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## **FINAL REPORT**

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### Small and Poor Communities Research Project for the BECC/NADBank Special Initiative for Small Communities

#### **Executive Summary**

The purpose of this report is to review the ways in which the North American Development Bank ("NADBank") can best utilize funds to assist smaller and poorer border communities as the NADBank was intended to do. Although contracted by the NADBank, the research part of this report is intended to be useful to both the NADBank and the Border Environment Cooperation Commission ("BECC"). The report contains four main sections, all of which envision a cooperative/coordinated approach among BECC, NADBank, the International Boundary and Water Commission ("IBWC"), and state and local agencies. The first section discusses designs for public participation and the creation of community capacity building and leadership. The second section describes methods for providing technical assistance in long term planning and project design, as well as in the preparation of BECC certification and NADBank finance applications. The third section explores how to make projects more affordable to small and poor communities through cost avoidance and self-help. The final section, making use of the research summarized in the first three sections, sets forth a proposal for a pilot project targeting four binational border communities. The estimated cost of this pilot project is approximately US\$235,000. In addition, the report includes an extensive research bibliography for future reference and annexes which describe BECC's Project Development Assistance Program, US Environmental Protection Agency's Community-Based Environmental Protection program, the Rensselaerville Institute's Small Towns Environment Program, and finally a Proposed Budget for the pilot project.

## 1. Introduction

[The border region suffers from] uncontrolled industrialization, rapid population growth, poor binational coordination, little or no involvement of local communities and municipalities in federal decision-making, and limited citizen access to needed information.<sup>1</sup>

In order to exist, people need water to drink, to prepare food, and for sanitary purposes. In addition, water is used for other domestic and industrial needs and in extremely large quantities for agriculture. In an arid region such as the US/Mexico border, we must balance and plan water resources development and consider the socio-economic and environmental consequences of our actions. For this reason, among others, the BECC and the NADBank were created. Clearly new institutions were needed to address the crisis on the border, new institutions with a broad mandate to take a fresh approach at solving the border's environmental problems such as potable water delivery in the context of sustainable development: new institutions which are open, transparent and focused on rural and not only urban needs, and which welcome alternative and appropriate technologies as well as public input. This tension between the BECC/NADBank structure and existing organizations, and the hope that new approaches would promote new solutions, is apparent from the published record of the debate over the creation of the BECC and the NADBank. In particular, it is clear from this debate that a major intent underlying the creation of these institutions was to see that environmental infrastructure was built in underserved communities, particularly those which did not have access to financial markets. The NADBank's backing from the US and Mexican governments was to be used to leverage resources and help these communities gain access to financing for environmental infrastructure projects.

The underserved, small and poor communities of the border region have very special needs:

### **Evident Needs**

- Lack of water supply;
- Lack of sewage systems; and
- Lack of water treatment systems.

### **Needs Not So Evident**

- Lack of solid waste disposal systems;
- Lack of education;
- Lack of social or political awareness;
- Lack of public participation;
- Lack of resources for public participation process;
- Lack of resources for documenting their problems;
- Lack of resources for defining environmental infrastructure needs;
- Lack of regional projects;
- Lack of adequate technology for low volumes;
- Need assistance in planning and assessment;

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<sup>1</sup> Public Participation Report re Agua Prieta 1994, p.1.

Need for preliminary engineering in projects;  
Insufficient knowledge for determining resources available to them; and  
Lack of human resources.<sup>2</sup>

Unfortunately, despite these needs, there are two basic hurdles to small community involvement in the BECC/NADBank process. First is the perception that the application for certification is too complex and the process of dealing with the BECC and the NADBank is too long and involved. Second is the reality that NADBank financing could be too expensive without concessionary interest rates or grants from third party sources.

### **1.1. What is the role of the BECC and the NADBank in small and poor communities?**

The BECC and the NADBank have two key roles to play in small and poor border communities. First, the BECC/NADBank structures are intended to help communities which do not have access to financing and to see that environmental infrastructure is built where it is most needed. This was to be accomplished by creating a financial leveraging and loan guarantee structure which will attract market lenders to underserved communities.

Second, the BECC and the NADBank can foster public participation and local input in decision-making regarding border environmental infrastructure projects:

- (1) To carry out comprehensive assessments of environmental, economic and health conditions;
- (2) To ensure the long term viability and sustainability of projects;
- (3) To enhance regional and binational cooperation on projects;
- (4) To promote community ownership of, and responsibility for solutions to environment and health problems;
- (5) To ensure governmental accountability to communities affected by projects; and
- (6) To examine economic and technical feasibility of projects.<sup>3</sup>

To fulfill these two roles, the BECC and the NADBank have already initiated a small communities effort:

The BECC and NADBank, together with representatives from the ten border states, kicked-off a binational initiative to address the needs of small communities during a meeting held on February 26th, in El Paso, Texas. Supported by the Western Governor's Association, the idea for a small community initiative originated following discussions with state

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<sup>2</sup> Mexican workgroup comments on the "needs of small communities" at the February 26, 1996 Small Communities Initiative Meeting.

<sup>3</sup> Public Participation Report re Agua Prieta 1994; and Interviews with Andrea Brown of the Center for North American Integration and Development ("NAID") regarding its experience in assisting on the development of the recently certified Naco project. Various dates, Summer 1996.

representatives regarding the limitations of small communities on both sides of the border to develop environmental infrastructure projects. During the first in a series of planning meetings, representatives from border states caucused to address the unique needs of small communities and how they would be better served by the BECC-NADBank process. Issues regarding technical assistance, grants, and lower interest loans surfaced at the forefront of these needs.<sup>4</sup>

Unfortunately at present, according to the BECC, no models exist for developing attractive and viable projects for small communities.<sup>5</sup> While this is clearly an incorrect statement, the US/Mexican border does present a unique set of circumstances for the development of models. The border region mixes two cultures, two levels of development, high population growth and rapid industrialization with desert conditions of water scarcity. While models can be drawn from the experiences of other development initiatives around the world (see the attached Bibliography), it is more important to recognize and work within the limitations of what the NADBank is allowed to do by those who created it.

The NADBank was created to finance environmental infrastructure projects that are certified by the BECC. For now the two institutions are limited to dealing with issues of water, wastewater treatment, solid waste and related matters. The challenge is to establish credit for loans to finance small community projects. The bank must identify sources of funds, or subsidies, in addition to NADBank resources, in order to make projects more viable.<sup>6</sup> While the NADBank may lend to anyone, it is not a tax-exempt institution, and its funding comes only from the market. It must borrow capital for relending at the market rate, never lower.<sup>7</sup>

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<sup>4</sup> February issue of BECC News.

<sup>5</sup> Comments of BECC Deputy General Manager, Luis Raúl Domínguez at the May 23, 1996 Puerto Peñasco Small Communities Meeting.

<sup>6</sup> Comments of Arturo Nuñez, of the NADBank, at the May 23, 1996 Puerto Peñasco Small Communities Meeting.

<sup>7</sup> Comments of Victor Miramontes, of the NADBank, at the February 26, 1996 Small Communities Initiative Meeting.

## 1.2. Identifying small and poor communities

I would like to take a few moments to discuss an issue of particular importance to me, and that is the issue of colonias. Mr. President, for those who do not speak Spanish or come from the Southwest, colonia is the Spanish word for neighborhood. Traditionally, in my State of New Mexico and throughout the Southwest, colonias referred to long-established, unincorporated small towns with rich community heritages. Over the past decade, colonias have also come to refer to densely populated, poverty-stricken communities that have sprung up along the border in the past 10 to 15 years. They are often populated primarily by Mexican-Americans and legal immigrants working as seasonal farm laborers. These are decent, honest, hardworking people trying their best to create a good life for themselves and their families. The tragedy of these new colonias, however, is that they are typified by desperate poverty, by severe overcrowding, by inadequate housing, by pathetic roads, and, most important for purposes of the bill before us, by nonexistent drinking and waste water services.<sup>8</sup>

At present there seems to be a difference of opinion regarding what constitutes a small and poor border community. We need to watch the development of this definition closely because the definition of a small community and the public's participation may significantly affect which communities receive grants or technical assistance money. The NADBank needs to prevent the states from misdirecting efforts. The focus must stay on unrated and underserved communities.

