

North American Development Bank  
Banco de Desarrollo de América del Norte

## Technical Assistance Program

## Cumulative Results Report 2015-2020

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# **Technical Assistance Program**

## **Cumulative Results Report**

### **2015-2017**

## **Introduction**

The North American Development Bank (NADB) provides technical assistance through grants to promote the development of high-quality environmental infrastructure projects and institutional capacity-building, support the long-term sustainability of projects, and facilitate access to NADB financing. Technical assistance is a key tool that NADB uses to strengthen the operational and financial capacities of its customers, as well as to identify new business opportunities. NADB provides technical support with its own funds through its Technical Assistance Program (TAP) and administers two programs financed by the U.S Environmental Agency (EPA), as described in the box below.

This report summarizes the overall results of the TAP program during the period 2015-2020.<sup>1</sup>

#### **Technical Assistance Program (TAP)**

Funded with NADB retained earnings, TAP supports project sponsors in the development of sustainable infrastructure and reinforces the institutional capacities of border communities. As part of this program, the Utility Management Institute (UMI) offers professional training aimed at strengthening the administrative and financial capabilities of those responsible for operating water and wastewater utilities.

#### **Project Development Assistance Program (PDAP)**

Funded by EPA to support the development and design of water and wastewater projects selected to receive a construction grant through the Border Environment Infrastructure Fund (BEIF).

#### **U.S.-Mexico Border 2020 Program**

Also funded by EPA, this binational program was developed by EPA and the Mexican Ministry of Environment and Natural Resources (SEMARNAT) to improve the environment and protect the health of residents within 100 kilometers of both sides of the U.S.-Mexico border. It focuses on initiatives for improving air quality, increasing access to safe drinking water, reducing the risk of exposure to hazardous waste and binational emergency response preparedness.

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<sup>1</sup> In 2015, NADB and the Border Environment Cooperation Commission (BECC) consolidated their technical assistance activities into a single program in anticipation of their merger in 2017.

## Technical Assistance Program (TAP)

With the approval of the Board of Directors, NADB uses a portion of its retained earnings to fund technical assistance and capacity-building activities. All technical assistance funded through this program falls into one of three categories, as described in the box.

The Technical Assistance Department develops an annual TAP work plan that identifies the priorities to be addressed during the year within the available budget.

An electronic tracking tool in the form of a database was developed to follow up on TAP projects and their status. It also facilitates aggregating results by indicator, sector and project category.

### TAP Trends

Figure 1 illustrates the number of projects approved and the TAP funding provided to date. Activity has declined in recent years following changes made in the program procedures in 2015, which were aimed at obtaining a clearer commitment from the beneficiaries. These changes include:

- A more rigorous selection of projects that have the potential to be certified within a reasonable time period and, eventually, be financed with an NADB loan;
- Requiring the sponsors to cover 10% of the cost of the TAP project, in order to demonstrate their interest in it;
- Requiring the sponsors to carry out the procurement process and award the technical assistance contract to suppliers and consulting firms; and
- During 2020, the restrictions imposed by the COVID-19 pandemic.

### General Technical Assistance Categories

#### ► Sector Studies

These studies are aimed at identifying environmental infrastructure needs, promoting sustainable public policy or generating knowledge about new sectors or technologies of interest for NADB.

#### ► Institutional Capacity-building

These initiatives are intended to help public project sponsors improve their financial or technical capabilities by facilitating access to knowledge. This category includes UMI seminars, forums and training programs,

#### ► Project Development

These studies are directly linked to a specific infrastructure project and are intended to help the project achieve certification in the short term (e.g., environmental impact documents, rate studies, financial analyses and other technical studies). They may also help develop a specific project in the medium term (e.g., master plans).

