADBank). The creation of these three institutions (CEC, BECC and NADBank) modified the political setting in which transborder relations takes place and has altered mobilizing strategies and the framing processes of several key political actors in the region.

In Ambos Nogales, the effects of the new configuration of the state created by NAFTA-related institutions has been crucial in the decision-making process for a new water distribution and sewage system for Nogales, Sonora. Under the new institutional framework, local actors (NGOs, community groups and local officials) from both sides of the border have been able to participate in the project design and development process. Environmental and popular groups on both sides of the border have been forced to establish trans-national alliances to gain political support in open forums. Between November 1995 and January 1996, proponents of the new water project held three meetings in Ambos Nogales (two in Arizona and one in Sonora) to comply with BECC's certification requirement of open public participation. The effects of BECC, and
particularly the effects of these meetings and the project certification process in the transformation of local politics in Ambos Nogales, are the focus of this chapter.

The creation of new international institutions associated with NAFTA meant a more formal space for local and regional officials to negotiate transborder issues and also more open public participation. Both officials and local social movements have subsequently changed their political strategies, including a transformation of their spatial constructs. Their conceptualization of the local has been transformed to include both sides of the border. Some of the groups I have analyzed in the previous chapters have been very active in this process of construction and deconstruction of the "local" during the negotiations of this public project. The project design process and public validation reveals the political and economic differences of planning practices in both countries.

In this chapter I summarize the basic elements of these newly created institutions with respect to environmental cooperation. These three institutions were created to respond to the increasing environmental concerns of local and regional public officials and non-governmental organizations in all three countries, and particularly to the groups and officials along the U.S.-Mexico border. The rise of community activism around environmental issues on the border has also favored a new type of relationship between the newly instituted commissions and the community. In fact, in one of these institutions, the Border Environmental Cooperation Commission, community participation in project design and development is a requirement for project certification and for receiving
funding from the North American Development Bank. These institutions have changed the public planning process as well as local politics along the U.S.-Mexico border. As I showed in previous chapters, these new types of formal relationships between the state and the community are based on a long tradition of non-formal forums in U.S.-Mexico border communities like Ambos Nogales.

In the second section of this chapter I analyze the certification of the new water distribution project by the Border Environmental Cooperation Commission in Nogales, Sonora. I review the responses of some of the crucial actors to the challenges and opportunities opened by BECC. Although some groups are more involved than others I have focus on the most meaningful social actors react to the new political and regulatory environment. In the last section I return to the analysis of the evolution of the spatial constructs of all these agents and how the social production of scale became an intrinsic element for local and regional mobilization and for the organization and re-organization of the regulatory power of the state.

6.1. ENVIRONMENTAL COOPERATION INSTITUTIONS AFTER NAFTA

The process of the negotiation of NAFTA during the Salinas administration brought much attention to the environmental and sanitary conditions of some of the major border cities and towns. Environmental groups and local and state officials from the border region complained about the poor environmental conditions (raw sewage runoff, open dumpsites, water and air pollution) of some of the Mexican border towns and its effects on the U.S. side. They were also concerned about the lack of environmental provisions in
the proposed NAFTA rules and especially the lack of reliable environmental regulations in Mexico. In response to these pressures, the final NAFTA agreement included explicit references to environmental and health standards and goals. The purpose of these environmental provisions has been to ensure the integrity of the three countries' internal systems of environmental regulations, to expand and improve environmental standards, to include ecologically sensitive settlements of binational disputes and to avoid the creation of new sources of pollution and hazardous materials (Jones et al. 1997).

Environmental regulations were also affected by the rise of new types of environmental awareness in the U.S. and subsequently in Mexico. During the last twenty-five years both federal governments have created new environmental agencies at different government levels that have conflicting jurisdiction with IBWC or CILA. For example, the 1969 National Environmental Policy Act (NEPA) in the United States created a new federal agency in 1971, EPA (Environmental Protection Agency) which had jurisdiction over environmental issues. NEPA had an immediate impact on some of the functions of the United States section of the IBWC. NEPA's rules required any public infrastructure and construction project to have an environmental impact assessment study, including public hearings on the environmental worthiness of proposed projects (Mumme 1993). IBWC under this new environmental policy could face administrative veto by EPA if the project did not fulfill certain standards and design procedures. NEPA also marked a new trend in

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1 There are several environmental provisions in some of the chapters of the North American Free Trade Agreement. Some of these provisions are: sanitary and phytosanitary measures (chapter 7b), environmental standards measures (chapter 9), environmental investments (chapter 11) and settlements and disputes
the relationship between the federal government and the public. Institutions were compelled to become more responsive to public concern under the new policy.

Mexico has also developed new environmental regulations during the last twenty years. Under these "reglamentos", the Mexican federal government has also required environmental impact assessments for every public project since 1989. The "Proyectos de Ordenamiento Ecológico del Territorio" (Projects of Environmental Management of the Territory) also required public hearings and the collaboration of the three levels of government. Finally, new and evolving institutions concerned with the administration of state and municipal natural resources, water, health issues, waste and sanitation management and environmental issues have also appeared on both sides of the border during these last two decades. The political concern in both nations around the issue of community participation on environmental related projects has forced the design of a new type of binational institution for the border region, including the participation of local and regional officials as well as non-governmental organizations and environmental groups.

Moreover the preamble of this agreement contains a commitment to sustainable development and to the preservation and protection of the environment (Munoz 1997).


2 In Ambos Nogales for instance, some of these agencies are: the Arizona Department of Water Resources (ADWR); the Arizona Department of Environmental Quality (ADEQ); the Southeastern Arizona Government Organizations (SEAGO); Secretaría de Desarrollo Urbano y Ecología (SEDUE); and the Comisión de Agua Potable del Estado de Sonora (COAPAES)
NAFTA's environmental provisions have materialized in two sets of institutions with different spatial scopes and with different impacts on local issues on the border. The Commission on Environmental Cooperation was part of the side agreements signed by the three countries to respond to the environmental demands of organizations and institutions of the three countries. In contrast, the Border Environmental Cooperation Commission was a bilateral agreement between the U.S. and Mexico to protect and enhance the environment and the living conditions in the border region. BECC was also created to respond to increasing concerns by local and regional officials and environmental organizations about the impact that NAFTA will have in this area. The basic features of these organizations are as follows.