At the first small communities meeting in February 1996, a US workgroup discussed the Rural Economic Community Development ("RECD") and EPA definitions of small communities, agreeing that small communities usually lack technical, financial, and adequate resources, and cannot compete with large communities. However, in the discussion of whether to include population as a factor, the group could not agree and decided to broaden the context as much as possible by defining a small community as anything that is not considered a large community. The agreement was that a small border community is any community within a 100 kilometer distance from the US-Mexico border that is not a large community. Large communities include San Diego, Yuma, Tucson, Sierra Vista, Las Cruces, El Paso, and Laredo.<sup>9</sup> This definition will not necessarily ensure assistance to the smallest and poorest communities who need it the most. It is too broad and lacks any factors for prioritization of efforts.

In contrast, the Mexican workgroup defined small communities as having the following characteristics:

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<sup>8</sup> Excerpt from Sen. Domenici's Floor statement in support of Amendment 3072 of the Safe Drinking Water Act, November 29, 1995.

<sup>9</sup> Definition of Small Communities set forth at the February 26, 1996 Small Communities Initiative Meeting.

- (1) Isolated;
- (2) Distressed by regulation problems;
- (3) Rural;
- (4) Need water supply, sewage, water treatment, and solid waste disposal systems;
- (5) Population of at least 2500; and
- (6) Tend to be very scattered with little possibility of being noticed by BECC.<sup>10</sup>

Clearly this is a superior definition, but is still lacking. For the NADBank's purpose, a key element must be added: priority should be given to communities that are unrated, or low-rated by financial institutions so that the NADBank will really be helping those who do not have access to lending markets as intended.

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<sup>10</sup> *Id.*

## **2. Community Participation and Leadership**

The need for public participation is based on the premise that active citizen participation is essential to strengthening and complementing governmental efforts to develop lasting solutions to the many complex and rapidly changing environmental and health problems confronting them. As such, public participation is a necessary component of sustainable development initiatives and long term environmental safeguards.

To be effective, public participation programs must ensure that communities are not only adequately informed of health and environmental conditions affecting them, but also given the opportunity to participate actively in decision-making concerning these matters.<sup>11</sup>

The current BECC/NADBank outreach process has been good, but it has not been that effective in providing sufficient information to small communities. The BECC/NADBank need to develop ways to help small and poor communities and then communicate those methods through effective outreach. These communities also have a greater need for technical assistance from the BECC and the NADBank. In this regard, it should be noted that technical assistance and BECC/NADBank involvement can happen at any stage in the process. The placement of this section on Community Participation and Leadership before the Assistance discussion is not to indicate any priority. Technical assistance may be required just to get the needs assessment/community participation process started.

### **2.1. How to identify specific, appropriate community, business and other leaders and groups the Bank may contact**

Selecting the community leaders/representatives is the most difficult part of the process. However a community or a project may have a representative attached. For example, the Naco project certified by the BECC in July 1996 had a strong local proponent. Such leaders may come to the BECC/NADBank seeking help for their community. In many ways this is ideal. The local contact is self-identified, finds out about the BECC/NADBank for himself or herself, and initiates the contact.

If, instead, the BECC/NADBank identifies a target community, it can take a long time to develop the necessary representation in a community. However, building this representation is the key to success. It is very important to provide empowerment, skill development and access, especially on the Mexican side. This contribution can have a longer lasting effect than any one concrete project. In other words, the goal may be to present a project for funding in each of the target communities; however the BECC and the NADBank have to be prepared, at first, to initiate a democratic and human/civic development process and not necessarily in a solid project.

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<sup>11</sup> Public Participation Report re Agua Prieta 1994, pp. 2-3.

**2.1.1. The BECC and NADBank must continue to develop detailed contact lists of individuals and groups in the border region who can help identify local contacts in every border community.**

In each community there are different combinations of institutions and groups of peoples. Local populations are socially stratified by occupation, status, lineage, ethnic or religious identification, age, gender as well as linkages with markets and political authorities outside the local communities. Also, many smaller communities' traditional structures and relations have or will be disrupted by incorporation into regional, binational or international markets.<sup>12</sup>

Existing local institutions, however imperfect, should be strengthened. Traditional leadership can use social pressure for compliance to laws and provides mechanisms for minimizing and resolving disputes.<sup>13</sup>

The BECC/NADBank should make special efforts to see that the "major groups" in civil society are included when it establishes channels of communication and cooperation: women, young people, indigenous people, non-governmental organizations, local governmental authorities, workers and trade unions, business and industry, the scientific and technological communities, farmers, fishers, and rural agriculturists.<sup>14</sup> While the NADBank is probably developing a detailed contact list, there may be ways to make it more comprehensive. One way is to develop an integrated database (which might also save money) which is network accessible. In so doing, border institutions could share crucial community contacts which they need to be able to reach. To augment this effort, rather extensive lists of contacts were also developed by the Border Ecology Project and Texas Center for Policy Studies as part of a Mott Foundation funded project to see that NGOs and others were able to participate in the BECC meetings.

In anticipation of using the lists to organize community meetings, these lists should focus on including three types of people:

- (1) Political leaders - The BECC/NADBank should identify those who are most important and make sure they are included. This part of the list must include local, state, tribal and federal officials (particularly federal officials resident in the target community).
- (2) Opinion leaders - priests/ministers, school teachers, local business people (who may represent local firms, multi-nationals as well as large or small scale operations), lawyers, accountants, landowners, and community elders.
- (3) Community residents - as a means of contacting everyone else, contacts that reach out to community residents should also be well represented in the lists. To be able to

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<sup>12</sup> Stiles, 1993 p. 9.

<sup>13</sup> *Id.* p. 43.

<sup>14</sup> From Agenda 21.



invite community residents to participate in community meetings, look for contacts in special interest groups including environmental NGOs, development NGOs, activist groups, social clubs, churches, women's groups, indigenous peoples groups, youth groups, unions, and others who will communicate with their memberships on the NADBank's behalf.<sup>15</sup>

### **2.1.2. The BECC/NADBank should present concepts to a single local community based organization ("CBO")**

The BECC/NADBank should strategically select one contact in a target community who can be approached first, someone who ideally enjoys respect from differing local interests. Representatives from the BECC and the NADBank and a regional representative should meet with the local community contact to explain how the BECC and NADBank institutions function and how the Special Initiative for Small Communities might be of interest to the local contact's community. This is to make sure that the party issuing invitations to a public meeting (See 2.1.3. below) is sufficiently familiar with the BECC and the NADBank before proceeding.

### **2.1.3. The local CBO should organize a community meeting**

[O]ur experience in this region has taught us that on a local level border communities are capable of a high degree of cooperative planning, mutual trust and problem solving. Such cooperation need not undermine national sovereignty or exacerbate political and cultural differences.<sup>16</sup>

The local contact (identified per 2.1.2. above) should organize the first community meeting. This is suggested to overcome the potential distrust of outsiders, a lack of name recognition for the BECC/NADBank, or the potential fear of the process. The invitation list for the meeting should be derived from consultations with the BECC and the NADBank to determine the appropriate types of "stakeholders" to include (in very small communities general invitations can be made). In part, the identification of stakeholders must be a very public process in order to give the group credibility once it has made decisions related to needs assessments, project identification, etc. The list of stakeholders should be binational whenever possible, and should be required where there is a potential for projects to have a binational impact. The list should also reflect a broad cross section of political leaders, opinion leaders and community residents (see 2.1.1. above). The meeting must be backed by sufficient financial support and technical expertise to enable it to be informed and effective (this is included in the pilot project below).

## **2.2. Participation of these leaders and groups in a needs assessment.**

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<sup>15</sup> World Health Organization 1987, p.17; and Aloisi de Larderel 1994, p. 8.

<sup>16</sup> Public Participation Report re Agua Prieta 1994 , p.13.

It is important for BECC and NADBank to obtain the participation from the public sector to ensure the quality of projects. The public should also participate in identifying priorities and approving projects.<sup>17</sup>

At the community meeting, local governmental authorities, representatives of the BECC, the NADBank, regional NGOs, and the local contact should again explain how the BECC and NADBank function and how the Special Initiative for Small Communities might be beneficial for the community. These representatives should then facilitate a discussion to identify environmental problems in the community, and begin a discussion of possible solutions to those problems.

