

BORDER INSTITUTE X
**A Critical Review of Public Participation in Environmental Decision-Making along
the U.S.-Mexico Border**

Lessons from Border 2012 and Suggestions for Future Programs

Allyson Siwik, Elaine Hebard, Celso Jaquez

U.S.-Mexico Border 2012 New Mexico-Chihuahua Rural Task Force

ABSTRACT

As a direct result of economic development agreements such as NAFTA, the U.S.-Mexico border region has been, is and will continue to be confronted by a long list of critical environmental problems to resolve. The U.S.-Mexico environmental border programs --IBEP, Border XXI and Border 2012-- in conjunction with the NAFTA institutions of BECC and NADBank have made significant progress in addressing the region's infrastructure needs for water and wastewater and management of binational air quality, and hazardous and solid wastes. This progression of border programs resulted in an shift from a top-down management approach to a more locally directed one. This paper discusses the evolution of public participation since Border Institute I. Drawing on years of direct involvement and upon specific case studies, the authors describe the current status of public participation to summarize what is effective and what is not working. Future climate change impacts, border security, and economic development pressures will impose continued and increasing challenges to the region's environmental sustainability and its citizenry. It will be critical that binational public participation in decision-making related to these problems is ensured and enhanced. The authors recommend specific institutional changes and binational policies to address existing programmatic weaknesses and emerging demands related to public participation.

The Case for Public Participation

Public participation is important to our democracy and to our ability as a society to make sound decisions related to the pressing challenges of our time. Participatory democracy creates opportunities to involve stakeholders potentially affected by a decision.¹ Public participation is important for all sectors of society interested in creating accountability and transparency in the decision making process. Public involvement is critical to developing more effective public service programs and successful solutions to tough societal problems.² Table 1 details a spectrum of public participation³ while Table 2 summarizes core values for public participation.⁴

In the context of environmental decision-making, a recent seminal study by the National Academies of Sciences concludes that public participation processes, when done right, improve the quality and legitimacy of a decision and build the capacity of all involved to engage in the policy process. Public

participation can lead to better results in terms of environmental quality and other social objectives, as well as enhance trust and understanding among parties.⁵

Table 1 - A spectrum of public participation

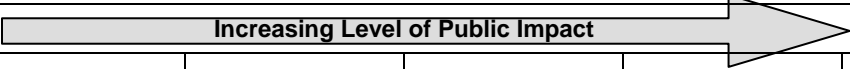
					
	Inform	Consult	Involve	Collaborate	Empower
Public participation goal	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of the public.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example techniques	<ul style="list-style-type: none"> • Fact Sheets • Web sites • Open Houses 	<ul style="list-style-type: none"> • Public comment • Focus groups • Surveys • Public meetings 	<ul style="list-style-type: none"> • Workshops • Deliberative polling 	<ul style="list-style-type: none"> • Citizen advisory committees • Consensus-building • Participatory decision-making 	<ul style="list-style-type: none"> • Citizen juries • Ballots • Delegated decision

Figure 1: Core Values for Public Participation

The purpose of these core values is to help make better decisions which reflect the interests and concerns of potentially affected people and entities.

1. Public participation is based on the belief that those who are affected by a decision have a right to be involved in the decision-making process.
2. Public participation includes the promise that the public's contribution will influence the decision.
3. Public participation promotes sustainable decisions by recognizing and communicating the needs and interests of all participants, including decision makers.
4. Public participation seeks out and facilitates the involvement of those potentially affected by or interested in a decision.
5. Public participation seeks input from participants in designing how they participate.
6. Public participation provides participants with the information they need to participate in a meaningful way.
7. Public participation communicates to participants how their input affected the decision.

The Rio Declaration on Environment and Development enshrined public participation in its 27 principles. Principle 10 states that "environmental issues are best handled with participation of all concerned citizens, at the relevant level." The Rio Declaration continues, drawing a close link between access to information and public participation:

"At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided."⁶

The United Nations Economic Commission for Europe Aarhus Convention on Access to Information, Public Participation in Decision-making, and Access to Justice in Environmental Matters became effective in 2001.⁷ This convention provides for detailed provisions to ensure the public participation rights of individuals and organizations according to three distinct "pillars": access to environmental information; public participation in decisions on specific activities, particularly plans, programs, and policies relating to the environment; and access to justice.⁸

Assuming that public participation is linked to good governance and successful environmental quality outcomes, how can it be evaluated to show improvements? As the National Academies report states, "Processes can be seen as more or less participatory along several dimensions, notably breadth (who is involved), timing (how early and at how many points in the overall decision-making process they are involved), intensity (e.g., the amount of time and effort participants spend and the degree of effort made by conveners to keep them involved), and influence."⁹ These key measurement areas can help define public participation indicators and evaluate whether or not public participation strategies are working effectively.

Public participation concerning U.S.-Mexico border environmental issues

With respect to U.S.-Mexico border environmental issues, public participation has been recognized as a necessary ingredient to develop effective binational solutions to transboundary environmental problems. Providing the framework for U.S.-Mexico cooperation on border environmental issues, the La Paz Agreement of 1983 and its associated implementation programs --IBEP, Border XXI and Border 2012-- "deserve to be seen as the first and most important in a series of binational agreements institutionalizing and broadening the opportunities for public participation in transboundary and border area environmental management."¹⁰

In the early 1990's, the NAFTA institutions – Border Environment Cooperation Commission (BECC), North American Development Bank (NADBank) and Commission on Environmental Cooperation (CEC)—were created with significant input from national non-governmental organizations. The implementation of these programs explicitly requires public participation. For example, local stakeholders, including community groups, citizens, the business sector, universities and local governments, participate through BECC's public participation procedures for project certification.

“Viewed from a historical perspective this enhanced political opportunity for citizen influence in government decisions affecting the border environment is certainly one of the defining achievements in recent times in U.S.-Mexican relations and one that is qualitatively vital for the region’s democracy as well as its environment.”¹¹

In general, public participation in border environmental decision making has been strengthened since the signing of the La Paz Agreement in 1983. A brief summary of the genesis of border environmental cooperation is provided to clarify the evolution of public participation in the U.S.-Mexico border region.

The **La Paz Agreement signed in 1983** provided a framework for “developing cooperative environmental efforts to reduce, eliminate or prevent sources of air, water and land pollution.”¹² In the early stages of binational cooperation under La Paz, most activities largely occurred between the two federal governments, through agencies responsible for specific environmental issues, such as the U.S. Environmental Protection Agency, Mexico’s SEDUE, and the International Boundary and Water Commission (IBWC)/Comisión Internacional de Límites y Agua (CILA). Established under Annexes to La Paz, binational workgroups for water, air, hazardous waste, emergency response, enforcement and pollution prevention were authorized to identify problems and develop joint solutions.¹³ Federal agencies were encouraged to work with state and local governments and NGO’s, although there was no requirement to do so.¹⁴

The **Integrated Border Environmental Plan for the U.S.-Mexican Border Area (IBEP)** was released in early 1992 and was the first “implementation plan” of the La Paz Agreement laying out how the two governments would cooperate on resolving border environmental issues. Covering a two year period, the plan was “created under the assumption that increased liberalization of trade would place additional stress on the environment and human health along the border.”¹⁵ It outlined a list of border environmental problems, but left the detailed activities to later programs. The IBEP was developed by a Boston consulting firm¹⁶ and received strong criticism at public meetings by border stakeholders,¹⁷ such as lack of sufficient funding and specificity, avoidance of crucial environmental issues, and incorporation of policies dictated by Washington, DC and Mexico City, rather than by the border region.¹⁸ In EPA’s own words, “the lack of formal public input detracted from its public support.”¹⁹ The IBEP emphasized capacity-building activities, such as information sharing and training assistance, as opposed to enforcement of environmental regulations and joint planning. During this time, the U.S. provided technical assistance and training to Mexico in such areas as the development of environmental regulations, air pollutant emissions inventories, and hazardous waste tracking systems.

