

**North American Development Bank  
Border Environment Cooperation Commission  
Business Process Review**

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**EXECUTIVE SUMMARY**

**Task One: Review and Summary of Federal, State, and Local Regulatory and Due Diligence Requirements in the Border Region of Mexico and the United States**

**Task Two: Evaluation of Border Environment Cooperation Commission and North American Development Bank Operating Processes and Due Diligence Requirements**

**Task Three: Comparison of the Efficiency of Border Environment Cooperation Commission and North American Development Bank Processes With Those of Comparable U.S. and Mexican Federal, State, and Local Government Agencies**

**Task Four: Conclusions About Inefficiencies in Processes and Relations Among Agencies and Options and Alternatives For Resolving Them**

**Task Five: Plan To Evaluate Performance and Measure Results of the Border Environment Cooperation Commission and the North American Development Bank**

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## ***EXECUTIVE SUMMARY***

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After review of the accomplishments of the Border Environment Cooperation Commission (BECC) and North American Development Bank (NADB) in 2001, U.S. President Bush and Mexican President Fox asked a binational working group to develop recommendations on how to improve the performance of both. In March 2002, the Presidents accepted a set of recommendations for strengthening them. Pursuant to concerns expressed by key stakeholders in the border region about duplication of effort, the Presidents agreed that a comprehensive review of the overall process for designing, certifying/approving, financing, and implementing environmental infrastructure projects in the border region of both countries should be conducted.

Stone & Webster Management Consultants, Inc. (Stone & Webster) has been contracted to provide focused reviews and evaluations of the overall process of designing, certifying/approving, financing and implementing potable water treatment, municipal wastewater treatment, and solid waste projects in the border region. These business process review analyses of BECC and NADB activities are intended to:

- Optimize the BECC/NADB process for designing, developing, approving, financing and implementing environmental infrastructure projects in the U.S.-Mexico border region, so as to make the overall process more efficient and easier for communities and project sponsors to access,
- Improve the efficiency of BECC and NADB and increase their value added to this process, and
- Develop a plan for the Board of Directors to evaluate performance and measure results of BECC and NADB.

To complete this assignment, Stone & Webster (i) reviewed the relevant regulatory environment; (ii) reviewed and summarized NADB and BECC operating procedures and due diligence requirements; (iii) assessed and identified areas of redundancy in process and due diligence requirements; and (iv) developed and proposed processes to enhance efficiency and functions.

This business process review is a Strategic Study with the goal of providing critical analysis and recommendations related to the overall processes and effectiveness of the institutions in terms of their mandates and objectives, particularly with respect to their impact on the border communities seeking the construction of environmental infrastructure projects. In their review, U.S. President Bush and Mexican President Fox pointed to the low percentage of certified projects that have received loan financing as the most important factor needing improvement.

Per the Terms of Reference, this review was conducted in a number of discrete steps which are published in a series of reports. There are five reports as follows:

1. “Task One Report: Review and Summary of Federal, State, and Local Regulatory and Due Diligence Requirements in the Border Region of Mexico and the United States”
2. “Task Two Report: Evaluation of BECC and NADB Operating Processes and Due Diligence Requirements”

3. “Task Three Report: Comparison of the Efficiency of BECC and NADB Processes with those of Comparable U.S. and Mexican Federal, State, and Local Government Agencies”
4. “Task Four Report: Conclusions About Inefficiencies In Processes And Relations Among Agencies And Options And Alternatives For Resolving Them”
5. “Task Five Report: Plan to Evaluate Performance and Measure Results of the BECC and NADB”.

However, the overall review is an integrated analysis of the data to provide the requested recommendations. Each report builds on the information and analyses presented in prior reports, and should be read in that context.

## ***1.0 Review and Summary of Federal, State, and Local Regulatory and Due Diligence Requirements in the Border Region of Mexico and the United States***

The agencies that were reviewed for this task include those that have an impact on border environmental infrastructure projects in the U.S. and Mexico. Because of the nature of the environmental infrastructure projects that comprise the majority of the projects under review for this project, agencies with oversight roles fall into two major categories: environmental and financial.

### **ENVIRONMENTAL AND REGULATORY AGENCIES**

Numerous environmental agencies have oversight responsibility on projects within the U.S. and Mexico. The agencies can be said to have a geographical sphere of influence; that is, all agencies work within set geographical areas, although EPA has a specific additional transborder responsibility. A project within a single locale is required to comply with all the overlapping federal, state and local requirements. A project with transboundary concerns must also be aware of and sensitive to the concerns of the neighboring jurisdiction.

In both the U.S. and Mexico, the federal government and the states have formed agencies to focus on issues associated with the environment. Each of the agencies works to safeguard the environment, protect human health, and plan for an improved environmental future. All environmental infrastructure projects with the potential to have an impact on the environment must undergo a review before construction to assess that potential environmental risk. In addition, all such projects must comply with environmental regulations during and subsequent to construction.

### **FINANCING AGENCIES**

The term “financing agency” has been defined as an agency with a core function of operating finance vehicles (such as loan or grant programs) for specific objectives. Based on this definition, entities at the municipal level that provide loans and/or equity contributions on an infrequent basis for investments in assets within their jurisdiction are not considered to be financing agencies. Some private entities may also provide financing for such projects, but such funds are likely to be very limited. Based on the interpretation of the terms of reference for this assignment, we have omitted municipal and private entities from the analysis undertaken in the preparation of this report.

The U.S. and Mexico both have programs at the federal and state levels for financing environmental infrastructure projects along the U.S./Mexico border. The sponsors of these projects are predominantly municipal authorities or municipal utilities. The financing programs provide a considerable degree of concessional financing (financing at terms which result in below-market rates) through grants and/or loans at below market rates. In the U.S., state financing agencies are primarily responsible for administering these programs, which are

financed through federal and state resources. In Mexico, federal agencies – in particular CNA and BANOBRAS – play a more direct role and account for a high percentage of funding provided. Federal and state budgetary transfers are the key source of funding in Mexico for environmental infrastructure projects. In addition to loan and grant funding for construction of environmental projects, many of these agencies provide financing for the technical assistance required to design and develop the projects. They are thus involved from project design through implementation.

Some important differences between the financing options available to project sponsors in the U.S. and Mexico are:

- The U.S. offers a large number of options for borrowing at below market rates (e.g., loans from state revolving fund programs and USDA-RD loans), while Mexico does not have any. Additionally, loans offered in the U.S. have much longer repayment terms than those in Mexico (average of about 20 years in the U.S. and around 10 in Mexico).
- The U.S. has a well-developed capital market that permits project sponsors to issue long-term (at least 20 year) debt instruments for financing such projects. These debt instruments – e.g., municipal bonds, certificates of obligation, and certificates of participation – provide funding at rates below commercial market rates.
- For most municipalities in Mexico, BANOBRAS is the only federal or state agency that provides lending for these types of projects. Some international entities, such as NADB and the Japan Bank for International Cooperation, also lend to municipal sponsors in Mexico. The World Bank and the Inter-American Development Bank (IADB) provide funding through loans to BANOBRAS that are further lent to sponsors by BANOBRAS.
- Municipal project sponsors in the U.S. do not require state guarantees for any borrowings, whereas in Mexico project sponsors (the water companies) must obtain such guarantees from either municipal or state authorities (requiring state congressional approval in the case of the latter).
- On average, projects in Mexico are financed with a higher percentage of grant funding (in the form of budgetary transfers) than those in the U.S. Since much of the funding consists of budgetary transfers, the projects are subject to financing on a budgetary cycle basis (e.g., receive funds toward middle of year and try to execute project prior to close of fiscal year) and funds are also subject to availability.
- In most projects in Mexico, municipal, state and/or federal authorities will participate jointly in the financing. The state agencies play an important role in coordinating financing of investments through budgetary transfers from the federal government. There are no state “financing agencies” *per se* similar to those found in the U.S.

As can be seen, sponsors in the U.S. have a greater range of options for financing their projects. Sponsors in Mexico have a number of constraints to obtaining both approvals for projects and financing packages.

## FINANCIAL AND ECONOMIC ASSESSMENT OF PROJECTS

A key function of project financiers is the economic and financial assessment of projects (including the project sponsor, the project itself, and the area for which the project will provide service). The method used to conduct the assessment takes into account factors specific to each project financier (such as type of funding provided, mandates of source of funding, and characteristics of the sponsors). Therefore, in general, project financiers have established specific units for financial analysis and have also developed customized methods for economic and financial assessment of projects (by introducing variations into the standard approach).

The basic methodology for conducting an economic and financial assessment of a project consists of a systematic approach to collecting and analyzing the requisite data to determine the appropriate amount – and terms and conditions – of funding to provide (per the mandate of the source of funding). The complexity of the assessment and data required are primarily a function of:

- the mandate or guidelines established by the source of funding (e.g., providing grant funding to the smallest and poorest utilities, earning a spread on the borrowing rate commensurate with the project risk, providing funding (loan and grant) for sponsors unable to obtain funding from other sources, strengthening fiscal discipline and institutional capacity of sponsors)
- availability of the source of funding (e.g., budgetary appropriations available on an annual cycle, paid-in capital that is not subject to seasonal availability)
- the type of funding provided (e.g., entirely grants, mix of grants and concessional loans, market rate loans)
- the level of risk faced by the financier (e.g., a loan with recourse only to the project's cash flows vs. a loan backed by a sovereign guarantee)
- the characteristics of the project sponsor (e.g., current creditworthiness, sophistication of financial reporting system, public or private sector entity).

The agencies that finance environmental infrastructure projects along the U.S./Mexico border place significant emphasis on ensuring that applicants meet eligibility requirements and propose projects of reasonable cost. The ensuing financial and economic assessment then determines the grant and/or loan amount required for the project to be realized.

## TIME FRAMES FOR PROJECT PREPARATION AND PROCESSING

In general, the time required to process a project correlates most closely with the processes specific to each financing agency. Some of the main factors that may affect processing time are:

- the degree of project preparation at the time the request for financing is made
- the type of funding provided, whether it is grant or loan
- the specific processing and information requirements established by the funding agency
- the project financier's financing cycle

- the availability of funding, and
- other external factors such as changes in local administrations, acquisition of land, mitigation of environmental issues, and negotiations by communities to maximize the level of grant funds.

All of these factors contribute to the time required for development and implementation of each project and thus in the aggregate may result in a high variability in processing time.

## REQUIREMENTS FOR PUBLIC INVOLVEMENT AND REVIEW

Perhaps it is safe to say that every U.S. environmental law currently in effect has provisions for the public review and comment process. The public is generally encouraged to participate either individually, in groups or associations, or through their elected representatives. There are opportunities for public input during regional or local master plan development, no matter what that might be called in a particular community; during scoping for public funding of a project; and prior to agency approval and issuance of permits to public or private entities for construction or other activities that might impact the environment. Additionally, considerable information is made available to the public during a permitted facility's operations to allow for public comment during operations and closure. Although a 30-day public comment period of some sort is quite common, it is difficult to generalize about the specifics of the public participation requirements, as most details may vary among regulations. Regulations generally include requirements for what type of environmental information is to be made public, how much time is allowed for the public to become aware of the existence of such information and to review it, and how the public is to be notified. These regulations also include requirements that the agencies review and respond to the public's comments, and take them into account in developing the permits or environmental requirements for a facility or operation.