**2.2.1. BECC, the NADBank and the local CBO facilitate the community meeting to educate those present on the BECC/NADBank concept.**

Active citizenship means being involved. Effective citizenship requires that the target community must first become informed. The BECC and the NADBank can not assume they have an environmentally educated audience during the community meetings. The BECC and the NADBank can help the public understand the interrelationships between ecosystems, natural resource use and conservation, as well as the importance of biological integrity for long term economic viability. Before proceeding, the community must also realize the effects of growing populations on the border's environment and resources. Finally, the community must be given a basic understanding of the history, purpose, powers, and limitations of the BECC and the NADBank.

**2.2.2. BECC, the NADBank and the local CBO facilitate the community meeting to identify the environmental infrastructure needs of the community.**

Although it may seem simple to identify a community's problems, prioritize those problems, identify a need that fits in the BECC/NADBank's mandate, and then identify a solution for that problem/need, the needs identification stage is crucial to community acceptance of the project. It must be done right so community residents will pay user fees for the service the project will provide, and so the NADBank can recoup its loan.

I think it is important for the community to be a part of determining the priorities so they understand from the beginning the decision-making factors. They are more likely to support it. If the NADBank project is not their top priority, most communities will be accepting and try to find other ways to get their pet project constructed or tie into the main project. (For instance, in Naco, dust from the streets appeared to be the most immediate problem to the public. At one time, there was a discussion to replace the underground pipes as part of the wastewater treatment expansion in Naco and pave the streets after their installation.). In other words, identifying the priorities can stimulate more than one project. The

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<sup>17</sup> Comments of Jaime Gutierrez, of Sonora, at the February 26, 1996 Small Communities Initiative Meeting.

NADBank may fund only one project, but they can take some credit for the multiplier effect.<sup>18</sup>

### **2.2.2.1. Problem identification and prioritization**

Any needs assessment meeting should probably be carried out in conjunction with a focused survey and/or questionnaire (for examples see the Agua Prieta and the WHO reports listed in the bibliography). The BECC and the NADBank should be prepared for the needs assessment process to require more than one meeting. The meeting facilitators should help the community meeting focus on problem identification and formulation. They should ensure that the community is looking at the needs that already exist, and needs that are anticipated for the future. The prioritization of community needs and the coordination of responding to those needs may require the development, or revision, of a community or regional plan. In prioritizing its needs, the community should be encouraged to think about the feasibility and affordability of dealing with the problem, not only importance of the "need". Special care must be taken to avoid having any communication by the BECC/NADBank create a situation of false expectations. Problems and potential local solutions must first focus on local resources and local political willingness to take responsibility before any outside resources are "promised."

### **2.2.2.2. Solution identification**

Once the needs assessment is done (or well under way), the process of identifying a solution can begin. It may, of course, even result in the community revisiting its needs assessment and prioritization -- if solutions are either unavailable, unfeasible,

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<sup>18</sup> Interviews with Andrea Brown of the Center for North American Integration and Development ("NAID") regarding its experience in assisting on the development of the recently certified Naco project. Various dates, Summer 1996.

or unaffordable. The elements of identification of a solution should include the following:

- (1) Formulation and screening of policy alternatives (this should include psychological acceptance -- e.g. water reuse);
- (2) Evaluation of alternatives, including consideration of long-term environmental and social impacts (this can be the beginning of preparation for BECC certification);
- (3) Selection of the "best" alternative (this cannot be accomplished without the involvement of the public);
- (4) Determining the scale of the project. (this may be a combination of the "size" of the need and affordability);
- (5) Site identification;
- (6) Identification of local resources -- human, cultural, physical, financial, political, vested infrastructure (a redevelopment opportunity?), and replicable designs;
- (7) Identification of available regional, state, and federal government resources;
- (8) Identification of systems and materials for construction;
- (9) Setting of performance criteria (here may be a role for experts);
- (10) Education, communication and demonstration throughout process. Focus a lot of effort on capacity building (role for experts);
- (11) Follow-up evaluation (this should be planned at the beginning -- the community must know that they will learn if they are getting what they paid for - e.g. water quality); and
- (12) Operation, maintenance and replacement/expansion reserves (This too should be planned at the beginning -- the community should be thinking of this as a cost item from the start. In addition, an otherwise acceptable project may become unfeasible or unaffordable.).<sup>19</sup>

**2.2.3. Based on the needs assessment, at the community meeting a local partner such as a bank, municipal government, water district, NGO, corporation or foundation should be selected to serve as the local project promoter in the community.**

After the needs assessment has been pursued and the community representatives have approved of the importance, feasibility and affordability of the solutions, some one, or some entity, must take responsibility to undertake the project. This person, or entity, will ultimately not only see the project through to fruition, but also take liability for the project (i.e., be the borrower). For this reason, the selection of the project promoter may not require a democratic vote unless there are two or more potential borrowers. In the alternative, the BECC and the NADBank can foster the creation of a water company to be sure the project is handled by people who have no direct political interests, but instead are interested in getting long term services to people.

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<sup>19</sup> Parts of this list were derived from Biswas 1989, p. 12.

### 3. Assistance

#### 3.1. How to assist small and poor communities in developing environmental infrastructure projects

It is important to identify hurdles for small towns in their project development and to find solutions for these hurdles.<sup>20</sup>

As noted in the introduction, many small and poor communities will need technical assistance not only for planning and assessment but also for preliminary engineering for projects. Moneys and donated services need to be identified from the beginning to provide some tools for the project developers. A range of experts are needed for technical assistance, as well as someone to organize them.

On the Naco project, ICMA selected the wastewater treatment expansion and provided a schematic design with a budget for the project. The project was later revised by consultants from the BECC and Enlace Ecologico with money from the Inter-American Foundation. I think this phase determines the sustainability of the project. It could be argued that sustainable design is still a young science, so that various experts are needed to refine the project. In the Naco case, ICMA provided a sound engineering design for the pond expansion and introduced the water re-use component. But that was not enough. Badger Meter provided water consumption statistics for economic analysis and proposed metering the municipality for a pay back system, incentive for water conservation in consumption and in the delivery system. Agricultural experts were approached about crops irrigated with treated water and public health experts were also consulted. A creative economic development component is imperative for these projects and should not be left just to the system. It can help to make a project financially feasible and bring the community more jobs.<sup>21</sup>

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<sup>20</sup> Comments of Victor Miramontes, of the NADBank, at the February 26, 1996 Small Communities Initiative Meeting.

<sup>21</sup> Interviews with Andrea Brown of the Center for North American Integration and Development ("NAID") regarding its experience in assisting on the development of the recently certified Naco project. Various dates, Summer 1996.

### **3.1.1. BECC/NADBank should assist/guide the local contact to develop a detailed community development plan.**

[T]here should be preliminary support for regional needs assessments and project development, in the form of planning grants, environmental assessments and technical assistance regarding project design.<sup>22</sup>

[E]nvironmentally sound and sustainable development and management implies the following:

- (a) Development is controlled in such a way as to ensure that the resource itself is maintained and enhanced, and that adverse effects on other resources are considered, and where possible, ameliorated;
- (b) Options for future development are not foreclosed; and
- (c) Efficiency in water use and in the use of capital is a key criterion in strategy selection.<sup>23</sup>

It should be emphasized that in the area of water development there is no single approach that is "best" suited to all countries. Different countries are at different stages of development, and thus may not have the same access to investment funds or to professional expertise. Nor do they have similar cumulative experience in planning, developing, and managing . . . water development projects. Moreover, the planning process and the institutions responsible for implementing water development plans vary from one country to another, and often within the same country. Water availability in terms of quantity, quality, and annual fluctuations is different; also social and cultural practices and legislative frameworks are different. Under these circumstances, each country must look for approaches that are most suitable to the management of its own resources. The experiences of other countries are worth reviewing, especially those approaches which have been applied successfully and those which have failed, and the reasons for their success or failure. In the final analysis, however, each country has to develop its own plans for sustainable water development and management tailored to the particular needs of that country.<sup>24</sup>

Admittedly, it is hard to plan in the context of the border. Some community development occurs without the benefit of planning or even "decisions" by policy-makers. Social and economic conditions such as the uncontrolled expansion of the border communities is caused by migration of population from the interior, driven by a number of factors, including, among other things: US retirees seeking clean air and warm weather; Mexicans seeking higher paying jobs; industry seeking labor while not sacrificing direct access to US markets. Unplanned urban growth and industrial

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<sup>22</sup> Public Participation Report re Agua Prieta 1994, p. 15.