**Figure 1. TAP Funding Evolution (2015 – 2020)**

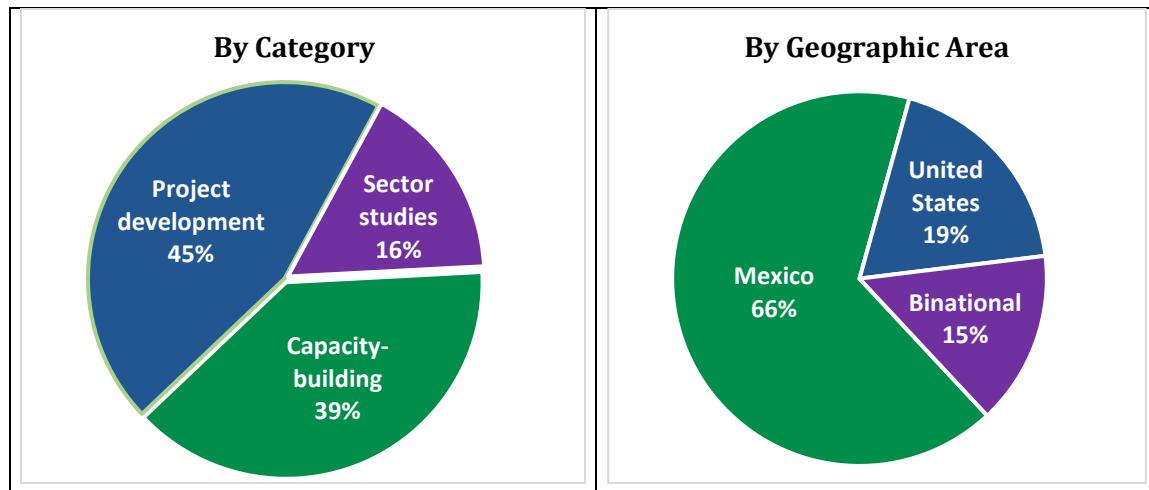


The difference between the amount of funds contracted and disbursed during a given year can be explained by the fact that the average development time for a technical assistance project is between 18 and 24 months. In 2019 and 2020, NADB approved an annual budget of US\$1.0 million for TAP, but was only able to place US\$313,000 and US\$370,000, respectively, for the reasons previously noted.

## Project Portfolio

As of December 2020, a total of 80 TAP projects had been approved: 36 (45%) related to project development, 31 (39%) to help strengthen public institutions and 13 (16%) for sector studies. Geographically, 53 projects (66%) were in Mexico, 15 (19%) in the United States and 12 (15%) were binational as they supported communities on both sides of the border (Figure 2).

**Figure 2. Project Distribution**



Of the 53 projects in Mexico, 43% were related to project development, 32% to capacity-building and 25% to sector studies. To date, 15 initiatives have been funded by TAP in the United States, 47% for institutional strengthening, 27% for sector studies and 26% for project development. With respect to binational projects, 58% have been aimed at strengthening institutional capacities through forums and seminars on renewable energy and green infrastructure, as well as water utility management courses through UMI.

**Table 1. Project Distribution as of December 31, 2020**

Category	Mexico	United States	Binational	Total
Project development	23	4	5	28
Capacity-building	17	7	7	31
Sector studies	13	4	0	21
<b>Total</b>	<b>53</b>	<b>15</b>	<b>12</b>	<b>80</b>

Table 2 presents the current status of TAP projects by category. As of December 31, 2020, of the 80 projects in the portfolio, 71 had been completed, four were in development and five had been cancelled for various reasons without having used any TAP funds. Fact sheets for completed projects can be found in the Technical Assistance Projects section of the NADB website (<https://www.nadb.org/our-projects/technical-assistance-projects>).

**Table 2. Project Status as of December 31, 2020**

Category	Approved	In Process	Cancelled	Completed	With Fact Sheet
Project development	36	3	3	30	30
Capacity-building	31	1	1	29	29
Sector studies	13	0	1	12	12
<b>Total</b>	<b>80</b>	<b>4</b>	<b>5</b>	<b>71</b>	<b>71</b>

In terms of funding, from 2015 to 2020, a total of US\$4.8 million was contracted and US\$4.0 million was disbursed through TAP (71%), as shown in Table 3.

**Table 3. Financial Status of TAP Projects**

Category	Approved	TAP Funding (USD)		
		Contracted	Disbursed	% Disbursed
Project development	36	\$ 2,242,967	\$ 1,802,784	80%
Capacity-building	31	1,541,457	1,254,574	81%
Sector studies	13	1,062,826	1,002,759	94%
<b>Total</b>	<b>80</b>	<b>\$ 4,847,250</b>	<b>\$ 4,060,117</b>	<b>84%</b>

By environmental sector, water stands out with 71% of the projects funded during the 2015-2020 period: 33 for drinking water, ten for stormwater, nine for wastewater, four for a mix of both drinking water and wastewater components, and one for water conservation (Figure 3).