Requirements for public notification in Mexico are specified in the General Law for Ecological Equilibrium and Environmental Protection (LGEEPA). The Law states that once the SEMARNAT receives an environmental impact statement (EIS), required by the same law, it should make it available to the public so that the statement can be read by any individual. At the request of any person or company of the community, SEMARNAT may conduct a public consultation. For this purpose, SEMARNAT should publish the request for authorization in environmental impact matter in its Environmental Gazette (Gaceta Ecológica), edited by the SEMARNAT's National Environmental Institute. In like manner, the project promoter should publish, at its own expense, a summary of the work or activity project in a newspaper of broad circulation in the state involved within five days following the date on which the environmental impact statement is submitted to SEMARNAT. The Law also states that any citizen, within ten days following the publication of the project summary under the above terms, may request to SEMARNAT to make the environmental impact statement available for the public in the state involved. Similarly, in case of works or activities that may cause *significant ecological imbalances* or damage to the *public health or ecosystems*, SEMARNAT, in coordination with local authorities, may arrange a public information meeting in which the promoter should explain the environmental technical matters of the work or activity involved.

There is another chapter in the same law and in some Mexican state laws that is called "Public Complaint" (Denuncia Popular), which allows any person or organization to make a complaint

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against something they consider is affecting not only their possessions but also the general environmental conditions. An administrative process is then followed, where several participating authorities check if the complaint is justified and action should be taken.

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## **2.0 Evaluation of BECC and NADB Operating Processes and Due Diligence Requirements**

In conducting this review, Stone & Webster maintained its focus on the overall objective of the project. The primary areas of improvement for which recommendations were sought was (1) the slow rate of release of funds for environmental infrastructure projects, and (2) concerns about inefficiency and duplication of effort among agencies providing financial support to the environmental infrastructure project sponsors. In the review and analysis of BECC's and NADB's operating processes provided in the Task Two Report, focus was maintained on these areas. Both institutions have complex operational procedures that are continuing to evolve. To meet the objectives of the project, Stone & Webster distinguished between those processes or parts of processes that were integral to these two areas of improvement, and those that were not as material. Processes or parts of processes which are in place but which would not have a significant effect on the overall project process were given less attention.

To understand the operating processes of BECC and NADB (how they conduct their activities relative to project processing) a two-fold approach was required: first, we reviewed written policies and procedures and interviewed staff to determine how well written procedures were disseminated and how procedures are implemented in practice; and second, we interviewed project sponsors and other stakeholders to see how well the BECC's and NADB's processes and procedures were handled and experienced by sponsors.

The analysis brought out the following overarching points for consideration:

- The Charter<sup>1</sup> sets out very broad “purposes” which could be interpreted in many ways. Each organization has developed its own set of guiding principles based on the Charter, but there has never been a common strategic plan to refine the goals of the two institutions and provide clarity as to their individual and their interrelated activities.
- NADB has not developed a separate strategic plan endorsed by its Board that lays out goals and objectives. BECC's strategic plan is five years old and has not been updated; none of its strategic objectives relate to project processing integration with NADB.
- Neither organization has a comprehensive “Policy Manual” that codifies operating policies, endorsed by their respective boards.
- Projects being handled by BECC and NADB have varied significantly in their parameters, so that projects have required specialized approaches for processing. While some flexibility in project processing is to be expected and necessary, the overall lack of consistency in process limits the ability to conduct trend analysis, assess effectiveness and identify best practice.
- There is little quantitative information available on the outcomes of BECC's and NADB's activities. For example, there has not been an analysis of the improvement

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<sup>1</sup> “Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Establishment of a Border Environment Cooperation Commission and a North American Development Bank,” signed November 1993

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in human health or the environment as a result of their activities – the major purpose as defined in the Charter. Therefore, the analyses of the organizations were necessarily based on outputs as a surrogate for outcomes.

- Project sponsors were generally cautious about providing detailed comments regarding BECC and NADB's performance. Whether initial comments made during the interview process were complimentary or critical, sponsors were unable or unwilling to provide specific examples. This is not unexpected, for the following reasons: (1) once a project is completed, details tend to be forgotten; (2) if a project is currently underway or the sponsor believes they may want to approach BECC/NADB in the future for another project, they are reluctant to provide any critiques; (3) sponsors that were interviewed may not have had direct association with the project; (4) sponsors are not trained or experienced in analyzing the management of a project from an agency; or (5) sponsors may not have a basis for comparison.

## **EVALUATION OF GOALS AND OBJECTIVES AND INCENTIVIZATION PROGRAMS OF BECC AND NADB**

While the establishing Charter for BECC and NADB sets out a requirement that the two institutions collaborate, it does not explicitly set out a shared goal(s) and/or priorities against which the two institutions would endeavor. Instead, the Charter describes a role for BECC that broadly involves protecting and enhancing the environment of the border region while NADB's role is broadly defined as financier.

Without a subsequent definition of the respective tasks and priorities of each institution in meeting these broad goals, BECC and NADB have had to forge their own interpretation of appropriate activities. This has naturally led to an organic overlap and, Stone & Webster believes, some deviation from the original intent.

For instance, in addition to BECC's activities related to project development and certification, it has developed extensive programs and procedures designed to promote a culture of environmental protection, community participation and sustainable development. These programs and procedures are applied to communities undergoing the certification process, but they are not necessarily directly required for project development and implementation and may not directly enhance the environment.

Likewise, NADB has developed several programs for institutional capacity building that indirectly improve the ability of the communities to handle the environmental infrastructure projects yet are not directly related to NADB's role as financier. NADB is also constrained in its ability to function as a fully efficient financier, in that it has some obligation to accept into its portfolio projects which have been certified by BECC and because the financial products which it offers may not be competitive in financial markets.

Currently, BECC and NADB do not have performance measures or incentive programs that drive the two organizations to a common goal. Stone & Webster believes that an outside mechanism such as the single Board must be used to align BECC and NADB's goals as well as their ability to measure and meet those goals.

## PERCEIVED OBSTACLES TO GOAL ATTAINMENT

Constraints to achieving the goals of developing and financing environmental infrastructure projects, as well as including private sector sponsors, are primarily as follows:

- The Charter permits the two organizations to develop independent goals and does not require that the two organizations together establish a shared goal against which performance can be measured
- BECC's program of certification requirements adds time and cost to project development that is assuaged by grants to public sector sponsors but not to private sector sponsors, who thus must consider the additional financial and time burden of the certification requirements when considering whether to apply for NADB financing
- In the U.S., NADB's market rate loan program is not attractive to sponsors because lower rate sources of financing are readily available. The Low Interest Rate Facility (LIRF) program is still not as competitive as the U.S. State Revolving Funds (SRFs). Private sponsors, particularly those that are financially strong, seek other funding first. In Mexico, NADB's loan vehicles are more competitive.

## THE BECC/NADB PROJECT CYCLE

The BECC/NADB project cycle generally begins with an application for certification by the project sponsor to BECC and ends when NADB issues a letter to the project sponsor formally announcing the closure of the project. The major stages associated with the BECC/NADB project cycle include:

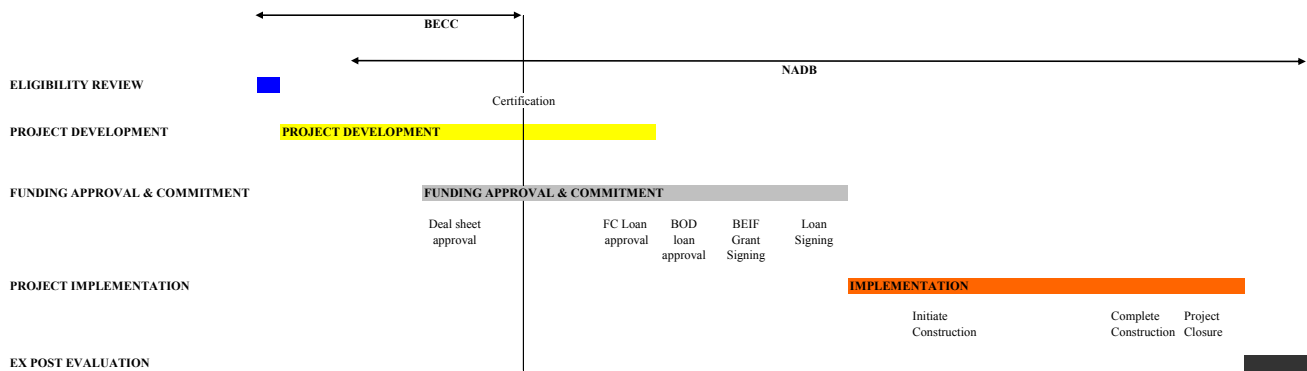
- **Initial Scoping:** identifying potential project
- **Application for Certification:** processing initial application for BECC certification, ascertaining eligibility, initial review of potential funding requirements
- **Certification Process:** including project development and final design, ensuring compliance with certification criteria
- **Financing:** developing, approving, and committing financial package
- **Implementation & Oversight:** overseeing the bidding, construction, and loan/grant compliance
- **Closure:** documenting completion of all loan/grant requirements

The figure below presents the stylized version of the project cycle (not specific to any individual project) as it has been conducted by BECC and NADB until recently. Changes that have just recently been implemented should result in a process that shows the vertical Certification bar aligning closely with the end of Project Development. However, we have shown this figure because it most closely resembles the process for most of the projects that have been handled by BECC and NADB to date. This figure does not have a specific time line, as each step may vary depending on the specific project.

The salient points to be seen are that some aspects of the project process overlap, and that both BECC and NADB are involved in some areas. The actual events and their sequence and duration can vary substantially depending on specific characteristics of each project. For example, in some cases project development components are completed before BECC is approached. In other cases, only a project definition has been identified. Projects also vary in what types of financing they are requesting.

### Stylized Version of BECC/NADB Project Cycle (note: same as Figure 2.3 in Task Two Report)

PROJECT CYCLE FOR PROJECTS FINANCED WITH BEIF GRANTS AND LOANS (Through mid-2003)



Notes:  
This cycle assumes that project sponsor receives a BEIF grant and a NADB loan.  
Cycle assumes that project design is not complete at certification.  
Project development can include planning, project design, environmental review, NEPA, public participation, and rate studies.  
Implementation includes procurement, disbursement and project oversight.

## OVERVIEW OF PROJECT CYCLE FOR CORE SECTOR PROJECTS

The current project cycle for core sector projects certified by BECC and financed by NADB has evolved in response to:

- Guidelines that indicate projects must be certified by BECC prior to applying to NADB for financing;
- The availability of EPA-BEIF grants and related sequencing of the approval process; and
- Finally, NADB's current focus on the approval and implementation phases (rather than project identification and development).

As a result of the guidelines established in the BECC/NADB Charter, BECC has become the lead agency in the project development phase (from application by the project sponsor through certification). Following certification, NADB is responsible for all other phases of the project cycle (from completion of project development to project closure) unless BECC has some unfinished project development activities for which it continues involvement<sup>2</sup>. At this time, neither BECC nor NADB is conducting ex-post evaluations of the projects, although when water quality objectives are part of the operating permit conditions, NADB does monitor the plant's performance toward meeting those objectives.

<sup>2</sup> An example of such involvement would be when BECC is financing the final design of a project and the final design has not been completed prior to certification.

For all projects financed with EPA-BEIF grants, the Cooperative Agreement between NADB and EPA adds an additional element to the project cycle by requiring EPA's approval of a deal sheet prior to certification<sup>3</sup>. The deal sheet is a document containing, among other things, the description of the project, the expected cost and proposed financing package, and the estimated schedule for implementation of the project. With this document, NADB requests approval from the EPA for the provision of EPA-BEIF grants – specified by type such as construction assistance and transition assistance – to the project. Per an agreement with EPA, BECC's Board does not certify any projects with EPA-BEIF funding for which the deal sheet has not been approved by EPA. In order to prepare the deal sheet, NADB must thus conduct its own preliminary financial and technical due diligence of a project prior to having received an application from a project sponsor and also before BECC certification, thus further blurring the sequencing and ownership of tasks.

