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Addressing Border Environmental Problems Now and in the Future: Border XXI and Related Efforts

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INTRODUCTION

The purpose of this paper is to bring Border Institute I participants up to date on past and current federal and binational efforts to address the environmental problems along the U.S.-Mexican border.¹ It also intends to set the stage for discussions regarding current and emerging border environmental problems and future infrastructure, institutional, and other needs. The geographical focus of the paper is the border region and the analysis is largely regarding federal institutions. However, every attempt has been made to note the role of small, rural communities as well as large cities. The role of Indian tribes is also discussed when appropriate and when data are available. The paper also provides basic information and analysis necessary to understand the environmental implications of growth in the transborder region in the context of the border environmental institutions developed to date. The paper raises concerns about the long-term sustainability of present growth trends in the border region and the ability of these institutions to address these growth trends.

The negotiation of NAFTA is what brought environmental issues in the border area to the forefront of public attention. Because an understanding of the relationship between trade and environmental issues is central to problem solving in the border area, this paper will first present an overview of the relationship between trade liberalization and environmental protection. It will then briefly summarize the political, social, and economic context of the border area, and then iden-

tify existing and emerging environmental problems in the region. With this backdrop, the paper will then describe and assess the various environmental institutions operating in the border area, providing an overview of Border XXI, describing the process that has emerged for identifying and addressing border environmental problems, and assessing the progress made to date. Potential improvements to the effectiveness of the Border XXI Program, particularly in terms of local and state collaboration, will be examined. The role and results of BECC and NADBank will be detailed, including adoption of sustainability criteria by BECC for project certification. The efforts of the Good Neighbor Environment Board (GNEB), the Commission for Environmental Cooperation (CEC), and the IBWC regarding border environment will be discussed.

The basic problem presented by all of these border environmental institutions is their reactive nature. They are not designed to be proactive and prevent environmental degradation from unsustainable development. Unless they are radically redesigned or supplemented with a much broader planning and regulatory enforcement structure, they will never do more than treat the symptoms of the disease.

OVERVIEW OF THE RELATIONSHIP BETWEEN TRADE LIBERALIZATION AND THE ENVIRONMENTAL PROTECTION POLICIES

The debate between environmentalists and trade liberalization proponents has usually been framed by two questions: How does trade liberalization harm the environment? and How do environmental protection measures interfere with trade liberalization? Few have asked, Is it possible to promote trade liberalization while maintaining or increasing the level of environmental protection? Seemingly, the only two paths have been to keep trade and environmental agreements separate, or to completely integrate them into a whole system. To keep them separate would suggest the need for conflict resolution between them, while integrating them would suggest that conflict avoidance was the correct solution.

There are many aspects of trade liberalization that must be reconciled with environmental goals. Table 1 is an incomplete list of the direct or indirect environmental effects of trade liberalization that should be understood or addressed in order to maintain or increase the level of environmental protection.

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Table 1: Does Trade Liberalization Improve Environmental Quality?

Pros	Cons
Free Trade = greater efficiency = economic growth = greater tax revenues = greater environmental protection	Free Trade = economic growth and greater need for fossil fuels for transportation = increased pollution and consumption of natural resources
Free trade reduces poverty, which reduces harm to the environment.	Free trade fosters economic growth, which increases consumption, which causes environmental harm.
Free trade permits the dissemination of environmentally superior goods beyond their home market.	Free trade permits dissemination of environmentally-harmful products.
Economies of scale may lower the price of environmentally sound goods and thus expand their market.	Economies of scale may lower the price of environmentally harmful goods. This "magnifier" effect may also allow these goods to have the upper hand due to current market share.
Factors other than environmental regulation dictate the location of investment and industry. On average, compliance with environmental regulations amounts to one percent of overhead thus indicating other cost factors are more important to location decisions.	"Dirty" industries will migrate. "Pollution havens" will be created to attract them. This will put downward pressure on environmental standards everywhere.
	Degradation on a global scale. Expanded trade creates an incentive for production of globally polluting goods (collective action problem).
	Degradation of the "commons" or "public goods." Expanded trade creates an incentive for the overuse of common property resources (collective action problem).
Free trade eliminates subsidies, which distort trade flows and environmental policy.	Free trade creates incentives for increased production of export commodity crops.
Most MNCs bring their environmental "best practices" with them.	Some "dirty technology" is exported when it becomes obsolete or can no longer comply with domestic environmental regulations.

Table 1 Continued

Free trade eliminates non tariff barriers to trade including protectionistic measures disguised as environmental standards.	Free trade causes a loss of sovereignty. Trade goals trump environmental principles, undercutting communities' rights to make their own environmental regulatory decisions.
Free trade helps move societies to use economic measures instead of regulations (e.g., the "polluter pays principle" and "cost internalization").	
	The movement toward freer trade will make it harder to adopt optimal environmental standards.

Source: Mark Spalding, Trade and the Environment in Latin America. Lecture given at San Diego State University, 1996.

Separation

Historically, at the global level, trade and environmental issues have been kept separate. A remarkable number of stand-alone multilateral environmental agreements were successfully negotiated during the eight years it took to complete the negotiations of the Uruguay round of the General Agreement on Tariffs and Trade (GATT).² Separating trade and environmental issues may be the right answer because trade and environment regimes are very different in nature. One traditional argument is that separation allows individual nations to first address poverty and income distribution so that there is sufficient widespread wealth to pay for environmental protection and cleanup. While this ignores extremely important opportunities to avoid mistakes of the past through technology transfers, it is nonetheless valid for some nations. Further, when moving toward economic integration, dealing with the economic issues first gives the more developed countries greater credibility. They can show they are not dictating standards or laws to less developed nations and, as trust and capacity are built, they will enable cooperation on environmental issues.

While this may be very satisfying from the standpoint of addressing environmental issues, it does not resolve the potential for conflicts between trade agreements and the international environmental conventions, nor conflicts between the trade agreements and domestic environmental laws. As trade agreements go beyond merely reducing or eliminating border tariffs on goods to addressing nontariff barriers to trade, it can be expected that there will be conflict with environ-

mental policies. Meanwhile, environmental policy is simultaneously moving beyond compelling the end of pipe cleanup of pollution to addressing pollution prevention as well as examining production and process methods. In some cases, these new approaches to environmental policy fall into the current international definition of a non-tariff barrier to trade, hence the conflict.

In addition, there are problems with the approach of negotiating separate trade and environmental agreements, which stem from the more broad membership of trade accords than environmental agreements. This incongruent membership is the result of a perceived or real fear that participation in international environmental agreements will limit international competitiveness.

Linkage

A few multilateral environmental agreements (MEAs) directly link trade with environmental protections by banning trade in environmentally harmful materials or endangered species. In addition, NAFTA, and to a much lesser extent the Uruguay round of the GATT, acknowledge the direct linkage of trade and environmental issues in other ways by integrating environmental provisions into the body of the trade agreement, which either alter the design of the liberalization process or expose some of the trade provisions to environmental scrutiny. Linkage can take two forms: the integration of environmental provisions into a trade agreement, or through the negotiation of parallel environmental agreements that are both supportive of and dependent upon the trade agreement negotiated alongside them.

North American Economic Integration: An Approach to the Trade-Environment Conflict

It is possible to look to the NAFTA trade agreement and its two environmental side agreements to discern some solutions to regional environmental problems and a resolution to the question of how to liberalize trade while simultaneously improving environmental performance. Some of North America's negotiated solutions could form the basis for hemispheric or global trade negotiations, even if they are taken on seriatim. In the alternative, if we continue to address trade and environmental issues separately, there will inevitably be a conflict between the two key policy areas, which will require resolution.