In 1993, the governments of Mexico, Canada and the United Stated signed the “North American Agreement on Environmental Cooperation” as a side agreement of NAFTA. This agreement created a trinational Commission on Environmental Cooperation (CEC) to supervise the enforcement of domestic environmental laws consistent with NAFTA standards. As mentioned, the new commission was created as a response to the environmental concerns and pressures of activists and NGOs from Mexico, the U.S. and Canada. Although all three countries have used environmental impact assessment as an essential tool of national environmental protection policies since the 1970s, environmental activists feared that the expected economic and urban growth of the border regions under the new free trade agreement would make the assessments ineffectual.
CEC provides environmental groups with a new mechanism to denounce lax environmental regulation enforcement and to bring violations to trinational dispute resolution panels for judgment and specification of remedies. It can also apply sanctions to national parties when persistent patterns of violation are found (Jones et al. 1997; Mumme 1995). The penalties, however, are imposed on governments and not against enterprises or individuals. Therefore, CEC acts as a watchdog on environmental policy enforcement of the three nation-states.

CEC's organization and functions are very different from those of the IBWC. The new Commission consists of three entities: a Council, which is the main body; a Joint Advisory Committee, in which private actors, non-governmental organizations, and concerned individuals can participate in the decision making process; and a Secretariat with executive functions. The Council is entitled also to appoint arbitration panels if these are requested by at least one of the three member states.

The CEC represents a great innovation in the political integration of continental North America. Non-governmental organizations and individuals from the three countries have a new governmental institution to which they can present their claims and which provides them with opportunities for public participation on international matters, an arena traditionally reserved for the highest tier of government. Its functions are limited to conflict resolution, however, and it lacks the power to create its own projects and regulations. In addition, resolutions and sections are directed to the federal government of
the three states, which under the conditions of the trinational environmental agreement, have to find a solution or pay a penalty. In short, nation-states are still the most important and powerful actors and the Commission's impact on local issues is still minor. CEC is gradually becoming an environmental referee for environmental groups and government officials, providing them an arena to denounce transnational environmental violations (air and water pollution, acid rain, industrial dump sites etc.). CEC, however, has had a smaller impact on local environmental issues, while BECC and NADBank, the other two new supranational environmental institutions, have become major institutional actors in local politics along the border, influencing policy making and project design on both sides.

6.1.2. The Border Environmental Cooperation Commission (BECC). In addition to the CEC and the North American Agreement on Environmental Cooperation, Mexico and the United States signed a binational executive agreement to create a new set of institutions to protect the environment of the border region between the two countries. In November 1993, the Border Environment Cooperation Commission, and its financing agency, the North American Development Bank (NADBank), were established. The Commission is not formally a component of NAFTA. BECC and NADBank are, in part, the result of a political strategy to win support for the trade pact among officials and environmental activists from the border states (Varady et al. 1996).
There is a long history of complaints by non-governmental organizations, scholars and local and state officials about the environmental conditions of the border region (Ingram et al. 1995; Mumme 1993; Mumme 1995; Sanchez 1993; Sánchez-Rodríguez 1990; Sepulveda 1978). There has also been growing concern about the capacity of traditional binational institutions such as IBWC and CILA to handle the increasing number of transborder environmental issues in the growing border communities (Ingram and White 1993; Jamail and Mumme 1982; Mumme 1986; Sánchez 1993).

BECC's main objective is to develop an “environmental infrastructure” along the border in order to reduce the potential environmental degradation that NAFTA might bring to the region. The commission’s mandate is to assist communities (100 Km on either side of the border5), in coordinating and carrying out projects to improve water supply, wastewater treatment and municipal solid waste management.

BECC’s main functions are defined in chapter one of the Binational Agreement on Environmental Cooperation (BECC 1998). The commission should assist states and localities and other public entities and private investors in:

I. Coordinating environmental infrastructure projects in the border region;

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4 BECC is also known in Spanish as “Comisión de Coperación Ecológica Fronteriza” or COCEF.
5 Projects outside this region may be also considered for certification only if BECC, with the acknowledgment of the EPA (Environmental Protection Agency) and SEMARNAP (Ministry of Environment, Natural Resources and Fisheries which substituted SEDUE as the Mexican environmental agency under Zedillo administration in 1995), finds that the project would remedy a transboundary human health or environmental problem within the 100 Km (62 miles) area.
II. Repairing, developing, implementing, and over-seeing environmental infrastructure projects in the border region, including the design, and other technical aspects of such projects;

III. Analyzing the financial feasibility or the environmental aspects, or both, of environmental infrastructure in the border region;

IV. Evaluating social and economic benefits in the border of environmental infrastructure projects in the border region;

V. Organizing, developing and arranging public and private financing from environmental infrastructure projects in the border region; and

VI. Certifying, in accordance with Article II, Section 3 of Chapter one, applications for financing to be submitted to the North American Development Bank, or to other sources of financing that such certification, for environmental infrastructure project in the border region (Border Environmental Cooperation Commission 1996).

Although BECC is mainly a technical-assistance and coordinating agency, in practice it also may exercise substantial influence on the policymaking process in the border region. BECC is the first truly binational institution in the border region, and professionals and individuals from both countries its Board of Directors, Advisory Council and staff.⁶ One

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⁶ BECC’s main office is located in Ciudad Juarez (Chihuahua, Mexico), while NADB headquarters is located in San Antonio (Texas, U.S.). The Board has ten directors, five from Mexico and five from the United States. Four directors are members _ex officio:_ the commissioners of each national section of the IBWC/CILA and a representative of the two Federal Environmental Agencies, EPA and SEMARNAP. The other six members are a state, locality and public representative from each side of the border. Under BECC’s initial configuration the staff’s general manager was held by an U.S. citizen while the Chair of the Board of Directors was from Mexico. During 1996, the Board of Directors formed an Executive Committee with two members from each country. The Executive committee meets monthly to review projects while
of the main contributions of BECC has been the inclusion of representatives from all levels of government on their boards and a refusal to centralize the organization. It has also promoted transparency and public participation in all the projects and decisions in which it has been involved. An evaluation of the first two years of this new commission indicates that it has been quite successful even in the face of institutional, political and economic problems in both countries (Varady et al. 1996).

BECC’s organization has moved away from traditional transboundary environmental and resource management institutions. It has refused the scientific/technical dominance of the IBWC and has introduced a more popular perspective by focusing on the community. The majority of the members of the Board of Directors and the Advisory Council are nonfederal representatives, thus most of the decision-making power is with local and grassroots representatives. This commitment to local communities has also been enhanced by the openness of its political and administrative process. The certification criteria developed by the commission requires public discussion of all the projects prior to certification (Border Environment Cooperation Commission 1996).

The Board holds quarterly regular sessions. All BECC’s public business is conducted in both English and Spanish.

7 The Board of Directors receives advice from an eighteen member binational Advisory Council. This Council is formed by at least one resident from each of the U.S. and Mexican border states (totaling not more than six from each country), who act as representatives of states, localities or local community groups. The additional six members of the council are representatives of the public (three from each country). The Advisory Council members are appointed by their respective countries for a two years period. The Council holds quarterly meetings during the regular sessions of the Board and it is also instrumental in its work with local communities and local outreach work.
The binational agreement that created BECC and the NADBank contains several provisions for increasing responsiveness to community needs. The document mandates open access (both in English and Spanish) to all documents related to project certification or technical assistance. Moreover, BECC has employed several means of electronic communication to improve public participation. The new institutional changes on the border have also fostered a more formal and continuous relationship among local and state officials on both sides of the border and particularly in the Arizona-Sonora region.