As the second iteration of implementation of the La Paz Agreement covering the period 1996 - 2000, the **Border XXI Program’s** principal goal was to promote sustainable development “by seeking a balance among social and economic factors and the protection of the environment in border communities and natural areas.”²⁰ The strategies used to accomplish that goal were three-fold: 1) ensure public involvement; 2) build capacity and decentralize environmental management; and 3) ensure interagency cooperation.²¹ There was recognition that Border XXI was “initiated to build on the experiences of and improve the specific efforts undertaken under the IBEP and earlier environmental agreements.”²² Nine border-wide workgroups were established to address media-specific problems: air quality, contingency

planning and emergency response, cooperative enforcement and compliance, environmental health, environmental information resources, hazardous and solid waste, natural resources, pollution prevention, and water. Most of these were a continuation of the La Paz and IBEP workgroups, but Border XXI created three new workgroups based on public input, recognizing the need for binational cooperation on environmental health, environmental information and natural resources. Geographic-specific sub-workgroups were also created at the regional and local levels to address specific issues.

The U.S. and Mexican governments recognized the importance of public involvement in the planning and implementation of border environmental initiatives given comments from border stakeholders on the weaknesses of IBEP. Therefore, public involvement was identified as one of three strategies to achieve sustainable development in the border region under the Border XXI Program. According to EPA, in 1995-1996, more than 20 public meetings were held in U.S. border cities, regional and state-level meetings were held in Mexico, and three binational public meetings were organized to solicit public input on the Border XXI program before and after the Framework document was developed.²³ The addition of three new workgroups was identified by EPA as a structural change to the border program as a result of public comment.²⁴

Border XXI also outlined seven public involvement objectives and activities mostly focused on providing information, improving access to environmental information and the border program, public engagement in Border XXI workgroups, and development of additional channels for public input to the border program. Border XXI implementation plans and accomplishments were produced and made available via the Internet. Regional and local sub-workgroups were created to engage stakeholders in planning. The Good Neighbor Environmental Board and Mexico's Consejo Consultivo para el Desarrollo Sustentable both provided input on Border XXI implementation. EPA provided financial resources to the Southwest Consortium for Environmental Research and Policy (SCERP), a consortium of nine US and Mexican universities, to conduct applied research in the border region. EPA also established the San Diego and El Paso Border Liaison Offices to provide information on border environmental issues and to obtain feedback on those issues from the public.²⁵

The binational Joint Advisory Committee (JAC) for the Improvement of Air Quality in El Paso, Texas and Cd. Juarez, Chihuahua has been held up as a successful model of public engagement in the Border XXI program. "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."²⁶

In addition to the Border XXI program, public participation is an essential ingredient of the

BECC/NADBank program:

"In contrast to IBEP, which built on the ongoing La Paz Process, the BECC/NADBank initiative created a brand new and substantial institutional arena for public participation, centered in the BECC. By design, the BECC directly responded to environmental demand for greater voice in border environmental affairs. Its binational advisory board made of ten members was composed of

federal, state, and local government representatives from each side of the board as well as one non-governmental advocacy group representative apiece from Mexico and the United States. BECC's procedural rules stressed administrative transparency and access to non-proprietary information, Board meetings were open and available for public comment, and its certification procedures required the formation and input of local public advisory groups for project development and approval. Projects exceeding basic sustainability criteria that included public participation requisites were fast-tracked for Board approval. By incorporating public participation directly in the development and approval of its projects, the BECC substantially broadened the arena and the opportunities for citizen engagement in border area environmental policy, including some of the most substantial projects that could and would be undertaken in the name of public health and environmental improvement."²⁷

Border Institute I: Evaluation of Public Participation in Border XXI

Despite the significant gains made in strengthening public participation in the border program, Border Institute I researchers cited a variety of problems and barriers to public participation. Convened 12 years ago, Border Institute I took place during the Border XXI program. The Border Institute I survey of binational efforts to address border environmental problems²⁸ critiqued the Border XXI program in general:

- Border XXI was not sufficiently transparent, participatory, intermedia, or interdisciplinary in focus.
- City and state governments on both sides of the border often lack the basic resources and information needed to address environmental issues.
- The program is not designed to be proactive and prevent environmental degradation from unsustainable development. Unless radically redesigned or supplemented with a much broader planning and regulatory enforcement structure, it will never do more than treat the symptoms of the disease.
- Border XXI lacks long-range planning, ecosystem planning and very little watershed analysis and management.
- The program needs increased participation by the private sector.
- Border XXI should provide a long-term vision for the border in order to incorporate sustainable development policies in planning and implementing border region projects.

During that same time period, some of Border XXI's shortcomings were raised to the U.S. Trade Deficit Reduction Commission:²⁹

- "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 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.
- "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 Good Neighbor Environmental Board also provided its assessment of the Border XXI program.³⁰

"Although still heavily focused on federal interaction, the Border XXI program has not fully succeeded in building local capacity or in thoroughly fostering public support. It has, however, made the work of the La Paz workgroups more accountable to the public through their individual transparency or failure to work transparently. The workgroups should do more to emphasize environmental education efforts throughout the border region. Investing in future generations and promoting environmental education at all levels will help border communities develop the long-term technical skills, interest and knowledge necessary to address local problems.The Board hopes to see more rapid decentralization and greater local empowerment as the Border XXI program continues to mature. This delegation of authority and the need for more local implementation should be accompanied by a commensurate distribution of funding to support the tribal, state and local involvement which is vital to the success of the Program."

Border 2012 -- Reflecting the Recommendations Regarding Public Participation

Border 2012: U.S.-Mexico Environmental Program³¹

Mission Statement

As a result of the partnership among federal, state and local, governments in the United States and Mexico, and with U.S. border tribes, the mission of the Border 2012 program is:

To protect the environment and public health in the U.S.-Mexico border region, consistent with the principles of sustainable development.¹

- (1. In this program, sustainable development is defined as “conservation-oriented social and economic development that emphasizes the protection and sustainable use of resources, while addressing both current and future needs and present and future impacts of human actions.”)

The latest La Paz implementation program, Border 2012, was signed in April 2003 and covers a ten-year period to 2012. Addressing some of the issues and concerns raised under Border XXI, this program emphasizes binational partnerships and collaboration as a means to achieving environmental results. The ten border states and U.S. tribes joined EPA and SEMARNAT as full partners in the development and implementation of the program. Leveraging of knowledge, resources and expertise among partners is a cornerstone of the program’s strategy to meeting Border 2012’s goals and objectives. Based on border communities’ input, the program also reaffirms a commitment to fostering transparency and public participation and improving stakeholder participation.³²

Some key programmatic changes incorporated in Border 2012 are aimed at improving stakeholder involvement in the program. The program adopts a bottom-up approach for setting priorities and in decision making, such that local stakeholders are included in identifying priorities and developing and implementing solutions. This represents a major departure from previous implementation programs that were directed from the two federal capitols. Structurally, the border-wide workgroups and sub-workgroups of Border XXI were reorganized into four regional workgroups covering the entire border, with multiple media-specific and geographic-specific task forces within each regional work group. Rural areas and tribal communities that were previously ignored were incorporated into the Border 2012 Program. For example, southwestern New Mexico-northwestern Chihuahua and the greater Presidio-Ojinaga area were included as multi-media “rural task forces” within the New Mexico-Texas-Chihuahua Regional work group. Border-wide workgroups in environmental health, emergency preparedness and response, cooperative enforcement and compliance, as well as policy forums in air, water, and waste are lead by the two federal governments to cover border-wide issues that can only be resolved at the federal government level. Task forces are lead by a combination of state and local agencies, community members and university researchers depending upon the region.