## **BECC PROJECT PROCESSING**

The bi-national agreement sets down the guidelines within which BECC has since developed a process for evaluating potential projects for their ability to be certified for consideration of funding by NADB. The BECC process includes steps for coordinating, preparing, developing and designing environmental projects in the U.S. -Mexico border region.<sup>4</sup> The purpose of the BECC process is to obtain information needed to satisfy the six certification criteria which have been identified and described by BECC. Ideally, the criteria which pertain to NADB's financing areas should match the requirements that NADB will later demand from the same project, as it proceeds in the "continuum" towards financing and implementation. The certification criteria were developed with extensive review and input from many stakeholders, including the public, NADB, the U.S. Department of Treasury and the U.S. State Department.

BECC has extensively diagrammed all aspects of its program in its Project Management Procedures Manual and several other manuals, including the BECC Criteria Document, Technical Assistance Manual, Public Participation Manual, and Sustainable Development Guidelines Manual. Additional information is available in the Manuals.

BECC's processes have evolved over the years as direct experience in border project development has been obtained. Therefore, although more recent projects follow the current process, in many cases projects that were reviewed for this report originated under older procedures, and the information used to make decisions and advance the project to the next stage may have been incomplete. Additionally, some of the processes are new and have been applied to only a few projects. For example, although the RAP and QA/QC processes have been applied to over 50 projects since the beginning of 2003, only a few of these projects have reached certification.

The description of processes as outlined in the BECC Manuals assumes that all required information is obtained and distributed on a timely basis. Recipients of the information packages, such as NADB and EPA, have noted that incomplete information sometimes makes it difficult to conduct complete and timely evaluations for some projects. However, a working practice has

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<sup>3</sup> This agreement was established in 1999. Prior to the agreement most deal sheets were not approved by the EPA until after BECC certification.

<sup>4</sup> Article 1, Section 2, BECC- NADB Charter

formed that allows some projects to proceed to certification even though additional information will be required after certification to satisfy NADB that a project is ready to be financed. This situation may improve with the new requirement that projects reach 100% design prior to certification.

Stone & Webster's analysis of the BECC project development process is as follows:

- BECC has developed a very detailed set of procedures to guide how it performs its work and continues to modify its processes in response to experience gained through working with their processes. Because BECC has changed its processes relatively recently, there is little empirical evidence to evaluate quantitatively whether the processes have resulted in improvement in areas of weakness. No projects that have gone through the RAP had received financing as of end-December 2003.
- BECC's written procedures have made it possible for BECC as well as the public to evaluate whether a particular project is handled according to established procedure or whether a variance has taken place. We support the value of documenting procedures and pursuing an active process of modifications as additional experience would warrant.
- The Application for Certification Process – BECC currently does not conduct formal outreach activities to identify potential projects that meet preferred criteria, and they accept all projects that are eligible in terms of geographical and sector considerations. This step is more reactive than proactive. A better approach would be to develop a prioritization scheme aligned with BECC's and NADB's objectives to select new projects that make the most effective use of the available resources. BECC is currently developing a prioritization scheme for projects applying for EPA's Border Environment Infrastructure Fund (EPA-BEIF) grant funding
- During the application process, public sector sponsors are only evaluated at this time on the basis of eligibility (location and sector), while private sector and mandate expansion sponsors are also evaluated on the basis of financial viability.
- The Rapid Assessment Process involves NADB actively only after the initial assessment of the project and the Project Strategic Plan has been drafted, although the project financing package requires understanding of the technical constraints inherent in the project, and technical design requires understanding of the total potential financial package.
- BECC meets with project sponsors initially in the absence of the financiers, including NADB and others. By the time NADB meets with the sponsors later in the process, the sponsors may have developed inaccurate impressions of financial opportunities and responsibilities.
- The Procurement of Technical Assistance is conducted from a group of prequalified consultants, rather than through open bidding.
- BECC's Project Development process includes steps that have no applicable counterpart among other financing agency programs, including sustainability workshops and community participation requirements.

- BECC assists the project sponsors in developing the documentation for the environmental assessments for its projects and performs the initial review of the EA prior to EPA's review. EPA has responsibility for the final decision on an EA.
- BECC's certification criteria require certain actions of the project sponsors that are not required directly by the National Environmental Policy Act (NEPA) process.
- A project that obtains certification is not necessarily ready, in NADB's view, to obtain funding, as until recently some projects had not reached 100% design. Some aspects of technical work as well as financial due diligence are continued beyond certification.
- During the Certification Process, the data package that is prepared by BECC for project review by NADB and other agencies sometimes lacks required information which makes it difficult to perform a complete evaluation of the project within the allotted timeframes.

## NADB PROJECT PROCESSING

Since its establishment in 1995, NADB has progressed considerably in the development of procedures and guidelines for preparing, approving and implementing projects. These procedures and guidelines reflect the unique interrelationship with BECC and the impact of the large volume of EPA-BEIF grant funding provided within the past few years. They provide effective management controls of the main steps in the project cycle.

The exact policies and procedures, and the steps within the corresponding project cycle, followed by NADB for a particular project are primarily determined by the source and type of funding provided by NADB. NADB's policies and procedures for processing and approving of its own funds (those provided out of its capital) are primarily based on the guidelines established within the following documents<sup>5</sup>:

- NADB's Charter (Agreement Establishing the BECC and NADB).
- NADB's *Loan and Guaranty Policies and Operational Procedures* (LGPOP). The most recent version was approved by the Board of Directors in August 2002.
- Specific resolutions issued by the Board (such as BR1996-05 regarding acceptance agreements between NADB and project sponsors).

For administration of EPA-BEIF grant funds received from EPA, the Bank must additionally comply with requirements set forth in the Cooperative Agreement with EPA regarding the use of EPA-BEIF funds to be awarded to projects.

The process that is followed – in particular for preparation and approval, to a much lesser degree for implementation – is closely dependent on the package used to finance a project (i.e., the combination of NADB and/or EPA grants plus potentially NADB loan funds). The exact process and sequence will differ depending on the combination. Nonetheless, NADB loans for projects in the core sectors are the most permanent funding vehicles available. Further, core sector loans are most closely directly related to the Bank's overall mission. For these reasons, we consider that NADB's standard project cycle should be structured around the identification, preparation,

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<sup>5</sup> Other NADB guidelines for specific components of the project cycle include Technical Assistance Guidelines, Disbursement Guidelines, and Procurement Guidelines.

approval and implementation of projects related to loans for core sector projects. Such a project cycle would increase the efficiency of the BECC/NADB process (for example, by reducing the development of projects that may not be viable without significant grant funding), improve the transparency of NADB's operations, and make it easier for project sponsors to understand the project cycle.

Due to the current sequencing of the project cycle, NADB's opportunities for lending for core sector projects are effectively limited to the projects that have already been certified or which are forthcoming from BECC's certification pipeline. Many of the project sponsors have submitted applications for certification to BECC with the sole intention of obtaining only EPA-BEIF grants from NADB. EPA-BEIF grant applicants are not required to seek NADB loans. Potential lending opportunities for NADB from most project sponsors is not identified until much later in the certification process, at which time the project sponsors have already developed significant expectations regarding the potential for grant funding. Therefore, to help NADB increase its opportunity for lending, it is critical for BECC's initial screening of projects to be rigorous and focused on the types of projects that NADB can assist.

Stone & Webster's analysis of the NADB project development process is as follows:

- Stone & Webster notes that improvements could still be made in the formal documentation of some of NADB's procedures for processing projects; this could lead to a better understanding by BECC, project sponsors, and other stakeholders regarding NADB's operations.
- Although BECC's initial financial feasibility assessment is provided to NADB, there are many examples in which NADB repeats or extensively reviews the work conducted under BECC's direction. Many reasons have been given, but perhaps the most pertinent is that the financial analysts at NADB are reluctant to commit NADB's funds without satisfying themselves of the accuracy of all assumptions and models on which the loan package is based.
- The current project cycle at NADB reflects most closely the procedures required for processing EPA-BEIF grants. Processing of loans for core sector projects is a less common activity and therefore subject to greater variability as NADB has less experience and needs to modify its procedures more frequently to accommodate the unique features of each loan.
- The current process does not allow for the approval of the integrated financial package provided by NADB by any one entity at a specific point in time. Instead, the formal process requires that first, the request for EPA-BEIF grant funding is approved by the Funding Committee and EPA prior to determination of the final loan amount (and prior to certification) and second, NADB's Board of Directors approves the loan presentation after certification, when the EPA-BEIF grant amount has already been established.
- Although the request for EPA-BEIF grant funding submitted by NADB to EPA includes a potential loan amount for the project, NADB has acknowledged that this amount is still preliminary and subject to revision following certification. The preliminary nature of these loan amounts can be noted in the variance between the

loan amount proposed in the deal sheet and the amount ultimately presented to NADB's Board for approval.

## **OVERLAP OF PROCESSES BETWEEN BECC AND NADB**

There are a number of instances in the project life cycle where overlap between the two institutions takes place, partly because of a lack of integration of BECC and NADB throughout the project cycle. BECC and NADB overlap in conducting technical and financial review of projects at some point during the project cycle. There is also overlap and redundancy in some communications with project sponsors, particularly when both organizations ask for similar financial information. BECC and NADB both issue contracts to consultants to provide financial analyses of the same project. Although the output of the financial analyses is usually different, it is redundant to have separate consultants develop familiarity with the project before they complete their assignments.

BECC currently develops the technical design before certification while the affordability analysis is completed after certification. Additionally, until recently most projects have not been completely developed before achieving certification, particularly with respect to technical design. Therefore, there is some overlap while BECC finishes the technical design and other components of project development while NADB is conducting its financial due diligence. There is also overlap while the NADB project manager becomes familiar with the project.

## **TIME REQUIRED TO REACH VARIOUS MILESTONES**

This section provides Stone & Webster's analysis of the time required for BECC certification and subsequent processing by NADB up through first disbursement. The following conclusions are made:

- Based on the schedule of proposed certifications in 2004 and 2005; the time required to certify projects is not expected to improve through end-2005, since projects already in the process of applying for certification cannot be certified until funding is available. Funding through end 2005 has already been committed to projects.
- Given that EPA-BEIF grant funding is essential for the financial viability of many projects scheduled for certification in 2004 and 2005, the time required to certify these projects may depend on the availability of EPA-BEIF grant funding.
- Within loans for core sector projects, there is no noticeable trend in the amount of time required by NADB and the project sponsor to achieve first disbursement.
- On average, new sector projects and WCIF projects have progressed through NADB's approval process faster than core sector projects. Among the reasons for the decreased processing time is that NADB has taken a more active role in project development phase prior to certification by BECC, these projects are less complex, and the financing package is simpler.
- On average, projects in Mexico have taken longer than those in the US to certify and for NADB to process through the first disbursement. One reason for this may be the turnover of municipal administrations caused by a relatively short electoral cycle. Other reasons include

obtaining the local, State, or Federal match in Mexico, and the additional time required to help Mexican projects meet all certification criteria.