For the NAFTA parties, there are many difficulties in reconciling the U.S. legal system's confrontational style and Mexico's conflict avoidance and cooperation style. Current environmental decision making

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in North America is led by the United States, but incorporates some unique elements from the Canadian and Mexican systems. While the United States and Canada have command and control oriented systems in which regulatory schemes with strict directives and fines for noncompliance and nonattainment predominate, Canada has experimented more with financial or tax incentives for environmental compliance. Mexico has more of a pollution prevention approach, with some command and control elements added. Until very recently, Mexico has had almost no economic incentives for environmental compliance. All three countries have varying levels of enforcement and success in dealing with pollution and natural resources issues. As a result of the injection of environmental protection issues into the debate over NAFTA, during the last five years the three nations have embarked upon a joint effort to deal with environmental issues. Included in this rather young collaboration are environmental protections that are integrated directly into the NAFTA trade agreement, and the creation of three new institutions to deal with environmental problems.

In an interesting way, concern over international competition was the major motivation behind the environmental components of NAFTA. The perception that Mexico would have an unfair trade advantage from lax environmental enforcement became the vehicle for the inclusion of environmental protections in the agreement.

As early as May 1991, the Bush administration announced (in what became known as the May 1st Commitments) that the U.S. Trade Representative (USITR) would review U.S.-Mexican environmental issues and that NAFTA would be negotiated in a way that would pro-

Table 2: Environmental Provisions of NAFTA

<p>NAFTA is the first trade agreement that contains provisions to deal with the environmental issues that arise in the context of trade relations and disputes:</p> <ol style="list-style-type: none">1. NAFTA protects certain multilateral environmental agreements from trade challenge (art. 104).2. NAFTA prohibits reducing environmental standards to attract investment (arts. 104, 906[2], and 1114).3. NAFTA sets general, multilateral rules on Sanitary and Phytosanitary Measures (SPSs) and other Standards Related Measures (SRMs) (arts. 712, 902, and 904).4. NAFTA promotes the upward harmonization of environmental policies and standards (arts. 713, 714, 905, and 906).5. NAFTA provides for improved consideration of environmental issues in its trade dispute resolution procedures (arts. 723 and 914).
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tect U.S. federal and state environmental laws and regulations as well as certain international environmental agreements. Most of the U.S. government reports issued as a result of the USIR review asserted that while Mexico had severe environmental problems, it had good laws. All that Mexico needed was greater efforts in the enforcement area, since its current efforts were hampered by a general lack of resources, which would be provided when NAFTA's impact on the Mexican economy was felt. The problem was that the answer was circular and did not deal with the potential environmental impacts of NAFTA's trade and investment liberalization. Instead, the trade negotiators relied upon the argument of some economists that as income rises so does the concern for and spending on environmental issues. Thus, as shown in Table 2, the environmental provisions within NAFTA are important, but not extensive.

The NAFTA regime also has two parallel agreements dedicated to environmental issues. During the 1992 U.S. presidential campaign, there remained a question of whether then-candidate Clinton would support NAFTA or not. In a speech at the University of North Carolina, he announced that he would support it, but only if substantial protections for the environment and labor were incorporated into the

Table 3: The New NAFTA Environmental Institutions

<p>The three new NAFTA environmental institutions are the Commission for Environmental Cooperation (a trilateral body), the Border Environment Cooperation Commission, and the North American Development Bank (the latter are U.S.-Mexico bilateral institutions)</p>
<ol style="list-style-type: none"> 1. The Commission for Environmental Cooperation (CEC) is headquartered in Montréal, Québec, Canada. The focus of the CEC is conflict resolution, the harmonization of environmental laws to avoid conflicts, and cooperation in the enforcement of current laws. The CEC will also review submissions from nongovernmental organizations and individuals who assert that a party to NAFTA is failing to effectively enforce its environmental laws. 2. The Border Environment Cooperation Commission (BECC), with headquarters in Ciudad Juárez, Chihuahua, Mexico, assists local communities and other sponsors in developing and implementing environmental infrastructure projects, and certifies projects for North American Development Bank financing. 3. The North American Development Bank (NADBank), with headquarters in San Antonio, Texas, is capitalized in equal shares by the United States and Mexico to provide \$3 billion in new financing to supplement existing sources of funds and leverage the expanded participation of private capital.

agreement. When it became clear that no one wanted to reopen the NAFTA negotiations, the decision was made to use parallel or side agreements. Ultimately, because support for NAFTA was very low, negotiators were forced to seriously consider environmental issues to gain more votes in Congress. As a result, as outlined in Table 3, three new environmentally focused institutions were created.

Most importantly, a close reading of the two side agreements shows that environmental protection is secondary to trade interests. One goal of trade liberalization is to create a level playing field in which competition can be made more pure. Thus, there is an emphasis, even in these side agreements, on harmonization of environmental laws, cooperation among NAFTA parties, resolution of accusations of lax enforcement, and provision for environmental infrastructure to support the trade structures. Only the Border Environment Cooperation Commission (BECC) and the North American Development Bank (NADBank) agreement deals with cleaning up the environmental damage caused by pre-existing border free trade and industrial zones. In other words, this may be the only part of the NAFTA regime that addresses the environment directly rather than as an element of trade policy.

POLITICAL, SOCIAL, AND ECONOMIC CONTEXTS OF THE BORDER REGION

The U.S.-Mexican border is a unique place with distinctive legal, cultural, political, and structural systems on each side of the border, and it is often interestingly at odds with the federal governments of each nation. Regardless, there are clearly shared ecosystem problems.

Political and Administrative Context

The border area includes two countries that speak two different languages and that have two different legal and political systems. In addition, there are few direct governmental and administrative counterparts across the border. One of the reasons for this is the fact that Mexico is highly centralized. However, four U.S. and six Mexican states meet at the border, and there are numerous Indian tribes with their own governing bodies and their own political and legal systems. As well, there are many local, urban, and rural communities; industrial areas; and protected natural areas. The border zone, as defined in the La Paz Agreement, does not follow the shape of watersheds or ecosystems. In fact, the border itself divides many watersheds, ecosystems, and migratory species corridors.

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Cooperation is increasing at the federal and local levels and in the private and NGO sectors; recently, state-to-state cooperation has also been improving. Mexico has begun to delegate some authority to states, which, in turn, have begun to address border environmental issues jointly with their neighbors to the north. The states have been increasingly included in broader border efforts such as the Border XXI workgroups.³ Border Indian tribes were the last governmental entities to be included in border environmental protection and restoration efforts; however, the focus on their needs and their participation is now increasing.

Population and Poverty

The border area suffers from the impact of immigration patterns that reflect the gap between the developed and the developing world. As a result, the border region constitutes the most rapidly growing region of North America (its population in 1960 was one million; today, it is over 12 million). And, although growth rate numbers are highly politicized, it is expected that they will double by the year 2010. Due to this growth, border communities find it impossible to keep up with growth and to provide adequate infrastructure.

A large percentage of the population particularly south of the border lives in poverty (alongside great wealth) and because of the well-established linkage between poverty and environmental degradation there is clear reason for alarm. Population growth combined with the poverty problem and the lack of government enforcement have produced squatter housing on hillsides, in parks, and in designated conservation areas. For example, the San Diego-Tijuana region is one of the fastest growing urban areas in the world. The combined population in the region is well over three million and Tijuana alone has an estimated population of between one and two million. The municipal authorities in Tijuana admit to being behind in the provision of basic infrastructure such as water supply and sewerage by over 75 percent. At a projected growth rate of over 6 percent per year, it can be expected that the population will double by 2010.