<sup>23</sup> Biswas 1989, p. 9.

<sup>24</sup> *Id.*, p. 25.

development both directly affect water availability and usually adversely affect surface and ground waters. Impacted communities must begin to avoid blind economic growth purely for growth's sake. They must avoid attracting high water users and excessive population to reduce pressures on water supplies. Some border communities might have to freeze all building and business permits and licenses until infrastructure installation can catch up to current needs. After this is accomplished, the communities need to look for other forms of development -- development that is consistent with the available quantity of water, and takes advantage of opportunities to reuse water.<sup>25</sup>

The communities must focus on improving their quality of life. A crucial factor is that population projections (of growth and migration) for the next few decades have to be taken very seriously in planning any development strategies.

It is clear that the problems surrounding a lack of clean water and sanitation have reached a critical stage in many parts of the world -- not only from a social point of view, but also from an economic and developmental perspective. Taking into account expected population growth, in the future there will certainly be a need for new water supply and sanitation projects. But project operation and maintenance, as well as rehabilitation of existing facilities, will remain critical issues in the years to come. The developing world is plagued by broken down or badly functioning water and sanitation facilities. Involving the people who are the targets of improvements is an absolute necessity if this unsatisfactory situation is to be turned around.<sup>26</sup>

In the past, the emphasis has been on the "Environmental Impact Assessment approach," i.e. establishing "threshold levels of various environmental impacts, and treating them as constraints in project planning and management decisions." The current focus is on dealing with planning problems, not looking solely at sectoral project-by-project assessments but instead viewing planning in "a broad context of integrated river basin or regional management."<sup>27</sup> The BECC/NADBank Special Initiative for Small Communities must go beyond just looking at the project level. For example, it must examine the role of population growth in border issues and how it will affect the usage of scarce water resources. In thinking about sustainable development we must also look carefully at border communities' growth plans and projections in relation to available water resources. If the BECC/NADBank makes it possible for a border community to deliver potable water to its citizens, but does not also consider conservation and preservation measures such as the recharge of aquifers, the investment in the distribution system or purification plant may be wasted when the water literally dries up.

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<sup>25</sup> Comments of Francisco Oyayábol, of CNA, at the May 23, 1996 Puerto Peñasco Small Communities Meeting.

<sup>26</sup> Biswas 1989, p. 5.

<sup>27</sup> *Id.*, p. 9.

Obviously, the community development plans must not be prepared in a vacuum. They should be integrated into regional, state and federal processes. The BECC and the NADBank must facilitate multi-level government cooperation and coordination to achieve these planning goals.

Small communities need the removal of obstacles in accessing drinking water. Small communities need to prioritize issues, since they are not midgets of big cities and have different issues to address. Thus, BECC and NADBank should work together with the states.<sup>28</sup>

**3.1.2. BECC/NADBank should assist/guide the local contact to develop a detailed business plan for the environmental infrastructure project most needed (or first in order) by the community according to its new development plan.**

The next stage in the process is a complex one. The need has been identified, the solution has been suggested, and the solution has been given a place in a community development plan; now the community must design an environmental infrastructure project. This is the point when the discussion becomes more technical. The burden now shifts even more to the BECC and the NADBank (or to paid consultants) to bring the technical design to light which will best match the needs and desired solution of the community. While the preliminary development of public participation is crucial to a project's success, so is the quality of its design.

Technical assistance is needed for determining appropriate projects and for composing project proposals. Experts will be needed to advise on binational engineering solutions. Environmental engineers or other technical advisors could be integral in the preliminary analysis of environmental impacts of a proposed project.

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<sup>28</sup> Comments of Diana Borja, of Texas, at the February 26, 1996 Small Communities Initiative Meeting.



Project development workshops could help compose a project proposal, including a business plan for the project. Financial consultants will be essential to assess the options in considering user fees and financing options.<sup>29</sup>

Once the project has been designed, it is then reviewed by the public and changes are made accordingly. The role of the BECC/NADBank staff or consultant is to constantly reintroduce integrated and sustainable development goals and methods. While the NADBank/BECC approval process can become distracting, the staff or consultant can bring this perspective even if it means that the project may take longer for certification. Experts are clear on the importance of such sustainable development planning in the development of projects. For example, a project must consider the availability of water in the region and the importance of water reuse. It is critical to utilize a good technical design for maximum water conservation and then implement household and industry conservation programs.<sup>30</sup>

### **3.1.3. BECC/NADBank should assist communities in obtaining funding for technical assistance**

Technical assistance should not be limited to the funds available through BECC and NADBank. Any assistance must tie into an existing network of people and institutions who can provide financial assistance, in-kind services, or guarantees.<sup>31</sup>

While BECC may be able to provide financial assistance for the provision of technical assistance to help develop the projects, as part of the Special Initiative for Small Communities, the BECC and the NADBank should also develop other funding, including grants. At present, the BECC's proposed Project Development Assistance Program (PDAP) would allow up to US\$100,000 for project development assistance and US\$500,000 for design funding. Each of these are per project limits (for more detailed information, please see Annex I).

### **3.2. BECC/NADBank should assist small and poor communities in seeking BECC certification**

A myth has developed that complying with BECC certification criteria is onerous and is to be avoided. In comparison to just receiving a no-strings-attached grant, the BECC certification may require some effort. On the other hand, small and poor communities have a marked advantage in complying with the certification criteria. It is easier for a small community to comply with the public participation requirements and, more likely

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<sup>29</sup> Public Participation Report re Agua Prieta 1994, pp. 15-16.

<sup>30</sup> Comments of Francisco Oyayábol, of CNA, at the May 23, 1996 Puerto Peñasco Small Communities Meeting.

<sup>31</sup> Comments of Victor Miramontes, of the NADBank, at the April 10, 1996 Small Communities Initiative Meeting.

than not, it can easily design a project which is environmentally friendly, includes self-help, and adopts appropriate technology.

BECC staff, or a consultant, through a couple of meetings with a project promoter, should be able to easily walk the promoter through the BECC certification application documents. In a series of workshops (including one here in San Diego), the BECC has already demonstrated that a walk-through of the certification criteria can take approximately a day's time. In addition, now that a number of projects have been certified, the paperwork of other small communities can be shown as a model. Finally, the consultant should be available to answer questions and review draft Step I and Step II documents.

### **3.3. BECC/NADBank should assist small and poor communities in preparing NADBank applications**

Once again, there is a myth that the NADBank process is difficult and time-consuming to complete. This misconception is the result of the well-publicized fact that the NADBank has correctly taken its time in financing the projects already certified, and has sought to properly develop its new role in the financial community. As noted above, the market interest rates are a bigger barrier to small and poor communities than the application process. Smaller communities will have less expensive projects which are more tied to user fees and an ability to pay them, than to their credit rating, and thus should be expeditiously financiable. Also, if a bundling of small projects can be accomplished, a whole series of communities can be financed in one effort.

#### **3.3.1. NADBank staff (or outside consultants) work with the local contact to develop a complete NADBank financing application**

In a manner similar to that described above for the BECC application, a financial consultant, or a NADBank staff person could walk a project promoter through the application forms, documentation required, and the process. The consultant should also be available to answer questions and review draft application and supporting documents.

#### **3.3.2. The local contact and the NADBank secure funds to finance the project**

As with all of the BECC certified projects, the NADBank will work hand-in-hand with small and poor communities to find all funds necessary to finance their projects. While the NADBank can only give loans and loan guarantees in its name, it can and has assisted other communities in seeking other sources of loans, grants, or additional financial support. This may include further assistance to the community in preparing the most marketable finance application package. It is within the spirit of the NADBank institutional design to focus on getting the project done regardless of whether the NADBank actually participates in the loan.