**Table 4. Project Distribution by Environmental Sector**

Sector	Projects	TAP Funds (USD)		
		Contracted	Disbursed	% Disbursed
Water	57	\$ 3,180,380	\$ 2,680,725	84%
Clean energy	8	479,301	455,727	95%
Air quality	3	158,526	165,025	104%
Urban infrastructure	9	943,364	680,737	72%
Solid waste	3	85,679	77,903	91%
<b>Total</b>	<b>80</b>	<b>\$ 4,847,250</b>	<b>\$ 4,060,117</b>	<b>84%</b>

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**Figure 3. Project Distribution by Sector**

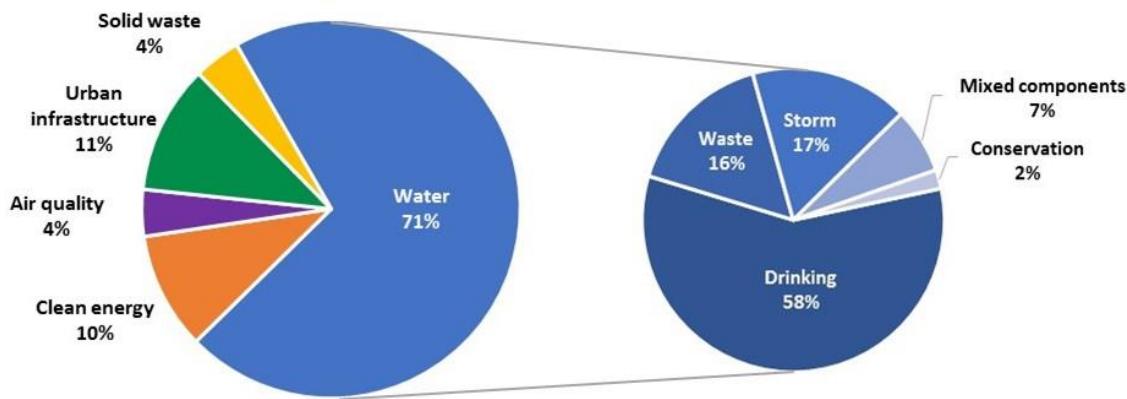


Table 5 below shows the geographic distribution of the 71 projects completed to date. Sonora is the state with the largest number of projects and support so far, accounting for 22% of disbursed funds. No TAP activities have been conducted to date in Tamaulipas, while 10 initiatives with a binational scope have been supported, representing 20% of the funds disbursed.

**Table 5. Geographic Distribution of Completed Projects**

Region / State	Completed Projects	TAP Funds (USD)			% Disbursed
		Contracted	Disbursed		
Baja California	10	\$ 471,992	\$ 473,872		100%
Sonora	15	885,859	840,233		95%
Chihuahua	3	165,288	128,855		78%
Coahuila	6	285,657	234,214		82%
Nuevo Leon	2	130,172	132,888		102%
Tamaulipas	0	0	0		0%
Regional	11	519,731	517,364		100%
<b>Total Mexico</b>	<b>47</b>	<b>2,458,698</b>	<b>2,327,426</b>		<b>95%</b>
California	1	23,200	9,712		85%
Arizona	2	145,282	145,282		100%
New Mexico	3	167,942	164,397		98%
Texas	8	335,712	284,442		85%
<b>Total U.S.</b>	<b>14</b>	<b>672,136</b>	<b>613,833</b>		<b>91%</b>
<b>Binational (US/MX)</b>	<b>10</b>	<b>843,983</b>	<b>801,815</b>		<b>95%</b>
<b>Total</b>	<b>71</b>	<b>\$ 3,974,817</b>	<b>\$ 3,743,074</b>		<b>94%</b>

## Results Measurement

NADB's evaluation model is "results-based" rather than "implementation-based" to ensure that its funds are used efficiently and in accordance with its strategic plan, mission and current objectives, as well as those of its stakeholders.

To document the results of TAP-funded projects, a fact sheet is developed upon completion of each project to confirm that its fundamental objectives were achieved—to the extent to which physical targets (outputs) were met—and that the intended results (outcomes) were obtained, as well as to seek feedback to improve practices (lessons learned) through on-site observations and discussions with project sponsors. Specifically, the purpose of the fact sheet is to:

- Compare actual results to those projected when the project was approved.
- Document success factors and/or determine the reasons for any project deviations (lessons learned), such as insufficient funding, fluctuating costs or unanticipated difficulties or conditions.
- Create a feedback loop to help determine whether the lessons learned can be applied to future projects.