Economic Characteristics

The border region still faces significant economic challenges: city and state governments on both sides of the border (but especially in Mexico) often lack the basic resources and information needed to address environmental issues; there is an increasing gap between the rich and the poor; there has been significant job creation in the

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maquiladora and other industry for a number of decades; and with NAFTA, the economic linkages across the border have grown and intensified.

With the exception of San Diego, economic conditions in the United States get worse as one gets closer to the border: unemployment rates increase and income levels decrease. And, although many in the United States may find it surprising, Northern Mexico is among the wealthiest regions of Mexico. What is apparent is this region's extremely poor income distribution. However, the greatest contrast is often from one side of the border to the other. It is also important to

Table 4: Environmental Problems

Environmental Categories	Border Specifics
Water Quantity	<p>Communities and states fight over the scarce water supplies and other natural resources.</p> <p>At current growth and consumption rates, the water supply for many border communities is expected to be exhausted in 20 to 30 years.</p> <p>Groundwater is significantly contaminated, aquifers are being depleted, and the supply of fresh water cannot meet demand.</p> <p>There is a lack of proper water conservation, reclamation, and prioritization of uses.</p> <p>There has been a history of excessive and ill-planned diversion/diminution of natural water flows.</p>
Water Quality	<p>Many rivers have become contaminated. There is a related great (and increasing) need for municipal wastewater and industrial pretreatment.</p> <p>There are some U.S. failures to upgrade and maintain wastewater treatment systems.</p> <p>Meanwhile, the Mexican side has struggled for over fifty years to provide sewage collection and treatment facilities for its exploding urban population.</p> <p>There is extensive urban runoff, nonpoint pollution, as well as runoff from the use of agricultural chemicals and pesticides.</p> <p>As a result of irrigation, many water sources are showing increased salinity.</p> <p>There has been extensive dumping of heavy metals and toxic chemicals in water.</p>
Other Waste Problems (land-based pollution)	<p>There has been extensive dumping of heavy metals and toxic chemicals on land.</p> <p>Only a portion of this waste is disposed of properly. There</p>

Table 4 Continued

	<p>has been lax enforcement of Mexican environmental laws regarding dumping.</p> <p>There are increased conflicts regarding the siting of nuclear waste dumps (e.g., Sierra Blanca).</p> <p>There is evidence of illegal dumping on Indian reservations.</p> <p>There are increased conflicts regarding siting of dumps, waste treatment, or other operations in minority neighborhoods.</p> <p>There are missed opportunities for recycling of maquiladora waste and byproducts.</p>
Air pollution	<p>Air quality is being harmed by power generation in Mexico that does not use state-of-the-art production methods.</p> <p>Long distance transport of air pollution.</p> <p>The management of the El Paso-Ciudad Juárez airshed basin has become crucial.</p> <p>There has been lax enforcement of Mexican environmental laws regarding air pollution.</p> <p>Air pollution is partly the result of deforestation.</p>
Climate Change Induced Problems	<p>Increasing inland droughts, particularly in the southwestern United States and northwestern Mexico.</p> <p>There is an increase in violent coastal storms with greater precipitation.</p> <p>Need for crop changes, to compensate for precipitation increases or decreases according to area climate changes.</p> <p>Impact on forests and other terrestrial natural resources.</p> <p>Impact on ocean fisheries—warmer water affects migration patterns.</p> <p>Policy problem due to broad ignorance resulting in recalcitrance.⁴</p>
Ecosystem/Habitat Destruction	<p>There has been extensive alteration of natural systems, including the coastal habitat and the diversion of rivers.</p> <p>Improper attention has been paid to the location and size of ports of entry.</p> <p>There has been construction in alluvial areas.</p> <p>There is serious urban sprawl in many communities.</p> <p>Forestry firms are moving into Mexico from Canada and the United States to avoid barriers to timber production. Risk of loss of Mexico's remaining forests.</p> <p>Significant areas of the United States are already deforested.</p> <p>Deforestation causes loss of habitat for birds and other</p>

Table 4 Continued

	<p>restrial species; soil erosion, causing siltation of streams (with recent endangered species listing of salmon as a result); and air pollution due to loss of carbon sinks. Habitat destruction causes in-migration and immigration and political instability.</p> <p>There has been overuse of the environment as a sink for pollutants—uncontrolled dumping on land, in rivers, and in to the surf—resulting in habitat deterioration.</p>
<p>Threats to Biodiversity</p>	<p>The United States and Mexico are host to many endangered plants and animals.⁵</p> <p>There has been little funding in Mexico to administer natural protected areas.⁶</p> <p>There has been lax protection of already designated conservation areas.⁷</p> <p>There are conflicts over protection of shared migratory species and their habitats.</p> <p>The border region contains many parks, which may need protection from encroachment by urban sprawl.⁸</p> <p>There are serious binational and tribal issues to be addressed concerning the Salton Sea and the ecosystem health of the lower Colorado basin and the upper Gulf of California.</p> <p>There is increased use of hormonal disrupters for pest control.</p> <p>There is evidence of bioaccumulation of toxins in plants and animals.</p> <p>The introduction of monoculture crops increases catastrophic failure risks.</p>

note that all Indian tribes were left out of NAFTA and its side agreements

ENVIRONMENTAL PROBLEMS IN THE BORDER REGION

There are many environmental problems to be addressed in the border region, including air, water, and land-based pollution; overconsumption of water and other natural resources; deforestation; loss of biodiversity; and increasing trade and exploitation of endemic species. While some problems are localized, many, if not most, are transboundary in nature. The main causes are interlinked. With the growth of urban populations and domestic manufacturing and associated activities, and with the expansion of the maquiladora industry,

there has been a great increase in industrial waste and pollutants. Table 4 reviews a summary of the problems more specifically.

Clearly, the environmental conditions in the U.S.-Mexican border region are worse now than they were when NAFTA started. This is partly because the three NAFTA environmental institutions have not yet had sufficient time to remedy the environmental problems. And, while they have been gearing up, staffing up, and writing their policies and procedures, the environment has continued to deteriorate. In the future, more of the same can be expected. Things are going to get far worse before they get any better. While not necessarily applicable to every location, Table 4 lists a number of the crucial environmental issues that constitute the border region's needs. All these needs are obviously interrelated, and yet the mandates of the NAFTA environmental institutions do not address them all.

In the border region, ultimately fundamental structural problems must be addressed. Activities are carried out with unsustainable assumptions and trends built into the economic structure, such as ever-expanding consumption, or lack of political will to reverse perverse subsidies.⁹ There is an almost complete lack of long-range planning, certainly a complete lack of ecosystem planning, and very little watershed analysis and management. Among other consequences, there is the risk of political instability through a failure to address degradation of fragile ecosystems, as happened in Chiapas.

Contemporary activities in the border region include new construction of endless housing developments, paving over habitats; constructing new highways with limited attention paid to public transportation or to urban sprawl; and initiating new economic developments that are added without regard to the future, to the impact on natural resources, or to the cumulative impact on human health. Finally, developers, prevented from undertaking some new projects in the United States, are now expanding their building and paving to Mexico (which had previously been somewhat protected by limitations on foreign investment and especially by land ownership restrictions for foreigners along the coastlines and in the border region). All this development occurs amid shortfalls in financing for environmental infrastructure.