## **PRIVATE SECTOR PROJECTS**

To date, very few private sector projects have received financing from NADB. Some of the main reasons for this performance are:

- The public sector has traditionally been responsible for provision of services related to environmental infrastructure projects along the U.S./Mexico border. As a result, the number of potential private sector sponsors is currently limited and thus the demonstrated demand for financing from NADB from such sponsors is low.
- Financially sound private sponsors have access to other sources of financing, particularly in the U.S., that are nearly as competitive, vis-à-vis rates and terms, as NADB market rate loans and do not require certification by BECC. As a result, private sponsors with viable projects may elect other sources of financing, even if they are on slightly less advantageous terms than NADB financing, so that they do not have to commit the resources and time to obtain certification from BECC. Private sponsors without a financially viable project may seek BECC certification and NADB financing, but such projects are correctly rejected by BECC and NADB.
- NADB's focus is currently on financing projects led by public sector sponsors. This is an expected response given much greater demand for financing – particularly EPA-BEIF grants – by public sponsors and the fact that BECC has taken the lead on identification and development of core sector projects (predominantly public sector sponsors). This focus is reflected in the distribution of the loan portfolio between public and private projects and the relative staffing of NADB's respective project development departments (core sector is much larger than new sector).
- BECC's certification process is geared toward public sponsors of core sector projects. The process is not formally differentiated to account for differences that could be presented by projects led by private sponsors (especially within the scope of the mandate expansion).
- The amount and uncertainty of the time and cost required for BECC to certify a project may serve as a deterrent to private sponsors that might otherwise be interested in financing from NADB.

## **DISCUSSIONS WITH EXTERNAL STAKEHOLDERS**

In accordance with the Terms of Reference for this business process review, Stone & Webster sought input from a large number of interested parties (including over 120 individuals who were not employees of BECC or NADB). Over 80% of the contacts resulted in completed telephone or in-person interviews, and at times these included individuals who were not part of the original list. Some who were contacted declined to respond to our request for an interview.

In addition to BECC and NADB staff and Boards of Directors, we contacted a large number of project sponsors, and a cross-section of government officials, private sector financiers and

contractors, and representative of tribes, non-governmental organizations (NGOs) and others with an interest in BECC/NADB and the border region. Stone & Webster identified candidates to interview and prepared a draft list, which was reviewed and modified by BECC, NADB, and the NADB Board, to ensure that the diversity of opinion required by the terms of reference was achieved. In addition, Stone & Webster set up an email address (BPR@shawgrp.com) and the public was invited to submit comments directly via the mailbox. A total of six respondents provided comments.

The participation of these people has been an important component of the business process review. Experiences, perceptions, insights and suggestions from the interviews were considered by Stone & Webster and taken into account throughout the evaluation of the organizations and preparation of recommendations. Individual comments are confidential.

The wide range of stakeholders that were contacted provided a diversity of responses based on the point of reference of the individual. For example, government officials spoke from the perspective of their governments; contractors and consultants had a frame of reference associated with their connections with the institutions or a specific project; and project sponsors spoke from the perspective of their communities. The information that was obtained was considered as it was received; no attempt was made to provide a particular “weighting” from one interviewee or another - i.e., to consider that one individual’s comments were more “valid” than another representing the same type of institution. Over 40 project sponsors were contacted and they represented a wide variation in the type of project (i.e., pre-certification, grant-only, loan-only, etc.), amount of time since last contact with BECC/NADB, complexity of project, etc.

The intent of this analysis was to underscore key areas for improvement; thus while taking into account all positive feedback, we have focused this section primarily on critiques of NADB and BECC. The survey responses were useful in highlighting some key issues and areas for improvement in the BECC-NADB project process. Some of the most salient critiques by project sponsors dealt with poor communication and coordination between BECC and NADB, lengthy processing time, and lack of flexibility within the certification and loan approval process. Overall, however, most sponsors were pleased with the support of the two institutions, whose technical and financial assistance they consider highly valuable.

The issues of coordination and duplication of efforts between BECC and NADB elicited numerous comments on the part of the project sponsors. Sponsors often did not see a common strategic direction between the two institutions, and noted a lack of clear linkages between BECC’s certification process and NADB’s funding approval process.

Another issue highlighted by many sponsors was lack of flexibility within the BECC-NADB process. Among Mexican project sponsors, there was strong sense that the requirements should be more flexible south of the border, because of the greater social problems there. With regard to the public participation process, interviewees noted that it is detailed, strict and often difficult to conform to. However, virtually none of the sponsors suggested eliminating the public participation process; rather, they suggested that allowing for more flexibility and taking into account local realities would simplify the process considerably.

The interviews provided opportunities for sponsors to highlight the positive aspects of working with BECC and NADB. Some of the verbal positive feedback presented by project sponsors follows.

- Strong support during the certification process (BECC)
- Clients are finding BECC processes smoother and easier to comply with as the organization matures
- Excellent technical/financial knowledge (NADB)
- Good source of financing, specifically because of the availability of grant funding (NADB)
- Staff from BECC and NADB have been very professional and helpful throughout the process
- Coordination between BECC and NADB staff is strong, and both institutions' staff are thoroughly familiar with all of the steps in both the certification and funding process
- The assistance of BECC and NADB staff was indispensable in obtaining the funding

We are reporting here quotes made by individuals with respect to one or the other of the organizations; the same comment may be applicable to the other organization but was simply not verbalized during the interviews. We also note that such issues as “coordination” were cited as both negative and positive issues. It is to be expected that different individuals have different experiences. These conflicting perceptions should serve only as reminders of opportunities for continual improvement.

### **3.0 Comparison of the Efficiency of BECC and NADB Processes with those of Comparable U.S. and Mexican Federal, State, and Local Government Agencies**

In order to compare any two programs, it is important to define them in equal terms – in other words, to ensure that the descriptions of the two programs being compared are equivalent. BECC and NADB, as well as projects seeking their support, have several attributes that vary from other agencies providing financing in the border region. Some important aspects are as follows:

#### **Maturity of Project at Initial Application**

Project sponsors that approach BECC/NADB for certification and funding represent projects in a wide spectrum of maturity. In many cases, BECC reports that projects are described simply in terms of the problem that needs to be solved rather than having the preliminary design already developed. For most other grant and loan agencies, some preliminary engineering analysis must have been completed, and the sponsor must have demonstrated the capacity to complete the project. These factors must be considered when comparing timelines among agencies. Therefore, Stone & Webster does not place a lot of emphasis on the time frames for project development when comparing efficiencies among the various agencies.

#### **Financial Strength of Project Sponsor**

The availability of EPA-BEIF grant and other NADB grant funds to improve the affordability of a project has enabled sponsors that are in weaker financial condition to put together a financing package for construction of the infrastructure project. Thus, there is wide variability in the financial strength as well as experience of sponsors. Private sector sponsors and those that apply through the mandate expansion program (with the exception of water conservation projects) are ineligible for construction assistance grant funding, and thus the measure of adequate “financial capacity” is much higher.

#### **Administrative Organization of the Agency**

BECC and NADB are international organizations which are administratively organized as independent organizations. Both BECC and NADB maintain separate administrative structures. The other financial agencies that were reviewed for this assignment are not administratively structured in the same way. They receive administrative support from their parent organizations. None have budgets that can be accessed and compared directly with BECC/NADB’s.

### **EVALUATION OF EFFICIENCY**

The Terms of Reference for this assignment require the analysis of the “efficiency” of BECC and NADB with respect to certain parameters. Because of the unique aspects of BECC and NADB, it is not possible to directly compare these organizations in their entirety, on an “apples to apples” basis, with any other organization that provides similar financing in the border region. Therefore, Stone & Webster presents its analyses of specific metrics and characteristics of BECC/NADB and the other organizations, describes the similarities and differences in the data, and discusses the apparent reasons for those similarities and differences. When appropriate,

Stone & Webster presents its recommendations for increased efficiency for BECC/NADB in serving its current market.

In order to be able to discuss the efficiency of the organizations, it is important to understand the use of the term. Two different concepts are frequently used to describe the operations of an organization, efficiency and effectiveness. **Efficiency** is the ratio of the output to the input of a system. It refers to the relationship between services produced and resources used to produce them. An efficient operation produces the maximum output for a given quantity of inputs, or conversely for a given amount of services it has minimum inputs. **Effectiveness** of an activity refers to the extent to which the actual outcome of the activity matches with the objectives of that activity. Both indicators require that the output that is expected be clearly defined.

In the case of BECC/NADB, one must be clear on exactly what aspects of the process are being measured in order to determine if efficiency or effectiveness should be considered. The projects in the pipeline differ significantly among themselves, and one must be cautious in considering them a uniform group for the purposes of performing efficiency statistics.

### Output Parameters

The most important measure of output, as described in the Terms of Reference (12 March 2003), is the amount of funds that have been expended in constructing infrastructure projects.

“While NADBank and BECC have had a positive impact, the results to date are far short of expectations. BECC has certified 70 projects with a total construction cost of \$1.58 billion. NADBank has approved \$49 million in lending out of its \$405 million in authorized paid-in capital. It has also served as an effective administrator for about \$360 million in grant funds provided by the U.S. Environmental Protection Agency (EPA), in both Mexico and the United States.”

Certainly, the loan volume is an important measure of the performance of the organizations, but there are other measures as well. One source for determining the key outputs of the organizations would be their respective strategic plans, as discussed in greater detail in the Task Two report. NADB identified the following three broad goals for 2003-2004<sup>6</sup>:

- GOAL 1: Maximize NADB lending capacity through the approval of \$63 million in loans for projects in the NADB core sectors and expanded mandate sectors.

For the 2003-2004 period, the amount of loans approved was \$72.24 million.

- GOAL 2: Enhance the affordability of environmental infrastructure projects by maximizing use of NADB grant funds. Execute \$70.7 million in NADB grant funding for eight projects.

For the 2003-2004 period, the amount of the grant funding was \$148.9 million.

- GOAL 3: Enhance NADB lending potential by fostering the long-term development and sustainability of border community utilities.

This goal is a qualitative, long term goal and is being addressed by NADB’s utility training programs and other support.

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<sup>6</sup> North American Development Bank, Fiscal Year 2003-2004 Business Plan (undated).

In its strategic plan<sup>7</sup>, BECC identified as its overall objective “to improve environmental conditions and human health in the border region in a sustainable way.” Five “subobjectives” were identified which support the overall objective, as follows:

- To expand and improve the environmental infrastructure
- To promote an environmental protection and community participation culture
- To develop the internal BECC organization
- To help strengthen institutional capacity
- To identify and secure resources.

A number of issues and strategies were developed; however, quantitative or qualitative goals against which performance could be measured were not identified.

Stone & Webster also reviewed the annual reports of BECC and NADB to determine what outputs were identified by them as the accomplishments of the two organizations:

**BECC:**

- Number of project certifications (quantitative)
- Technical assistance funds disbursed (quantitative)
- Quality assurance improvement in performance (qualitative)
- Solutions for scrap tire management (qualitative)
- Support to Border 2012 (qualitative)
- Sharing experiences (qualitative)

**NADB:**

- Institutional Development Cooperation Program (IDP) (quantitative)
- Utility Management Institute (quantitative)
- Project Development Program (PDP) (quantitative)
- Number of projects approved for financing (quantitative)
- Number of loan commitments approved (quantitative)
- Number of EPA-BEIF grants approved (quantitative)
- Number of NADB-originated grants (Solid Waste Environment Program [SWEP] and Water Conservation Infrastructure Fund [WCIF]) approved (quantitative)
- Solutions for scrap tire management (qualitative)

Both BECC and NADB have a role in accomplishing the outputs associated with the number of projects approved for financing, both number and value of loans, and value of total funding (loans + grants). Both also are involved with evaluating projects and assisting project sponsors in obtaining certification. Therefore, analyses of the efficiency of these outputs are conducted considering inputs from both BECC and NADB.