As we have seen in the previous chapter, NAFTA has generated different reactions and expectations from local officials, business leaders and local environmental organizations in Ambos Nogales. The creation of institutions like CEC, and especially BECC has brought a new spatial dimension to the local political arena. Urban and environmental issues on both sides of the border are now channeled through the new commission. Local political actors in Ambos Nogales are able to discuss public infrastructure projects that affect both sides of the border. The discussion of the suitability of a new water distribution project for Nogales Sonora was a turning point in the nature of local politics in this border community. I review the main issues of this project and its political implication in the following section.

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8 BECC and NADBank have created an informative and regularly updated web page open to the public. In these pages, there is information about projects seeking certification as well as the complete document of the binational agreement (BECC 1998). Moreover, the Udall Center for Public Policy at the University of Arizona established and maintained since 1995 an Internet listserv, the BECCnet that has been an important discussion forum.
6.2. THE ACUAFÉRICO PROJECT: THE BEGINNING OF A NEW GEOPOLITICAL FRAMEWORK.

Since its creation in 1994, BECC has been actively organizing public meetings to evaluate and discuss proposals for sustainable development and environmental projects. In 1995, the municipality of Nogales, Sonora submitted a project to upgrade and expand the city’s water supply system. Also known as the “Acuaférico”, the project was sponsored by SEDUE – Secretaría de Desarrollo Urbano y Ecología and COAPAES – the Comisión de Agua Potable y Alcantarillado del Estado de Sonora. The implementation of the project would allegedly benefit poor households in Nogales not yet supplied with clean water. After holding a public meeting with the participation of several groups from both sides of the border, BECC certified Phase One of the Acuaférico Project in January 1996.

This project promoted a healthy debate among environmental groups, community activists, public officials and BECC on both sides of the Sonora-Arizona border. Several of these groups expressed their concern regarding different aspects of the project, including the level of sustainability and environmental effects, the level of community involvement in project certification, the affordability of the new water rates for the

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9 The project’s official name is “Proyecto Integral para uso de Agua Potable, Tratamiento y Recarga de Agua en Nogales, Sonora – Primera Etapa (Integral Project to Potable Water Use, Treatment and Recharge of Water in Nogales, Sonora – First Phase). The name “Acuaférico” is a combination of Water (Agua) and Periférico (periphery), that is “water for the periphery” or “periphery system of distribution of water”.

10 COAPAES is the state agency responsible for operations and maintenance of the existing water supply and wastewater treatment systems, construction of new connections to the distribution system, and metering and collecting fees from the system’s users. COAPAES is directed from Hermosillo with local
poorest segments of the community, the level of transparency in project design, and the effectiveness of public policy implementation in Nogales.

Water provision politics in Ambos Nogales have always been very controversial in transborder relations. In Chapter Two I reviewed the history of environmental conflicts in Ambos Nogales. Over the last ten years, however, Nogales, Sonora has tried to solve deficiencies in its water distribution system with ambitious projects. Their lack of effectiveness, however, caused major community distrust of local and regional officials and institutions, particularly in the local branch of COAPES. BECC has addressed this lack of accountability of local officials by enhancing public participation in project design and development. I review the social climate in Nogales, Sonora prior to BECC with respect to water issues and then the main characteristics of the Acuaférico project.

6.2.1. Water politics in Nogales Sonora.

As I showed in Chapter Two, the history of water supply in Ambos Nogales is closely related to the city's rapid population growth as new projects to expand public services became obsolete almost as soon as completed.11 The latest of these series of projects was the “Captación Los Alisos” designed in late 1980s by COAPAES. “Los Alisos” was an

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11 Originally, Nogales, Sonora developed fourteen public wells (4,920 liter/min in the aquifer underlying the Nogales Wash within the city. In 1974, this system was expanded with the construction of the Capacitación Mascareñas (7,500 liters/min) in the Santa Cruz River aquifer north of the existing infiltration system. In 1982, Capacitación Paredes, a new wellfield and “Galería Nueva” with a combined
ambitious plan to supply water to Nogales, Sonora from a different aquifer (the Magdalena River watershed, see fig. 2.6) by pumping the water uphill several miles.\textsuperscript{12} While this project was portrayed by local authorities as a solution to Nogales’ water supply problems, the new system soon fell short of accomplishing this goal.

Because of Los Alisos’ failure, the level of trust in local officials—particularly those in COAPAES—became very low among colonia residents. Many residents, especially in the poorer colonias, complain that although they are not getting the service, they are being charged monthly not only for water but also for Los Alisos construction costs. In addition, COAPAES, revenue collection efforts have been very ineffective. Water meters and readings are few and unreliable and, consequently, COAPAES has no clear control over its own revenues or who owes what to the company. This, in turn, has affected the ability to maintain and repair existing equipment and lines, keep up and improve services, and plan for system expansion. Consequently, leaking lines and water waste are common, compromising both water supply and quality, and exposing the population to health risks. In addition, lack of maintenance causes frequent mechanical breakdowns at pumping stations, resulting in very unreliable service all around. In fact a substantial portion of Nogales, Sonora’s untreated wastewater leaks through these broken lines compromising

\textsuperscript{12}Los Alisos project was a very ambitious plan in two ways. First, technically it was a complex project to pump water several miles south of the town and then pump it uphill to reach the urban area. Second, politically, it showed the interest of Mexican authorities to create a new source of water supply in an aquifer not shared with the U.S. “Los Alisos” was therefore, outside any of the existing environmental and water regulation binational commission. Ultimately, the increase in the flow of wastewater produced by the
water quality and resulting in serious health risks to the population (Ingram et al. 1996). As I have shown in the previous chapter, a main “raison d’être” of the environmental organizations on both sides of the border has been to denounce urban infrastructure deficiencies. Comadres and Dignidad\(^\text{13}\) in Sonora and the Friends of the Santa Cruz River in Arizona have been particularly active in pointing out the problems of the Mexican water distribution system.