ENVIRONMENTAL PROGRAMS AND INSTITUTIONS

International Boundary and Water Commission (IBWC)

With antecedents in the 1889 International Boundary Commission, which was given some responsibilities regarding water in the 1930s, the IBWC known as the Comisión Internacional de Límites y Aguas

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(CILA) in Mexico was established by the 1944 Water Treaty. It is the principal binational agency with authority over territorial limits, water allocation, wastewater treatment, sanitation, and water quality. Its chief activities involve planning, construction, and operation of several wastewater treatment plants on both sides of the border.

The institutional arrangement just described has been questioned by many border scholars and activists who criticize the IBWC for its inability to act as an independent border institution, and for the lack of transparency in its decision-making processes. The IBWC is infamous for being an old-fashioned, engineering driven institution that focuses on large, capital-intensive brick and mortar projects. The IBWC has also been criticized for being too slow and too bureaucratic and for being a nonpublic oriented institution. To make matters worse, the IBWC's many proposals for border projects have frequently not been given funding in Washington D.C. or Mexico City. For example, despite the pressures on existing wastewater treatment systems from growing population, the IBWC only added 15 or 16 new wastewater treatment facilities in the past 53 years (depending on how you count its Rio Grande management projects).

Table 5: IBWC/CILA International Joint Projects

Location	Project Type	Comment
San Diego, California	Wastewater infrastructure to handle sewage from Tijuana	Minute No. 283
Tijuana, Baja California	Channelization of the transboundary Tijuana River	Minute No. 258. Unfortunately, it is now known that this and other flood control measures tend to speed flow and do harm downriver.
Mexicali, Baja California	Facility planning for the New River Project	Minute No. 294
Calexico, California	Delivery of water to Mexico in compliance with salinity standards	1944 Water Treaty
Yuma, Arizona	Flood control and boundary river stabilization	1944 and 1970 Treaties
Nogales, Sonora, and Nogales, Arizona	Binational wastewater treatment facility	Minute No. 276

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Table 5 Continued

El Paso, Texas and Ciudad Juárez, Chihuahua	Delivery of Rio Grande waters for use in the Juárez valley, and construction of the American Canal extension to improve Rio Grande water conveyance	Convention of 1906. Associated channelization in 1936.
Ciudad Juárez, Chihuahua	Bridge of the Americas replacement	Minute No. 290 and the Chamizal Treaty of 1963. Not an environmental infrastructure project
Rio Grande	River channelization and boundary rectification	Convention of 1933
Rio Grande	River channelization to resolve boundary dispute	1970 Boundary Treaty
Rio Grande	Hydrographic program for measuring and accounting for national ownership of waters	1944 Water Treaty
Del Rio, Texas	Amistad Dam and Reservoir to enhance utilization and control of binational waters	1944 Water Treaty
Nuevo Laredo, Tamaulipas	Binational wastewater treatment plant	Minute No. 279
Rio Grande	Falcon Dam and Reservoir to enhance utilization and control of binational waters	1944 Water Treaty
Lower Rio Grande	Flood Control Project	1944 Water Treaty

Source: IBWC, Two Countries, Their Borders and Their Waters (IBWC: El Paso, 1996), 56.

Table 6: IBWC/CLA Quick Fix Project Examples

Location	Project Type	Comment
Mexicali, Baja California	Water quality improvement for the New River	Completed December 1998 for \$12.80 million
Nogales, Arizona, and Nogales, Sonora	Water quality improvement for the Nogales Arroyo	Completed in early 1999 for \$2.10 million

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With regard to border environmental infrastructure, the IBWC has completed a number of projects in its over fifty-year history. An examination of the total list of IBWC projects, however, reveals that only a few constitute real environmental infrastructure. If items such as bridges and the various flood control projects are eliminated from the list, then there are not many truly environmental infrastructure projects. Obviously, IBWC cannot be blamed for this. It has other duties in its portfolio, and its recommendations for infrastructure have not always been followed by Congress. In addition to water quality and sewerage/sanitation, the IBWC portfolio includes nonenvironmental tasks such as boundary settlement and maintenance; water gauging, monitoring, and apportionment; and water storage and flood control. Evidently, some of these tasks may relate to the environment in direct and indirect ways. As some examples of the IBWC's work, 15 joint international projects are listed in Table 5.

Fortunately, the slow movement of the IBWC and its lack of focus on environmental infrastructure are changing. To show this, Table 6 lists the two projects of the quick fixes program (Minute No. 294) worth \$14 million. Also, Minute No. 294 contemplates an additional five projects through the year 2001.

In the future, the IBWC/CILA will either take the lead, exercising its unused authority; or it will move into a strong support role. Its support role might make the best use of its qualities and resources, which include its engineering capabilities and its role in crafting the form of binational agreements known as minutes. The IBWC/CILA can be expected to take a more active role in water resource management including regional water planning for surface and groundwater. This might include leadership in promoting the negotiation of a groundwater treaty.

In order to advance in addressing border environmental needs, there must be a greater clarification of the IBWC/CILA role in relation to the BECC-NADBank institutions. The IBWC/CILA must adopt its own policies related to sustainable development and public participation that are consistent with those of the BECC. In this way, sustainability of border environmental infrastructure projects will be increased regardless of who builds them. To help accomplish this, the IBWC/CILA need to hire new engineers who are well grounded in alternative technologies and cost reduction methodologies such as value engineering. The IBWC/CILA need to become more binational in their operations. One of the dramatic steps taken with the BECC-NADBank institutions was to make them wholly binational with bilingual, bicultural staffs.

The 1983 La Paz Agreement

The Agreement Between the United States and Mexico for the Protection and Improvement of the Environment in the Border Area, signed by Presidents Ronald Reagan and Miguel de la Madrid in 1983, established a framework for cooperation on specific environmental pollution problems. The U.S. EPA and Mexico's SEMARNAP act as the national coordinators of efforts to find and implement solutions to border environmental problems, in particular to prevent, reduce, and eliminate sources of air, water, and land pollution. Formal workgroups, comprised of federally appointed governmental and academic experts, target their policy recommendations toward water, air, contingency planning and emergency response, hazardous waste, enforcement cooperation, and pollution prevention.¹⁰ These workgroups have had varying degrees of success. For the most part, they are not sufficiently transparent, participatory, intermedia, or interdisciplinary in focus. Because the La Paz Agreement lacks any formal avenue into national policies, critics see it as more symbolic than practical. Despite its informal nature, the La Paz Agreement is regarded as the basis for binational cooperation on a variety of regional environmental issues.

Integrated Border Environment Plan (IBEP) 1992 1994

The IBEP was the first binational federal initiative created under the assumption that increased trade liberalization would create additional stress for the environment and human health along the border. The plan was released in February 1992, amid the environmental politics of the NAFTA negotiations. It proposed strengthening enforcement of environmental laws, increased cooperative planning, completion of expansion of wastewater treatment facilities, and the development of a computer tracking system on the transboundary movement of hazardous wastes. But because the IBEP lacked any implementation plan or resource commitment, it was widely criticized as nothing more than a plan to plan. There was also the concern that the plan's policies were dictated by the federal capitals, rather than by the border region. Despite these criticisms, a recent study of the IBEP indicates many of its programs and activities have proceeded and proved useful for the border communities.¹¹

Good Neighbor Environmental Board

The Good Neighbor Environmental Board was created by the Enterprise for the American Initiative Act of 1992 to advise the president and Congress concerning environmental and infrastructure issues and needs within the states contiguous to Mexico. The Act requires that board membership include representatives from appropriate U.S. government agencies; from the governments of Arizona, California, New Mexico, and Texas; and from private organizations, including community development, academic, health, environmental, and other nongovernmental entities with expertise on environmental and infrastructure problems along the southwest border. At present, there is also one tribal representative on the board. A Presidential Executive Order delegates implementation authority to the U.S. Environmental Protection Agency. The board has a goal to meet three times annually at locations along the U.S.-Mexican border, and has met 11 times at various border locations since its inception.