## Input Parameters

The following input parameters – the costs associated with conducting operations – were selected for the analyses of BECC/NADB:

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<sup>7</sup> “Strategic Plan for the Border Environment Cooperation Commission”, January 1999, prepared by Lockheed Martin Energy Systems, Inc.

- Number of total staff (number of staff assigned to project related or administrative activities is discussed as well)
- Operating expenses
- Financing provided for technical assistance

For the same reasons discussed above, that both BECC and NADB contribute to key outputs, input parameters are analyzed for the organizations individually and as combined.

## **MEASURES OF EFFICIENCY**

Typical efficiency measures look at the ratio of inputs to outputs, such as the following examples:

- Number of projects certified per level of resources used
- Amount of funding committed, approved, and/or disbursed per available capital
- Amount of funding committed, approved, and/or disbursed per total operating expenses

For the efficiency analysis, each of the outputs and inputs discussed in the sections above were compared. It is recognized that there is some time lag between resource use and some results such as certification or disbursements. Therefore, year by year direct comparisons are difficult and it is more fruitful in analyzing the organization to look at overall trends with time. Because the organizations, particularly BECC, changed their processes significantly since 2001, data from the years 2001-2003 were used for most analyses.

## **SELECTION OF ENTITIES TO COMPARE WITH BECC/NADB**

The first step in conducting the efficiency comparisons is to select the agencies to be used as relevant peers for BECC and NADB. Among other things, the selection was based on the comparability of the objectives, functions and type of project sponsors of the entities, the availability of the required level of data for the entities, and the need to have representative entities in the U.S. and Mexico. We did not include any agencies that do not provide funding directly from their balance sheet, such as the state and local agencies in Mexico. These agencies are responsible for participating in the transfer of budgetary resources primarily from the Federal Government, rather than acting specifically as financing agencies. As such the processes are considerably different and not directly comparable with those of NADB.

## **COMPARISON OF PROCESSING TIME**

Among the exogenous factors that affect project development and financing by BECC/NADB are the following:

- Political
- Regulatory requirements
- Community (sponsor) preparedness (technical, financial, and managerial capacity)
- Complexity of project.
- Size of the project and/or the project sponsor

For the purpose of this project, Stone & Webster made the assumption that exogenous factors apply equally to projects funded by BECC/NADB and other agencies.

## **REQUIREMENTS BY BECC/NADB AFFECTING PROJECT TIMING**

Requirements placed on project sponsors by BECC or NADB that are not duplicated by other relevant agencies are discussed in this section. BECC reports that their additional activities do not affect the critical path of project development. Stone & Webster's review of project processing time indicates such great variability that it is not possible to conclude with surety whether the project development time is materially affected by BECC's requirements. However, as noted above, even if additional time is required to comply with BECC's certification criteria, it may be worth the time because of the additional public participation or other benefits that are obtained by the community.

### **Application to Approval**

Of 13 agencies that provided information directly (through telephone surveys), six reported that they were able to complete the process from Application for Funding to Funding Approval in three months or less, and another five reported completing it in less than six months (total of 85%). Most, if not all, of these agencies, require that the projects be more completely developed at the time of initial application than does BECC. We note that the information provided by the agencies was not independently verified by Stone & Webster.

The BECC/NADB process takes an average of almost 40 months between Application for Certification and Certification, for core sector projects certified after 2000. For all projects certified, the time was 27.6 months, reflecting that earlier projects were certified very quickly and before all BECC/NADB processes were in place. The average time from Application for Certification to NADB Board Approval for loan funding was 40.8 months for all projects certified. This is more than seven times longer than the average of 5.7 months that was reported by other comparative agencies.

### **Approval to First Disbursement**

There was greater variability in the elapsed time reported by the agencies for Approval to First Disbursement. Of twelve agencies that reported this time, 5 reported less than 3 months. The average was about 7 months. At NADB, the time between Board Approval to First Disbursement averaged 17.7 months. Approximately half that time was spent between approval and signing. This is about 2.5 times longer than for the other agencies.

### **Overall – Application to First Disbursement**

Of the 11 agencies for which this value could be computed, five completed First Disbursement within 12 months of application. Another three completed the process within 18 months, for a total of over 70% of reporting agencies. The average time was just under 16 months. As of end

2003, ten projects under BECC/NADB had received loan disbursements. The average time from Application for Certification to First Disbursement was 48 months for these ten projects.

## **KEY FINDINGS REGARDING PROJECT TIMING**

There are a number of reasons why the BECC/NADB process has taken longer on average than other financing agencies on the U.S./Mexico border. Among them are the following:

- BECC/NADB starts counting their involvement (i.e., date of Application for Certification) much earlier than other agencies do. This is due to the fact that they accept projects at a much earlier stage in the maturity of the project.
- Additional requirements of BECC and NADB add time to the process.
- As noted earlier, BECC and NADB have functioned as two separate entities. Recently, they have made efforts to increase activities that are realized on a parallel basis, but much of the project cycle still takes place in a linear fashion (whereby BECC makes a hand-off of the project to NADB close to the end of the certification process).

Stone & Webster believes that all three factors play a role. BECC/NADB can control the first factor by changing either the conditions under which a project can apply for certification, or by developing and implementing a “preapplication step” during which some initial activities by the sponsor are completed, even with BECC/NADB assistance. The second factor should be analyzed by the Board to determine if the additional requirements are worth the extra time. The third factor can be addressed through the development of a more integrated project cycle, wherein NADB will play a more active role during the early phases of the project.

## **BECC EFFICIENCY INDICATORS**

The results of the efficiency analyses show that BECC has significantly reduced the resources utilized per project certified, due to an increase in the number of projects certified from 12 in 2001 to 25 in 2003, without the corresponding increase in resources utilized. During that time, BECC’s efficiency improvements resulted in it cutting its funds used per project in half, from \$0.8M to \$0.4M. Staff resources used were reduced from 3.8 to 1.8 per certified project. As noted in the Task Two report, BECC has developed and implemented several programs to increase its efficiency without loss of quality. The results of these efficiency indicators show that the programs have greatly increased BECC’s efficiency.

## **NADB EFFICIENCY INDICATORS**

The results indicate that the value of NADB loans approved per NADB direct project staff has more than doubled from 2001 to 2003, from \$0.56M to \$1.24M; the value has also increased by more than half when compared to total staff, from \$0.3M to \$0.76M. The amount of loans disbursed per NADB direct project staff has increased from \$0.12M to \$0.21M, although these values are still quite low for a development bank.

However, when the results are looked at in terms of the total amount of funding disbursed (including grants), NADB shows a reduction in efficiency. Per direct project staff, total funding

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disbursed decreased from \$1.7M in 2001 to \$1.10M in 2003, and per total NADB staff, the total funding disbursed decreased by over 25% from \$0.91M in 2001 to \$0.67 in 2003. During that time the total amount of funding approved more than doubled, from \$78M to \$157M, while the total amount of funding disbursed rose only slightly from \$37M to almost \$42M.

When looked at in connection with the significant increase in number of projects certified in 2003, it seems that NADB shifted much of its resources to projects that are in the pipeline, either in the process of becoming certified or which have been certified and are undergoing the due diligence required to obtain funding. Over the next year or two, as these newly certified projects receive funding, it is possible that NADB will regain efficiency in operations as evaluated by this methodology.

## **OPERATING EXPENSES**

Total operating expenses for BECC and NADB was about US\$11 million, which was equal to over one-fourth of disbursements in 2003. This is very high, but should drop as projects that have been approved and committed begin to disburse faster. However, if approvals, commitments and disbursements drop as a result of a decrease in availability of grant funding, ratios would worsen significantly, and would be well above what any other agencies have registered.

The ratio of expenses to disbursements requires some discussion. If the organization has geared up administratively in anticipation of increased disbursement activity, then one would expect increased efficiency (as measured by this parameter) as disbursements increase over the next year and forward. However, if the organization requires increased staff to handle increased monitoring of disbursements, then this expense ratio will continue to be very high and the organization will not be cost-efficient relative to others. Alternatively, if this level of disbursement is what is expected for the level of funding, then funding must increase significantly without an increase in administrative expenses to bring this ratio back in line with other finance institutions.

A comparison was performed of BECC and NADB operating expenses as compared with other selected finance institutions for which these data were available. Operating expenses as defined here include staff, facilities, and services, but exclude Transition Assistance (TA) funds provided to project sponsors. When looking at just loan approvals (excluding grants), NADB's operating expenses at 14% are between 1.5 and 5 times higher than those of the other agencies. When the operating expenses of BECC are added to NADB's, the cost of the combined BECC/NADB organization becomes 23% of loan approvals, as much as 9 times higher than for other agencies. This is a valid calculation because a project sponsor wishing to receive NADB financing must go through the combined BECC/NADB process, and moneys that might otherwise be used for financing projects are used for operating expenses instead.

When the value of grant funding is included, then NADB's operating costs fall within the range of other agencies, at 4%. The total cost of BECC/NADB's operating expenses, however, at 7% is a bit higher (1.2 to 1.8 times higher) than the other two development banks for which these data were available. If grant availability and approval do not keep pace with most recent years, administrative expenses as a percent of funding approved would increase.

## COMPOSITION OF FUNDING

An evaluation was made of the amount of the total that is loan or grant funding. In this comparison BECC and NADB are considered one organization. The results indicate that BECC/NADB's funding mix includes a much higher proportion of grants than the other organizations evaluated. In fact, NADB is only entity whose grant funding (70%) exceeds lending. This trend is expected to continue in the near future. In comparison, more than 90% of the development banks' funds as well as WIFA funds are loans, and more than 60% of USDA funds are loans.

## USE OF CAPITAL

A comparison was made of the use of capital by BECC/NADB as compared with other finance institutions.

NADB's use of capital (0.03) is lower by a considerable magnitude than all others, just 5% of that of the lowest agency compared (at 0.57) and 1.6% of that of the average of the other agencies for which data were available. BANOBRAS has a ratio of loans outstanding to total capital of almost 20% and was not included in the calculation of the average.

## CONCLUSIONS ON COMPARISON OF EFFICIENCY

Both BECC and NADB can point to areas of increased efficiency relative to how they conduct their operations. In their current structure, and with their current goals and objectives, and operating constraints, both organizations, but particularly BECC, have a demonstrated trend of improving their use of resources.

After evaluating the options, we believe that the best approach for approximating overall efficiency (in terms of resource use and the agency's strategic focus) is to compare levels of funding achieved against total resources used.

If one looks at funds approvals, commitments and disbursements, then this evaluation of efficiency reveals striking differences considering loans vs. grants and with respect to other organizations. When considered in terms of loan funds, BECC/NADB do not measure well at all against other development financing agencies. After incorporating grants approved, committed and disbursed with loan funds, overall efficiency indicators are comparable to those of other agencies. Should grant funding be reduced, then the overall efficiency of BECC/NADB will ride solely on its loan efficiency parameters.

BECC/NADB are reasonably efficient as long as there is grant funding to hold up the volume of total funding. Otherwise, the fixed costs incurred are very large relative to NADB's lending. In other words, relative efficiency will depend on relaxing lending to increase volume, ensuring availability of grant funding, and/or reducing fixed costs.

These results can only be interpreted in light of the goals and objectives of BECC and NADB, as set by its Board. The Board must decide:

- Whether they are satisfied with the low level of borrowing as long as total funding (loans plus grants) is in the appropriate range, and if not, what changes they will implement at BECC and NADB to change the operating results, and
- Whether they are willing to fund other activities that are not directly related to lending and/ or financing of projects in the short to medium term. Funding of other activities increases the administrative expense relative to the quantitative outputs that have been discussed here. For BECC/NADB to be able to capture the true cost of project development as defined by other agencies, ancillary institutional development activities would need to be accounted for separately.