In order to obtain and maintain stakeholder participation in the program, Border 2012 provides travel reimbursement to task force co-leaders to attend regional workgroup and National Coordinators meetings. The program funds support for simultaneous translation and logistics support for one annual meeting for each task force and regional workgroup. In the words of a San Diego-Tijuana border stakeholder speaking at the 2009 National Coordinators’ Meeting in Valley Center, CA, “the Border 2012

Program had been really useful and productive as a convener, bringing together representatives of two governments and two communities, furthering cross-border collaboration and solidarity. The experience of working together, she said, strengthens our confidence in each other, helps transcend differences, builds understanding, and helps insure transparency. In their experience, she added, the Program has functioned as a very inclusive structure; local community organizations have been able to participate and benefit, and that aspect should be maintained in the Program. It has also served as a neutral, democratic authority that built consensus.”³³

A university researcher from San Diego expressed that “one of the great achievements of Border 2012 has been its capacity for bringing together the main stakeholders on both sides of the border, which has filled a real gap in addressing border environmental issues. For example, when there is a change in Administration on either side of the border, Border 2012 remains to remind the incoming Administration that they have an obligation to look at border environmental issues.”³⁴

Taken together, these measures have served to strengthen binational relationships at the local level where weak or non-existent relationships to discuss and deal with environmental issues may have existed before. Have they been sufficient to address the shortcomings noted? Have they been sufficient to move from the goal of informing to one of collaborating, if not empowering, the public (see Table 1)?

Border 2012 Public Participation:

Rural Task Force Example

The authors of this report have been involved with the New Mexico-Chihuahua Rural Task Force since its inception so have first-hand knowledge of how Border 2012 is being implemented within this rural area of the border. Established in 2005, the Rural Task Force was modeled after the Joint Advisory Committee. The vision was to provide a forum for public engagement in environmental decision-making in this region of the border. The first meeting was held in the small town of Janos, Chihuahua. Much to the co-leaders’ surprise, approximately 100 people from both sides of the border attended the meeting, representing farmers, local, state and federal government agencies, universities, local primary and secondary schools, and NGO’s. The meeting featured presentations by local citizens, agencies and organizations on a range of environmental issues in the Rural Task Force region. Meeting participants created a comprehensive list of environmental issues and then through multi-voting (i.e., each participant put colored dots on his/her top three environmental issues), environmental problems were rank ordered. The top three issues identified through this process were air quality, water quality/quantity, and conservation of Chihuahuan Desert ecosystems.

The task force conducted its work over the next 12 months through subcommittees that addressed each of the three priority areas. Working through consensus, a strategic plan was developed that outlined the goals and objectives for each of the priorities along with specific activities or projects to meet each of those objectives by 2012. This strategic plan has continued to guide the work of the Rural Task Force since its completion in 2006. Subcommittee meetings continue to be convened to obtain additional

input and participation in carrying out various projects. At the Task Force's annual meetings, participants report out on projects and provide an update on progress achieved. At that time, the strategic plan is updated through consensus to reflect completed tasks and new tasks as appropriate.

Activities of the New Mexico-Chihuahua Rural Task Force to date include:

- Completed an inventory of scrap tire piles and cleaning up 6,000 scrap tires from the region;
- Developed an inventory of paved/unpaved roads and disturbed land that cause particulate matter air quality problems in Columbus-Palomas ;developing recommendations for dust control;
- Provided workshops on alternatives for dust control and scrap tire management and disposal;
- Established a binational water dialogue on Mimbres Basin groundwater issues;
- Held a binational VIP water tour to identify and discuss shared water problems in the region;
- On-going support for environmental fairs;
- Developed an interactive map on line as well as a web site highlighting activities, hosted by NMSU,;
- Created environmental education (EE) trunks for each of the three priority environmental problems in the region and trained teachers to deliver the EE curricula in primary and secondary schools throughout the task force region.

The Ecological Issues Subcommittee met with SEMARNAT to agree to develop an *Ordenamiento Ecológico* for the Municipio of Janos. Ecological Issues Subcommittee members, The Nature Conservancy and Pronatura, announced the acquisition of Rancho El Uno for conservation purposes. These same members facilitated signing a letter of intent to develop an action plan to protect grassland ecosystems in the state of Chihuahua, which was supported by the Task Force. The Subcommittee has also collaborated with the Mimbres-Paquime Connection, Municipio of Janos and others to promote ecotourism. As the Figure 2 highlights, the Rural Task Force's Mimbres Basin Dialogue developed a Roadmap to help direct its efforts.³⁵

Figure 2: Roadmap - A Draft Model for Collaborative Operation of Transboundary Watersheds

The lack of consistent information about the Mimbres, a transboundary aquifer shared by Columbus, New Mexico and Palomas, Chihuahua as their sole source of water, makes it difficult for residents to make rational choices between proposed uses of water and for government agencies to administer. Many other transboundary basins face similar issues and there are several endeavors underway to address noted deficiencies. The Roadmap was developed by the Rural Task Force's Mimbres Basin Dialogue in an attempt to incorporate ideas on institutions, tools, treaties, agreements, protocols and coordination into a workable framework to care for a binational basin. To create and sustain the binational water dialogue, the Roadmap includes activities to be accomplished at various levels: (1) local, (2) university, (3) water management agencies and (4) international. In using it, each basin should assess and take advantage of the experiences and work already underway in that basin in order to address site-specific concerns. Creating a binational water balance as a tool could assist in a better understanding of the regional basin, as well as to assure its longevity.

Most of these activities have been possible because the key implementers have been successful in obtaining Border 2012 funds to carry out these projects.

Perhaps because this region was a previously neglected area of the border, there has been great interest among local stakeholders in getting involved and providing input on environmental priorities under Border 2012 despite the large distances. The Rural Task Force has had a reasonable degree of success with public involvement in setting the goals and objectives, developing its strategic plan, carrying out various activities, and making significant progress toward reaching the goals and objectives. Given the number and breadth of stakeholders involved, along with striving for consensus on those plan activities, we feel comfortable that the plan reflects the priorities and input of the region.

However, participation has waned in the past 18 months perhaps due to the rise in narco-violence, change in local government administrations, loss of key stakeholders due to the dire economic situation and violence, and/or the often disjointed nature of program grant funding. In evaluating our activities to ensure that they continue to reflect local stakeholders' perspectives, we thought that taking this opportunity to provide input into the next iteration of border environmental programs would be appropriate.

Observations from the field

"The challenges that the U.S.-Mexico border region faces in meeting numerous and often conflicting demands are considerable, yet the range of ideas and the level of innovation that various researchers offer to meet these challenges is clearly of a breadth and depth to make for most interesting future research efforts that will most likely illuminate the questions posed. Such "lessons learned" are the most useful outcomes of comparative studies...."³⁶

A number of factors pose challenges to public participation in the border program as we move forward to achieve sustainability in the border region. Drawing from our experiences,³⁷ we have several observations and suggestions, many of which have been raised in earlier Border 2012 Regional and National Coordinators' meetings.

While buy-in from the ten border states raised the level of state agency involvement, the Department of Interior and the Department of Agriculture, which had participated in earlier border environmental programs, chose not to participate in Border 2012. Such an absence left a large hole as can be seen by the huge umbrella of agencies affected, including the Bureau of Reclamation, Bureau of Indian Affairs, Bureau of Land Management, U.S. Geological Survey, U.S. Fish and Wildlife Service and the U.S. Forest Service. This absence was particularly noticeable when the Rural Task Force tried to address the conservation issues raised.

Agency responsibilities do not align across the border. For instance, part of SEMARNAT's jurisdiction is to protect natural areas. It can support activities in Chihuahua under the program while the concomitant U.S. agency may not be able to do likewise under Border 2012, but may do so using alternative arrangements. Omitting agencies from the program may result in a duplication of efforts.³⁸

Because the U.S. Department of Transportation and the U.S. Department of Homeland Security are not part of the Border 2012 program, our Rural Task Force was not able to facilitate issues related to flooding at the ports of entry and port expansion in Columbus-Palomas, even though these issues were brought up by Mexican participants at some of the Task Force's meetings.³⁹

Although participants are encouraged to raise issues at the local level, there may be a disconnect between raising them and having them addressed, perhaps raising expectations too high or leaving them unanswered. This may occur through misunderstanding the limitations of the Program, or because the issues do not fit within the mission of the agency or goals of the program or there is no funding to address them.