The board has submitted a total of three annual reports and while the Border XXI workgroups and other border institutions have implemented many of its recommendations, it is not well known within the federal legislature. To be more successful, the board needs to assert its role as an advisor to the executive and legislative branches of government, urging each of them to take a more holistic approach to border environmental issues and to target the most long-term solutions possible.

NAFTA

It is probably too early to tell what NAFTA's impact on border environmental infrastructure, or border infrastructure in general, will be. However, it is clearly going to have a significant impact on pollution from manufacturing, energy, and transportation sectors. NAFTA is the first trade agreement that contains provisions to deal with environmental issues that arise in the context of trade relations and disputes:

The text of the agreement includes explicit references to environmental and health standards and goals. The preamble contains a commitment to sustainable development and to the preservation and protection of the environment, and specific provisions appear in four chapters: sanitary and phytosanitary measures (Chapter 7b), measures related to standards (Chapter 9), investments (Chapter 11), and settlement of disputes

(Chapter 20). In brief, the purpose of these provisions is to ensure (a) the integrity of the signatories' internal systems of environmental regulations, (b) the implementation of efforts tending to improve standards, (c) the ecologically sensitive settlement of disputes related to environmental measures, (d) the protection of the trade provisions of international agreements, and (e) the avoidance of external investments that could allow the creation of pollution havens.¹²

Border XXI

The Border XXI Program is an innovative binational effort that brings together the diverse U.S. and Mexican federal entities responsible for the shared border environment to work cooperatively toward sustainable development through protection of human health and the environment and proper management of natural resources in both countries. It is the follow-up program to the IIEP.

Regardless of where they originate, border environmental problems significantly impact communities and ecosystems on both sides of the border. Border XXI respects the sovereign rights of the United States and Mexico to manage their own resources according to their own policies, ensuring that such activities do not cause damage to the environment of the neighboring country.

The principal goal of Border XXI is to promote sustainable development in the border region by seeking a balance among social and economic factors and environmental protection in border communities and natural areas. The central strategy of Border XXI consists of three components: public involvement; decentralization of environmental management through state and local capacity building; and improved communication and cooperation among federal, state, tribal, and local government agencies. Given this goal and the central strategy, Border XXI, a product of significant public input, defines five-year objectives for the border environment and describes mechanisms for fulfilling those objectives. The success of Border XXI is contingent upon broad-based binational participation by federal, state, and local governments; Indian tribes; international institutions; academic, nongovernmental organizations; the private sector; and border citizens and communities.

Nine binational Border XXI workgroups implement the program by integrating the efforts of participating entities and defining specific projects to meet Border XXI objectives. Each workgroup operates under the guidance of a U.S. and Mexican co-chairperson. The workgroups ensure effective coordination of bilateral efforts by bringing

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together federal agencies from both countries with interests in a given issue.

There are a number of projects being carried out under the umbrellas of each of the nine workgroups (the projects are listed in the 1998 Implementation Plans). The following is one project in which there has been significant local input and feedback to governmental officials.

Joint Advisory Committee

The Joint Advisory Committee is a panel of governmental and non-governmental stakeholders. The committee is to advise and provide recommendations to the Air Workgroup, which is devising a binational strategy to improve air quality in the El Paso, Ciudad Juárez, and Sunland Park air basin under Annex V of the La Paz Agreement.

The JAC has made a series of recommendations to the Air Work Group to reduce emissions throughout the air shed. The Joint Advisory Committee also acts as a liaison among federal agencies, state agencies, and the community to develop solutions to pernicious air quality problems.

The JAC has recommended that the Air Work Group take actions on oxygenated fuel, vehicle inspection and maintenance programs, and the use of supplemental environmental projects. The JAC has held five meetings to date, and is now drafting a strategic plan to guide the activities of the JAC in selecting recommendations for the Air Work Group. The Air Work Group, in designing a comprehensive air quality improvement plan, would also use the strategic plan.

Because Border XXI is the result of the La Paz Agreement, which was signed by the president of each country in 1983, it is likely that Border XXI or a similar successor will continue to exist in some form to serve as a coordinating mechanism for the two countries. As Border XXI continues to emphasize transparency to the public as well as to tribal, state, and local governments, there will be more participation by those governments and from nongovernmental organizations and the private sector in the workgroup process. This, most likely, will mean a lengthier decision-making process. If decentralization continues in Mexico so that the Mexican state and local governments have greater decision-making capability, there will be more state-to-state collaboration on local regional projects. Collaboration between Baja California and California in the area of wastewater treatment and water supply already exists. The federal governments will need to learn to play a different role in this decision-making paradigm.

To make Border XXI function well, there must be a commitment to greater resources from all sectors of government (i.e., federal, tribal,

state, and local) as well as greater coordination among these levels of government. All concerned need to work toward the increased participation by the private sector. Those involved in Border XXI should do more to plan ahead and become proactive. Unlike BECC-NAD-Bank or IBWC, which build infrastructure, the Border XXI workgroups can provide some long-term vision for the border. They are not required to be reactive and should not fall into that trap. In this way, they may achieve greater incorporation of sustainable development policies in planning and implementing border region projects

The Border Environment Cooperation Commission and the North American Development Bank

The debate over NAFTA worked to bring further attention to North American environmental problems. The seriousness of the U.S.-Mexican border region's environmental crisis, coupled with concerns about increasing environmental degradation under the NAFTA, pointed to the need for immediate action to address the situation. Thus, in November 1993, the governments of Mexico and the United States formally agreed on institutional arrangements to assist communities on both sides of the border in coordinating and carrying out environmental infrastructure projects.¹³ This agreement furthers the goals of the environmental side agreement to promote growth along the border while reducing negative environmental impacts

In the November 1993 agreement, the governments established two separate institutions:

1. The Border Environment Cooperation Commission (BECC) with headquarters in Ciudad Juárez, Chihuahua, to assist local communities and other sponsors in developing and implementing environmental infrastructure projects, and to certify projects for North American Development Bank financing. BECC is augmented by \$10 million in grant funds from EPA for its Project Development Assistance Program (PDAP).
1. The North American Development Bank (NADBank) with headquarters in San Antonio, Texas, capitalized in equal shares by the United States and Mexico, to provide \$3 billion in new financing to supplement existing sources of funds and leverage the expanded participation of private capital.¹⁴ The NADBank was augmented in 1997 by the creation of the Border Environmental Infrastructure Fund (BEIF), which can provide grants for water and wastewater projects. The BEIF started with about \$170 million available, much of which has now been allocated to projects. The NADBank has also established

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an Institutional Development Program (IDP) primarily for utility capacity building.¹⁵ IDP has \$4 million available to give as grants. NADBank made its first BEIF grant recommendations in March 1998, and IDP is currently active in 71 projects in 56 communities.¹⁶

The BECC and the NADBank must work with states and local communities, private investors, and nongovernmental organizations in developing effective solutions to environmental problems in the border region, giving preference to projects involving water pollution prevention, wastewater treatment, municipal solid waste disposal, and related projects. In other words, the BECC and NADBank structures are intended to provide public goods. Those affected by the construction of these projects are often the poorest border communities that must function without these basic services. It has been established over and over again that public works, such as those proposed to be financed by the NADBank, are exactly the type of infrastructure that helps to reduce poverty. The NADBank is supposed to provide these public goods with few grants, as it is primarily a self-supporting lending institution.