To aggregate TAP results, a set of typical indicators representing the change in conditions addressed by the TAP project was developed for each technical assistance category.

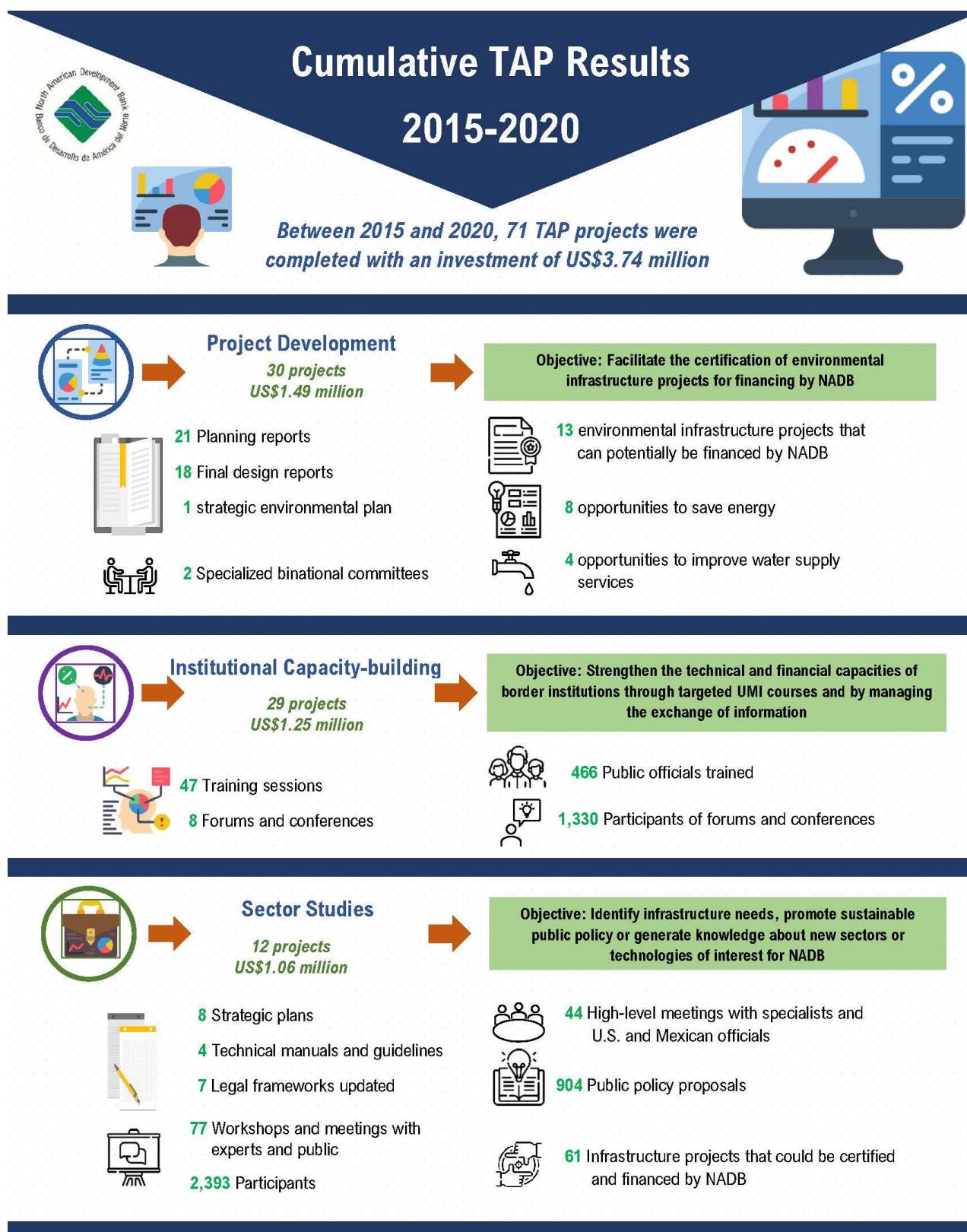
## Results

In the first TAP cumulative report developed in 2018, information was presented on 47 completed projects, 43 of which had fact sheets. This second cumulative report compiles the results of the 71 projects completed by the end of 2020, all of which have a fact sheet.

Figure 4 illustrates the overall TAP results for the period from 2015 to 2020, while Tables 6, 7 and 8 provide a detailed list of the cumulative results by technical assistance category, with the understanding that a project may have generated results in various ways (e.g. the Chihuahua Water Plan).

