STEPHEN P. MUMME
PROFESSOR OF POLITICAL SCIENCE
COLORADO STATE UNIVERSITY

BIOGRAPHY

STEPHEN P. MUMME (Ph.D. 1982 University of Arizona) is Professor of Political Science at Colorado State University, Fort Collins, Colorado. His research centers on environmental management and policy on the U.S.-Mexico border.

Professor Mumme is the author of numerous articles and monographs dealing with aspects of border environmental management and has contributed opinion pieces to the New York Times, Los Angeles Times, San Diego Union-Tribune, Denver Post and other western regional periodicals.

In 1997-1998 he was a Senior Fulbright Scholar with El Colegio de Sonora in Hermosillo, Sonora where he studied the process of environmental decentralization in Mexico's northern border region. He has served as a consultant to the Commission for Environmental Cooperation in Montreal, Canada, on border water issues and as an invited lecturer at the International Boundary and Water Commission, United States and Mexico. He is a member of the advisory boards of the International Transboundary Research Center at the University of New Mexico and the recently established Border Information and Outreach Service and also serves on the editorial boards of various professional journals.
NAFTA AND THE BORDER ENVIRONMENT: INSTITUTIONAL ASPECTS

Testimony submitted by Stephen P. Mumme to the U.S. Trade Deficit Reduction Commission, Dallas, Texas, January 21, 2000

I wish to thank the Commission for this opportunity to voice my views on how the NAFTA process is affecting the border environment. My remarks this afternoon do not focus directly on environmental conditions and trends in the border area but will center instead on the institutions and programs that have either benefitted from or sprung directly from the NAFTA process. These institutions, the BECC and NADBank, the bilateral Border XXI Program in which the U.S. EPA and Mexico’s SEMARNAP play leading roles, and the CEC, are the new players now in place with mandates to address critical environmental concerns in the border area.

With six years of experience since NAFTA took effect on January 1, 1994, this is an excellent opportunity to look at how these institutions are performing and to identify the need for improvements as we begin a new decade and a new century.

NAFTA and the Border Environment

The border environment, as you are well aware, was a key focal point of debate over NAFTA’s potential environmental impact and was, even before NAFTA took effect, the beneficiary of environmental reforms aimed at strengthening binational administrative activities for environmental protection in the border area.

As many recall, portrayals of NAFTA’s probably environmental impact on the border region during the NAFTA debates of 1991-93 were downright alarming. The American Medical Association characterized the border as a virtual cesspool of toxic waste and hazardous conditions; the American Chamber of Commerce put a conservative price tag on need border environmental infrastructure upwards of 22 billion dollars. Environment and public health groups as various the Sierra Club and Public Citizen saw NAFTA exacerbating extant environmental conditions by stimulating growth and commerce in the border region in the absence of mitigating environmental infrastructure and regulations and provoking a negative spiral of downward harmonization of product and process standards in binational trade.

Now six years on, there is considerable debate as to whether NAFTA has, in fact, contributed to degrading the border environment. Certainly the pointers and trends for the border region indicate sustained and remarkable growth that will continue to stress the border environment and NAFTA is implicated in this trend. A recent and credible report by the

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Southwest Consortium for Environmental Research and Policy (SCERP)\(^2\) arrived at the following conclusions:

- Border population growth at medium projections will see a border population of 19.5 million, nearly double the 1995 level, at year 2020;

- Most environmental problems are attributable to rapid population growth and the lack of public financial resources to meet projected needs;

- Providing a sustainable supply of fresh water for urban and domestic requirements presents a serious challenge to many border communities, including some the largest binational conurbations on the border;

- "All streams and rivers in the border region have suffered deterioration of water quality due to the lack of adequate municipal wastewater collection and treatment systems. The current infrastructure deficit is enormous, and the added demand created by growing populations will be significant;"

- "Air quality will continue to deteriorate in the border region over the next 20 years..." due to population growth, the long lead times associated with new pollution reduction programs, the increased size and age of the vehicle fleet, and trade based truck traffic;

- Many natural ecosystems and habitats are threatened by current growth trends, among the most visible being the Laguna Madre on the Gulf of Mexico, the Rio Grande river ecosystem, the upper San Pedro Watershed, the Tijuana Estuary, and the Bight of the Californias.