Clean water supply and sewage service are also a high priority among the Grupos Communitarios Urbanos (GCU), as identified in Nogales, Sonora in a study conducted by Colegio de la Frontera Norte in Nogales (COLEF 1992). In order to improve water supply services, popular groups in Nogales, Sonora resort to several mechanisms. The most prevalent is direct negotiation with the local water supply agency –COAPAES, either collectively or individually. Another common practice, especially in better-off colonias, is the collection of money to establish a water supply agreement with COAPAES, in which the colonia pays to be linked to the water supply. Because of their low capacity to collect funds, however, poorer colonias often resort to a more personal lower approach pressuring other sectors of the local government and public officials (e.g., City Hall, the local PRONASOL office, and PRI representatives). Other mechanisms used to improve water supply are self help (e.g., construction of wells and reservoirs, new well produced some conflicts with the allowable flow of wastewater in the Nogales International Wastewater Treatment Plant.\(^\text{13}\) Dignidad also received a grant by the State government to conduct a survey on the quality of the water distribution system among the poorest colonias. Josefina Guerrero has used this information to denounce the environmental and health conditions of many residents of her community (Josefina Guerrero personal...
installation of pipes) and especially in times of extreme water shortage, protest. Protest actions have ranged from the occupation of public wells and street protest to the temporary closing of roads used by maquiladoras and export sectors (Lara and Sanchez 1994).

COAPAES' response has for the most part been positive albeit temporary, since none of the implemented solutions has comprehensively and definitively addressed the problem. Since the expansion of water supply services has so far been insufficient to meet Nogales, Sonora's rapidly increasing demand, COAPAES's actions have largely been limited to redirecting water from one neighborhood to the other (Lara and Sanchez 1994). In order to expand water supply services to one neighborhood COAPAES restricts service to another, usually by decreasing the number of hours in which water is available. While this solution improves general water supply in terms of expanded access, it exacerbates dissatisfaction with COAPAES among larger segments of the population.

6.2.2. Bringing the community in: BECC and the Acuaférico Project.

After Los Alisos's failure to address water supply problems in Nogales, state officials started the plan for upgrading and expanding the city's water supply system. The Acuaférico project is part of a comprehensive US $90 million plan to address water supply and basic sanitation issues in Nogales, Sonora for the next 25 years. In 1995,
COAPAES submitted Phase One of the project to BECC. To comply with BECC's certification requirements, COAPAES organized local meetings in several colonias affected by the project, including one public local meeting on November 30th, 1995. Project proponents also held two meetings in Nogales, Arizona, to present the project. Although officials from Nogales, Arizona took advantage of these occasions to explain their objection to the Acuaférico Project, the meetings had low attendance and virtually no press coverage.

The main event, however, was the public meeting for BECC project certification. The meeting took place on January 16th, 1996 with approximately 600 people attending (Silverio Ruiz, personal communication 1997). Besides project proponents and BECC officials, other groups present include political parties, public officials, non-governmental organizations from both sides of the border and local activists. The governor of the state of Sonora was also present. By the majority of the accounts, the Nogales public meeting was the most lively and unusual of all BECC meetings to that date.

Critics of the project focused on two main points: the inability of local colonia residents to pay for water services and the absence of contingencies regarding the future use of groundwater resources. The latter became a source of great concern not only among

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14 The former director of COAPAES estimates that they organized over 80 local meetings including professional association, clubs, professional chambers, and close to 60 colonias. In a personal interview, Silverio Ruiz proved all these acts with photographic albums and documents. (Silverio Ruiz 1997; personal communication).

public officials in Nogales, Arizona, but also among environmental organizations, especially on the United States side. Public officials in Arizona feared that the expansion of water supply in Nogales, Sonora would negatively affect watersheds in the United States in two ways: first, by further depleting the Santa Cruz River groundwater resources; second, by increasing the volume of untreated water to the Nogales International Wasted Water Treatment Facility. Although the first phase of the Acuaférico Project concerns mainly the repair of water and sewage lines and improvement of existing services, public officials in Arizona fear that there are no guarantees that project proponents will not expand the current network. To safeguard Arizona's interests, public officials and environmental organizations formally requested that the Commission only certify the Acuaférico Project contingent on project proponents' commitment to carry out an environmental study to assess potential impacts on Nogales, Arizona.

Project proponents defend the Acuaférico Project from these charges by arguing that its water use will not significantly impact water resources in Arizona. Moreover, they point out that the need for clean water is extremely high in Nogales, Sonora with serious implications for living and health conditions, especially for poorer segments of the population. Therefore, it is unfair, they argue, to prevent the city from using water resources to improve local living conditions. Regarding water rates, COAPAES officials argue that at the meetings organized in the colonias, the majority of the participants said they would be willing to pay the new rates, provided service was reliable. In addition,
COAPAES's former director contends that poor families are likely to be paying more for alternative sources of water than they will once the project is completed (Silverio Ruiz, personal communication 1997). Finally, local officials argue that although Nogales, Arizona has a considerably smaller population than Nogales, Sonora, water consumption per capita in Arizona is much higher than in Sonora.

Other criticisms referred to COAPAES alleged non-compliance with BECC's certification criteria by denying public access to project documentation, its failure to advertise public meetings with sufficient advance notice, and its failure to form a local steering committee to work as a liaison between community and project proponents (Teresa Leal, personal communication 1997). There was also concern regarding COAPAES' ability to implement the project as designed, and to avoid corruption and embezzlement of funds. Finally, there were charges that by certifying the Acuaférico Project, BECC was benefiting maquiladoras in Nogales (Maria Elena Burruel, personal communication 1997). COAPAES officials deny these charges and contend that the meetings were widely advertised in newspapers and on the radio. They also attributed most of the opposition to the project to the meddling of local party politicians (Silverio Ruiz, personal communication 1997).

Perhaps fearing a strong show from project critics, COAPAES mobilized prior to BECC's meeting, large groups of colonia residents to demonstrate support for the Acuaférico Project certification meeting. In an unprecedented move, Acuaférico
supporters carried banners and vocally participated in the meeting. Project critics included groups from the PRD (Partido Revolucionario Democraticos) and PAN (Partido de Alianza Nacional) and Mexican and U.S. non-governmental organizations (DIGNIDAD, COMADRES, Friends of the Santa Cruz River, BEP, etc.). Opponents also showed up carrying banners and vocally demonstrating their disagreement with the Acuaférico Project. Project supporters describe the Nogales meeting as a genuine expression of the community sentiment towards the Acuaférico Project. Critics of the project, however, argue that such display of support is "business as usual", that is, another attempt from Mexican public officials to manipulate community groups.

The implications of this charge for BECC are twofold. First, it means that BECC, as a binational organization, is promoting a kind of public participation that, instead of positively affecting local communities is legitimating "clientelistic" relationships between popular movements and local officials. Second, public meetings do not necessarily reflect the community's sentiment towards the project. Here, there is the implicit risk that groups most able to mobilize great resources will control public meetings rather than groups most affected by the project.

The implications of the "Acuaférico affair" for local NGOs and other local political actors are important. The Acuaférico project became something more than a simple local dispute around a public project, it marked the starting point of a new way of conducting local politics in Ambos Nogales, and likely affected the way BECC and other institutions
handle transnational issues along the entire U.S.-Mexico border (Lemos and Luna 1999). In the following section I return to the analysis of the evolution of these political agents during the meetings held for the Acuaférico project.