#### 4. Cost avoidance

(1) Encourage minimization of operation and maintenance costs; and (2) Encourage self-help programs.<sup>32</sup>

[Projects should include] equitable and sustainable distribution of costs and possible education and outreach initiatives to strengthen community participation in cost recovery efforts. In this regard, the NADBank/BECC could provide guidance and assistance related to municipal debt burdens and local cost recovery options.<sup>33</sup>

An alternative to finding funding for projects is cost avoidance or reduction. To accomplish this, there are two main paths: designs which incorporate less expensive low technology, or alternative/appropriate technology; and self-help, also known as "sweat equity," in which the community volunteers its labor to reduce the cost of the project.

##### **4.1. Design for cost avoidance (low technology and alternative/appropriate technology)**

[Projects should include] consideration of smaller, lower-tech, community-based alternatives to large mega-infrastructure projects, with equitable and sustainable fee structures and compatibility with other community planning initiatives.<sup>34</sup>

In the process of developing the small communities initiative, one of the clear "areas of mutual benefit or concern" was the identification of alternative technologies.<sup>35</sup> Representatives from both Mexico and the US emphasized this point. One participant said that Coahuila's 17 communities of less than 1,000 people are in need of alternative, low-cost technologies, technical strategies, and financial resources.<sup>36</sup> Another noted that Arizona has been developing new cost-saving alternatives (such as the Somerton project). She emphasized that "we should not just look at the 'Cadillac' version of a projects, but look at the 'Chevrolet' version as well."<sup>37</sup>

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<sup>32</sup> Comments from the Mexican workgroup at the February 26, 1996 Small Communities Initiative Meeting.

<sup>33</sup> Public Participation Report re Agua Prieta 1994, p. 16.

<sup>34</sup> *Id.*, pp. 7-8.

<sup>35</sup> February 26, 1996 Small Communities Initiative Meeting.

<sup>36</sup> Comments of Rodolfo Garza, of Coahuila, at the February 26, 1996 Small Communities Initiative Meeting.

<sup>37</sup> Comments of Victoria Kessler, of Arizona, at the April 10, 1996 Small Communities Initiative Meeting.

A review of the relevant international development literature indicates the failure of past development bank water projects to be sustainable results in part from the "use of technologies inappropriate for developing country conditions, and a lack of knowledge of lower-cost technologies".<sup>38</sup> Fortunately, the NADBank has already embraced alternative technologies:

[A]lternative technologies are encouraged. However if there is any technological risk of an unproven technology it has to be borne by someone to make the project viable. The NADBank is encouraging new solutions and new ideas to problems, but as a financial institution it has to take into account the risks involved.<sup>39</sup>

Some low technology solutions do not involve technology at all. Non-water measures are often an integral part of what is commonly known as a water alternative package.<sup>40</sup> In the border region, this could include landscaping with arid climate plants, eliminating high water use landscaping or industry, composting toilets, requiring gray water systems in homes and industrial sites, and alternatives to water for cleaning (for example, sweeping instead of hosing). These non-water measures can be used to reduce costs by limiting the need for larger water and sanitation systems. This is also one of the best examples demonstrating the need for public participation:

Centralized water authorities are usually well informed about water supply alternatives in a given region (storage reservoirs, interbasin transfers, etc.), but they have much less understanding of the options available to individual water users for adjustment of their water demands. This deflects attention from the demand management alternatives which usually not only reduce capital requirements but also are environmentally less disruptive.<sup>41</sup>

#### **4.2. Self-help (sweat equity)**

The failures of other development bank water projects have also been attributed to lack of community involvement, inadequate operations and maintenance, and problems with resource mobilization and utilization, including cost recovery.<sup>42</sup> Fortunately, the NADBank is on the cutting edge in examining the incorporation of community involvement and local resource mobilization and utilization. Self-help is a key

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<sup>38</sup> Biswas 1989, p. 4.

<sup>39</sup> Comments of Victor Miramontes, of the NADBank, at the April 10, 1996 Small Communities Initiative Meeting.

<sup>40</sup> Biswas 1989, p. 7.

<sup>41</sup> *Id.*, p. 10.

<sup>42</sup> *Id.*, p. 4.

component from the NADBank's financing perspective. In fact, the NADBank plans to provide assistance in this area.<sup>43</sup>

At the community meetings, the facilitators must avoid focusing on infrastructure. Before discussing infrastructure, the community should be encouraged to focus on identifying the problem at hand (e.g. admitting that water is scarce). Ask what can be done to reduce demand, to reduce industrialization, to reduce in-migration, and/or to reduce population growth (on both sides of the border). The BECC and the NADBank should also learn from the community meetings if they can rely on regional indigenous building materials, reinforce local skills, and/or help the community create culturally relevant designs.

The United States can learn from Mexico's tradition of using self-help programs successfully.<sup>44</sup> A self-help component in each project will not only reduce costs, but will increase "ownership" in the project for the beneficiaries. If the NADBank really promotes self-help and thus creates such ownership, it can be assured that its loan will be repaid. A few examples of self-help include:

- (1) Digging trenches;
- (2) Laying pipe;
- (3) Re-landscaping;
- (4) Building "constructed wetlands" lagoon embankments;
- (5) Planting for oxygen production in the lagoons; and
- (6) Water quality testing

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<sup>43</sup> Comments of Raul Rodriguez, Project Development Director at NADBank, at the February 26, 1996 Small Communities Initiative Meeting.

<sup>44</sup> Comments of Victor Miramontes, of the NADBank, at the April 10, 1996 Small Communities Initiative Meeting.

### **4.3. Grant funds (to support self-help or to lower costs through buy-downs)**

There are a lot of grants available, but the programs of the offering agencies may not always dovetail with the BECC/NADBank process. The border needs to start receiving its fair share of grant money. This group as a whole has political power to influence the allocation of these funds.<sup>45</sup>

At the first Special Initiative for Small Communities Meeting, a proposal was made that a matrix of resources be developed to combine all available resources for leveraging. By the April 1996 meeting, this was accomplished to some degree, but not sufficiently.<sup>46</sup> In addition, a draft document listing federal government funding programs that could possibly be used for border environmental infrastructure projects was presented. Most of the information available regarded US institutions because only a limited amount of information was available on Mexico.<sup>47</sup> For the Mexican side of the border, there are limits to sources of grant funds.

Funding sources in Mexico are more concentrated because of the centralization in Mexico. The three main funding sources are SEDESOL, BANOBRAS, and CNA.<sup>48</sup>

However, Hacienda and INFONAVIT may also be able to make contributions. To supplement aid from the Mexican side, we may be able to tap some US foreign assistance funds. Some obvious sources of such assistance are USAID, and the USDA's Foreign Agriculture Service.

Potential sources of grants include:

BANOBRAS  
CNA  
DHHS  
ETI/AID Demonstration Fund  
Hacienda  
HUD  
INFONAVIT  
The Inter-American Development Bank  
IBWC/CILA<sup>49</sup>

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<sup>45</sup> *Id.*

<sup>46</sup> Comments of Lynda Taylor, of the BECC, at the April 10, 1996 Small Communities Initiative Meeting.

<sup>47</sup> Comments of Victor Miramontes, of the NADBank, at the April 10, 1996 Small Communities Initiative Meeting.

<sup>48</sup> Comments of Rodolfo Garza, at the April 10, 1996 Small Communities Initiative Meeting.

The National Center for Appropriate Technology  
Private companies donating time and resources  
Private Foundations (see 4.3.7. below for more information)  
SEDESOL  
Technical Development Assistance from the US Department of Commerce  
US Agency for International Development  
USDA's Foreign Agriculture Service  
The World Bank

#### **4.3.1. EPA money**

The most significant source of grant funding for use in assisting small and poor border communities is the USEPA money appropriated by Congress for border environmental infrastructure projects. EPA has appropriations of US\$100 million for fiscal year 1996 of which part could go into BECC's Project Development Assistance Program ("PDAP") and/or a NADBank revolving fund for loan buy downs. The NADBank should also investigate how Mexico intends to spend the money it has committed to the Border XXI program. In addition, USEPA has a number of national programs which may be of use in supporting assistance. For example, see the Community-Based Environmental Program described in Annex II.