The degree of environmental stress directly attributable to NAFTA is not presently quantifiable given the present limitations of available data and methodology. As the SCERP report suggests, however, there is substantial consensus that the border’s environment infrastructure is presently inadequate and that increased trade has the potential to exacerbate these conditions in the absence of mitigating actions. Current trends portend a need for substantial government investment if something approximating sustainable development at the border is to be achieved in the NAFTA era. This is why a discussion of the strengths and shortfalls of recent institutional developments for environmental protection at the border is vital to an understanding of the border’s capacity to cope with trade-related environmental impacts.

Institutional Progress Under NAFTA

Three institutional innovations aimed at the border environment are directly attributable to the NAFTA debate. These innovations, the BECC, NADBank, and the Border XXI Program are each important departures from past practice and have each contributed to filling the institutional deficit for environmental protection in the border area. Another new institution, the Commission for Environmental Cooperation (CEC), a trinational environmental watchdog for the NAFTA region, is also relevant to these discussions.

It is important to recognize at the outset that these institutions, taken singly or as a set, fail to meet some of the more strenuous demands of the border environmental community during the NAFTA debates, demands that, for example, sought comprehensive regulation of environmental conditions under the aegis of a supra-national or governmentally autonomous super-agency. Such solutions were neither at the time nor are now politically realistic. In fact, these new institutions are functionally limited and fitted into an ongoing framework for binational cooperation in meeting environmental needs that is not satisfactory in the minds of many thoughtful critics. Nonetheless, these agencies and programs represent a considerable improvement over the status-quo ante in border environmental management and add substantially to the border’s capacity to cope with environmental stress. The present challenge for both the U.S. and Mexico is to make these institutions work in the face of mounting environmental needs.

A brief review of the strengths and accomplishments of each of these agencies or programs will help draw out what has worked and what needs to be done to strengthen these programs in the near to medium term.

The BECC. Perhaps the easiest measure to take concerns the BECC and its partner institution, NADBank. In the six years since BECC formally came on line it has certified 31 projects, 19 of these in the U.S. and 12 in Mexico. With NADBank’s assistance, it has infused a total $618 million dollars in the development of environmental infrastructure in the border area to date. Its certification procedures require that submitted projects be considered in terms of base-line sustainable development criteria with preference given to projects exhibiting a high level of sustainability. Its certification rules stress transparency and public participation. Institutional oversight of BECC at the level of its managing board is interpenetrated with older national and binational institutions, to include the EPA and SEMARNAP and the International


Boundary and Water Commission (IBWC-CILA), in ways that have clearly drawn these institutions into greater involvement in environmental management in the border region. Its Technical Assistance Program has allocated a total of 15.5 million dollars to develop proposals along the border-supporting 107 projects-in-development in 78 border communities to date. These are impressive accomplishments that contribute directly to the improvement of communities and the satisfaction of basic infrastructural needs in the border area.

The Border XXI Program. The Border XXI Program is best described as an elaboration of the 1983 U.S.-Mexico Environmental Cooperation Agreement-otherwise known as the La Paz Process. The La Paz Process has drawn a good deal of criticism in the border community, some of it well deserved. Like the La Paz Process itself, the Border XXI Program is faulted as an ad hoc cobbling together of domestic and binational programs directed at the border area that remains heavily dominated by the federal governments of both countries, is underfunded, suffers serious deficiencies of public participation and public access, with few concrete achievements to boast since coming on line as the Integrated Border Environmental Plan in 1993. While various of these criticisms clearly hit their mark, the Program remains integral to bilateral cooperation for sustainable development in the border area; as an extension of received practices it has helped build up the administrative and informational resources that are essential to further progress on environmental protection in the border area. It is worth pointing to a number of critical areas where Border XXI is making a difference.

To begin, there is little doubt that federal bilateral interactions have increased and intensified under the Border XXI mantle in the 1990s. Whether or not this is in some sense a natural evolution of the La Paz process or a particular consequent of the NAFTA process is really beside the point-the evidence admits to a good deal of both. What is certain is the growth in programs-increasing by 10 percent between 1996 and 1997 alone—and that Border XXI has accelerated the development of a range of new policy initiatives that may not have occurred outside the NAFTA context (see Table 1). The development of new projects, however, is only part of the story. The more vital contributions are evident in the broadening and intensification of interagency ties, principally at the federal level, the identification and application of environmental indicators for assessing sustainable development progress on the border, new initiatives for binational information and data sharing to include initiatives in some of the most sensitive and difficult areas of the bilateral relationship, further training and transfer of technology of benefit to Mexico, and the greater coordination of largely domestic programs in the border region. These cooperative initiatives are substantial and important.