6.3. SOCIAL MOBILIZATION AND THE NEW POLITICAL SPACE IN AMBOS NOGALES.

The changes in the forms and organization of the state under BECC have opened up new spaces of regulation. BECC has provided new resources for local social mobilization and also has created new political opportunities for political actors. Strategies of NGOs and local officials changed in response to a new spatial scale (binational, and “bi-local” or the combination of both sides of border communities). The Acuaférico project showed Ambos Nogales’ residents the real dimensions of the institutional changes wrought by NAFTA. As I showed in the previous chapter, local organizations in Ambos Nogales displayed a moderate amount of interest in the changes that NAFTA promise to introduce in their communities. Local grassroots and environmental organizations were skeptical about NAFTA. They believed that it would only benefit business and international capital and, consequently, would have a reduced or negative impact in the lives of Ambos Nogales' residents. With the creation of BECC, they found a new forum for community participation that included both sides of the border. Both Mexicans and Americans, together, can discuss urban and environmental projects that may affect their lives. The ubiquitous regulatory power of the nation-state, therefore, has been complemented by a new supranational institutional figure. The participatory character of the newly created
institution, moreover, has fostered the transformation of the spatial constructs of local political actors in different scales of meaning.

The experience of the Acuaférico project reveals two changes. First, state and local officials have the opportunity to compare two different approaches, from either side of the border, to urban and environmental planning. Second, the strategies of Non-Governmental Organizations have moved from critical and confrontational to more collaborative positions.

6.3.1. Local and state officials response to BECC: from one scale of regulation to a new scale of meaning.

The scale of state regulation has changed with the creation of BECC introducing two important changes in planning practices in Ambos Nogales: the inclusion of impact assessment on both sides of the border of any project, and the incorporation of open and transborder community participation in those projects. These two elements have changed city and state officials' conceptualization of the scales of regulation of urban planning practices to include new dimensions and meanings. The scale of environmental sustainability, or social need, has been incorporated into these new scales of meaning by political actors on both sides of the border.

The Acuaférico is a complex urban infrastructure project that was designed and constructed by the SEDUE of Sonora in Hermosillo long before NAFTA or BECC were
created. Eventually, SEDUE engineers modified and adjusted the Acuaférico project to fit BECC's certification criteria. One of the most important modifications was to subdivide the project into two phases. By doing so, the engineers were able to get half of the project certified while saving the more controversial elements of the project for the second phase. SEDUE engineers and other State officials, however, maintained that although the Acuaférico has been split in two phases for technical and political purposes, it is a comprehensive project to solve water and wastewater services in Nogales Sonora and therefore it has to be implemented in its totality.

In contrast, for state and city officials in Nogales, Arizona, phase one of the Acuaférico project is a different project than that of phase two. Most of the officials interviewed in this research showed their concern with the concentration of binational resources in projects that will only benefit a small segment of the community while the rest of the most needed areas of the community would remain unaffected. Phase one will only partially solve the problems of water distribution in Ambos Nogales and most of the poorest colonias will not benefit from it. Mexican officials, nevertheless, agreed that by incorporating public participation, BECC has allowed the community to speak out and to present the real issues affecting border communities.

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16 Phase one contemplates only the substitution of the pipes of the old water distribution system while phase two will include a new well and the expansion of the system to all the community. This second phase will produce a negative impact in the already depleted binational aquifer of the Santa Cruz River watershed and will also increase the flow of wastewater to the International Treatment Plant. The second phase of the Acuaférico project has much more impact on Nogales, Arizona than Phase One, and that is the main rationale for stopping one phase while approving the other. The Acuaférico, however, was a very comprehensive plan to solve water distribution services in Ambos Nogales (Hugh Holub, Nogales city
BECC has also integrated local and regional government agencies into border negotiations. American officials, moreover, have shown their interest in this new institution and hope it will open stable channels of communication between similar institutions on both sides of the border. Mexicans officials, for their part, think that the support of the binational board will help them in the negotiations with other tiers of their government especially at the federal level. With BECC, local issues have become a federal affair with international implications in the relationship between the two countries. The activities of these border government agencies, therefore, have become more visible in national politics.

Community participation is the other important contribution of BECC to local politics in the border. For Mexican officials the community participation requirement was a challenging element for their project design and development practices. As Maria Elena Barajas\(^\text{17}\) stated,

\[...\)lo que siempre debe estar muy claro es que se le pide a la comunidad y a la comunidad se le pide que opine no que decida...\]\(^\text{18}\)

Moreover, Mexican officials and technicians working for the Acuaférico project consider that they have made a substantial effort to incorporate public participation in the project-
design. For them, the differences between the American and Mexican public planning process is basically a difference in the amount of resources available. American planning practice contemplates the possibility of presenting different alternatives to the public and including public consultation in the ultimate decision-making. In contrast, Mexican planners can hardly find the resources to even create a project. For Mexican officials, public participation is desirable but it is also very costly and time-consuming and they have to design and implement public projects with a relatively smaller budget than their American counterparts.

Mexican officials agreed that BECC has provided more resources to enhance public planning practice in Mexico and allowed them to incorporate public participation for the first time in the Acuaférico Project. The integration of the community in project design and development, and the participation of residents and public officials from the other side of the border has also altered the meaning of community for state and city officials in Nogales, Sonora. COAPAES for example has been in charge of organizing public consultation with the community and has maintained a paternalist approach in the colonias, reproducing the traditional “clientelist” structure of state-society relations in Mexico. By doing so, community participation is manipulated and the amount of information provided to the community is also partial and subjective. Moreover, while colonias residents have shown support for better water service in general they have not supported the “Acuaférico” project in particular. The reaction of non-governmental organizations and opposition groups during the BECC meeting, however, showed the
resistance to COAPAES' "clientelist" practices. Groups like Comadres, BEP, and La Red have openly denounced the lack of "objective" information provided to Nogales, Sonora residents, and the manipulation by Mexican officials of some of local BECC meetings. The impact of BECC in state-society relations in Mexico while far from what would be desirable for American standards, nevertheless, indicates new and promising venues of community participation.

In general, BECC has helped to create a new configuration of state regulatory power such that local public officials were forced to change their traditional ways of communication with the community and with local officials across the border. The changes in the scale of regulation favored changes in their scales of meaning. On one hand, American public officials realized the real scale of need of the new infrastructure projects for Mexico. Meanwhile, Mexican officials and administrators were forced to deal with issues of environmental feasibility and sustainable development. The local scale was transformed by NAFTA and BECC. The reaction of local non-governmental organization is different. By reframing their scales of meaning (the scale of environmental sustainability, or healthy living conditions) they successfully offered alternative boundaries to the state's scales of regulation.
6.3.2. Non-governmental organizations' reaction to BECC: crafting scales of meaning to offer new boundaries to the scale of regulation.