#### **4.3.2. Community development banks**

While community development banks are frequently very localized in their loan practices, there are some opportunities in the US to establish new community development banks supported by the federal government. In addition, there are some national development banks designed to assist rural areas which may be of assistance to small and poor communities. For example:

The Rural Economic Community Development ("RECD") is a lending body. RECD provides several types of loans: loans for low-income housing; loans and grants for public water and sewage systems; and loans for business industrials. RECD needs to prioritize projects because of limited funds due to recent cuts in the budget. RECD would like to see financing alternatives for small communities - a combination of loans with RECD loans.<sup>50</sup>

#### **4.3.3. Colonia grants**

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<sup>49</sup> It should be noted that the IBWC/CILA is seeking ways it can better serve and improve communication with small communities. In addition, because of the agreement between the United States and Mexico, the IBWC/CILA can participate in more than new environmental infrastructure. Comments of John Bernal, US Commissioner of IBWC, at the February 26, 1996 Small Communities Initiative Meeting.

<sup>50</sup> Comments of Jess Garcia at the February 26, 1996 Small Communities Initiative Meeting.

An amendment to the bill to reauthorize the Safe Drinking Water Act (which was passed by the Senate on 29 November 1995), may provide some grant funding to low-income communities with economic hardship that are commonly referred to as colonias, are located along the border (generally in an unincorporated area), and lack basic sanitation facilities such as a safe drinking water supply, household plumbing, and a proper sewage disposal system. The grant funds will be used in the conservation, development, use and control (including the extension or improvement of water distribution systems) of water for the purpose of supplying drinking water; and for the construction or improvement of sewers and treatment works for wastewater treatment. The amendment also authorizes the use of these funds to operate and maintain these drinking and wastewater facilities.

#### **4.3.4. State money**

To some degree, the states seem to be after NADBank's money for their own uses. This turns the intent for the NADBank on its head. The NADBank is supposed to use its money to leverage other money, such as the states' money.

On the other hand there are some very innovative state-run programs for small communities with which the BECC and NADBank could coordinate. For example, Texas STEP (Small Towns Environment Program) run by the Texas Natural Resource Conservation Commission is doing very well. STEP is a self-help program developed by The Rensselaerville Institute in New York (for more detailed information, please see Annex III).

#### **4.3.5. State revolving funds**

The NADBank may be able to leverage its moneys by relying on state revolving funds ("SRFs"). It is unlikely that NADBank moneys can be used for the "State Match" for such SRFs; however, NADBank may be better able to finance part of a small community's environmental infrastructure project if the rest has been financed with low interest rate SRF loans. This is an excellent way for the NADBank to leverage its funds.



#### **4.3.6. Small Business Administration**

To the degree that an independent water company is formed, or a local small business undertakes design work, general contracting, or self-help implementation, there may be financial and organizational assistance available from the Small Business Administration.

#### **4.3.7. Foundations**

While there are many private foundations, few are willing to provide funding for border environmental infrastructure. The border is the focus of some grant-makers, but many others have application restrictions which eliminate this geographic region, or this type of project. One exception is a project called Water Works, sponsored by the Pew Charitable Trusts, which is focusing on small communities on both sides of the border. An initial \$3.5 million in funding is available from the Pew Charitable Trusts with \$1 million in revolving loan funds available at 1% interest. Water Works is modeled on the STEP program noted above (also see Annex III); the program will be called Border STEP. The initiative's main goal is to empower communities to improve their own living conditions. If residents decide that their community needs certain water or wastewater improvements, Border STEP will work with local leaders to discuss project alternatives, draw up blueprints, and estimate costs and how much a community can afford to pay. If estimated project costs exceed the local capacity to pay, residents use their own skills and contacts to drive costs down (STEP is usually able to cut retail costs from thirty to sixty per cent).

Water Works hopes to work with the BECC and the NADBank such that it would take the initial risk and perhaps then the NADBank could take out those loans. The initial start will be in Texas and New Mexico. In year two, the focus will be on Mexican states across the border from Texas and New Mexico. In years three and four, the other half of the border will be covered. Water Works will help small communities with water and wastewater problems including self-help and community public health intervention. It will also help communities with legal problems that keep them from going forward with their projects. The work will be very different on the Mexican side than in the US.<sup>51</sup> Because the STEP model is being used, we can be certain that not only Pew, but the Ford Foundation and EPA which have supported the program in the past, would continue to support it as a proven process.

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<sup>51</sup> Comments of Charles Clements at the April 10, 1996 Small Communities Initiative Meeting; telephone interview with Charles Clements, July 1996; *Borderlines* Vol. 4, No. 6 July 1996 p. 1.

Other foundations which may be interested in supporting the BECC/NADBank Special Initiative for Small Communities efforts include:

James R. Dougherty Foundation  
Educational Foundation of America  
Foundation for a Compassionate Society  
The Hewlett Foundation  
Live Oak Fund for Change  
Meadows Foundation  
Menil Foundation  
Pew Charitable Trusts  
Ann R. Roberts Fund  
Rubin Foundation  
Stern Fund  
The Tides Foundation  
The Tinker Foundation  
Rachael & Ben Vaughan Foundation  
Wray Charitable Trust  
The Ford Foundation  
The Rockefeller Foundation

#### **4.4. Delivery mechanisms (how to offer choices for funding to small and poor communities)**

The BECC/NADBank is in the unique position to cut across all international, binational, federal and state programs. As such, there are a number of delivery mechanisms for the NADBank to explore to provide effective assistance to small and poor border communities:

(1) NADBank could place value on "sweat equity" added to a project and use grant money to "pay" for it; for example, if sweat equity is worth 5% of the project, the loan principle would be paid down by that amount with grant funds paid contingent on the community delivering the sweat equity. This solution also promotes empowerment/ownership which help ensure the community will pay user fees.

(2) NADBank can support "pay as you go" projects. For example, projects can sometimes be divided into stand-alone phases. The community would build one phase at a time, and hold off on future construction until the previous phase was paid for. The community should start with phases that include deliverables that improve quality of life in order to maintain community support.

(3) The NADBank should pursue the development of a tax exempt debt instrument for its use in financing unrated communities to make NADBank loans more affordable to poor communities.

(4) The NADBank could "take-out" the Pew funded Water Works projects described above.

(5) The NADBank could increase the size of the funds available to Water Works from its surplus operating income (if any).

(6) The BECC and the NADBank should approach foundations with a proposal that they can easily provide grants to small and poor communities which are tied to deliverable projects certified by the BECC by buying down the interest rates charged for the loans on those projects.

(7) A modified version of the buy-down proposal would call for declining buy-downs over the life of the loans to assist these communities get over rate shock. This may help unrated communities become ratable once they reach market interest rates. If they can become rated, they may have better access to financial markets in the future (thus increasing the communities sustainability).<sup>52</sup>

(8) The BECC's proposed private project policy announced at its 18 July 1996 public meeting may be beneficial because private entities are less limited in how and where they can borrow. Projects in which a private promoter is involved would be divided into three categories:

**Category 1.** Public/private partnerships to build a public project (e.g. an engineering firm teaming with a municipality to propose a sewage treatment project). This type of partnership is also sometimes called a "concession". Financing may be attractive to passive investors if packaged the right way. The for-profit private entity's credit-worthiness as well as its ability to deliver the project, operate it, maintain it, and undertake cost recovery will aid in accessing lending markets. To avoid objections, the granting of concessions should be an open, transparent bidding process. This category can include build-operate-transfer ("BOT") projects.

**Category 2.** Private promoters building a public project (e.g. an engineering firm proposal to build and operate a sewage treatment facility for a municipality). This category includes "stand alone" infrastructure projects in which the debt is repaid solely from user fees and/or tariffs. This type of project may also be of interest to passive investors such as pension funds. As with the Arequipa (Inter-American Development Bank loan to Peru) project, a community could create a public water company independent of the government to undertake a "stand alone" infrastructure project. This category can also include BOTs.

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<sup>52</sup> It should be noted that this modified buy-down proposal was first suggested by Victor Miramontes at the April 10, 1996 Small Communities Initiative meeting.