## **VALUE ADDED ACTIVITIES**

Both BECC and NADB have developed and implemented a number of activities to improve the border region. Descriptions of the programs and results are readily available from BECC's and NADB's web sites as well as other sources.

Some of these activities are described in the Charter which governs BECC and NADB; others have developed over time and are only tangentially described in the Charter, in Stone & Webster's view. Nevertheless, Stone & Webster believes that these programs are valuable for the border region. Because they are not budgeted for separately, their costs were not available for this review. It is up to the Board to decide whether or not they should be retained going forward. We note only that they should be explicitly accounted for individually in their respective budgets so that performance measures can be developed for each and the Board can then measure more rigorously the value provided for the funds expended.

## **DUPLICATION OF PROCESSES AND REQUIREMENTS**

When assessing BECC's and NADB's procedures, a central question to consider is whether a sponsor needs to duplicate or modify work done for other agencies in order to meet BECC's or NADB's requirements. In order to address duplication issues, different aspects of the application process were reviewed closely. We examined each of the agencies' application requirements, including those from BECC/NADB.

BECC has an application process that differs from those of the other agencies. The information that is required from project sponsors is unique to BECC's requirements and procedures. However, we have found out that no significant duplication exists. If a report or assessment has already been performed by a project sponsor, BECC reviews it to confirm that it meets its own criteria and it matches its procedures.

Financing agencies and programs vary in their application processes and consequently in their requirements for recipients. To evaluate if the project is technically appropriate, some agencies require the potential borrower to perform an Environmental Assessment (EA) or a full Environmental Impact Assessment (EIA), and submit for review a Preliminary Engineering Report (PER) prepared by professional engineers. The variability in report requirements is due in part to the type of project.

However, requiring both PER and EIA is the most common practice among border agencies. Most of the sixteen surveyed agencies require both reports. Some agencies accept engineering and environmental reports performed by other organizations. Typically, environmental and technical reports need to be presented in the very first stage of the application process, along with the initial application forms. This is in contrast to BECC, which can and does accept a project before any data collection or engineering work has been completed.

In addition to environmental and engineering reports, the performance of financial assessment is commonly required among funding agencies. There are two important differences among agencies: whether funding agencies conduct their own financial assessment, and whether agencies accept financial assessments performed by other organizations. Most agencies conduct their own financial assessments. BECC/NADB generally requires the project sponsor (or a Technical Assistance [TA] contractor) to prepare the financial assessments directly for BECC/NADB.

Based on this review, on discussions with project sponsors, and our interviews with project staff at BECC and NADB, we have found that under the current procedures BECC and NADB require project sponsors to repeat some financial analysis that have already been done for other agencies. As discussed above, this is not unusual nor is it possible to fully eliminate such duplication (as financial agencies must undertake the requisite due diligence to satisfy themselves that all of their mandate requirements have been met). However, the fact that both BECC and NADB have a role in financial analysis does increase the level of duplication by the mere fact that more parties are involved in the process (in one project this could include BECC staff, BECC contractors, NADB staff and NADB contractors).

## **REQUIREMENTS OF BECC/NADB THAT EXCEED THOSE OF OTHER ORGANIZATIONS**

Stone & Webster identified three areas in which the current BECC/NADB requirements exceed those of other organizations within the Border Region:

- Public Participation
- Human Health and Environmental Analysis
- Sustainable Development

Each is discussed separately in the following sections.

### **Public Participation**

Both the U.S. and Mexico place a high premium on public participation. In the U.S., a number of laws specifically include provisions for public review and participation. In Mexico, the requirement for public participation is specified in a central law. Every state has also incorporated into its own programs for environmental oversight of drinking water, wastewater and solid waste projects a number of provisions for public participation and review.

However, Stone & Webster has been unable to find instances where a U.S. or Mexican federal, state or local agency describes or requires mechanisms for the form of organization of the public in order to achieve public participation. No agency requires a specific “Community Participation

Plan” for environmental infrastructure projects. No agency requires that local steering committees be formed, or requires that communities conduct specific activities other than as described above (publication of information about the proposed project and the opportunities for public comment, including public meetings).

In contrast, the Community Participation program of BECC seems quite robust. Similarities to requirements of other agencies include (1) requirement for a public meeting (although BECC requires two); (2) notification of that meeting; and (3) availability of project related information. BECC allows the public meetings to be held concurrently with those of other agencies if the other agencies agree and the BECC provisions are met.

Stone & Webster believes that BECC’s program has evolved in response to BECC’s observations that many communities are not knowledgeable of the impacts of these types of projects on their communities, and also do not have sufficient systems in place to communicate this information broadly. BECC has noted that community acceptance of the project is much greater through application of this approach.

Additionally, the principles of public involvement that BECC helps the communities develop can have much wider implementation for other projects at other times. These strategies are used by many communities to foster involvement by residents in governance of their communities. It is the hope of BECC that the border communities and their residents continue to incorporate and use these strategies.

We support the idea that this type of community participation is valuable for increasing acceptance of the project and understanding of all the potential impacts of the project, including financial as well as technical and environmental. We wish to make two observations, however. First, we suggest that some communities may have other mechanisms in place to provide all or part of the activities prescribed by BECC. Therefore, some flexibility should be incorporated into the program to allow communities to substitute other approaches if available. For example, some communities have active grass roots organizations that serve a role in publicizing such projects and their potential impacts. Other communities have standard mechanisms for publication of projects and seeking community input. We recommend that BECC develop outcome based expectations for the public participation criterion. This approach will allow communities to demonstrate that they have achieved the desired results using approaches that may differ from BECC’s process.

Second, BECC’s public participation program goes far beyond the initial expectations set forth in the Charter Agreement. It is recommended that BECC state clearly and explicitly its goals for the program as well as its costs to implement the program, and seek Board concurrence (along with approval of its funding sources, i.e., the U.S. and Mexican governments) of the operation of this program. In Stone & Webster’s view, it should not be integrated within the “project development” program, as it is far more robust than the public participation requirements of project development programs of other agencies. It needs to be recognized as a separate activity with unique goals that do not correlate with project development as structured by other agencies. Finally, even though grant funds are generally made available by BECC to pay for this activity, there is a significant amount of time that needs to be invested by the project sponsors in completing all of the requirements. If this program is separated, then a more complete explanation of impacts on the community can be developed.

## **Human Health and Environmental Analysis**

Stone & Webster suggests that the BECC program goes far beyond what is required by federal or state agencies in either the U.S. or Mexico to assure that environmental protection is appropriately considered. Stone & Webster notes that BECC's criteria request discussion of how the proposed project will provide a "high level of environmental protection". Environmental assessments necessarily compare the proposed project and its alternatives against established criteria for environmental protection and evaluate whether there will be a potential for environmental degradation.

To fully comply with BECC's program requires sponsors to collect and analyze human health and environmental data that may not be readily available. In particular, human health data ("health statistics") are typically not required in an EA other than consideration of established criteria for protection of human health *vis-à-vis* water or air pollution standards, for example. Analysis of environmental data typically is not specifically considered unless a more extensive environmental impact statement (EIS) is required. The analysis of the authorizations required from federal, state and local agencies is more extensive than that required to fulfill similar considerations in the EA.

In general, Stone & Webster believes that the Human Health and Environment Certification Criterion has limited additional value over what is already required by both Mexican and U.S. authorities because both the U.S. and Mexico have significant environmental assessment requirements for environmental protection. The U.S. has a very well established enforcement program to ensure compliance with its environmental requirements. Mexico also has sufficient laws and regulations to achieve the same objective of environmental protection of its land.

## **Sustainable Development**

BECC is the only agency of the border region that includes this certification criterion in developing an environmental infrastructure project. The various federal, state and local agencies do not have specific regulations regarding sustainable development principles that impact projects, although there may be voluntary initiatives in place in some communities. Therefore, Stone & Webster notes here that this criterion is not duplicative with any other requirements, and that all of the activities of project sponsors to comply with this criterion are in addition to their other activities in project development.

## **4.0 Conclusions About Inefficiencies In Processes And Relations Among Agencies And Options And Alternatives For Resolving Them**

This section contains a recap of the major areas of inefficiencies in the project cycle processes employed by BECC and NADB, and provides recommendations for improved performance relative to each aspect. Only areas of inefficiency for which a recommendation is being made are reported here. Other conclusions regarding BECC's and NADB's processes and operations either did not require a separate recommendation as no change is envisioned or required, or the recommendations made here, if implemented, would eliminate the issue about which an earlier conclusion was made.

In addition, this review focuses on recommendations that have impact outside of an individual organization (BECC or NADB). These recommendations have the potential to affect both organizations, the Board, the project sponsors, and other stakeholders. As such, they need to be highlighted and discussed as policy decisions. Other process issues that are completely internal to an organization, such as flow of project documentation or internal approvals, were not a focus of this review. Stone & Webster's analysis and conclusions on these issues are discussed in some detail in the prior reports and they can be consulted for guidance on internal improvements, should that be necessary. Finally, in this review we are recommending much greater collaboration between BECC and NADB through all stages of project development, implementation, and close-out. We also recommend significant review and revision of existing operating procedures or development of new ones. As such, detailed recommendations regarding action steps within an existing procedure may become moot.

### **FUNDAMENTAL PREMISE GUIDING THE RECOMMENDATIONS**

A fundamental issue to be considered is the question of whether BECC and NADB are two separate organizations or whether they are bound because of a common objective to work as a single entity regardless of legal structure. In conducting this Business Process Review, Stone & Webster was directed to consider all options for greater efficiency without consideration of limits that may be imposed by the language of the current Charter or the existing structure. If BECC's activities served multiple organizations, as originally envisioned in the Charter, a different approach may have been called for. However, NADB is the only financial agency that requires certification from BECC.

Many of the recommendations that follow can be implemented even though BECC and NADB are legally distinct. They require changes to processes rather than changes to legal or fiduciary authority. Integrated processes and procedures can be developed and implemented by two separate organizations. This is especially true as each entity is responsible for contributing to a single output – the development, financing and construction of environmental infrastructure projects.

Additionally, recommendations regarding making the two organizations look more closely integrated (i.e., “common look and feel”) can be implemented without compromising the

legal structure. There are many cases of consortia which in reality are separate organizations but which operate under a single banner for marketing and public relations purposes.

Some recommendations involve one organization using the personnel of the other for certain administrative services. There are a number of ways to handle this between two organizations; perhaps the most common is to treat this as an “outsourcing” function – one organization simply contracts the services of the other. However, since both BECC and NADB will be served by a single Board of Directors, it may be possible to develop a legal structure to accommodate shared services. This should not require a change to the Charter.

A few recommendations directly address aspects that are outlined in the Charter (such as location of the organization and source of funding for operations). These recommendations are provided for the Board’s consideration with respect to the benefits of adopting them vs. the impact of changing the Charter should legal counsel recommend that it would be necessary.

## **APPROACH TO DEVELOPING THE RECOMENDATIONS**

The recommendations are based on Stone & Webster’s analysis of the current operations of BECC and NADB, review of the Charter and the revised Charter, extensive interviews with stakeholders including project sponsors, government officials, members of the public and other interested parties, and comparison with other development banks. They are presented within each section (topic) in descending order of potential impact on efficiency of the project cycle.