Goals and objectives are necessary to direct actions and measure success. However, universal goals may not align well with local concerns and thus are difficult to implement in site-specific areas.⁴⁰ For instance, the Rural Task Force's priority related to Chihuahuan Desert ecosystem conservation does not match up with any of the goals of Border 2012, essentially ignoring what the local participants chose to include as a top environmental priority of the region. Similarly, water supply and its scarcity are fundamental to the economic and environmental viability of the Rural Task Force region.⁴¹ Concerns have been repeatedly raised about administration and conservation, which are not specific goals and objectives of Border 2012. As water quantity is fundamentally intertwined with water quality, we have been able to address some of the concerns. Lacking a way to fit in such issues, no institutional framework for involvement in the Border 2012 program from needed agencies exists, nor is there funding available to address such concerns. Needed actions to address water concerns may be taken under different programs, such as the Transboundary Aquifer Assessment Program (TAAP), with a different suite of agencies involved.⁴²

Media-specific task forces, such as the Border 2012 Water Task Force for the New Mexico-Texas-Chihuahua Region, could provide technical support for geographic-specific task forces. Without water supply being a specific goal and many U.S. federal and state agencies not participating, it is more difficult to obtain such support. Policy Forums, such as the one for water, could also provide more assistance, but there is no formal structure to obtain it. While such issues have been raised in the Regional and National Coordinators meetings, no changes have been made.⁴³ These are critical needs if geographic-specific task forces are to address their priorities.

Although public participation-related outputs, such as number of meetings, number of participating stakeholders, number of stakeholders trained, number of public comments received are tracked by EPA grantees and the program overall, no specific public participation goals have been defined or formal indicators for measurement of public participation developed. As noted by Mumme recently, "it is regrettable that Border 2012's recently updated *Strategy for Indicator Development* makes no provision for assessing public participation in Border 2012 programs."⁴⁴

Minimal guidance is given to co-leaders for public participation in the Border 2012 program. Task forces and work groups are asked to follow the Border 2012 Operating Guidelines⁴⁵ which cover such requirements as frequency of meetings, public notification of meetings, provision of simultaneous

translation, use of consensus as a model for decision making, and providing summaries of meetings in English and Spanish within 45 days. However, no training or guidance is given to co-leaders on how to engage the public on setting priorities and ensuring that all stakeholders are involved in the process.

Border 2012's emphasis on measurable results is important yet it overlooks the necessary steps of coordination of binational groups and planning related to achieving Border 2012 goals and objectives. Annually, a request is sent out by EPA for proposals to achieve these programmatic goals, but they do not necessarily dovetail with the local ones. Clearly, the strategic plan provided a framework for our activities and a way to show progress and update projects. Border 2012 provided funding to the Rural Task Force to develop its strategic plan; however, this appears to be the exception rather than the rule for most task forces. Financial support from Border 2012 for task force coordination and project implementation varies along the border.

Part of meeting the goals of the task forces and regional workgroups is coordination of the group, an activity for which it is hard to measure results except in the negative, yet a critical ingredient to any effective binational program and public participation. Coordination is needed to obtain and maintain public involvement in the border program. Co-leaders serve this coordination role and provide information to local stakeholders on projects, organize meetings to obtain public input and participation, notify local stakeholders of grant opportunities and other Border 2012 meetings, such as regional workgroup and National Coordinators', and oversee the implementation of the task force's strategic plan. If possible, co-leaders help find funding and/or programs to address priorities. With few exceptions, these essential functions are not funded tasks and therefore results may vary across the border in terms of keeping groups on track, moving forward to meeting goals, and ensuring public participation in the process.

Border 2012 has improved communication between stakeholders, authorities and the community at large. However, language continues to be a barrier, not only in the discussion of environmental matters but for border communities in Mexico and the U.S. While important to take into account, it is often not possible to count on simultaneous translation in each meeting of each task force. BECC provides annual meeting support to task forces in EPA Region 6, including simultaneous translation. For any additional meetings, task forces are on their own to provide this service.

Local government participation from the Mexican side is often difficult. Budgets for local government officials do not allow for investment in public health and the environment, nor is there the expertise at the local level to address such issues. As a result, local officials look to the federal government to address these needs.

Carrying out programs over a number of years is difficult without a steady stream of funds and support. Rural areas in particular lack the headquarters or a main office of a federal or state agency, a university and /or major businesses, and find it difficult to carry out the suite of actions necessary to measure, meter and monitor success. Without such support, however, the local input may get lost.

More involvement from the community continues to be a need. Community leaders enter and leave the process over time. There is a constant need to educate the community on the Border 2012 program, on

issues and accomplishments and on new issues as they emerge. Rural Task Force stakeholders have identified the need for more environmental education activities throughout the year and more community-based projects to raise environmental awareness, such as tree planting, community gardens, community trash and scrap tire clean-ups and water conservation fairs.

The impacts of climate variability in the border region pose a major challenge to public participation. As indicated above, the Border 2012 program is still too reactive and does not sufficiently plan for the future in the binational context. As climate impacts water availability and shared water resources are stressed, border communities need institutions that can plan effectively while ensuring that the public is involved in the decision-making process. It is difficult to get effective public participation when in crisis mode and many of the potential solutions are no longer viable or do not have public support. Notably, climate mitigation efforts on the border warrant inclusion of the U.S. Department of Energy and Mexico's Secretaría de Energía and Comisión Nacional para el Uso Eficiente de la Energía.

The rise in narco-violence has prevented many U.S. federal and state government agencies from participating in border meetings and events on the Mexican side of the border. In the Rural Task Force region, this violence has resulted in the death of at least one border partner and contributed to the relocation of many other active stakeholders from the border region. It has a chilling effect on participants, thus affecting implementation. It is difficult if not impossible to implement a program at the local level when those involved are fearful and do not feel safe in carrying out projects.

Increased security efforts have neglected to fully involve local stakeholders in homeland security projects, particularly evident when environmental and other laws are waived. The failure to include local input when constructing the border fence has caused distrust between border residents and the U.S. federal government. Border communities are left to bear the environmental and economic impacts of these activities, such as increased emissions from longer wait times at the ports of entry, flooding and other hydrologic problems, or destruction of natural and cultural resources.

The downturn in the economy underscores the tension between the need to earn a living now versus the need to ensure long-term sustainability for the future. But the drive for a new and green economy cannot ignore potential impacts across the border. Consistent with the goals of Border 2012 to promote sustainable development in the border region, economic development needs to be balanced with environmental and social considerations. No mechanism for achieving this exists in the border region. If a project is conducted with BECC or NADBank funds, the environmental impacts of the project are required to be assessed. However, there is no requirement for assessment of transboundary environmental impacts of projects outside of this BECC-NADBank process. Thus, projects can be constructed in the border region without assessment of transboundary impacts, as well as without public input from the affected communities on the other side of the border.⁴⁶

A number of border projects and programs currently exists which lack apparent coordination.⁴⁷ For instance, in September 2009, the Ten States Border Governors adopted "Guidelines for the Competitive and Sustainable Development of the U.S.- Mexico Transborder Region."⁴⁸ While the Guidelines state that "an important goal of this Border Governors Conference is to successfully build on past efforts and

to sustain and lend continuity to earlier achievements," no mention is made to the Border 2012 Program, which was not only agreed to by EPA and SEMARNAT but all ten border states.⁴⁹ Public participation is not clearly developed in the Guidelines, setting up potential conflicts in programs and expectations.⁵⁰ The U.S. Department of Transportation's Federal Highway Administration interacts with the Mexican Secretariat of Communication and Transportation (SCT) in the U.S.-Mexico Joint Working Committee (JWC), a binational group whose primary focus is to cooperate on land transportation planning and the facilitation of efficient, safe, and economical cross-border transportation movements. While state transportation agencies are represented in the group, it is not clear if there are processes in place for further public engagement, nor whether environmental agencies participate.⁵¹

Examples to Consider

The above observations are meant to call attention to some of the disconnects between the Border 2012 program as written and/or as implemented, or some of the faults in the program as it strives to create a robust public participation program and achieve its mission. We do not want to leave the impression that only problems exist. Just like with the New Mexico-Chihuahua Rural Task Force, within and without Border 2012, there are numerous examples of how public participation is resulting in an improved binational environmental discussion and action, such as the Joint Advisory Committee (JAC) and the U.S.-Mexico Transboundary Aquifer Assessment Program-Arizona.⁵² The following are presented as potential examples to consider when designing the next program.