The BECC-NADBank structure shatters many precedents. It is a balanced structure, with equal financial support from, and equal votes for, the United States and Mexico. The BECC-NADBank represents the first instance of the United States sharing equal decision-making and spending power. The United States has normally maintained an upper hand in development banks by tying its larger contributions to equally larger voting rights.

By design, these entities are balanced, evenhanded, binational, and equal membership organizations and, by promise, they will have sufficient funding to meet their mandates. Those who worked on the creation of the NAFTA environmental institutions were concerned that they would not repeat the mistakes of the past. First, the BECC was made separate to avoid being driven by financial considerations only. Second, the NADBank was limited to only financing projects certified by the BECC to assure that only sustainable development projects were financed. Sustainable development concepts require that [d]evelopment today must not undermine the development of present and future generations.¹⁷ This means that BECC-NADBank projects must not adversely harm the environment or local culture. At the same time, the projects must improve the quality of life for those living on the border.¹⁸

The BECC has a binational board of directors with 10 members, five from each country, and decision-making procedures structured to

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ensure that the views of states, local communities, and members of the public are taken into account. Unfortunately, Indian tribes are not represented on this board. The commission is required to consult with an advisory council of 18 members, nine from each country. A general manager, a deputy general manager, other officers, and a small staff manage the BECC. The number of employees is about eighteen.

Table 7: BECC Certification Criteria

Criteria	Brief Description of Requirements
Human Health and Environment	<ul style="list-style-type: none"> • human health and environmental need • environmental assessment • compliance with applicable environmental and cultural resource laws
Technical	<ul style="list-style-type: none"> • appropriate technology • operation and maintenance plan • compliance with applicable design regulations and standards
Financial and Project Management	<ul style="list-style-type: none"> • financial feasibility • fee/rate models • sound project management
Community Participation	<ul style="list-style-type: none"> • comprehensive community participation plan, including steering committee and public meetings to guarantee local community support
Sustainable Development	<ul style="list-style-type: none"> • compliance with principles of sustainable development • institutional and human capacity building • natural resource conservation • community development

Source: BECC News, June 1997, 4.

Note: For a more detailed information regarding these descriptions and see <<http://www.cocef.org>>.

Each country contributes an equal share of the operating budget of the commission.

There are two levels for the role of civil society in the BECC-NAD-Bank structure, including NGOs: first, in the creation of the institutions and, second, in the implementation of the institutions. The BECC-NADBank agreement was negotiated in a very short time frame. The Clinton administration called upon a small number of national environmental groups to help it design a way to pay for the environmental clean up along the border and thus quiet a few more critics of the NAFTA. The original concept for the NADBank can be found in the

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work of Raul Hinojosa and Carlos Melcher, who had proposed such a bank for broad-based economic development focused on the integration of the economies of the three NAFTA countries. To a certain degree, the environmental community hijacked this concept and redirected it to finance the construction of badly needed environmental infrastructure along the border. Some of the original concept can still be seen in the so-called domestic window of the NADBank, which will make use of 10 percent of its funds to provide adjustment compensation to communities adversely impacted by the trade agreement.

During the implementation phase, the BECC has established procedures for public participation, including written notice of the oppor-

Table 8: BECC NADBank Border Environmental Infrastructure Project Status

Location	Project Type	Cost
Completed		
Tamaulipas (FINSA)	Wastewater Treatment Certified 1/18/96	\$1 million
In Construction		
Mercedes, Texas	Water and Wastewater Expansion Certified 11/9/96	\$4.1 million
El Paso County, Texas	Self-Help Septic Tank System Certified 7/18/96	\$213,000
El Paso, Texas	Wastewater Reclamation Certified 11/15/95	\$11.7 million
Alton, Texas	Wastewater collection Certified 6/18/97	\$14.8 million
Douglas, Arizona	Water and Wastewater Upgrade Certified 1/18/96	\$2 million
Brawley, California	Water Treatment Plant Certified 9/28/95	\$25 million
Nogales, Sonora	Water Supply (Phase I) Certified 1/18/96	\$39 million
Agua Prieta, Sonora	Municipal Sanitary Landfill Certified 11/9/96	\$1.9 million
Naco, Sonora	Water and Wastewater Certified 4/30/96	\$1.03 million
Mexicali, Baja California	Wastewater Treatment Certified 12/5/97	\$50.4 million
Cd. Juárez, Chihuahua	Wastewater Treatment Plants Certified 9/30/97	\$30 million
San Diego, California	South Bay Reclamation Plant Certified 6/18/97	\$99.6 million

Table 8 Continued

Donna, Texas	Water and Wastewater Project Certified 6/24/98	\$21.2 million
El Paso, Texas	Water and Sewage System for the Lower Valley Water District Certified 6/24/98	\$98.3 million
Construction Not Started		
Somerton, Arizona	Wastewater Treatment Certified 11/9/96	\$1.5 million
Tijuana, Baja California	Parallel Conveyance System and Rehabilitation of Wastewater Treatment Plant Certified 6/18/97	\$18 million
Tijuana, Baja California	Ecoparque Certified 6/18/97	\$170,000
El Paso, Texas	Water Treatment Expansion Certified 12/5/97	\$37.8 million
Reynosa, Tamaulipas	Comprehensive Sanitation Certified 3/31/98	\$82.9 million
Del Rio, Texas* <small>*construction start date was delayed by severe flooding</small>	Water Treatment Certified 3/31/98	\$40.2 million
Puerto Peñasco, Sonora	Sanitary Landfill Certified 11/9/96	\$1.7 million
Calexico, California	Potable Water Project Certified 6/24/98	\$11.3 million
Projects To Be Redefined		
Ensenada, Baja California	Wastewater Treatment Certified 9/28/95	\$8 million

tunity to comment on general guidelines and on applications for certification of projects. The BECC's and the NADBank's annual reports have been made available to the public. The BECC board of directors holds public meetings each quarter. Interestingly, during the implementation phase the larger national environmental groups that were instrumental in creating the institutions have been replaced by more local environmental and development-oriented NGOs and individuals for whom issues related to the border are the primary focus. Only an informed public can effectively participate in public consultations. Thus, education is key and should be pursued vigorously on both sides of the border.

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The NADBank was not designed with community outreach in mind. It lacks the structure and mission to accomplish this. In part because of this design, it relies upon the BECC's public consultation process.

In the BECC's area of responsibility, there should be community outreach at three key levels. First, the project proponent (e.g., a public utility) should consult the public in reaching a needs assessment before developing a project. One element of the environmental assessment process involves public access to information and participation in a meaningful way to consider alternatives before development decisions proceed. Second, the BECC's required public steering committees should be involved in design consultation, solutions evaluations, and the development of a true local, public outreach program. Third, there should be, through the BECC's public meetings, a broader public consultation of border-wide interests. This process should offset any local tunnel vision, or unfair results. This third level should also promote alternative solutions and technologies.