Each recommendation may be considered on its own - it is not required that all recommendations must be adopted as a package. Maximum benefit, in terms of business process efficiency, could be achieved by adopting all recommendations, but some could be phased in or deferred to a later time without compromising the benefits of adopting other recommendations. This type of decision should be made by the Board in consultation with BECC and NADB regarding such issues as short term impact on current operations and complexity of planning involved before implementation. Additionally, within the discussion of each recommendation are references to other recommendations that may be interrelated. Some recommendations would not be appropriate for implementation unless certain Board policies, as described in the recommendations, were to be adopted.

We note that there is reference to the development or modification of Standard Operating Procedures (SOPs) throughout the discussions of recommendations. Recommendation Number 2.2 discusses this in greater detail; briefly, we recommend that one integrated set of SOPs be developed and widely made available to all interested parties, such as on a web site, so that all can become aware of the procedures that BECC/NADB use during the project cycle.

The recommendations are grouped according to theme as identified by the section titles, and are presented in descending order of importance within each section. Importance is defined here as potential positive impact on efficiency with respect to the project cycle as the primary objective, and efficiency with respect to internal operations as the secondary objective.

In the body of the Task Four report, each recommendation is followed by a discussion of the recommendation and the conclusions of the Business Process Review which led to the

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recommendation, such as the inefficiencies which are expected to be eliminated by implementation of the recommendation. We have also provided an analysis of some “Issues to Consider” associated with implementing the recommendations, including a discussion of how to mitigate potential negative impacts of the issue, if any. Each recommendation also includes a list of “Action Items” to guide the implementation process and describes “Outcomes” to be expected from implementation.

## **LIST OF RECOMMENDATIONS**

Following is the list of recommendations in order of presentation. The numbers attached to the recommendations follow their presentation within the Task Four report.

### **2.0 Integrating the Project Cycle Process**

- 2.1 Revise Process so that Project Certification and the Integrated Financing Package are Presented to the Board for Approval at the Same Time.
  - 2.1a When Projects are to Receive both an EPA-BEIF Grant and a NADB Loan, Agreements for both should be Signed at the Same Time.
- 2.2 Develop a Complete Set of Standard Operating Procedures that Reflects an Integrated Project Cycle.
- 2.3 Make NADB Responsible for the Financial Analyses throughout the Entire Project Cycle. Keep Initial Application, Community Participation, Environmental/Sustainability Analyses, Technical Analyses and Engineering Design as BECC-Led Activities
- 2.4 Assign Technical Staff who have been Involved with Project Design to Provide Technical Oversight during Project Implementation.
- 2.5 Make all Parts of the Project Cycle a Team Effort between BECC and NADB and Name a Project “Responsible Party” from both BECC and NADB for the Entire Project Cycle.
- 2.6 Revise the Name and Objective of the Initial Application for Certification Step to More Closely Reflect that it is an “Eligibility Review.”
- 2.7 Adopt an Approach Based on Cooperative Agreements with Other Agencies Whereby the Agency Providing the Greatest Amount of Financing Assumes the Primary Role for Project Development.

### **3.0 Enhancements to Project Cycle Process**

- 3.1 Include an Initial Financial Feasibility Step in the Initial Application Process
- 3.2 Develop a Process for Evaluation, Feedback, and Corrective Actions, Including Establishing an Independent Operations Evaluation Department.
- 3.3 Develop a Systematic Method for Prequalifying and Prioritizing Project Applicants for Acceptance for Certification.

- 3.4 Identify a “Pre-Application Step” which Includes Initial Support to Project Sponsors who are not ready for Project Development.
- 3.5 Implement a Program to Establish Standard Design Parameters.
- 3.6 Set Up a Program for Design Analysis Peer Review.
- 3.7 Allow Open Bidding for all Procurements.
- 3.8 Adopt a Standard Definition for what is included in the BECC/NADB Project Development Process that Distinguishes Activities that are not Typically Defined as Project Development by Other Agencies.

#### **4.0 Modifications to Certification Criteria**

- 4.1 Decide Whether the Certification Criteria should Reflect the Requirements of Government Agencies Only or should Incorporate Additional Expectations – Particularly with Respect to Community Participation, Environmental Assessment, and Sustainable Development.
- 4.2 Limit the Environmental Assessment Requirement to that which is Required by the Regulatory Agency having Jurisdiction
- 4.3 Establish a Process for Tiered Environmental Assessment Reviews for Qualifying Projects
- 4.4 Provide Customized Guidance to Private Sector Sponsors Regarding Compliance with Certification Criteria

#### **5.0 Competitiveness of Financing**

- 5.1 Develop a Financing Strategy for NADB

#### **6.0 Border Leadership**

- 6.1 Empower the BECC/NADB Team to be the Strategic Leader for the Border Region.
- 6.2 Combine Educational Programs in One Umbrella “Institute” to Increase their Prominence and Provide Uniform Training Services.

#### **7.0 Organizational Changes to Improve Efficiency**

- 7.1 Develop a Strategic Plan and a Business Plan for BECC and NADB
- 7.2 Keep BECC and NADB as Separate Institutions, with Separate General Managers, Reporting to a Single Board of Directors
- 7.3 Use the Existing Offices in the U.S. and in Mexico to House both BECC and NADB Personnel; each Office should be Responsible for Projects in its own Country.

- 7.4 Combine “New Sector” Project Development and Core Sector Project Development Groups within NADB.
- 7.5 Use One Administrative Department to Service both BECC and NADB (E.G., Legal, Human Resources, Finance (E.G., Disbursements), Procurement, Information Technology)
- 7.6 Align the Fiscal Years for BECC and NADB.
- 7.7 Budget for a One-Time Restructuring Charge for BECC and NADB.

**8.0 Recommendations for Board Policies**

Some of the recommendations detailed above may require changes to current Board policies or development of new policies or Board decisions. The following table provides a list of these recommendations and the relevant Board policies/decisions:

RECOMMENDATION	BOARD POLICIES/DECISIONS
<b>2.1</b> - Revise Process so that Project Certification and the Integrated Financing Package are Presented to the Board for Approval at the Same Time	<ol style="list-style-type: none"> <li>1. BECC to submit proposal for certification at same time that NADB submits proposal for NADB financing. This would be for all projects that entered the certification process after a certain date.</li> <li>2. Board policy decision to require NADB loan and NADB grant applications to be approved concurrently.</li> <li>3. Require 100% design for all projects prior to certification.</li> <li>4. Change LGPOP to allow projects to apply to NADB for funding prior to receiving BECC certification.</li> </ol>
<b>2.1A</b> – When Projects are to Receive Both an EPA-BEIF Grant and a NADB Loan, Agreements for Both Should be Signed at the Same Time	<ol style="list-style-type: none"> <li>1. EPA to change process to align its approval of EPA-BEIF grants with NADB loan/grant approval.</li> <li>2. No specific Board policy action is required.</li> </ol>
<b>2.2</b> - Develop a Complete Set of Standard Operating Procedures that Reflects an Integrated Project Cycle	<ol style="list-style-type: none"> <li>1. Approval of integrated SOPs to be proposed by BECC and NADB.</li> </ol>

<b>RECOMMENDATION</b>	<b>BOARD POLICIES/DECISIONS</b>
<p><b>2.3</b> - Make NADB Responsible for the Financial Analyses throughout the Entire Project Cycle. Keep Initial Application, Community Participation, Environmental/ Sustainability Analyses, Technical Analyses and Engineering Design as BECC-Led Activities</p>	<ol style="list-style-type: none"> <li>1. Formal assignment by the Board of all responsibility for finance-related activities to NADB and of technical related aspects to BECC. This formal assignment could take place through approval of the integrated SOPs to be proposed by BECC and NADB.</li> <li>2. Approval of criteria for conducting the initial financial feasibility review of applications by project sponsors. These criteria are to be proposed by NADB.</li> </ol>
<p><b>2.4</b> – Assign Technical Staff Who have been Involved with Project Design to Provide Technical Oversight During Project Implementation</p>	<ol style="list-style-type: none"> <li>1. Approval of proposal to formally assign technical staff who have been involved with project design to provide technical oversight during project implementation (changes responsibility for this from NADB to BECC).</li> </ol>
<p><b>2.5</b> – Make all Parts of the Project Cycle a Team Effort between BECC and NADB and Name a Project “Responsible Party” from Both BECC and NADB for the Entire Project Cycle.</p>	<ol style="list-style-type: none"> <li>1. This recommendation does not require a Board policy decision; its implementation can be handled at the operating level.</li> </ol>
<p><b>2.6</b> – Revise the Name and Objective of the Initial Application for Certification Step to More Closely Reflect that it is an “Eligibility Review”</p>	<ol style="list-style-type: none"> <li>1. This recommendation does not require a Board policy decision; its implementation can be handled at the operating level.</li> </ol>
<p><b>2.7</b> - Adopt an Approach Based on Cooperative Agreements with Other Agencies Whereby the Agency Providing the Greatest Amount of Financing Assumes the Primary Role for Project Development.</p>	<ol style="list-style-type: none"> <li>1. Board approval of cooperative agreements with other financing agencies.</li> </ol>
<p><b>3.1</b> - Include an Initial Financial Feasibility Step in the Initial Application Process</p>	<ol style="list-style-type: none"> <li>1. Decision regarding minimum level of project development that must be present for a project to submit an application for certification (eg., a preliminary engineering report).</li> <li>2. Decision to allow some assessment of financial feasibility during the initial eligibility review.</li> <li>3. Approval of financial feasibility criteria.</li> </ol>

<b>RECOMMENDATION</b>	<b>BOARD POLICIES/DECISIONS</b>
<b>3.2</b> - Develop a Process for Evaluation, Feedback, and Corrective Actions, Including Establishing an Independent Operations Evaluation Department	<ol style="list-style-type: none"> <li>1. Establishment of an independent evaluation unit that would report directly to the Board of Directors.</li> <li>2. Approve a budget, office infrastructure, and management structure for the OED.</li> </ol>
<b>3.3</b> - Develop a Systematic Method for Prequalifying and Prioritizing Project Applicants for Acceptance for Certification	<ol style="list-style-type: none"> <li>1. Decision regarding the establishment of a systematic method for prequalifying and prioritizing project applicants for acceptance for certification. This method should be prepared and proposed jointly by BECC and NADB.</li> </ol>
<b>3.4</b> - Identify a “Pre-application Step” which Includes Initial Support to Project Sponsors Who Are Not Ready for Project Development	<ol style="list-style-type: none"> <li>1. Decision on whether to establish this initial step and to provide support to project sponsors that are not ready for project development (i.e., authorize funds to be used to assist projects with “predevelopment” activities even when the project is not ultimately a candidate for financing) (eg., a preliminary engineering report).</li> </ol>
<b>3.5</b> – Implement a Program to Establish Standard Design Parameters	<ol style="list-style-type: none"> <li>1. This recommendation does not require a Board policy decision; its implementation can be handled at the operating level.</li> </ol>
<b>3.6</b> – Set up a Program for Design Analysis Peer Review	<ol style="list-style-type: none"> <li>1. This recommendation does not require a Board policy decision; its implementation can be handled at the operating level.</li> </ol>
<b>3.7</b> - Allow Open Bidding for all Procurements	<ol style="list-style-type: none"> <li>1. Approval of change to BECC’s current procurement policy to one of open bidding.</li> </ol>
<b>3.8</b> – Adopt a Standard Definition for What is Included in the BECC/NADB Project Development Process that Distinguishes Activities that are not Typically Defined as Project Development by Other Agencies	<ol style="list-style-type: none"> <li>1. Decision on whether subject programs should be separately accounted for.</li> <li>2. Approval of project development process to be prepared and proposed jointly by BECC and NADB.</li> </ol>