An example of a successful community being formally included in the Border 2012 Waste Policy Forum might also be included in training materials for new coordinators:⁵³

Border 2012 and the Cleanup of *Metales y Derivados*

"Metales y Derivados was a secondary lead smelter and battery recycling facility located in Tijuana. In 1994, the Mexican government ordered the facility closed for environmental violations. The U.S. owner abandoned the site and fled back to the United States, leaving behind thousands of tons of soil contaminated with lead and other heavy metals. It has been widely recognized that these abandoned hazardous wastes pose an ongoing threat to the health of neighbors in the Colonia Chilpancingo. The CEC recognized these problems in its 2002 Factual Record, described in the preceding section. Since the time the facility was abandoned, residents of the Colonia and other activists have organized and advocated for the governments to take action to clean up the site.

"Finally, after many years of pressure from the environmental justice community on both sides of the border, and years of bi-national discussions, there has been significant progress. In 2004, several Mexican government agencies—federal, state and local—signed an Agreement of Coordination for the cleanup of the *Metales* site. The Agreement, consistent with Border 2012's goal of "Reducing Land Contamination," established a four-phase remediation program: (1) risk reduction; (2) site characterization and risk assessment; (3) alternative analysis and selection of remedy; and (4) carrying out the selected remedy.

"This Agreement was not the only one signed by the government in 2004. At the same time, the federal and state environmental agencies signed a landmark Agreement of Collaboration *with community residents*. The Agreement established the participation of the community in the *Metales* cleanup project by creating a Workgroup. In addition to federal and state officials, the Workgroup

includes the Environmental Health Coalition of San Diego and its Tijuana affiliate, the *Colectivo Chilpancingo Pro Justicia Ambiental*, whose members are residents of Colonia. This is the first time that a Mexican border community has been formally included in a technical workgroup responsible for overseeing the planning and cleanup of a site. An important aspect of the Workgroup is that it operates by consensus. The Workgroup has held some of its formal sessions in the Colonia itself.

"The cleanup project is to be completed by 2009. So far, Phases One and Two are complete, and approximately 2,000 tons of waste have been removed from the site. The Mexican government has contributed about \$750,000 toward the cleanup. The U.S. government provided \$85,000 for initial, short-term actions to address the highest risks, as well as additional funds for technical consultants. The workgroup is currently working on Phase Three—selecting the remedy—before moving on to the Phase Four remediation. "

Included in the *Community Guide to Enforcement in Texas and Chihuahua*,⁵⁴ was how a community might utilize the current program and which information could be made more widely available:

Community Participation in Border 2012 Enforcement Activities

"Border 2012 emphasizes a "bottom-up approach." It is one possible mechanism for community residents to address their concerns about environmental enforcement generally, or about a specific polluting facility. As with any of the strategies discussed in this handbook, however, it is important to consider the *limitations of the process*. Border 2012 will not be an effective vehicle for addressing every individual environmental justice problem. Results may be hard to achieve because of: (1) the limited resources of the Border 2012 Program to address an enormous array of border environmental problems; (2) the confidential and politically-sensitive nature of cross-border enforcement actions; and (3) the large amount of time and resources that community residents may need to invest to pursue action under Border 2012.

"Nevertheless, the formal Guiding Principles of the Border 2012 Program, founded in the La Paz Agreement, emphasize community participation:

- Improve stakeholder participation and ensure broad-based representation from the environmental, public health, and other relevant sectors;
- Foster transparency, public participation, and open dialogue through provision of accessible, accurate, and timely information;
- Strengthen capacity of local community residents and other stakeholders to manage environmental and environmentally-related public health issues.⁵⁵

"As with all processes described in this handbook, if the community is well organized, the chances of being effective are much greater. As part of their broader organizing activities, community residents may want to learn more about current Border 2012 activities, provide input about those activities, and raise new issues for the program to address.

"For example, if a community is concerned about a particular facility that may be violating the law and endangering public health, residents may want to raise the matter with the Regional Task Force that deals with enforcement in that particular part of the border. Following are some of the ways that community residents can try to become involved in the Border 2012 Program. ..."

To improve public participation, the border program should consider moving towards public engagement, such as set out in Figure 3.⁵⁶

Figure 3: CORE PRINCIPLES FOR PUBLIC ENGAGEMENT

1. Careful Planning and Preparation
Through adequate and inclusive planning, ensure that the design, organization, and convening of the process serve both a clearly defined purpose and the needs of the participants.
2. Inclusion and Demographic Diversity
Equitably incorporate diverse people, voices, ideas, and information to lay the groundwork for quality outcomes and democratic legitimacy.
3. Collaboration and Shared Purpose
Support and encourage participants, government and community institutions, and others to work together to advance the common good. (1)
4. Openness and Learning
Help all involved listen to each other, explore new ideas unconstrained by predetermined outcomes, learn and apply information in ways that generate new options, and rigorously evaluate public engagement activities for effectiveness.
5. Transparency and Trust
Be clear and open about the process, and provide a public record of the organizers, sponsors, outcomes, and range of views and ideas expressed.
6. Impact and Action
Ensure each participatory effort has real potential to make a difference, and that participants are aware of that potential.
7. Sustained Engagement and Participatory Culture
Promote a culture of participation with programs and institutions that support ongoing quality public engagement.

(1) In addition to reflecting democratic ideals of liberty, justice, and freedom for everyone, "common good" refers to that which benefits all, like a traffic light in a dangerous intersection or a cleaned-up water supply.

The BECC has a public participation program and is seeking to expand it. Leveraging resources while staying true to the mission, Border 2012's public engagement principles could be used for both processes:

BECC / COCEF - PROGRAM 5 Public Participation and Capacity Building⁵⁷

"The purpose of the Public Participation and Capacity Building Program is to provide a foundation for sustainable development along the border through efforts aimed at inspiring community-based support for a project, providing transparency in each border initiative and strengthening the institutional capacity of border communities and utility providers.

"BECC seeks new opportunities to participate in and coordinate seminars, workshops, and similar events aimed at providing environmental education and institutional strengthening in the region. BECC has witnessed a growing interest in sustainable development, the environment, and health issues among border stakeholders, creating an ideal opportunity to promote awareness and

environmental education. Specifically related to concerns of climate change impacts, BECC is preparing itself to strengthen its role in the discussion of mitigation strategies and solutions to respond to existing effects of this serious environmental threat."

Recommendations

As many astute observers have noted, Border 2012 represents a quantum leap forward from the top down arrangements of the past. As the next iteration of border programs are being discussed, public participation should be expanded. As Mumme recently pointed out, however, the opposite is occurring. "Clearly, the gains of the 1990's are no basis for complacency where citizen participation in border environmental governance is concerned. In my view it is time for a renewed scholarly effort to appraise these developments. Scholars need to identify obstacles to improved public participation and support NGO's and civil society efforts to make participation more inclusive, more effective, and more meaningful in border environmental management."⁵⁸

Relevant comments and questions of Secretary Bastida Hernandez to the National Coordinators in 2009 reflect upon the overarching mission of Border 2012 to promote sustainable development in the border region in the context of local implementation:

"It would be advisable to put on the agenda of the succeeding program, goals and indicators designed to fulfill the legitimate aspiration of this binational and transborder region of achieving environmental sustainability at the same time and in the same order of importance as it achieves social and economic development. ... What role should the succeeding program play as regards to a green or conservation agenda? ... Which are the principles, objectives and goals that must be included in the succeeding program in order to meet Border 2012's mission as regards to social and economic development that conserves and uses resources in a sustainable manner?... Additionally, we should ask ourselves, what is the role of the state governments going to be? ... Another important aspect is Border 2012's structure, operability and communications. In this regard, we believe that it is necessary to pay attention to developing a program agenda with transversal objectives, which would have to undergo a review as to the intercommunication within the workgroups, whether they are regional, border wide or local. ... We end this presentation with the certainty that the analysis and construction of the succeeding program must be conducive to strengthening the management capacity of local governments, who will have to take on more of a leadership role in managing and planning actions that will have the greatest impact in reducing the border's problems."⁵⁹

Recommendations of Helen Ingram and Robert G. Varady, calling for new institutional arrangements and listening to local interests, are still relevant today.