The NADBank needs to think in terms of transparent decision making in order to improve and maintain its credibility. In addition, public consultation is important to the NADBank's role in regard to its programs and policies. The NADBank should consult the public as it develops any new policies and programs or makes any key decisions in which the public has a vital interest. This is especially true of any distribution decisions regarding grant funds administered by the NADBank such as its IDP and BEIF funds. However, public consultation may also come into play in post-BECC certification communications. For example, the public should be consulted when a project has to be changed if financing viability depends upon it (the NADBank would probably need to take responsibility for this if the change falls short of a redesign that would trigger a new BECC certification review).

Through these mechanisms the BECC-NADBank institutions have fostered greater cooperation, increased public participation, hastened democratic processes (particularly in Mexico), developed sustainable development criteria, promoted value engineering, created a volunteer high-level sustainable development program, and, together with SCERP, are about to undertake a borderwide needs assessment.

The BECC evaluates and certifies environmental infrastructure projects according to certain criteria. To be certified by the board of directors, project sponsors must comply with general standards in several areas, including: (1) environment and human health, (2) technical feasibility, (3) financial feasibility, (4) community participation,

and (5) sustainable development. These criteria are described in Table 7 in more detail.

These criteria, if strictly applied, will ensure real, long-term solutions to many environmental problems in the border region. Meanwhile, NADBank has issued its fundamental documents, including its Loan and Guaranty Policies and Operational Procedures.

Over one hundred projects have been submitted to the BECC for consideration. Of these, approximately thirty percent do not qualify because they are not in the border zone, or do not fall within the BECC-NADBank's three programmatic areas. Other qualified project proposals are not yet ready for certification because they require additional technical assistance to meet both BECC and NADBank standards.

To date, 24 projects have been certified with a combined estimated cost of nearly \$600 million dollars. The NADBank has authorized loans, guarantees, and/or grants totaling \$105 million and has leveraged over \$400 million in total financing for 15 projects. Fourteen of these projects are under construction, and one has been completed. When complete, these projects will provide at least some benefit to

Table 9: Environmental Dispute Resolution, Enforcement, and Sanctions

<p>It was the areas of dispute resolution, enforcement of environmental laws, and sanctions for noncompliance with the side agreement into which the major environmental groups (which in the end supported NAFTA) poured their resources. Led by the Natural Resources Defense Council and the Environmental Defense Fund, two organizations heavily staffed with lawyers, these aspects of the side agreement got the most concerted attention.</p>
<ul style="list-style-type: none"> • Government vs. government. Formal government-to-government disputes regarding lax enforcement of environmental laws and regulations will be resolved through the CEC. Two of the three NAFTA parties must agree to accuse a third party of lax enforcement. The commission will impanel environmental experts to hear each party's arguments. These experts may conduct hearings similar to the trade dispute resolution procedures in the main trade agreement.²¹ This is a groundbreaking development in international law to create a formal mechanism for dispute resolution of purely environmental matters. Historically, few environmental regimes have been designed for purposes of dispute resolution.²² An even more important international law accomplishment is the inclusion of international sanctions or "snap backs" on trade agreement benefits for the punishment of lax enforcement. According to some analysts, the conflict resolution mechanisms are too limited because they are

Table 9 Continued

<p>reached after too many standing and evidentiary hurdles, as well as nonpublic votes by the Commission. However, unlike many other international dispute resolution mechanisms, the CEC dispute resolution process has deadlines for submissions of pleadings and evidence that ensure a relatively short time frame for the resolution of disputes (by international standards).</p>
<ul style="list-style-type: none"> • Private party vs. government. The CEC can also investigate and attempt to resolve complaints of nonenforcement of environmental laws (i.e., the governments will be held accountable for enforcement).²³ Citizens, nongovernmental organizations (NGOs), businesses, and governmental entities can prompt such CEC investigations.²⁴ To reach this groundbreaking development in international law, the negotiators overcame some, but not all, sovereignty concerns. The CEC has no subpoena or police powers to conduct its investigations and must rely on the parties and the public for information. In addition, two of the three NAFTA parties have to agree that a factual record of an investigation should be prepared, and then after the secretariat prepares the record, a two-thirds vote by the council is again required to make it public. This second vote and its potential to limit the CEC's transparency is a rather critical flaw, which, if exercised, would undermine the institution's credibility.
<ul style="list-style-type: none"> • Guarantees for access to justice: private party vs. private party actions. Relying on the tremendous success of third-party litigation in the United States to address pollution problems and natural resources preservation, the environmental groups working with the Clinton administration in drafting the side agreement suggested language requiring the NAFTA parties to guarantee citizen suit rights, and guarantee access to reasonable remedies for environmental harm. The language is intended to ensure a domestic right of action for those who can show an injury from a failure to enforce environmental laws.²⁵

an estimated seven million border residents approximately sixty percent of the border's population.

Some analysts have suggested that Mexico is not getting its fair share of the benefit, given its 50 percent support of the BECC-NAD-Bank institutions. At 13, the U.S. has more projects certified, which are worth more money (\$365.9 million) than does Mexico, with 11 projects costing \$234.1 million. Some information about the projects of the BECC-NADBank is listed in Table 8.

The BECC and the NADBank need to do more to plan ahead. They can use their entry into communities to promote planning, to reduce perverse subsidies, and to have the private sector become more involved. The BECC and the NADBank need to work to eliminate the

unproductive competition among the states for money by easing the bureaucratic process without compromising project criteria standards. The ultimate barrier to the success of these institutions is financial. The reasonable estimates for border environmental infrastructure costs in the three areas of the BECC-NADBank mandate are between \$8 and \$10 billion. At best, the NADBank can only leverage \$1 to \$2 billion. More grant funds for project design, capacity building, planning, and so forth, are crucial.

The North American Commission for Environmental Cooperation

The Commission for Environmental Cooperation (CEC) was formed as part of the NAFTA package that sought to liberalize trade in North America while simultaneously providing some minimal protections for labor and the environment. The CEC is thus an international organization whose members are Canada, Mexico, and the United States. Specifically, the CEC was created in 1994 under the North American Agreement for Environmental Cooperation (NAAEC) to address regional environmental concerns, help prevent potential trade and

Table 10: Independent Review of the CEC

<p>An Independent Review Committee appointed in 1997 by the three environment ministers has presented its report on the operations and effectiveness of the North American Agreement on Environmental Cooperation. The review revealed opportunities for improvement, as well as some notable accomplishments achieved by the commission, such as:</p>
<ul style="list-style-type: none"> • Developing regional action plans for the reduction and elimination of widespread and persistent pollutants (including DDT, PCBs, chlordane, and mercury) to protect public health and the environment.
<ul style="list-style-type: none"> • Providing the public with important regional environmental information. This includes pollutant emissions data shown on a regional basis in the CEC's annual Taking Stock Report, and an on-line comprehensive summary of the environmental law of the three NAFTA partners.
<ul style="list-style-type: none"> • Sharing scientific information on biodiversity among the three parties.
<ul style="list-style-type: none"> • Identifying the cause of waterfowl mortality in the Silva Reservoir in the state of Guanajuato, Mexico, and providing capacity building and planning activities that have assisted the state and federal government in rehabilitation of this important wildlife area.
<ul style="list-style-type: none"> • Establishing an elaborate process of public participation through the JPAC and national advisory committees, as well as public meetings at the council sessions, and with working groups.

Table 10 Continued

<ul style="list-style-type: none"> • Working with the three governments to help develop an open and transparent means of conducting transboundary environmental impact assessments for government projects that may adversely affect the environment of a neighboring NAFTA country.
<ul style="list-style-type: none"> • Promoting cooperation among the environmental enforcement agencies of the three countries by exchanging information on current policies and practices, and by conducting several capacity building and training exercises.
<ul style="list-style-type: none"> • Implementing the innovative public submission procedure empowering citizens to allege that a party to NAFTA is failing to effectively enforce its environmental laws.