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Table 1. Border XXI Project Growth

<table>
<thead>
<tr>
<th>Border XXI Workgroups</th>
<th>1996 Projects</th>
<th>1997 Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Resources</td>
<td>26</td>
<td>30</td>
</tr>
<tr>
<td>Air</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Haz &amp; Solid Waste</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Emergency Response</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Environmental Information</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Pollution Prevention</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Environmental Health</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Cooperative Enforcement</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>127</td>
</tr>
</tbody>
</table>

Percent increase, 1997 over 1996: 1.04


First, with respect to the intensification of interagency ties, the Border XXI process has since 1995 broadened to include 9 standard workgroups routinely engaging at least 22 federal agencies on both sides of the border in Border XXI functions, to include 13 U.S. agencies and 9 agencies in Mexico. This represents nearly a doubling of agencies routinely involved in environmental management discussions in the 1970’s and is evidence of the greater institutionalization of a binational approach to environmental management on the border. Further, there is evidence that, in some areas, to include natural resources, water management, and enforcement, the number of routine ties and contacts has significantly increased.

Second, it is of no small consequence that the two countries have agreed on a common set of environmental indicators for assessing progress in environmental protection along the border. These indicators, adapted from the OECD and published in 1998, measure three sets of

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parameters, performance indicators, state of the environment indicators, and response indicators. For the first time they will allow a systematic, long term appraisal of performance dynamics for the border area. While the indicators may be faulted in various respects, this is an important and essential point of departure for monitoring trade-related environmental impacts and understanding sustainable development progress on the border.

Third, an array of new initiatives have emerged to gather, share, and report data on environmental conditions along the border. Among the principal projects of Border XXI workgroups are a series of studies of biodiversity along the border, the development of an integrated aerial photographic mapping of the border region with multiple applications in ecosystem management and land-use planning, the development of joint hydrological studies of the most important transboundary groundwater basins on the border, a toxic substances study of the international reach of Rio Grande/Rio Bravo River, the implementation and maintenance of the Haztracks binational hazardous waste tracking system, the development and maintenance of air quality data and toxic release data for the border area, and the sharing of information concerning national environmental enforcement efforts in the border region.  

Fourth, Border XXI is associated with a substantial increase in training and technology transfer for environmental protection directed at Mexico. The 1996 Accomplishments Report lists nearly 30 training or technology transfer programs directed at Mexico not counting those training initiatives that are strictly national in origin.

Finally, Border XXI has provided a framework through which the two countries are coordinating a range of domestic programs intended to reinforce environmental protection in the border area. While the overall number of projects has not greatly increased from 1996 to 1997, the level of activity within various project areas had steadily developed in the areas of environmental health, pollution prevention, and cooperative enforcement.

The CEC. The CEC is the third leg of recent institutional development for advancing sustainable development along the border. Unlike the BECC and Border XXI, however, the CEC’s mission centers on trinational and regional issues in sustainable development many of which affect the border environment. The CEC’s broad charter expressly commits it to “support the environmental goals and objectives of the NAFTA,” and to promote a wide range of sustainable development objectives within and across the borders of its member states.  


Council, comprised of its three member states, has the liberty to “consider, and develop recommendations regarding ... transboundary and border environmental issues ...” in addition to a wide range of other referenced environmental policies.” Working with a relatively small budget and very real political constraints imposed by its member governments the CEC has more recently shied away from dealing with transboundary environmental problems that are already under consideration or subject to active management by other binational and national agencies. Its specific impact on the border, then, may be characterized as indirect and supportive rather than direct and managerial.

Even so, the CEC fills an importance niche in sustainable development on the border and has already demonstrated its potential. The CEC is specifically charged with monitoring NAFTA’s environmental effects. It has developed a NAFTA environmental impact assessment framework and is in the process of refining and deploying its assessment criteria. Its Environmental Conservation Program is presently addressing a number of important migratory species issues to include fisheries in the Bight of the Californias. Its Human Health and Environmental Protection Program is supporting the development of a GIS based system on the Texas-Mexico Border to monitor transportation effects on regional air quality. The CEC is also working towards a trinational agreement on Transboundary Environmental Impact Assessment and has developed indicators of global climate change effects on transboundary water resources in North America.