**Category 3.** Private promoters building a private project (e.g. an industrial park building a pre-treatment facility).

This category would allow a purely private facility to use its credit rating to access NADBank (or other) funds once its project was BECC certified. Border communities will benefit from the BECC's requirement of the incorporation of a measurable public benefit for those communities before these solely private projects can access the NADBank's public funds.

**Public Benefit.** All three categories of projects are welcome to come to the BECC for certification. All three must go through the normal certification process. The first two categories clearly provide a public benefit and will not be held up to additional examination. Category 3, however, will be subject to examination under the precedent set during the FINSA project certification. For Category 3 projects, the BECC would determine whether there is a public benefit which will come from the project, or whether the promoter is actually seeking to have BECC certify something the private entity is otherwise required to do. If there is a determination that the project does not have a sufficient public benefit (the level of sufficiency is still under debate), the promoter will be asked to provide a public benefit either in kind, or in a cash payment. The level of this benefit is also unresolved. Once established, this benefit can be leveraged by the NADBank and BECC to see that small and poor communities are assisted.

## **5. Pilot project**

This section makes use of the research summarized in the previous sections, and proposes a pilot project targeting four binational border communities. The estimated cost of this pilot project is approximately US\$235,000. It would be conducted by a team leader with two assistants (one US and one Mexican) and would be for an initial term of twelve months.

### **5.1. Identification of demonstration sites in target states (Texas, New Mexico, Arizona, and California)**

The pilot project should be developed regionally and binationally. The regions would be based on the four US states. One pair of binational sister-cities which are small and poor would be selected from each region. An emphasis would be placed on two additional selection factors: the Mexican side needs the assistance more and it will take longer to develop the networks and skills needed; and priority should be given to selecting communities that are unrated, or low-rated by financial institutions so that the NADBank will really be helping those who do not have access to lending markets.

It is anticipated that there will be 2 types of communities. The first type of community will have already identified and developed a project, but does not know how to approach the NADBank/BECC. These communities will need assistance in the procedures and perhaps in making adjustments to meet the certification criteria (i.e. public participation and sustainability). The second type of community will have a myriad of environmental problems with no idea where to start. A short list of communities that have been mentioned as candidates include: Tecate/Tecate, Columbus/Palomas,<sup>53</sup> and Anapra.<sup>54</sup>

### **5.2. Action plan**

The following is the plan to undertake a pilot project to provide assistance to four small and poor communities. The goal would be to have all four target communities ready for BECC certification consideration by the end of twelve months.

The NADBank would hire a Project Director ("PD") and two Project Assistants ("PAs"). These three project staff members would, in consultation with the BECC and the NADBank, select four target communities for the pilot project.

#### **Project Director duties:**

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<sup>53</sup> At the February 26, 1996 Small Communities Initiative Meeting, Mary Ann Marsh, of New Mexico, described an initiative begun by the New Mexico Border Authority ("NMBA") for Columbus/Palomas. The NMBA now has \$3500 to do a scope of work. Marsh wanted an option for technical assistance from BECC and financing through NADBank, although she was concerned about the interest rates. This community has already completed BECC's Step I form. Columbus has a population of 3,000. Palomas has a population of 12,000.

<sup>54</sup> Anapra colonia has a population of 30,000, and has a major waste disposal problem. It is located just near Sunland Park, New Mexico (which is near El Paso).

- (1) The PD would oversee the two PAs.
- (2) The PD would assist the NADBank and the target communities in locating and applying for grants and other funding to support self-help and buy-downs.
- (3) The PD would research low technology, alternative technology, and appropriate technology options, as well as self-help methodologies to feed into the project development process.
- (4) The PD would manage the budget and the office for the pilot project.
- (5) The PD would be responsible for preparing a quarterly and a final report on the pilot project.
- (6) The PD would be responsible for participating in all BECC and NADBank public meetings and any further Special Initiative for Small Communities meetings.

### **Project Assistant duties**

- (1) Each PA would be assigned two of the target communities.
- (2) Each PA would, in consultation with the PD, the BECC and the NADBank, select a regional contact.
- (3) Each PA would consult with the regional contact to identify a local contact in the target community (steps 4 and 5 can be avoided if the community has already approached the BECC or the NADBank and has a self-identified contact).
- (4) Each PA would meet with the local contact to educate the contact on the functions of the BECC and the NADBank, and the purpose of the Special Initiative for Small Communities.
- (5) Each PA would work with the local contact to develop an invitation/contact list for a community meeting with BECC and NADBank representatives.
- (6) Each PA would assist in organizing and participate in approximately three community meetings to facilitate the community's needs assessment; solution identification and prioritization; general and project planning; and cost avoidance programming.
- (7) Each PA would facilitate community requests for technical assistance including assistance with BECC certification and NADBank finance applications. The PA will be available to assist in the preparation of the application materials.

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## ANNEX I

### **Summary of BECC's Project Development Assistance Program**

#### PROPOSED PDAP CATEGORIES

**BECC Staff Assistance:** Direct assistance provided by BECC staff to border communities to assist in preparation of applications for certification, review and comment of financial and technical data to determine compliance with BECC criteria; and provision of project management services.

**Peer Match Services:** Project assistance from one community to another which could include the sharing of technology, data, and processes.

**Concept Development:** Will include planning, feasibility studies, environmental assessments, site evaluations, and identification of issues. Projects will be carried out through consultant services funded by or contracted by BECC. Funds will be limited to \$100,000 for each project and will be reimbursed to the BECC with project financing proceeds, if considered an eligible part of the financing. If a project is not financed, the sponsor will not be required to repay concept development costs.

**Advance Funding:** Will include funding projects on a reimbursable basis through the design phase and will not include construction phase. Examples are preliminary engineering studies, environmental reviews, and financial feasibility studies. The communities requesting funding may hire consultants from a BECC pre-approved list, or will use BECC consultants. Funds will be limited to \$500,000 for each project.

Overall, BECC staff will be directly involved in providing Project Development Assistance to the extent internal resources are available. However, the major role of staff will be to identify, formulate, and manage the process and resources available for assistance, and to make decisions and recommendations about where assistance can be most helpful.

#### PROPOSED PDAP CRITERIA (DRAFT)

##### 1. PDAP Eligibility

Projects that are located within BECC's geographic area as defined in agreement

Projects that are BECC eligible as defined in the agreement

Private only projects that are designed specifically to address their own pollution problems without addressing any environmental infrastructure needs of the surrounding community would not be eligible

Projects that abate an existing health or environmental problem

##### 2. PDAP Priorities

Project has potential for BECC certification

Project will provide services to unserved or underserved communities

The community has the ability to leverage funding resources

Project has favorable state recommendation

Project has favorable BECC Advisory Council recommendation

Community participation

Peer Match assistance is available

Project has sustainable development potential

Appropriate Technology is being proposed

### 3. PDAP Guidelines

#### STEP I - Preproposal, Project Feasibility Study Stage

Funding Limit of US\$100,000

Peer Match in-kind assistance is available for repayment of part of Project Development Assistance

Self-Help/Sweat Equity

#### STEP II - Project Design/Financing/Certification Stage

A community must demonstrate its ability to obtain NADBank or other financing

Peer Match in-kind assistance may be used for repayment of part of project development assistance

Funding limit of US\$500,000

[Hector Gonzalez from the April 10, 1996 Small Communities Initiative meeting]

## ANNEX II

### **CBEP Fact Sheet: May, 1996**

#### **Introducing CBEP:**

Over the past twenty-five years EPA has achieved remarkable progress using nation-wide standards to protect the environment. We recognize, however, that even if there were perfect compliance with all environmental laws and regulations, we would still see many disturbing environmental trends.

One reason is that many problems result from a multitude of dispersed sources of pollution (for example, automobile or run off from cities, suburbs and agriculture). These problems are more difficult to control with traditional "end of pipe" than are large, industrial sources of pollution.

Another reason is that we recognize the need to treat all the resources in a place - air, water, land, and living resources - as inter-connected parts of a system. And finally, not all parts of the country have the same problems or need the same kind of solutions. To continue our progress, we therefore must lay the foundation for a new generation of environmental protection.