Source: CEC Council Joint Communique, Fifth Regular Session of Council, Mexico, 26 June 1998.

environmental conflicts, and to promote the effective enforcement of environmental law. The agreement complements the environmental provisions established in NAFTA, and the work of the CEC can be divided into five main areas:

1. Protecting human health and the environment
2. Enforcement cooperation and law
3. Environmental conservation
4. Environment, trade, and economy
5. Information and public outreach

The stated goal of the Clinton administration in calling for an environmental side agreement was to make sure that the economic growth of the United States, Canada, and Mexico, as a result of the NAFTA, would not come at the expense of the environment. The focus of the environmental side agreement is on conflict resolution, the harmonization of environmental laws to avoid conflicts, and cooperation in the enforcement of current laws. The agreement also provides for the maintenance of a separate independent body to watchdog the environmental law enforcement of the parties. For these reasons, the side agreement will have a significant affect on health and environmental issues in North America.

The CEC is governed by three commissioners. Its secretariat staff carries out the work program of the CEC. This staff also provides technical, administrative, and operational support for the commission and its related committees. The legal staff of the secretariat reviews submissions from nongovernmental organizations and individuals that assert a party to NAFTA is failing to effectively enforce its environmental laws. Finally, the commission is supported by a 15-member Joint Public Advisory Committee (JPAC). The CEC is thus unique

in that it contemplates the United States yielding a significant leadership role in place of a consensus-based decision-making structure at the commission, the secretariat, and the JPAC levels even for dispute resolutions.

Despite the name of the commission, its cooperation role is not given great focus in the side agreement, nor did advocates of the creation of the institution put as much stock in this aspect of its functions as they put into the more litigious functions contemplated by the dispute resolution, citizen petition, and access to justice provisions. Simply stated, the CEC has a cooperative function, that includes face-to-face communications with the three environmental ministers, and tripartite cooperation on the dissemination of information on environmental protection issues, transboundary environmental harm, and natural resources accounting methods.

The CEC works toward harmonization of U.S., Mexican, and Canadian environmental laws. From the standpoint of trade liberalization proponents, this function of the CEC was key. It was to be the means to achieve a level playing field by which trade could be made most easy. Some industrialists went so far as to say that they did not fear stringent environmental laws as long as they were uniform. Without the CEC seeking to harmonize environmental actions, no single country within North America was likely to go ahead on a unilateral basis.

For 1998 through 2001, the CEC has adopted A Shared Agenda for Action, which sets a strategic focus for the commission. It includes two main focus areas. The first is to pursue environmental sustainability in open markets. Under this area, the Commission will work to promote trade in environmentally friendly goods and services and explore the linkages between environment, economy and trade. In addition, the Commission will strengthen its ongoing analytical and cooperative efforts in environmental standards, enforcement, compliance and performance. Second, the three environmental ministers directed that the CEC staff address issues regarding the shared stewardship of the North American environment, including identifying the relationships between emerging economic and environmental trends, protecting human and ecosystem health, and sustaining the biodiversity on the continent. In addition, within the framework of the Kyoto Protocol, the CEC will work with the three nations and the private sector to develop North American opportunities for the Clean Development Mechanism.

The CEC has undertaken a number of border-related activities. Under its Article 13 investigation report authority, the CEC has undertaken to look at the San Pedro River watershed uses and sources of

contamination. Its conservation program's Right of the Californias project will test the CEC's ability to promote binational clean up of nonpoint and point sources of marine pollution and habitat modification in the coastal area near San Diego and Tijuana. The CEC has also been actively involved in the development of a transboundary Environmental Impact Assessment (EIA) agreement. At present, with the exception of BECC-NADBank projects, there is no requirement for a binational impact assessment. This has led to such famous border disputes as Carbon I and Carbon II and Sierra Blanca. As an upcoming exercise using the CEC's dispute resolution procedures for a border issue, the San Diego-based Environmental Health Coalition recently brought an Article 14, Public Submission, regarding the abandoned Metales y Derivados battery recycling facility in Tijuana.

As the result of the resignation of its first general director, the CEC is in a management transition. Significant changes are under consideration to fix management problems. It would be most advisable for the CEC to work toward a structure that increases its independence and thus its credibility. In this way, it can improve its relevance. The CEC should augment its otherwise excellent studies with more applied actions in communities. This might be accomplished by an increase in funding for North American Fund for Environmental Cooperation (NAFEC).

CONCLUSION AND RECOMMENDATIONS

The size of border programs and, thus, the success of these institutions, depends on the politics of trade, of the White House, and of Congress. The border environmental institutions are valuable and offer varying states of promise. However, it should be clear from this reading that they are reactive to problems and are not proactive or preventative in their approaches. Perhaps worse than being reactive, the designs to date either ignore or only indirectly address development decision making, planning/land use, population growth/control, biodiversity, pollution from toxic chemicals, transportation, housing, and indigenous peoples.

The bottom line is that much has been accomplished with the establishment of these institutions. Unfortunately, they are reactive, their relationships to each other are not well defined, they do not address all of the many border environmental problems, and they are still under-funded relative to the needs of the region, given five decades of uncontrolled growth and development.

NOTES

1. Parts of this paper contain excerpts and adaptations from the following prior papers: Mark Spalding, *Border Water Issues: Merging the Californias* (paper prepared for the conference *California Water Policy VIII: Alchemy, Anarchy or Accountability*, Los Angeles, Calif., October 22, 1998); Mark Spalding, *Lessons of NAFTA for APEC*, *Journal of Environment and Development* 6, no. 3 (1997): 252-75; and Mark Spalding, *Things Are Going To Get Far Worse Before They Get Any Better: Environmental Issues Associated With U.S.-Mexican Economic Integration* (paper prepared for a conference titled *Mexico and the United States in the Next Decade* cosponsored by the Center for U.S.-Mexican Studies and the Pacific Council on International Policy, La Jolla, Calif., May 11, 1998). In addition, the author wishes to acknowledge the excellent editorial advice provided by Marta Burg.

2. Among the resulting environmental agreements were the Vienna Convention, the Montreal Protocol, the Basel Convention, the Bamako Convention, and the Wellington Protocol. Also during this time, the United Nations Conference on Environment and Development (the Earth Summit) took place and produced the Rio Declaration, Agenda 21, the Convention on Climate Change, and the Convention on Biological Diversity. The Earth Summit also led to the establishment of the Global Environment Facility.

3. California's former Governor Wilson had slightly poorer relations with Mexico and Mexican states due to his support for certain propositions and his stance against affirmative action, both of which were viewed as anti-Mexican. The state of New Mexico has also been reluctant to participate in *Border XXI*.

4. Mexico will not respond to climate change until the United States does. It may take serious consequences before a policy response is generated. Fortunately, industry and public opinion is turning in a positive direction. The insurance industry is particularly advanced on this issue and this should drive change.

5. For example, San Diego County has more than two hundred species of plants and animals listed or proposed to be listed by federal or state governments as endangered, threatened, or rare. In fact, there are more plants and animals threatened with extinction in San Diego than in any other part of the United States. San Diego is developing a Multi-Species Conservation Plan with the involvement of all stakeholders, which, if it works, may prove to be a model for other locations in the country. Most of these same plants and animals exist in Baja California as well.