<b>RECOMMENDATION</b>	<b>BOARD POLICIES/DECISIONS</b>
<p><b>4.1</b> – Decide Whether the Certification Criteria Should Reflect the Requirements of Government Agencies Only or Should Incorporate Additional Expectations – Particularly with Respect to Community Participation, Environmental Assessment, and Sustainable Development</p>	<ol style="list-style-type: none"> <li>1. Policy decision on BECC’s role in Project Development</li> <li>2. Decision on what should be included in the certification criteria.</li> </ol>
<p><b>4.2</b> – Limit the Environmental Assessment Requirement to that which is Required by the Regulatory Agency having Jurisdiction</p>	<ol style="list-style-type: none"> <li>1. Decision on whether to limit the environmental assessment required to that which is required by the regulatory agency having jurisdiction.</li> </ol>
<p><b>4.3</b> – Establish a Process for Tiered Environmental Assessment Reviews for Qualifying Projects</p>	<ol style="list-style-type: none"> <li>1. Approval of new process to be developed by BECC for tiered environmental assessments</li> </ol>
<p><b>4.4</b> - Provide Customized Guidance to Private Sector Sponsors Regarding Compliance with Certification Criteria</p>	<ol style="list-style-type: none"> <li>1. Board to approve concept of streamlined certification criteria for these types of projects</li> <li>2. Board to approve new process when developed by BECC/NADB</li> <li>3. Board to track whether objective of increasing private sector participation is met through adoption of this recommendation</li> </ol>
<p><b>5.1</b> – Develop a Financing Strategy for NADB</p>	<ol style="list-style-type: none"> <li>1. Approval of a proposed financing strategy to be jointly prepared by BECC and NADB. The Board will need to make specific decisions regarding types of assistance to be provided to specific market segments (e.g., private sector sponsors, sponsors with low technical and financial capacity).</li> <li>2. Develop financing objectives for NADB.</li> <li>3. Develop financing instruments to support objectives.</li> <li>4. Approve modifications to existing policies as necessary.</li> </ol>

<b>RECOMMENDATION</b>	<b>BOARD POLICIES/DECISIONS</b>
<b>6.1</b> – Empower the BECC/NADB Team to be the Strategic Leader for the Border Region	<ol style="list-style-type: none"> <li>1. Approve concept to seek designation of BECC/NADB team as the strategic leader for the border region</li> <li>2. Approve Strategic Plan developed by BECC/NADB</li> <li>3. Revise other policies, as necessary, to be consistent with Strategic Plan</li> </ol>
<b>6.2</b> – Combine Educational Programs in One Umbrella “Institute” to Increase their Prominence and Provide Uniform Training Services	<ol style="list-style-type: none"> <li>1. Board approval for establishment of an “Institute” when developed by BECC/NADB.</li> </ol>
<b>7.1</b> – Develop a Strategic Plan and a Business Plan for BECC and NADB	<ol style="list-style-type: none"> <li>1. Decision on whether strategic plan should be separate for BECC and NADB or combined.</li> <li>2. Decision on objectives for performance of BECC and NADB</li> <li>3. Decision on performance indicators and metrics</li> </ol>
<b>7.2</b> – Keep BECC and NADB as Separate Institutions, with Separate General Managers, Reporting to a Single Board of Directors	<ol style="list-style-type: none"> <li>1. This is the current case; no new Board decision is required.</li> </ol>
<b>7.3</b> – Use the Existing Offices in the U.S. and in Mexico to House Both BECC and NADB Personnel; Each Office Should be Responsible for Projects in its own Country	<ol style="list-style-type: none"> <li>1. Decision on using the existing offices in the U.S. and Mexico to house both BECC and NADB personnel with each office being responsible for projects in its own country.</li> </ol>
<b>7.4</b> – Combine “New Sector” Project Development and Core Sector Project Development Groups within NADB	<ol style="list-style-type: none"> <li>1. This recommendation does not require a Board policy decision; its implementation can be handled at the operating level.</li> </ol>
<b>7.5</b> – Use One Administrative Department to Service Both BECC and NADB (e.g., Legal, Human Resources, Finance (e.g., Disbursements), Procurement, Information Technology).	<ol style="list-style-type: none"> <li>1. Decision on whether to approve organizational changes proposed in this recommendation.</li> </ol>

<b>RECOMMENDATION</b>	<b>BOARD POLICIES/DECISIONS</b>
7.6 – Align Fiscal Years for BECC and NADB	<ol style="list-style-type: none"> <li>1. Decision on whether to change fiscal years.</li> <li>2. Decision on which fiscal year to use.</li> </ol>
7.7 – Budget for a One-Time Restructuring Charge for BECC and NADB	<ol style="list-style-type: none"> <li>1. Approval of a one-time restructuring charge; the amount to be based on decisions regarding which other recommendations will be adopted and the pace (i.e., how much activity will be occurring in each fiscal year); as proposed by BECC and NADB based on their analysis of available resources and requirements to implemented selected recommendations.</li> </ol>

## **5.0 Plan to Evaluate Performance and Measure Results of the BECC and NADB**

The Task Five report provides a template structure for a Performance Monitoring Plan (Plan) by which the Board can measure the performance of BECC and NADB. The template has been selected to meet the Board's needs for tracking both qualitative and quantitative measures of performance, with some measures being individual to BECC or NADB and others representing combined goals. Stone & Webster has completed elements of this inaugural Plan based on its evaluation of BECC and NADB. However, the Board can and should anticipate making changes to more closely reflect its own interests and areas of focus.

Selection of indicators and their accompanying metrics should be based on a business plan that is approved by the Board and that provides the road map for the organizations. The business plan is based on the strategic plan, and is developed to implement the strategic plan. It maps the financial, operations, marketing and organizational strategies that BECC and NADB will use to achieve their goals. Stone & Webster recommends that a strategic plan and a business plan for BECC and NADB be developed through which performance expectations can be set.

Performance indicators are then developed based on the strategy outlined in the business plan. In turn, evaluation of the performance monitoring plan provides a logical and defensible basis for changes in policy and/or practices. For this report, the purposes of BECC and NADB as presented in the Charter were used as the goals.

To implement the process for developing this monitoring plan, it is recommended that one representative each from BECC and NADB work as a team to be responsible for coordinating the preparation of the monitoring plan for the Board's review. Progress reports and management meetings should be prepared periodically (at least annually) to review progress and develop strategies for the next reporting period.

In the list below, each goal is shown with one or more performance indicators that would allow progress toward meeting that goal to be assessed. For each performance indicator, one or more metrics are provided. The metrics are discrete activities, to which can be attached a quantitative value. Accomplishment of the metrics will result in improvement in the cited performance indicator. It should be noted that determination of the improvement in each performance indicator is made by measurements that track changes in the environment external to BECC and NADB and which are expected to change as a result of BECC/NADB's activities, as distinguished from the quantitative metrics that are used to track (or measure) performance of the two institutions directly.

BECC and NADB do not currently track all the data that would permit measurement of these metrics. Some of these performance indicators are currently being tracked, and those data could easily be applied immediately to this program (i.e., grant and loan data). In other cases, new data collection efforts will be required (i.e., pollutant loading or disease incidence). These could be developed as part of the recommendation for establishing a system for performance measurement.

A total of seven performance indicators were developed to support the three goals stated as "purposes" in the Charter. There are a total of 14 metrics that have been developed to support assessment of one or more of the indicators. Quantitative measures for the metrics are not

provided, as they need to be developed after analysis of the entire performance monitoring plan and prioritization of the choices. Goals, indicators, and metrics are listed below.

**GOAL 1:** “(a) The purpose of the Commission shall be to help preserve, protect and enhance the environment of the border region in order to advance the well-being of the people of the United States and Mexico”

**Performance Indicators:**

(1) Improvement in environment

**Sample Metrics to Measure This Performance Indicator:**

- Implement a systematic method for prioritizing project applicants for acceptance for certification
- Total loan disbursements
- Total disbursements (loans plus grants)
- % of evaluated projects whose impact on environment is qualified as « highly satisfactory » (equivalent to a 4 on a scale of 1 to 5)

(2) Improvement in health

**Sample Metrics to Measure This Performance Indicator:**

- Implement a systematic method for prioritizing project applicants for acceptance for certification
- Total loan disbursements
- Total disbursements (loans plus grants)
- % of evaluated projects whose impact on health is qualified as « highly satisfactory » (equivalent to a 4 on a scale of 1 to 5)

**GOAL 2:** “(b) In carrying out this purpose, the Commission shall cooperate as appropriate with the North American Development Bank and other national and international institutions, and with private sources supplying investment capital for environmental infrastructure projects in the border region.”

**Performance Indicators:**

(3) Development of cooperative programs between BECC and NADB

**Sample Metrics to Measure This Performance Indicator:**

- Time for project processing – this could be elapsed time from project certification to first disbursement (looking for minimizing elapsed time, indicating that when projects are certified they are also ready to receive their disbursements of funding); alternatively, this could be elapsed time from application for certification/financing to first disbursement, although there is significantly more variability in the maturity of the project this early in the project cycle and thus it is more difficult to control the extraneous factors that will affect project timing

(4) Development of cooperative programs with other finance institutions

**Sample Metrics to Measure This Performance Indicator:**

- Cooperative agreements with other finance institutions whereby the agency providing the greatest amount of financing assumes the primary role for project development
- Ratio of total funding administered by NADB (NADB loans and grants plus EPA-BEIF grants) to total funding provided by financing agencies for all projects with co-financing (i.e., success in leveraging NADB funds by increasing the participation of other agencies)
- Time for project processing

(5) Development of programs attractive to private sponsors

**Sample Metrics to Measure This Performance Indicator:**

- Total loan disbursements to projects led by private sector sponsors

**GOAL 3:** “The purposes of the NADB shall be (a) to provide financing for projects certified by the Board of Directors in accordance with Articles I and II of Chapter I, and, as the Board of Directors deems appropriate, to otherwise assist the Commission in fulfilling its purposes and functions”

**Performance Indicators:**

(6) Development of lending instruments that support the BECC/NADB goals

**Sample Metric to Measure This Performance Indicator::**

- Number of loan commitments
- Total loan disbursements
- Loan to grant ratio (on an annual basis)
- Total loans outstanding as a percent of total capital

(7) Development of grant programs that support the BECC/NADB goals

**Sample Metric to Measure This Performance Indicator:**

- Total disbursement of grants provided out of NADB’s capital
- Total disbursement of EPA-BEIF grants

(8) IDENTICAL TO NO. 4 ABOVE – APPLIES TO BOTH GOALS: Development of cooperative programs with other finance institutions

**Sample Metrics to Measure This Performance Indicator:**

- Cooperative agreements with other finance institutions whereby the agency providing the greatest amount of financing assumes the primary role for project development
- Ratio of total funding administered by NADB (NADB loans and grants plus EPA-BEIF grants) to total funding provided by financing agencies for all projects with co-financing (i.e., success in leveraging NADB funds by increasing the participation of other agencies)
- Time for project processing

(9) IDENTICAL TO NO. (3) ABOVE – APPLIES TO BOTH GOALS: Development of cooperative programs between BECC and NADB

**Sample Metrics to Measure This Performance Indicator:**

- Number of integrated standard operating procedures developed and implemented
- Time for project processing – this could be elapsed time from project certification to first disbursement (looking for minimizing elapsed time, indicating that when projects are certified they are also ready to receive their disbursements of funding); alternatively, this could be elapsed time from application for certification/financing to first disbursement, although there is significantly more variability in the maturity of the project this early in the project cycle and thus it is more difficult to control the extraneous factors that will affect project timing