A range of other CEC programs have important applications or contribute to the implementation of various of the aforementioned Border XXI programs on the border. The new North American Environmental Fund for Environmental Cooperation has made a number of grants to community organizations in the border area. The Commission’s authority to investigate and report on environmental conditions within the North American region and to investigate citizen complaints of alleged non-enforcement of domestic environmental laws has drawn attention to several specific problems in the border area, including an Article 13 expert review of the upper Rio San Pedro migratory bird habitat, an Article 15 investigation of water quality management on Sonora’s Rio Magdalena and, just recently, a decision to investigate a case in Tijuana. Beyond this, the CEC’s ongoing effort to build, maintain, link, and make publically available environmental data sets for the North American region, to include statutory materials for all three countries, complements those informational efforts being undertaken by Border XXI and is valuable for public and governmental organizations interested in environmental management on the border.13

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11. Ibid.


Institutional Shortcomings and Needed Improvements

**BECC-NADBank.** While some analysts place the BECC “on the cutting edge in the field of sustainable development,”\(^{14}\) it is still true that its role and impact on border area sustainable development is functionally (ecologically) narrow and financially restricted. And despite BECC’s impressive procedural guarantees there are lingering and legitimate concerns related to the potential for public influence on its decisions. A brief review is in order.

BECC may legitimately be faulted for strategically limiting its operational mandate to a band of environmental infrastructure projects, principally water and sanitation projects, centered on urban development needs in the border area. It is worth remembering that many proponents of border area institutional reform in the NAFTA debate hoped BECC’s resources would satisfy other border environmental needs.

A further and more debilitating limitation is seen in the area of funding. BECC’s funding, as so many have noted, has fallen well short of public expectations on the border. This, in turn, has delayed the implementation of certified projects, added pressure for Board approval of marginal projects with private financing, and otherwise diminished BECCs potential. To a degree these problems are addressed by the direction of EPA funds to NADBank’s Cooperative Credit Agreement Program (CCAP) and the Border Environmental Infrastructure Program (BEIF), but such subsidies still fall far short of earlier political commitments and the expectations of many at the municipal and nongovernmental advocacy group level.\(^{15}\)

NADBank and BECC supporters, of course, are quick to relate both mandate and resources to domestic politics and the public support provided by the member governments, arguing persuasively that BECC can be no more than its member governments allow. While true, this amounts to an admission that BECCs political support remains fragile. Politically, BECC must find ways of strengthening its advocacy coalition at the level of the border states and the Mexican federal government.

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\(^{15}\) Congressional cutbacks in EPA’s contributions to BECC’s Border Environmental Infrastructure Fund in late 1999 may hurt BECC’s current operations.
BECC’s political participation problems are largely external since its current certification criteria were adopted in August 1995. These problems are rooted in the socio-economic asymmetry of the border itself and differences amongst the member political systems. Scarce information and limited organizational resources on the Mexican side, political centralization, and partisan control of the participation process, contribute to the observed asymmetry in political participation in BECCs decision-making. Within its limited resources, however, the BECC is contributing to the strengthening of local government capacity and public participation and plays a vitally important role for the border community. What is more, the BECCs procedural openness and emphasis on public participation has without question made other organizations, the IBWC comes to mind, more accessible and responsive.

The Border XXI Program. The Border XXI Program’s various initiatives are laying the foundation for monitoring binational progress and providing needed mechanisms for public intervention in support of environmental protection. As important as these initiatives are, however, some shortcomings must be addressed.

First and foremost, the Border XXI process remains a process dominated by federal agencies on both sides of the border whose programs are deployed in an ad-hoc, poorly prioritized fashion. Border XXI priorities are only loosely coordinated by the EPA which is often a weak position to deal with stronger competing domestic agencies. In the absence of strong executive leadership in both countries, then, funded projects tend to be driven by the separate priorities of its participating agencies. Key Border XXI projects that are absolutely critical to understanding environmental trends in the border region-such as the inter-agency Environmental Indicators initiative--compete with a wide range of other identified projects, complicating implementation and lending the appearance of little systematic prioritization of goals and objectives. The Environmental Indicators initiative, which draws on the OECD’s approach to environmental assessment, is still largely undeployed, composed as it is mainly of “indicators in progress.” At current rates of progress is may be a decade before we have reliable indicators of environmental conditions in the border area.