The evolution of Non-Governmental Organizations in Ambos Nogales as a response to the political opportunities opened by BECC goes in the opposite direction of that of local and regional officials. These organizations have crafted their scales of meaning in order to empower their communities and also to be able to legitimize their agendas in order to mobilize resources. Their spatial construct is much more flexible than that of local institutions and therefore they are able to adapt more easily to the new regulatory boundaries created by BECC.

Their political strategies, however, have been substantially different from one group to another in relation to their position within the local political map. While Maria Josefina Guerrero, the director of Dignidad, has been appointed member of BECC's Advisory Committee; Teresa Leal of Comadres maintained a very critical position during the Acuaférico negotiations denouncing the manipulative strategies of COAPAES and SEDUE in relation to community participation. American groups on the other hand, have tried to develop stronger ties with Mexican organizations in order to present a common front at the meetings. La Red and Comadres have maintained formal and informal meetings with groups like BEP or Friends of the Santa Cruz River during the process of the Acuaférico certification. These contacts, however, are focused on very concrete issues, however, and despite the opportunities opened by BECC there has not been much effort to create transnational environmental (or any other type) of organizations.
Organizations from both sides of the border agree that the political agendas from groups across the border are significantly different. All the groups I analyzed maintained the focus of their groups within national boundaries. The source of empowerment and legitimation is, for all groups, the community and activists fear that by establishing binational groups, the focus of their organizations would change and the source of their political legitimation would eventually suffer. The strategy of Ambos Nogales’ NGOs has been to maintain separate national strategies in order to retain their independence and credibility in the eyes of their supporters.

These same NGOs, however, also agree upon the opportunities opened by BECC, allowing them to meet with all the relevant actors along the border. BECC has also favored Mexican institutions, taking Mexican and American NGOs more seriously in the decision making process. Moreover, the increasing visibility of all these organizations has also helped to secure more funding from public and private institutions. Although this process has especially favored American groups, some Mexican organizations like LA RED have also been benefited.

In general, NGOs have been able to elaborate different scales of meaning to vindicate their urban and local demands. Gradually, NGOs have realized that by moving from urban issues to environmental agendas they will receive more attention. The environmental agenda however, has different meanings on both sides of the border.
While American groups maintain a more conservationist approach, Mexican groups focus on improvement of sanitary and health conditions for the poorest people of the colonias. The Acuaferico project has brought these groups together and, in response, they have dredged a new spatial boundary, "the Ambos Nogales" community.

The effects of BECC in Ambos Nogales politics have been quite remarkable. In addition, government institutions and NGOs have modified their political strategies and agendas to the new political environment. In this chapter I have shown how different political actors modified their scales of action, or scales of meaning, to fit the scales of regulation. This is an ongoing process with multiple voices. The social production of scale is a very significant element in local social mobilization and needs to be further studied in order to understand the adjustments introduced by the recent reconfiguration of state institutions.
Chapter 7

CONCLUSIONS

Since the 1960s, the maquiladora industry has transformed the U.S.-Mexico border into one of the most economically dynamic regions in both nations. This new industrial space, though created by changing global economic relations has also been shaped by a network of trans-border social and political relations that marks the history of most of the border cities. Local businesses have taken advantage of the economic opportunities offered by the new global economic environment and have continued economic and political collaboration across the international political boundary. On the Arizona-Sonora border, this pattern of collaboration has been more intense, due in part to the particularities of border society marked by historical political and economic isolation, harsh living conditions and limited natural resources.

My empirical question has focused on the impact that the changes introduced in the local economy and in the organization of the state have had on the mobilizing strategies of local political actors in Ambos Nogales. I have reviewed the evolution of different local organizations (local government institutions, economic organizations and grassroots and environmental organizations) over the years of intense political negotiations prior to NAFTA (1989-1994) and during the first two years after NAFTA was passed (1996). The evolution of most of these groups shows a change in the framing of their political agendas to incorporate new scales of meaning that integrate (or differentiate) both sides
of the border. The conceptualization of the local scale, and consequently the rest of spatial scales, has become an important issue among local organizations in recent years.

Since its was founded, the binational community of Ambos Nogales has been characterized by close collaboration between local government officials and business leaders from both sides of the boundary. The local scale thus acquired a binational meaning among local officials and businesspersons, which enabled them to share public services like such as firefighting and water supply, services and also to enhance local economic transactions across the border. As I showed in Chapter Two, the first years of the twentieth century were marked by the increasing integration of Ambos Nogales in the two national economies with a new railway connection and the development of mining activities in the region. Other changes at the international and national scale also shaped this community, including the Mexican revolution, 1930s depression, Second World War, and the bracero program, etc.

The Border Industrialization program, created in the mid-1960s after the abrupt termination of the bracero program, drastically changed the structure of the economy of Ambos Nogales, and resulted in accelerated and unplanned urban growth. The maquiladora program created a new regulatory scale, which was based on previous informal agreements between businesses and local officials from both sides of the border. Ambos Nogales and the rest of the Arizona-Sonora border benefited economically from the industrial development produced by the maquiladora. The economic development and
urban growth, however, was not accompanied by better living conditions for the community (particularly in Nogales, Sonora) or by development that respected the fragility of the desert environment.

During the 1980s and 1990s, business associations and local government officials were very active promoting the creation of dynamic channels of communication across the border to deal with this fallout from economic development. Local officials from each side of the border collaborated to solve problems raised by the common use of natural resources like water. Business leaders created associations to foster tourism (Patronato de Turismo), trade (the Border Trade Alliance) and industry (CANACINTRA or the Maquiladora Association) in both communities. In certain cases, local government officials and business leaders were able to create formal organizations to promote the local or regional economy, such as the Arizona-Mexico commission, the Southeastern Arizona Governments Organization and the Nogales Santa Cruz County Economic Development Foundation. These organizations also produced new scales of economic development and trans-border cooperation. These new scales have been created with a very concrete purpose: to face the restrictions imposed by both federal governments on trans-national cooperation in localities like Ambos Nogales. Scales of regulation are therefore shaping and fostering the creation of new scales of meaning by local businesses and government officials.
Eventually, these scales of meaning can also enable the creation of new scales of regulation. NAFTA was created as a response to increasing economic transactions between countries—the U.S., Canada and Mexico. The incorporation of Mexico into the treaty was enabled by a change in the climate of bilateral relations between Mexico and United States, but also by the success of the maquiladora program on the U.S.-Mexico border. The maquiladora program, moreover, has also forced changes in national politics and foreign policies in Mexico. The process of political decentralization and economic liberalization that allowed NAFTA and the “maquiladorization” of Mexican economy, was the political breeding ground for the present change. There is no doubt that the success of the PAN in the most recent elections (June 2000) is the result of these changes on the national political sphere in Mexico.