Annex A provides a summary table of the indicators for each technical assistance category. These tables are continually updated and show that between 92% and 100% of the funds contracted are effectively used in the development of the projects, with the main difference attributed to fluctuations in the peso-dollar exchange rate.

Figure 4



**Table 6. Project Development Category**  
**Cumulative Results of 30 Completed TAP Projects**

Planning, master plans, preliminary designs		No. of projects
<b>Planning reports</b>		<b>21</b>
Baja California	Dynamic rate models for 4 water and wastewater utilities to increase their operational and commercial efficiency	4
San Luis, AZ - San Luis Río Colorado, SON	1 – Technical and financial feasibility study for binational natural gas distribution system projects 1 – Study of potential social and environmental impacts in the region associated with the project	2
Douglas AZ - Agua Prieta, SON	1 – Hydrological forecasting model 1 – Hydraulic model to evaluate the capacity of existing stormwater infrastructure Both aimed at proposing solutions to binational problems with flooding from storms.	2
Hermosillo, SON	5 – Planning documents for final designs for main roadways in the urban area of the city 1 – Strategic stormwater plan 1 - Conceptual design for the Metropolitan Park	7
Baja California	Baseline, market analysis and study of regulations for implementing a sustainable electronic waste management program in collaboration the Inter-American Development Bank (IDB) Multilateral Investment Fund	1
El Paso, TX; Vado, NM; Winterhaven, CA; & Piedras Negras, COAH	Planning documents for final designs for improving the efficiency of supplying drinking water and managing wastewater	5
<b>Specialized binational committees</b>		<b>2</b>
Mexicali, B.C.	Created to regulate electronic waste management with the participation of IDB, EPA, SEMARNAT, the Massachusetts Institute of Technology (M.I.T.) and NADB	1
Douglas, AZ - Agua Prieta, SON	Created to review proposals for mitigating the impact of storms in the region, with the participation of the local authorities in Douglas and Agua Prieta, Cochise County, both sections of the International Boundary and Water Commission (IBWC/CILA), the Mexican National Water Commission (CONAGUA), the U.S. Army Corps of Engineers (USACE), the Sonora state water agency (CEA), the Arizona Department of Environmental Quality (ADEQ), the Arizona Department of Water Resources (ADWR), the U.S. Geological Survey (USGS), Natural Resources Conservation Services (NRCS) of the U.S. Department of Agriculture (USDA) and the U.S. Federal Emergency Management Agency (FEMA)	1
<b>Infrastructure projects that can be financed by NADB</b>		<b>12</b>
San Luis, AZ - San Luis Rio Colorado, SON	Feasibility study for binational natural gas distribution system that demonstrated the viability of supplying natural gas to the San Luis Rio Colorado combined-cycle power plant and the long-term availability of low-cost natural gas in the region	2
Hermosillo, SON	The Hermosillo Municipal Institute of Research and Planning (IMIP) developed final designs for urban infrastructure and landscaping projects: 5 – roadways in the urban area of Hermosillo 1 – conceptual design of a city park 1 – update of strategic storm drainage plan	7