Community-Based Environmental Protection (CBEP) is an approach that EPA is taking to improve the effectiveness of our nation-wide regulations and other environmental programs. Our goals are to assess and manage the quality of air, water, land and living resources in a place as a whole, to better reflect regional and local conditions, and to work more effectively with our many partners in environmental protection- public and private.

EPA's role in the CBEP approach will vary from place to place and issue to issue-just as it has under past approaches to environmental protection. In some places (e.g., those which cross state boundaries or which are nationally important) EPA may lead the effort. In other places, EPA will be an active partner in designing and implementing effective environmental solutions. In many places, EPA will support and assist the efforts of others by providing environmental information, monitoring systems, scientific analysis and other types of assistance.

**How CBEP Works:**

The CBEP approach tailors environmental programs to address the problems of a particular watershed, ecosystem, or other place. CBEP is designed to maximize the use of scarce resources, encourage local support, and consider the economic well-being of communities.

**Description:**

The following are key components of Community-Based Environmental Protection:

- A Geographic Focus allows for a more comprehensive approach to environmental protection. EPA staff from various program offices will work together to assist our many partners with priority environmental problems whether they be air, water, or land issues -- or a combination of these concerns.
- A Focus on Environmental Results is made easier by geographic boundaries. Our goal is to measure environmental improvement in the area of concern. In many cases this means looking beyond facility-by-facility progress and identifying overall environmental improvements and trends.
- Partnerships and Stakeholder Involvement. CBEP partnerships may include representatives from all levels of government, public interest groups, industry, academic institutions, private landowners, concerned citizens, and others. We envision that these relationships established with regional and community organizations will bring about a better understanding of environmental problems as well as more effective solutions.

**Progress to date:**

- All EPA Regional Offices and Headquarters Program Offices submitted Action Plans for supporting CBEP in December, 1995.
- EPA Headquarters offices are supporting the Regional CBEP efforts by providing additional budget flexibility to the Regions.
- An important aspect of CBEP is working more closely with state and local organizations. Each Regional CBEP Action Plan described ways to be more responsive to state and local needs.
- EPA is working to develop Performance Partnerships Agreements with states to work together to tailor the programs' requirements to individual state and local/community needs while emphasizing a more integrated approach to environmental protection.
- Efforts to develop effective information and technical tools for CBEP are under way throughout the country.

**For More Information:**

Visit EPA's CBEP Internet Home Page at:  
<http://www.epa.gov/ecosystems/>

**Region 6** (AR, LA, NM, OK, TX)

Cindy Wolfe (214) 665-7291  
Wolfe.Cindy@epamail.epa.gov

**Region 9** (AZ, CA, HI, NV, AS, GU)

Denise Zvanovec (415) 744-1632  
Zvanovec.Denise@epamail.epa.gov  
Jerry Bock (415) 744-1947  
Debbie Schechter (415) 744-1824  
Janice Gomes (415) 744-1612

Headquarters(Washington D.C.)  
(202) 260-4002

[Source: EPA's CBEP Internet Home Page at  
<http://www.epa.gov/ecosystems/> ]

## ANNEX III

### **The Small Towns Environment Program**

#### **Innovation:**

The Small Towns Environment Program (STEP) is a process designed to use local resources to solve community water and wastewater problems in small towns. The process was developed by the Rensselaerville Institute working in partnership with the state of New York. Local governments serve as their own general contractor, utilizing existing resources and volunteers from the community to plan and complete each project. Volunteers undertake tasks ranging from planning to laying pipe. The STEP program recommends that communities chose solutions that make use of the simplest, least expensive technology. Small communities are also encouraged to decrease costs, identify local sources of funding before seeking state or federal grants and to ensure that solutions chosen are viable in the long-term.

#### **Results:**

Programs have been started in small communities with populations under 2,000 across the United States. Using STEP, these communities have saved an average of 50% in project costs and have developed a strong sense of community spirit. After the initial success of the program, a revolving loan fund of \$1.5 million dollars was established to provide low-interest construction financing for disadvantaged communities. The fund was underwritten by the Ford Foundation. In addition, the US Environmental Protection Agency has partnered the Rensselaerville Institute and the Ford Foundation to expand the program to other small communities across the United States.

#### **Source:**

The Innovations in State and Local Government Awards Program, an awards program of the Ford Foundation and the John F. Kennedy School of Government at Harvard University

#### **For More Information:**

Contact: The Rensselaerville Institute, Rensselaerville, NY 12147; Phone 518-797-3783; fax 518-797-5270.



Documents: "The Self-Help Handbook" by Jane W. Schautz and "Small Towns Environment Program", a quarterly newsletter, both published by the Rensselaerville Institute

[Source: the National Academy of Public Administration Foundation, 1120 G Street, N.W., Suite 850, Washington, D.C. 20005]

ANNEX IV

**PROPOSED BUDGET**

**Project Operating Expenses**

<u>Description</u>	<u>Amount (\$)</u>
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***Personnel***

- |  |        |
|--|--------|
| 1. Staff Salaries                                  |        |
| • 1 full-time Project Director (Mexican or US)     | 60,000 |
| • 1 full-time Project Assistant (Mexican National) | 30,000 |
| • 1 full-time Project Assistant (US National)      | 30,000 |

<b>SUBTOTAL</b>	<b>120,000</b>
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***Community Forums*** (3 per pilot/target community)

- |  |       |
|--|-------|
| 1. Location Rent - to be held in public community hall/ school   | 3,000 |
| 2. Preparation Materials   |       |
| • 3 Forums/ year x \$300/ forum                                  | 3,600 |
| 3. Advertising of the forum to be held                           |       |
| • Flyers: \$50/ forum x 3 forums/ community                      | 600   |
| • Newsprint ads: \$50/ forum x 3 forums/ community               | 600   |
| • Radio spots: \$50/ forum x 3 forums/ community                 | 600   |
| • E-mail notices:  | FREE  |
| • Telephonic notices: \$35/ forum x 3 forums/ community          | 420   |
| 4. Use of Audiovisual equipment: \$30/forum x 3 forums/community | 360   |
| 5. Simultaneous Translation Services                             |       |
| • 3 Forums/ community x \$500/ forum                             | 6000  |
| 6. Post- forum Evaluation  |       |
| • \$50/ forum x 3 forums/ community                              | 600   |

<b>SUBTOTAL</b>	<b>15,780</b>
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## ***Travel***

### 1. Travel for the Project Staff/ Representative

Round-trip Airfare:

- BECC quarterly meetings (Project Director and one Project Assistant):  
4 times/ year x \$350/ flight 2800
- NADBank annual meeting (Project Director):  
1 time/ year x \$350/ flight 350
- Community forums (Project Assistant)  
3 times/community x \$350/ flight 4200

Local Travel:

4 trips to month @ \$20/ trip x 12 months 960

### 2. Travel Allowances (housing, meals, transport)

- Hotel: \$100/ night x 100 nights 10000
- Meals: \$40/ day x 100 days 4000
- Car rental 4000

**SUBTOTAL 26310**

## ***Reporting***

### 1. Paper Dissemination

- Copy cost: 4 page report @ \$.035/ page x 4 times/ year to 100 people 56
- Postage: \$.50/ report x 4 times/ year x 100 people 200

### 2. Final Report

- Copy cost: 30 page report @ \$.035/ page x 1 time to 100 people 1050
- Postage: \$1/ report x 1 time x 100 people 100

**SUBTOTAL 1406**

## ***Other Direct Costs***

1. Office Supplies: \$300/ month x 12 months/ year 3600

2. Long-distance phone and fax: \$750/ month x 12 months/ year 9000

3. Mail correspondence/ Postage: \$300/ month x 12 months 3600

4. Internet/E-mail Monthly Service: \$80/ month x 12 months 960

5. Overhead: Office space, accounting, etc. 30,000

**SUBTOTAL 47160**

## ***One-time Start-Up Expenses***

1. Five Computers (including two laptops) 15000

2. Fax/ Printer/ Copy machines (all-in-one)	2500
3. Telephones (3)	300
4. Office equipment	6000
• Desks (3)	
• Chairs (3)	
• File cabinets (3)	
<b>SUBTOTAL</b>	<b>23800</b>
<b>GRAND TOTAL</b>	<b>234,456</b>