Over the years, the maquiladora industry also generated increasing environmental degradation and deterioration of living conditions in communities along the U.S.–Mexico border. In reaction, local activists started to denounce the lack of environmental provisions and argued for more suitable urban projects in the border region. These groups also created new scales of meaning around issues of environmental protection and urban living conditions. The efforts of environmental groups like BEP or La Red have forced the conditions of bilateral agreements on environmental issues on the border region. BECC was created in 1994 to incorporate these scales of meaning within a new binational scale of regulation. Local and regional environmental groups have been able to
raise awareness of a new scale of environmental degradation and have also been able to integrate themselves into BECC’s advisory committee.

The discussion over the Acuaférico project held by BECC in 1996, initiated changes in the political strategies of local political actors (public officials, businesspersons and the leaders of local NGO’s and environmental organizations). Government institutions in Mexico were forced to integrate public participation (from both sides of the border) in their project design and development process. Local non-governmental organizations in Mexico denounced the manipulation of some of the public hearings by government offices like COAPAES or SIUE. American government officials were also interested in being informed about the development of the project and having an institutional space to maintain formal meetings with their Mexican colleagues. While Mexican officials agree to cooperate with BECC’s public participation requirements, they considered public incapable of making decisions.¹ Project proponents felt that although the new process intended to be more democratic by incorporating public participation, it is also more costly since alternative projects have to be considered. Mexican technicians observed that due to the lack of resources available for project design in Mexico, providing more than one alternative became a waste of time and resources more rather than an increase in transparency and efficiency.²

¹ Maria Elena Barajas, personal communication 1997.
² Engineer Jaime Davila-Luna, personal communication 1997.
The Acuaférico project showed Ambos Nogales residents the real dimensions of the institutional change introduced by NAFTA and its side agreements. Non-governmental organizations first maintained a moderate interest in the changes that the new agreement brought to their organization and to the community. The new NAFTA environment was considered beneficial only for businesses and large-scale economics but not for local issues. The Acuaférico project showed these groups a different face of NAFTA; residents and organizations from both sides of the border had a new transborder political space in which to discuss and solve local issues. The social construct of the binational local scale was enforced by BECC. The scales of meaning and the scales of regulation coincided in Ambos Nogales with the Acuaférico project discussion. Local public officials and NGOs’ leaders and businesspersons crafted a bi-local conceptualization of “Ambos Nogales” for different purposes (administrative, economic, social, cultural) and it was finally enforced by BECC’s community participation mandate for the Acuaférico project.

The creation of new scales of regulation, like BECC and NAFTA, have also favored changes in the mobilization strategies of local social movements in Ambos Nogales. The group Comadres (led by Teresa Leal) and Dignidad (led by Josefina Guerrero) are two examples of these changes. Both groups were created around the same time in the early 1980s. Both groups have different political approaches and different political strategies. They both, however, share the same type of support members: working women from the poorest colonias. Their framing processes have been modified over the years to adapt to the new political opportunities created by the new institutions. Prior to NAFTA,
both groups framed their political agenda around women's issues: domestic violence, women's working conditions, living conditions, childcare, etc. The spatial framing of their political agenda was centered on the colonia and the municipality, although their target institutions were the state of Sonora and the Mexican federal government. The responses from the Mexican government to their demands, however, were minimal and followed clientelistic or paternalist structures.

The creation of new scales of meaning around environmental issues led both groups to change their framing towards environmental issues. For both groups' leaders (Teresa Leal and Josefina Guerrero) this change is a strategic move, although they also agreed on the importance of environmental regulations for the community. Both groups continue to focus on working class women from the poorest colonias, however now they have established transborder alliances to denounce the same type of grievances --better systems of water distribution, sewage, electricity, road paving, etc. Comadres and Dignidad leaders focus on local and neighborhood scales in order to legitimize themselves in front of the community. In contrast, these groups also use a regional, national or global environment in their agendas in order to gain institutional attention.

Dignidad keeps a Mexican nationalist agenda, and although the group focuses on the U.S.-Mexico border, it also clearly differentiates between American and Mexican interests. By keeping this political attitude, and its corresponding spatial framing, Josefina Guerrero from Dignidad was eventually incorporated into BECC's advisory
committee. In contrast, Teresa Leal from Comadres has become an independent critical voice and a local liaison with other organizations in Mexico and the United States. Consequently, Comadres defends a scale of environmental sustainability integrating both sides of the border within the larger scale of the higher Sonoran desert ecoregion. These two opposing responses to the challenges offered by BECC are a good example of how the different elements of social mobilization, cultural framing, political opportunities and resource mobilization are embedded in particular conceptualizations of space and scale (Miller 2000).

Other groups changed their scales of action during the same period. Groups like La Red in Mexico, or BEP and Friends of the Santa Cruz River in Arizona, have always maintained an environmental agenda. They have begun to reorganize the manner in which they concentrate their efforts, however. All of them started with a very local and concrete focus which has been expanded to other spatial scales to embrace in some cases the entire border region (La Red) or the North American continent (BEP). Again, these changes are very important strategic movements and they all signify the importance of presenting environmental problems as transnational problems that affect communities from both sides of the border. These groups have had an intense relationship with new institutions like BECC or CEC, and in some cases (like BEP) actually lobbied to create these institutions.
In spite of the changes introduced by BECC and NAFTA, local organizations in Ambos Nogales are either Mexican or American. In this research I have been unable to find an example of a local trans-border NGO. NGO leaders and spokespersons consider that the political environment in both countries is so significantly different that believe it is impossible to create transborder organizations. Organizations like BEP or La RED maintain close ties with organizations and institutions across the border but they still remain based in one country. Other organizations like DIGNIDAD, COMADRES and LIFE have nationalist positions and have no intention of incorporating people from across the border into their organization. The attitude of these organizations shows another dimension of the spatial relationship between social movements and the state. The resources of most of these organizations depend on their ability to mobilize their own community and its local officials. By maintaining the membership of their organization in one country they can frame their political agendas closer to the community needs and away from suspicion of foreign interference.

In this dissertation I have explored the importance of space and scale for social movement theory. I have analyzed the process of social mobilization from the perspective of local politics in a binational community like Ambos Nogales. I have shown how the process of economic internationalization has accelerated the process of scale production by both the state and social movements and also, how space and scale production is an intrinsic part of the process of social mobilization.
With the analysis of local politics in Ambos Nogales, I have extended the understanding of the relationship between social mobilization and geography by focusing on the process of social production of scale and its impact on local politics. The literature on the geography of social mobilization has started to explore the importance of space and conceptualizations of space in the development of social movements. In this project, however, I conducted a comprehensive analysis of the local political arena in order to be able to illuminate the intertwined network of social and institutional relations produced in local politics. The relationship between civil society (represented by grassroots organizations and community activism), government institutions and the economy has been the focus of my research as I have worked to understand the process of the social production of scale and its role in the spatial strategies of social mobilization. This methodological approach contributes to an understanding of the complexity of social relations in the local arena and what produces, eventually, the increase (or dissolution) of social mobilization.