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El Paso County, TX	Update of the water services plan, which identified unserved areas, established priorities and identified regional projects	1
Mexicali, B.C.	Business plan for an electronic waste processing plant managed under a joint venture between workers in the sector and a public-private partnership	1
Vado, NM	Preliminary engineering of the feasibility of providing first-time wastewater services to the Sleepy Farms area	1
<b>Master Plans</b>		1
Arizona and Sonora	Arizona-Sonora Strategic Environmental Plan 2017-2021 15 – water, air quality and solid waste projects identified and prioritized in the plan with a binational focus	1
Final Design		No. of projects
<b>Final designs</b>		<b>18</b>
To improve the energy efficiency of water utilities		8
To rehabilitate and improve wastewater collection systems		5
To rehabilitate and improve drinking water supply systems		4
For a transboundary wastewater force main		1
<b>Workshops</b>		<b>2</b>
Tijuana, B.C.	As part of the process for identifying energy saving opportunities in the Colorado River- Tijuana Aqueduct	2
<b>Energy saving opportunities</b>		<b>8</b>
Tamaulipas and Coahuila	Energy audits in 5 water utilities in Tamaulipas and 1 in Coahuila	6
Anthony, NM	Energy audit for the rehabilitation of the wastewater treatment plant	1
Tijuana, B.C.	Energy efficiency improvements to the Colorado River- Tijuana Aqueduct	1
<b>Water service improvement opportunities</b>		<b>4</b>
Trincheras, SON	Pipeline alignment, topography, soil and environmental impact study for the final design of a water transmission line	1
Altar, SON	Pipeline alignment, topography, soil and environmental impact study for the final design of a water transmission line to prevent water losses	1
Magdalena de Kino, SON	Final design for sectorization of the water system	1
Whetstone, AZ	Design engineering services and permits for water system improvements related to the construction of a new well and system looping	1
<b>Applications for funding from other institutions</b>		<b>4</b>
El Paso, TX	Submitted to the Texas Water Development Board (TWDB) by the Lower Valley Water District (LVWD) for the McAdoo Acres Subdivision	1
Winterhaven, CA	Submitted by the City to U.S. Department of Agriculture Rural Development (USDA-RD)	1
Altar, SON	Water transmission line project, including specifications and procurement documents	1
Anthony, NM	Submitted to the New Mexico Finance Authority (NMFA) based on recommendations from the energy audit for rehabilitation of the wastewater treatment plant	1
<b>Applications for funding from NADB</b>		<b>3</b>

**Table 7. Institutional Capacity-building Category**  
**Cumulative Results of 29 Completed TAP Projects**

Institutional Capacity-building	No. of projects
<b>Training sessions provided to 466 public officials in the border region</b>	<b>46</b>
Training sessions for 14 water utilities in Coahuila to implement the Energy Efficiency Learning Network	14
UMI binational Basic Water Utility Management Program (2019-2020), with 1 virtual module provided in 2020 for 18 water utilities	4
Diploma-level course, <i>Basics of Water Utility Management</i> (2017), in collaboration with Instituto Tecnológico de Monterrey (ITESM) in Monterrey, Nuevo Leon for 11 utilities in Sonora	5
Diploma-level course, <i>Basics of Water Utility Management</i> (2016), in collaboration with ITESM in Monterrey, Nuevo Leon	5
UMI binational Basic Water Utility Management Program (2015) in San Antonio, Texas	4
Development of modules for the Municipal Management Institute (MUMI), focused on providing essential tools for modern administrative and financial management of municipal governments	3
Solid waste management and climate change seminars in collaboration with ITESM	3
Course: Turn Down the Heat: Why a 4°C Warmer World Must be Avoided, with the World Bank, in Monterrey, N.L.	1
Conference on Climate Change and its Consequences: Why a 4°C Warmer World Must be Avoided, in Piedras Negras, Coahuila	1
Workshop on improving access to safe and clean drinking water and energy efficiency for water utilities in Baja California	1
Seminar on Business Management for Water Utilities in Hermosillo, Sonora	1
Water audit for the Lower Rio Grande Utility in New Mexico	2
Green infrastructure training in Sonora and Coahuila	2
<b>Forums and conferences with 1,330 participants</b>	<b>8</b>
Forum on subnational financing in Mexico in collaboration with other financial organizations in Mexico City	1
Green Infrastructure Workshop and Energy Forum in the U.S.	2
Binational events: Border Energy Forum and Third Green Infrastructure Forum	2
Green Infrastructure Workshop in Hermosillo, Sonora	1
Climate change seminars in Sonora and Coahuila	2
<b>Public access to information</b>	
Access to information facilitated to strengthen the capabilities and knowledge of stakeholders, government officials, academia, non-governmental organizations and general public	9
<b>High-level dialogues</b>	
High-level discussions facilitated on local, federal, and international policies for different sectors: Mexico (9), U.S. (3) and border-wide (2)	14

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**Table 8. Sector Studies Category  
Cumulative Results of 12 Completed TAP Projects**