The Need for New Institutions to Support Transnational Linkages

"New institutional arrangements to fully recognize the shared, transnational environment are much overdue. The North American Free Trade Agreement recognizes this need. To achieve the necessary reforms, national governments will have to relinquish some of their sovereignty to new

institutions that can take a transnational perspective. However, transnational linkages that permit national agencies to speak to each other but remain deaf to local interests, particularly those on the border, are doomed to fail. The need for a bottom-up approach is especially critical when it comes to border areas. Border regions need to be considered as coherent entities in their own right. When viewed as centers of concern rather than peripheries, possibilities for bargaining and accommodation across borders emerge. New regional and local institutions with transborder jurisdiction need to be established and given the mandated authority to collect and disseminate data, to plan, and to apply for and dispense funding to recently created environmentally beneficial projects and programs. NAFTA included one such institutional innovation, the Border Environmental Cooperation Commission, which has jurisdiction over environmental infrastructure. Others need to be created. "60

As potential remedies to the issues discussed above, we have several recommendations of possible ways to bolster public participation in a border environmental program.

Establish indicators of public participation for the Border Program

The Border 2012 Program does not formally evaluate public participation and thus it is difficult to determine the effectiveness of public participation efforts within the task forces, workgroups and policy forums. The best way to measure success in the program regarding public participation and to track progress toward this goal is to develop indicators. The Border 2012 Indicators Group should establish indicators of public participation for the border program.

Formally evaluate public participation in Border 2012 and assess the needs to enhance it

EPA and SEMARNAT should collect and analyze available public participation data, as well as conduct surveys of co-leaders and stakeholders alike, to determine barriers to public participation and what may be needed to improve it.

Transition more fully from public outreach and involvement to public collaboration and engagement and establish public engagement guidelines in the Border Program

In order to have full public participation in the border program, we suggest that EPA and SEMARNAT pursue implementation of models of public collaboration and engagement. Border 2012 envisions local stakeholders participating in environmental priority setting and developing solutions to these issues. In keeping with Table 1, this suggestion calls for more of a public collaboration and engagement activity as opposed to public involvement. EPA and SEMARNAT should formalize guidelines for task forces, workgroups and policy forums to follow in order to standardize public engagement throughout the border region.

Local Task Force Guidance and Support

Local task force co-leaders should be supported with funding and training in order to ensure that the public participation objectives of the border program are fulfilled. Development of guidelines on how to ensure public participation in the border program will be a critical foundation for this training.

Community Outreach and Education

Border stakeholders have indicated that more community outreach and education is needed, especially on emerging issues. One stakeholder has suggested that the program experiment with the *promotora* model as a means to more broadly educate border communities on important issues. Developing required capacity for sustaining transboundary cooperation should be a part of the overall program. Ongoing outreach to local government officials is needed to obtain their participation in the border program. A Resource Guide for each region summarizing agency duties and contacts, available in English and Spanish on the internet, would be enormously useful. Additional interacting with BECC/COCEF could leverage both programs.

Structural Recommendations to the Border Program to enhance public participation

In order to more effectively address the goals and objectives of the border program at the local level, more formal connections and definition of roles and responsibilities among workgroups and task forces needs to occur. Border-wide workgroups and policy forums need to provide technical assistance to local task forces that do not always have the technical expertise to deal with a particular issue or require federal-level involvement. This technical support should be aimed at helping task forces address local-level goals/objectives.

The next iteration of the border environmental program should incorporate all federal agencies. All U.S. federal agencies (i.e., DOI, USDA, DHS, DOE, etc.) would include ecological goals and objectives in their projects. Participating in one environmentally-focused program will reduce the number of activities and reduce opportunities for duplication and confusion. Participating in one program aimed to encourage local public participation will help to ensure that projects are responsive to the goals and objectives identified at the local level. To ensure transversality, Mexican federal agencies are likewise encouraged to work within the Border 2012 framework when dealing with environmental issues.

Using the JAC as a model, appointing to task forces representatives from various sectors may formalize participation from stakeholders and thus ensure representation from a cross-section of the community.

Include economics with environmental issues in the Border Program

Because environmental concerns need to be balanced with social and economic issues to achieve sustainability in the border region, the Border Program should consider integration with economic development efforts. For example, ecotourism holds promise as a vehicle to achieve ecological conservation while at the same time providing economic development to local communities. Also educating local communities and officials about the link between environmental quality and economic development is an important connection to make. The Border Governors have outlined some goals and objectives for economic development in the areas of energy efficiency and green chemistry that may offer opportunities for collaboration with the border program.

Planning Recommendations

Border 2012 has still not transitioned from a reactive to a pro-active program. Strategic plans are a means to define with community participation a vision for sustainable development at the local level and determine the steps that need to be taken to achieve that vision. Developing joint, geographic-specific and/or media-specific strategic plans are one way to fully involve the public in priority setting and development of solutions. The plans can then become a useful tool to track progress of meeting goals and objectives and as a framework for public engagement in the work of the task force or work group.

Develop joint plans to address regional issues. Climate adaptation related to water supply underscores why border communities must engage in joint planning. The BECC has been working on this and we encourage development of joint planning methodologies and protocols.

Assuredly, stresses will continue to mount along the border. A transboundary environmental impact assessment (TEIA) would ensure that border communities have input in projects with the potential for transborder environmental impacts. Passage of TEIA should be a priority for the U.S., Mexico, and Canada.

Conclusion

Under the 1983 La Paz Agreement, the United States and Mexico agreed to protect, conserve and improve the environment of the border region. The agreement created a framework for the two governments to resolve environmental issues along the border. While the Border 2012 program is the current iteration, contemplation as to what might be changed in the next iteration is timely.

Public participation in border environmental decision making has been strengthened since the signing of the Agreement. Incorporating input from border stakeholders, Border 2012 reflects partnerships with border states and Tribes and is based on priority setting and implementation at the local level. While moving in the right direction toward creating a sustainable future and involving border stakeholders, the reality of public participation does not reach the lofty goals envisioned in the program.

To ensure good governance and successful environmental quality outcomes, several issues need to be addressed. EPA and SEMARNAT should establish indicators and guidelines for public participation and train co-leaders in how to ensure public participation in task force implementation. The border program needs to support more community outreach and education, make some structural changes to more closely align goals and objectives from the programmatic level to the task force level, and include agencies that have not participated in Border 2012, but are integral to achieving sustainability in the border region, such as Department of Transportation, Department of Homeland Security, Department of Agriculture and Department of Interior. Strategic planning at the local level is needed to ensure public participation in priority setting and development of solutions to the border's environmental concerns.

Most importantly, the program should embrace the concept of public engagement as the only realistic way to address binational environmental concerns over the long-term.