In approaching broader theoretical issues about the importance of geographic scale in social mobilization theory, I have concentrated on a series of subsidiary questions. From a more geographical point of view, I have analyzed how the recent process of the internationalization of the economy alters the organization of the state and the implications of this alternative for social mobilization. I have observed in my empirical research that the basis of these changes in the organization of the space emerged out of previously created scales of meaning of local political agents. In the case of the U.S.-
Mexico border, for example, the scale of meaning of border environmentalists was the basis for the creation of BECC, while the scale of meaning for businesspersons was the basis of the maquiladora program and NAFTA.

The relationship between scales of regulation and scales of meaning is, therefore, dialectical. Scales of meaning and scales of regulation shape each other in an ongoing process. The effects of changes on the scale of regulation have also had important effects on social movements in places like Ambos Nogales. My second set of subsidiary questions deals with the relationship of the process of the production of scale and the changes in the strategies of social movements. I have observed how space and scale are included in the discourses of certain social movements in Ambos Nogales.

Recent approaches in social mobilization theory (McAdam et al. 1994) assert that political opportunities, mobilizing structures and cultural framings are complementary elements in the process of social mobilization. But these approaches also underplay the importance of space. In this dissertation, I have observed how certain organizations like NGO’s and local government agencies have reframed their political strategies towards new political agendas embracing different geographic areas. These strategic changes in the framing processes of social movements, responded to new political opportunities (changes in the organization of the state) and to the types of resources available (linkages to other organizations for example). All these changes include a certain conceptualization of space not as a simple container but as powerful discursive element. Scale is used,
therefore, to integrate in a single discourse different political spaces. In Ambos Nogales, for example, I observed local groups like LIFE or DIGNIDAD use different spatial scales to frame their grievances emphasizing local, regional, national or global scales in relation to the political opportunities or the resources available. The scales of meaning of certain social movements are shaped by the opportunities created by new scales of regulation such as the one created by BECC. Scale is an important discursive element for social movements.

I believe geography can contribute substantially to the understanding of the relationship among these different aspects of social mobilization. Focusing on local politics allows one to understand the complex set of social relations that creates the political opportunities and the resources needed for mobilization. The process of cultural framing, moreover, is also based on a particular interpretation of political space and local political traditions. My methodological approach works to contribute to the understanding of the processes of social mobilization in local politics by asserting the importance of space and scale.

My work has also started to unfold new avenues in the growing set of work conducted in geography around the topic of scale and social production of scale (Marston 2000; Tower 2000). My research expands on the topic of the social production of scale by focusing on economic and political institutions as important producers of scales of regulation, and civil society as a meaningful agent in the transformation and interpretation of the political
and social reality. In this dissertation I have started to unfold the relationship between these two important processes in order to understand the complex process of the social production of scale and social mobilization.
APPENDIX A

QUESTIONNAIRE FOR LOCAL AND REGIONAL ORGANIZATIONS.

General Information
• When did this group first get started? How old is this organization?
• How many people formed this group or organization?
  • How many of those are active members?
• How is this group organized?
  • Is it a membership organization?
  • Can anyone become a member?
  • Do you charge any fee to become a member?
  • Is there any particular rule concerning membership?
• How this group funds its activities?
• Is this group part of, or a chapter of a broader group?
• Do you maintain any type of relation with other environmental groups?
  • Business or professional associations?
  • Grassroots organizations, neighborhood associations?

Geographic Information.
• What do you consider is the geographic area of action of your group?
  • Where do the members of this organization come from?
  • Where does this group perform its activities?
• Has this area of action been modify by new institutions such as NAFTA, BECC or NADBank?
• Does this organization collaborate with people or other organizations on the other side of the border?
  • If yes: Which ones? Since when? What for?
• If not: Why?

• Does your group collaborate with people or the organizations on the other side of the border?

• How many people from the other side of the border are members of your organization?
  • If not: Could a person from the other side of the border be a member of your organization?

• When this group want to raise an issue or a complaint. What is the institution to which you direct your complain?
  • Is it a municipal/city/county agency?
  • Is it a state agency?
  • Is it a federal agency?
  • Is it a binational agency?
  • Is there more than one?

• Do you think the target institutions of your complaints have changed since NAFTA has been passed?

• How would you define your relationship with the different tiers of government?
  • Do you think that the relationship has changed in the last years?

• Do you think that the problems of Ambos Nogales and local problems in general have been taken more seriously since NAFTA was passed?

• Do you think binational institutions have helped to improve the relationship between Mexican and American communities?

• Do you think that binational institutions are more accountable than other national or state institutions?

• Do you think Mexican/American -environmental; grassroots or business- groups are different from American/Mexican groups?

• Do you think NAFTA institutions are helping to solve the problems of the border?
About BECC.

• Do you know about BECC?
• How did you learn about BECC?
• Would you participate on a public meeting if you knew about them?
• Are you more willing to participate because BECC is a binational organization?
• Do you think BECC is helping your group?
• Do you feel BECC responds to your demands and needs?
• Do you feel that BECC listens to your group contributions?
• Do you agree with the way BECC carries out its business?
• What do you think BECC wants from your group?
• Have you or your group ever participated on a public meeting?
• In comparison, do you think BECC’s public meetings are more democratic than other public meetings?
• Do you think BECC - because is binational- responds better to your needs?
• Do you think that BECC’s is more accountable than other government institutions?
• Do you feel represented by your leadership in BECC meetings?
• Have you held any internal meeting to discuss BECC?
• Are you consulted regularly relative to BECC’s meetings?
• Do you think your leadership has become more responsive because of BECC?

QUESTIONNAIRE FOR POLICY MAKERS.

• Do you know of new binational institutions such as BECC?
• How did you learn about those institutions?
• Do you agree with the way BECC carries out its business?
• What do you think BECC wants from you?
• Do you feel BECC responds to your demands and needs?
Do you feel that BECC listens to your contributions?
Do you think your projects have a better change of being implemented because of BECC?
Did you change project design to comply with BECC's requirements?
How do you see public participation?
Have you ever participated on any other project negotiations involving public participation?
Are you more willing to participate because BECC is a binational organization?
Do you feel BECC helps you to do your job?
What do you think of U.S. environmental groups?
Do you think American environmental/business/popular groups are different from Mexican environmental/business/popular groups?
# APPENDIX B

List of interviews

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<th>NAME</th>
<th>ORGANIZATION</th>
<th>DATE</th>
<th>PLACE</th>
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