Sector Studies	No. of projects
<b>Strategic plans</b>	<b>8</b>
Action Plan developed under the IDB Emerging Sustainable Cities Initiative (ESCI), in collaboration with IDB, the Government of Sonora and NADB	1
Chihuahua State Water Plan 2018-2040	1
Development Plan for the Rio Sonora Special Economic Zone 2018-2032	1
Climate action plans for Mexican border states: one to identify mitigation policies in Tamaulipas and two socio-econometric analyses of prioritized mitigation policies in Chihuahua and Coahuila	3
Strategic plan for the solar industry in Mexico	1
Pilot test of the Sustainable Cost Manual for Water Utilities in Mexico developed by the Mexican National Water Commission (CONAGUA) and IDB in Piedras Negras, Coahuila	1
<b>Technical manuals and guidelines</b>	<b>4</b>
Technical assistance guide to support local authorities in Hermosillo in developing and implementing urban sustainability plans	1
Legal advisory services for amending the legal framework to incorporate green infrastructure in the building codes for three border municipalities in Mexico	2
Energy conservation guidelines for water systems, in collaboration with CONAGUA	1
<b>Legal frameworks</b>	<b>7</b>
Legal framework review and proposal to create an entity to manage stormwater in municipalities in Chihuahua	1
Municipal urban regulations updated to incorporate green infrastructure elements in infrastructure projects in Tijuana, Nogales, Ciudad Juarez, Saltillo, Hermosillo and Monterrey	6
<b>Impact evaluations</b>	<b>1</b>
Study in Baja California, assessing 18 projects certified and implemented between 1997 and 2014 in Tijuana, Playas de Rosarito, Tecate and Mexicali	1
<b>Workshops and meetings with experts and interested audiences</b>	<b>77</b>
Workshops to address complex issues with specialists and disseminate information (energy audits for water utilities, regional climate action plans, green infrastructure initiatives, etc.)	
<b>High-level meetings with specialists and public officials in Mexico and U.S.</b>	<b>44</b>
To inform and coordinate sponsors and local authorities, such as mayors, utility managers and state officials.	
<b>Forum and workshop attendees</b>	<b>2,393</b>
To encourage public participation in planning initiatives and program design, such as the state climate change plans and the Chihuahua State Water Plan	
<b>Surveys about the quality of life in border communities</b>	<b>4,636</b>
<b>Public policy proposals</b>	<b>894</b>
Development of 654 necessary actions, six general objectives and eight strategic plans in 37 communities in Chihuahua, linked to the Chihuahua State Water Plan	654
Specific project proposals under the Development Plan for the Rio Sonora Special Economic Zone 2018-2032	140
Planning and urban design proposals to promote the comprehensive development of Hermosillo under the Emerging Sustainable Cities Initiative (ESCI)	24
Public policy proposals during development of Climate Action Plans in expert workshops on various topics such as renewable energy, efficient energy use, public transportation and low-impact urban development	70
<b>Infrastructure projects that could be certified and financed by NADB</b>	<b>61</b>

Sector Studies	No. of projects
42 priority infrastructure projects identified for \$4,500 million pesos to address flooding issues in Ciudad Juarez, by supporting a decentralized municipal stormwater management utility	42
Key project proposals: Partial Downtown Plan, city park lakes, reclamation of the Sonora River channel, Southern Strip and Cultural-Commercial Corridor, based on specific project proposals under ESCI in Sonora	4
Projects identified in the five public policies with the greatest social, environmental and economic impact, based on the state Climate Action Plans for Chihuahua, Coahuila and Tamaulipas	15
<b>Other results</b>	
Solar plant with 528 modules installed in the parking lot to supply a reliable source of electricity to a children's hospital ( <i>Hospital Infantil de las Californias</i> ), which provides medical services free-of-charge to children with cancer	1

## General Comments

The TAP program has become a very important tool for the communities and serves as a linchpin for NADB's business plan, since few institutions provide support to project sponsors in the planning phase. To that end, NADB is looking to increase the effective use of TAP funding (which declined between 2017 and 2020) by identifying a larger number of viable projects linked to its strategic objectives.

From the lessons learned in the categories of project development and sector studies, it can be concluded that greater support is required upon completion of the technical assistance activities in order to increase the likelihood that they will lead to projects. Likewise, within the framework of its own knowledge management and to facilitate assimilating the lessons learned from projects and identify the main challenges in the development of such activities, a tool is needed to determine the reasons why an initiative fails to become a bankable project.

With this tool, NADB will be better able to respond to the needs, wishes and aspirations of border communities by promoting a better information exchange and closer and more timely coordination among NADB's project areas.

TAP and its regular review is fundamental for the ongoing improvement of the mechanisms and tools for measuring results and evaluating the efficiency and impact of the program.

Finally, less than 48% of TAP funding was allocated to project development activities. It is important to examine the allocation of available funds among the three categories of assistance in order to promote projects that can eventually be certified and financed by NADB.