Endnotes

- ¹ Participatory Governance and the Millenium Development Goals. Publication based on the Expert Group Meeting on Engaged Governance: Citizen Participation in the Implementation of the Developmental Goals including the Millennium Development Goals (MDGs) 1-2 November 2006. New York <http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028359.pdf>
- ² <http://www.peopleandparticipation.net/display/Involve/Home>
- ³ International Association for Public Participation, 2007, http://www.iap2.org/associations/4748/files/IAP2%20Spectrum_vertical.pdf
- ⁴ International Association for Public Participation, <http://www.iap2.org/displaycommon.cfm?an=4->
- ⁵ Dietz , Thomas and Paul C. Stern, Editors, Public Participation in Environmental Assessment and Decision Making, 2008, Committee on the Human Dimensions of Global Change (HDGC), National Research Council, http://www.nap.edu/catalog.php?record_id=12434. "Until now there have been few attempts to synthesise this diverse literature (on public participation) and draw out conclusions and recommendations for practice. To provide such a synthesis was the objective of the US National Research Council convened Panel on Public Participation in Environmental Assessment and Decision-Making. In their book *Public Participation in Environmental Assessment and Decision-Making*, edited by Thomas Dietz and Paul Stern, the Panel present the outcomes of an extensive process of research and consultation involving a series of workshops, meetings, and working papers bringing together academic and practitioner expertise pertaining to public participation. *Public Participation* is the culmination of this process, and as such is perhaps the most comprehensive review to date of this field." Lorraine Whitmarsh, *Environmental Science & Policy*, Volume 12, Issue 7, November 2009, Pages 1069-1072, <http://www.sciencedirect.com>
- ⁶ <http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=78&ArticleID=1163>
- ⁷ <http://www.unece.org/env/pp/documents/cep43e.pdf>
- ⁸ Enserink, B., M. Patel, N. Kranz, and J. Maestu. 2007. Cultural factors as co-determinants of participation in river basin management. *Ecology and Society* 12(2): 24.; <http://www.ecologyandsociety.org/vol12/iss2/art24/>
- ⁹ Dietz, page 76.
- ¹⁰ Mumme, Stephen P., (2010)- Reflections on Public Participation in Environmental Protection Policy on the U.S.- Mexico Border, in the compliation, -Retos ambientales y de Desarrollo Urbano en la Frontera México-Estados Unidos, by, Roberto García Ortega, Elizabeth Méndez Mungaray, Ma. Eugenia González Avila, Juan Manuel Rodríguez Esteves, Ricardo V. Santes Alvarez, Christopher Brown and Stephen P. Mumme. El Colegio de la Frontera Norte. Tijuana, B.C.
- ¹¹ Ibid.
- ¹² US-Mexico Border XXI Program: Progress Report 1996 – 2000. EPA 160/R/00/001 p. 2
- ¹³ Barry, Thomas and Sims, Beth. *The Challenges of Cross-Border Environmentalism*, p. 74
- ¹⁴ Ibid. p. 74
- ¹⁵ US-Mexico Border XXI Program: Progress Report 1996 – 2000. EPA 160/R/00/001 p. 2
- ¹⁶ Mumme, Stephen P., (2010),
- ¹⁷ Barry, Thomas and Sims, Beth. *The Challenges of Cross-Border Environmentalism*, p. 76
- ¹⁸ Spaulding, Mark, *The U.S.-Mexican Border Environment: SCERP Monograph Series No. 1. "Addressing Border Environmental Problems Now and in the Future"*. 2000.
- ¹⁹ US-Mexico Border XXI Program: Progress Report 1996 – 2000. EPA 160/R/00/001 p. 9
- ²⁰ Ibid. p. 7
- ²¹ Ibid. P.2
- ²² Ibid. p. 3.
- ²³ Ibid. p. 10
- ²⁴ Ibid. p. 10
- ²⁵ Ibid. p.13
- ²⁶ 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. Contrast that with the IBWC/CILA,

which works together on surface waters by implementing treaties, but has thus far been reluctant to take on a similar role with respect to groundwater, perhaps due to the lack of a treaty. Potentially, IBWC/CILA has jurisdiction over groundwaters close to the international limit under Section 6 of Minute 242 (1973): "With the objective of avoiding future problems, the United States and Mexico shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources, or undertaking substantial modifications of present developments, in its own territory in the border area that might adversely affect the other country."

²⁷ Mumme, Stephen P., (2010)-

²⁸ Spaulding, Mark, (2000).

²⁹ 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

³⁰ Good Neighbor Environmental Board, Assessment of the Border XXI Program. Addendum 1 to the U.S.-Mexico Border XXI Program: Progress Report 1996 – 2000.

³¹ EPA-160-R-03-001, May 2003, <http://www.epa.gov/usmexicoborder/publications.html#framework>.

³² US-Mexico Environmental Program: Border 2012 Implementation and Mid-Term Report: 2007

³³ Sixth Meeting of the National Coordinators, Minutes of the Future Binational Program Discussion Session, October 28th, 2009, Valley Center, CA. EPA Region 9

³⁴ Ibid.

³⁵ Presented at the Border Institute VIII on Discovering Means and Mechanisms for Collaborative Planning and Operation of Transboundary Watersheds in Rio Rico, Arizona on May 22-24, 2006, www.scerp.org/bi/bi-viii/Mimbres%20Roadmap%20short.ppt. The current version can be found at http://border.nmsu.edu/rtf_documents/Roadmap_Proposal_updated.doc.

³⁶ Brown, Christopher, "Transboundary Water Resource Issues on the US-Mexico Border Challenges and Opportunities in the 21st Century," September 2005, <http://vertigo.revues.org/>

³⁷ While the authors are solely responsible for these recommendations, they are enhanced by interviews of participants and responses to a survey of Border 2012 Task Force members about their experiences with Border 2012 and earlier programs. The survey was done in January 2010 by the authors and although the responses were few, the input was valuable and is woven into the text together with interview responses. While the input included that from Mexicans, if there is a notable bias, it is that two of the authors are more familiar with U.S. institutions.

³⁸ As was noted by the GAO in its recent report suggesting that "Congress consider requiring federal agencies to develop a coordinated plan to improve the effectiveness of drinking water and wastewater programs in the border region." United States Government Accountability Office, Rural Water Infrastructure - Improved Coordination and Funding Processes Could Enhance Federal Efforts to Meet Needs in the U.S.-Mexico Border Region, December 2009, GAO-10-126, Highlights, <http://www.gao.gov/highlights/d10126high.pdf>; Full report at GAO-10-126, <http://www.gao.gov/new.items/d10126.pdf>

³⁹ And ultimately became the subject of a binational effort to address the problem after the border fence was accidentally knocked over while creating a berm to stop further flooding. (Romo, Rene, "Removal of Border Berm Sought," *Albuquerque Journal*, December 6, 2006, <http://www.abqjournal.com/news/state/518457nm12-06-06.htm>)

⁴⁰ "If there is one thing that we have learned after over a decade of transborder work, it's that local solutions to local problems are usually better than one size fits all, top-down prescriptions." Rick Van Schoik and Erik Lee, *The Border Governors Conference: (Still) Only Part of the Solution*, September 1st, 2009, <http://nacts.asu.edu/border-governors-conference-still-only-part-solution>.

⁴¹ "Water scarcity is undoubtedly the greatest single environmental peril in the U.S.-Mexico transborder region. It threatens our quality of life, endangers water-sensitive ecosystems and the wildlife they support, puts at risk economic growth, and strains diplomatic relations between the two nations." Ten States Border Governors recently adopted Strategic Guidelines for the Competitive and Sustainable Development of the U.S.- Mexico Transborder Region, September, 2009, bordergovernors.org/en/pdf/Strategic_Guidelines_ENG.pdf.

⁴² The list of collaborators on the Fact Sheet: U.S.-Mexico Transboundary Aquifer Assessment Program- Arizona (TAAP-AZ), does not mention either Border 2012 or EPA (November 2, 2009).

<http://www.cals.arizona.edu/azwater/taap/factsheet.pdf>). The TAAP originates from U.S. Public Law 109-448, signed into law by the President on December 22, 2006 as the Transboundary Aquifer Assessment Act. The Act applies to the states of Texas, New Mexico, and Arizona where four transboundary aquifers have been designated for priority assessment; those being the Hueco Bolson and Mesilla Basin aquifers in the greater El Paso / Ciudad Juárez region, and the Santa Cruz and San Pedro aquifers across the Arizona – Sonora border. TAAP is designated to operate for 10 years, with \$50 million authorized for appropriation over that time period. Appropriations to date include \$500,000 each for fiscal years 2008 and 2009.