Second, Border XXI has to date downplayed, some would say neglected, several of its cardinal strategies for promoting sustainable development on the border: fostering public participation in environmental protection and building capacity and decentralizing environmental management on the border. While genuine efforts have been made to disseminate information, improve public access to government officials, and build in greater responsiveness to border constituencies the decision-making process is still fragmented and indirect. It is instructive that when EPA touts its efforts in public participation, it points to its annual meetings under the La Paz agreement, new border environment information centers, a few joint advisory boards and the Good Neighbor Environmental Board, to Mexico’s efforts to create public forum committees at state and local levels to advise on hydraulic infrastructure development, and to the BECC. With the possible exception of the BECC, these institutions tend to be rather formal, government dominated arenas whose agendas are difficult to access and, hence, are shaped without much grassroots influence.

Border XXI’s emphasis on environmental policy decentralization and state-local capacity building is tacit acknowledgement of the need to move beyond federal tutelage in building up local participation and administrative capacity for environmental protection in the border area. To date, however, Border XXI can point to few concrete accomplishments by way of enabling local governments and communities to assume greater responsibility in delivering environmental values to their citizens. While a number of Border XXI projects claim to indirectly contribute to local capacity accrual and decentralization very few aim explicitly at this goal. One remarkable exception to this pattern may very well be the binational Joint Advisory Committee for the Improvement of Air Quality in El Paso, Texas and Cd. Juarez, Chihuahua. The Committee, which is not only binational but truly melds federal, state, local, and citizen participation, has indeed contributed to local capacity for environmental protection and serves as a useful model for developing cooperative, locally supported procedures for environmental protection in sister-city communities along the border.

The CEC. Owing to its regional mission, the CEC’s impact on the border will inevitably be selective and, with some exceptions, as noted, indirect. It is far more likely to provide support for other initiatives taken by border specific institutions and programs than to serve as a front line agency for environmental protection. As an institution it is relatively accessible and transparent and supportive of public participation, yet the Secretariat is fundamentally an agent of the federal governments acting through the CEC’s Council and informed by the advice of its various advisory committees at the national and trinational levels. Apart from the citizen’s submission process, which has proven difficult to use, there is little action forcing leverage available to grassroots organizations or the border public in shaping the CEC’s agenda.

The CEC is nevertheless’ in a unique position to examine big picture issues in the border area with implications for the North American region and to respond to citizen generated complaints concerning the non-enforcement of domestic environmental laws in the border area. Its NAFTA environmental impacts assessment project complements and supports Border XXI initiatives with benefit to the border area. This initiative, which has encountered some government resistance, should be deepened and supported. Its transboundary environmental impact assessment procedure that will also contribute to greater binational cooperation between the U.S. and Mexico in dealing with boundary specific projects. This, too, has gone forward with difficulty and deserves greater support from the governments. CEC’s ability to constructively direct bilateral attention to neglected transboundary environmental issues, recently demonstrated in the upper San Pedro River case, prove that selective uses of its investigative capability should likewise be supported by the governments.

Conclusions and Recommendations

The NAFTA based institutional innovations for border environmental protection have been constructive and certainly enhance national capabilities for mitigating environmental problems, trade-related and otherwise, at the border. Taken as a set and added to the existing capabilities of domestic agencies at the several levels of government they have the potential to be complementary and synergistic. The critical challenge to the governments is to deepen and broaden their support for these initiatives and to better engage state and local governments, and the border public in their development and implementation. The preceding review suggests a number of particular measures that should be taken to strengthen these initiatives:

The governments should increase financial support for BECC certified environmental infrastructure project development. EPA’s contributions to the Border Environmental Infrastructure Fund and NADBank’s Cooperative Credit Agreement Program should be increased, not reduced, in support of the environmental infrastructure needs of poor communities along the border.

BECC’s efforts to incorporate public participation on both sides of the border in project generation, development, and implementation are commendable. BECC should continue its efforts to bolster public participation, particularly on the Mexican side of the border.

The Border XXI Program should receive greater executive attention on both sides of the border with a view towards prioritizing projects and bringing greater coherence to the program. In particular, the Border XXI Program should:

Strengthen and accelerate commitments to implementing the Environmental Indicators project which is critical to tracking border environmental trends and indentifying potential trade-related environmental effects.
The Border XXI Program should accentuate its emphasis on improving public participation and promoting the decentralization of environmental administration and development of local government administrative capacity for environmental protection in the border area.

The governments should support the CEC’s current initiatives to A) develop and apply assessment criteria for identifying NAFTA’s environmental impacts in the trinational region, including the border area; B) reach trinational agreement on a protocol for Transboundary Environmental Impact Assessment. In general, the governments should be supportive of CEC’s investigative and fact finding activities.