Requiring complimentary funding up front and in cash from the sponsors has been shown to discourage their participation because of the difficulty of ensuring the contribution of those funds. Therefore, it is important to evaluate if there is a better way to incorporate the financial participation of sponsors and their level of commitment to the project.

Greater collaboration with other institutions to finance technical assistance projects jointly would leverage the program. Possible candidates include EPA, IDB, World Bank, CONAGUA,

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the German development bank GIZ, the U.S. Agency for International Development (USAID), and the Mexican development bank Banobras, among others.

It is time to enhance the TAP strategy with a long-term, but flexible, vision that can help consolidate the objectives of the institution. TAP flexibility should help identify and strategically process in real time external market factors, such as favorable national and state policies and the status of the Bank itself.

## Annex A Cumulative Results 2015-2020

### Project Development

#### Planning and Preliminary Engineering

Output Indicators	
Planning and Preliminary Engineering	Quantity
Technical assistance projects approved	13
Reports produced	22
Technical-financial models	12

Input Indicators		
	Contracted	Disbursed
TAP grants (USD)	\$995,378	\$911,655
Disbursed /contracted		0.92

Result Indicators	
Planning and Preliminary Engineering	Quantity
Strengthen governance and transparency (outreach)	1. NADB Board participation 2. Public access to reports 3. Creation of specialized committees
Advance to project implementation	1. Potential infrastructure projects identified 2. Compliance with environmental regulations and permits 3. Request for financing 4. Opportunity to improve drinking water services 5. Initiate final design of a project

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### Final Design

Output Indicators		
Final Design	Quantity	
Technical assistance projects approved	16	
Reports produced	18	
Workshops	2	
Input Indicators		
	Contracted	Disbursed
TAP grants (USD)	\$545,276	\$545,272
Disbursed /contracted	1.00	

Result Indicators	
Final Design	Quantity
1. Certification	1
2. Funding commitment	0
3. Identification of possible energy savings	9
4. Opportunity to improve drinking water services	5
5. Water distribution lines (km)	8.2
6. Opportunity to improve wastewater collection services	6
7. Opportunity to improve wastewater treatment services	5
8. Application for NADB grant funding	3
9. Application for funding from another institution	6

### Master Plans

Output Indicators		
Master plans	Quantity	
Technical assistance projects approved	1	
Reports produced	1	
Input Indicators		
	Contracted	Disbursed
TAP grants (USD)	\$28,814	\$28,814
Disbursed /contracted	1.00	

Result Indicators	
Master plans	Quantity
Strengthen governance and transparency (public outreach)	1
Public policies and project proposals	15
Proposed projects	1
Strategic environmental plans	1

## Institutional Capacity-building

Output Indicators		
Institutional Capacity-building		Quantity
Technical assistance projects approved		29
Intellectual capital improvements	Forums & conferences	8
	Training sessions	47
Input Indicators		
	Contracted	Disbursed
TAP grants (USD)	\$1,342,524	\$1,254,574
Disbursed /contracted		0.93

Result Indicators		
Institutional Capacity-building		Quantity
Knowledge management and transfer (internal / external)	Beneficiaries of forums & conferences (persons)	1,330
	Average cost per capita (USD)	\$1,289
	Beneficiaries of training (persons)	466
Strengthen governance and transparency	Meetings with NADB Board participation	1
	Public access to studies /reports (cases)	9
	High-level dialogues (local, federal, international)	14
Reports (needs assessments)	Energy and water audits	27

## Sector Studies

Output Indicators		
Sector Studies		Quantity
Technical assistance projects approved		12
Working meetings	Workshops with experts & public	77
	Meetings with government officials	44
	Active participants (persons)	2,393
Analytical tools	Surveys applied	4,636
	Advanced econometric models	5
Other	Installation photovoltaic solar plants	1
	Solar panels	528
	Installed capacity (kWh/year)	277,500
Input Indicators		
	Contracted	Disbursed
TAP grants (USD)	\$1,062,826	\$1,002,759
Disbursed /contracted		0.94

Result Indicators		
Sector Studies		Quantity
Reports (needs assessments and existing conditions)	Strategic plans	8
	Impact assessments	1
	Guidelines and manuals	4
	Legal instruments	7
Knowledge management and transfer (internal / external)	Beneficiaries of training (persons)	30
	Potential infrastructure projects identified	61
	Public policy proposals	904
Other	Annual savings (pesos)	400,000
	Supply power from renewable sources	80%