⁴³ As air and water are ignorant of political boundaries, binational policies are needed to address their protection. Each country has enforcement measures, but they are unilateral. The Joint Advisory Committee, created to address air quality in the Paso del Norte region, provides an good example of how policies might be developed to address noted problems. The IBWC/CILA works together on surface waters by implementing treaties, but has thus far been reluctant to take on a similar role with respect to groundwater, perhaps due to the lack of a treaty. Potentially, IBWC/CILA has jurisdiction over groundwaters close to the international limit under Section 6 of Minute 242 (1973): "With the objective of avoiding future problems, the United States and Mexico shall consult with each other prior to undertaking any new development of either the surface or the groundwater resources, or undertaking substantial modifications of present developments, in its own territory in the border area that might adversely affect the other country."

⁴⁴ Mumme, Stephen P., (2010)

⁴⁵ <http://www.epa.gov/usmexicoborder/docs/framework/Border2012-OperatGuideFinal7-09.pdf>

⁴⁶ A recent example: as a part of the Integrated Biorefinery Program, Sapphire Energy has been awarded a \$50 million grant and \$54.5 million loan to construct and operate a full scale algal biofuels production center approximately ten miles from Columbus, NM and less than a mile north of the border. Many concerns have been raised about the viability of algal biofuels (see for example, "Environmental Life Cycle Comparison of Algae to Other Bioenergy," Andres F. Clarens, Eleazer P. Resurreccion, Mark A. White and Lisa M. Colosi, University of Virginia, January 2010, <http://pubs.acs.org/doi/pdfplus/10.1021/es902838n>). In addition to concerns as to the project's environmental footprint and water usage, no consultation has to date occurred with Mexican officials or the public in the region. Given the proximity to the border, would Section 6 of IBWC's Minute 242 require such? How might such projects fit within the Border 2012 framework?

⁴⁷ "A multitude of plans and programs exist that should be implemented to advance the region's infrastructure, as well as the institutional and social changes proposed in these Strategic Guidelines. In preparing the report, several federal, regional, state, and local plans and programs surfaced, all promoting economic integration through more secure trade, sustainability, and a better quality of life. There are also numerous efforts led by private-sector organizations that support the same principles and strategies embraced by the Strategic Guidelines. All these plans and programs, public and private, short-term and long-term, should be implemented because they contribute directly to the strengthening of the transborder region." 5.1. Implementing the Strategic Guidelines through Existing Development Plans and Programs, Strategic Guidelines for the Competitive and Sustainable Development of the U.S.-Mexico Transborder Region (non binding document), September, 2009, bordergovernors.org/en/pdf/Strategic_Guidelines_ENG.pdf.

⁴⁸ Ibid. During this year's XXVIII Border Governors Conference (BGC) held in Monterrey, Nuevo Leon, an important border policy vision was developed and unveiled to create a framework on how to conduct business in the border region. The Strategic Guidelines delivered policy initiatives under four key policy areas: Competitiveness, Sustainability, Security and Quality of Life. The 13 BGC Work Tables will be tasked in developing substantial policy actions under these four policy areas. Noteworthy is that the Border Legislative Conference is also working on similar issues, but are not necessarily coordinating with the BGC, although as set out in their Resolution from the November 2009 meeting, the aim is to do so, as well as to coordinate with Border 2012 efforts on scrap tires. <http://www.borderlegislators.org>

⁴⁹ As an interesting aside, the Ten States' organization "ironically gelled out of concerns about being excluded from the Border XXI Program." Good Neighbor Environmental Board, Assessment of the Border XXI Program. Addendum 1 to the U.S.-Mexico Border XXI Program: Progress Report 1996 – 2000.

⁵⁰ "Transborder development requires coordinated action among various actors on both sides of the border. Traditionally, transborder government was conceived of as intergovernmental principally among federal

agencies in order to solve shared security, health, and environmental problems. Currently, fiscal problems and the lack of effectiveness of traditional tools to confront complex border problems have overwhelmed the region's state and local governments. In the context of the growing binational interdependence between Mexico and the United States, we cannot regulate the issues of security or environmental protection only at the national level or through traditional intergovernmental cooperation. Several key characteristics distinguish the government structure's current reality and are needed for the implementation of the Strategic Guidelines:

- Flexible and integrated networks, including public-private associations and citizen coalitions. These networks must complement government action, and on occasion, occupy spaces where the government cannot effectively intervene.
- Public and private universities must play a significant role in establishing these networks and maintaining a position of leadership in their functioning.
- We must recognize the role that nongovernmental organizations (NGOs) and other citizen initiatives play in noting when issues arise and advocating for government intervention and action at the earliest stages of these problems.

Since the Strategic Guidelines largely encompasses innovative policies and actions, the participation of nongovernmental networks during its implementation is broadly recommended. In the context of a global strategy, these networks can exercise at least three key functions:

- They can convene and bring to the table all the actors, mobilizing key districts, and offering a forum for exchange of points of view. The universities on both sides of the border have demonstrated success in playing this role.
- They can act as neutral third parties during the policymaking process, particularly during the negotiation of controversial issues, such as sharing natural resources and land-use administration.
- They can act as transborder advocates, pressuring governments to incorporate transborder aspects into their planning and policies. As the implementation process of the State."

5.4.3. Civil Society Organizations working toward a competitive and sustainable transborder region, Strategic Guidelines for the Competitive and Sustainable Development of the U.S.-Mexico Transborder Region (non binding document), September, 2009, bordergovernors.org/en/pdf/Strategic_Guidelines_ENG.pdf.

⁵¹ <http://www.borderplanning.fhwa.dot.gov>. Another way for public members to become confused is when apparent overlaps exist. See for instance, "The Greening the Border" conference of the JWC (U.S.-Mexico Joint Working Committee (JWC) Meeting Minutes Santa Fe, New Mexico July 13-15, 2009," and the "Greening Borders: Cooperation, Security and Diplomacy," University of San Diego, November 18- 20. 2009.

http://www.sandiego.edu/peacestudies/documents/ksps/english_agenda.pdf.

⁵² <http://www.cals.arizona.edu/azwater/taap/factsheet.pdf>,

<http://udallcenter.arizona.edu/wrpg/transboundary.html>

⁵³ Ibid. Environmental Health Coalition: www.environmentalhealth.org, Border 2012 Program Regional Workgroup Newsletter: http://www.epa.gov/border2012/pdf/ca_baja_news2_eng.pdf

⁵⁴ Environmental Enforcement in the U.S./Mexico Border Region: A Community Guide to Enforcement in Texas and Chihuahua, August 2007. Retail Price: \$0.00, Download this report (English Edition - d17_11) for free.

<http://www.elistore.org>. For this report in Spanish (d17_12). Community Environmental Law Initiative, a joint effort between the Environmental Law Institute and the Southwest Network for Environmental and Economic Justice. The preparation and publication of this handbook was supported by the U.S. Environmental Protection Agency Region 6. "The handbook provides practical information about the tools for community participation in environmental enforcement, describing legal tools in the U.S. and Mexico, as well as bi-national mechanisms for promoting effective enforcement. The handbook focuses on the states of Texas and Chihuahua, but provides information about environmental agencies, laws and processes that can be useful to communities throughout the border region. The handbook is available in English and Spanish."

⁵⁵ U.S.-Mexico Border 2012 Framework, *available at*: <http://www.epa.gov/border2012/intro.htm>

⁵⁶ International Association for Public Participation, May 1, 2009, http://www.thataway.org/files/Core_Principles_of_Public_Engagement.pdf

⁵⁷ Border Environment Cooperation Commission: <http://www.cocof.org/english/index.html>

⁵⁸ Mumme (2010)

⁵⁹ Secretary of the Environmental Protection Department of the State of Baja California to the Border 2012, Plenary Session, Environmental Program's Sixth National Coordinators Meeting, October 29, 2009.

⁶⁰ Ingram Helen and Robert G. Varady, "Empowering Grassroots Linkages," *Borders*, No. 39, Spring/Summer 1996 , <http://ag.arizona.edu/aln39toc.html>