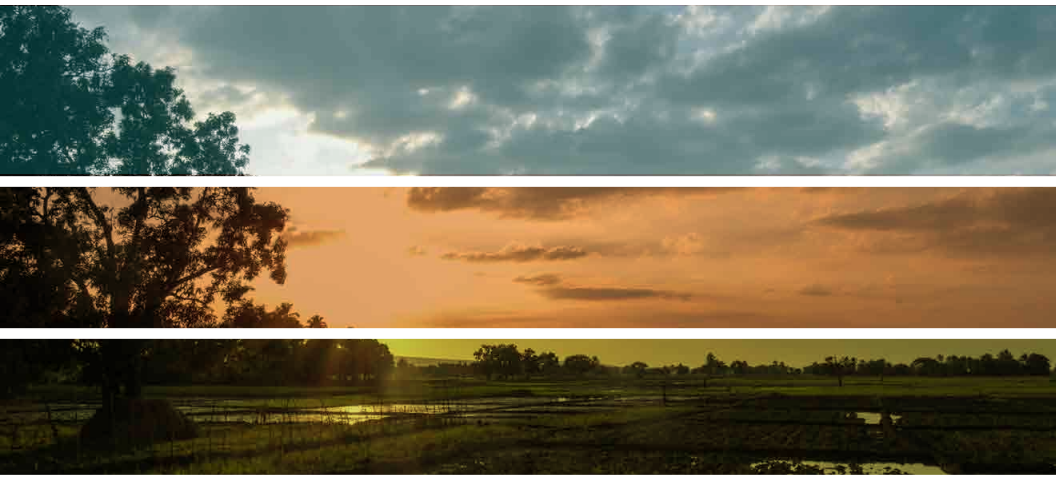
Haiti

IDB

TÈT DWAT POU PEYI'M VANSE

STORIES OF HOW HAITI IS MOVING FORWARD



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STORIES OF HOW HAITI IS MOVING FORWARD

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message from THE PRESIDENT

Five years after suffering the worst natural disaster in its history—a catastrophe that would have brought any nation on Earth to its knees—Haiti is still struggling to overcome countless obstacles to its development. But with the support of its partners in the international community, the Haitian government and its people are making measurable progress in many fields.

Gone is the rubble that clogged the streets and neighborhoods of Port-au-Prince. New buildings are going up, new businesses are opening, and new opportunities are emerging. Beyond the capital city, roads are being refurbished, schools are being built, and water systems are being expanded. While the pace of recovery may not be as quick as anyone would hope, Haiti is moving forward.

This publication takes stock of the efforts Haiti is making to transform several key sectors. Some are fundamental for economic growth; others are essential for improving its people's living standards. The programs and projects portrayed in these pages have two common elements: they are led by the Haitian government and financed largely with grants from the Inter-American Development Bank.

The stories, commissioned from Haitian and American writers, shed light on some of the complications that development plans tend to encounter in the quest for results. They also give voice to the true protagonists, the Haitian officials responsible for carrying out the projects and the citizens who are their intended beneficiaries. Achievements and setbacks, joys and frustrations, expectations of a better future and reminders of past disappointments: all are respectfully accounted and acknowledged.

The IDB, which has been in Haiti for more than five decades, remains optimistic about this unique nation's prospects. When we announced our $2.3 billion pledge to the reconstruction, just three months after the earthquake, we cautioned that this effort would require patience and persistence. At the half-way mark of that 10-year commitment, we continue to walk arm-in-arm with Haiti.

Luis Alberto Moreno
President
Inter-American Development Bank
Washington, D.C., March 2015

BACK TO SCHOOL

REBUILDING HAITI'S EDUCATION INFRASTRUCTURE

Vérmet Petit De, a 43-year old physics and math teacher, says he can't wait to begin teaching his students in their new classrooms at the Elie Dubois girls' vocational school in downtown Port-au-Prince. "I've been teaching physics and math here for 14 years, and I've been waiting for many years for this school to reopen," he said.

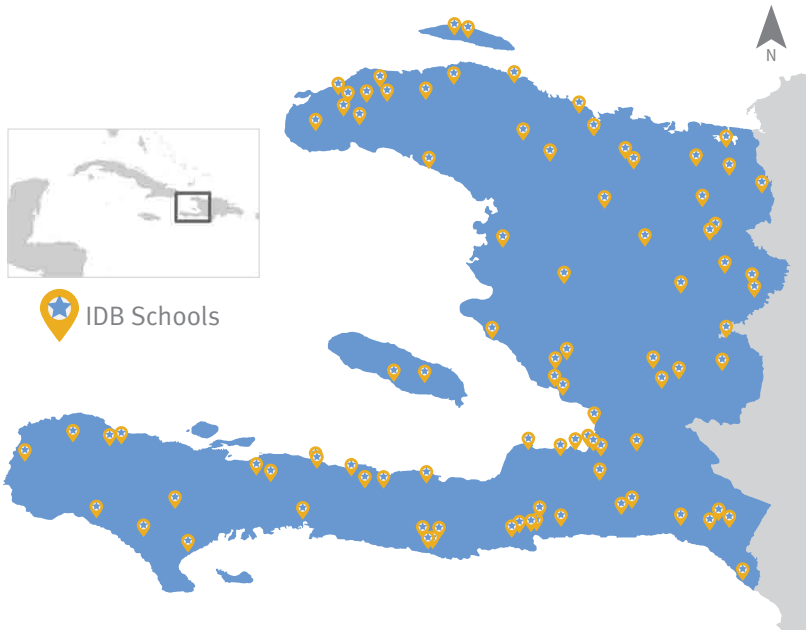
For nearly five years, Petit De has been teaching in temporary classrooms at the historic school site that was largely destroyed in Haiti's catastrophic earthquake on January 12, 2010.

But, in 2015, Petit De and his students will move into Elie Dubois' main school building, built over 100 years ago and painstakingly reconstructed with funding from the Inter-American Development Bank (IDB) and Colombian singer Shakira's Barefoot Foundation. "The new buildings give me a sense of pride and safety," said Petit De, adding, "I'm confident that the students will be safe if anything happens."

The reopening of Elie Dubois marks a turning point in the reconstruction of Haiti's schools – an effort that has been stymied over the past few years by poor oversight of construction projects and local contractors' unfamiliarity with international building codes. Those involved in the process say that, after an extensive review by donors and the new standards and procedures put in place by the Haitian government, plans to rebuild the country's battered education infrastructure are now well underway.

Starting from scratch

Even before the 2010 earthquake, Haiti's education infrastructure was severely stressed. In 2008, the country was hit by a series of hurricanes that damaged many schools. The earthquake put Haiti's already fragile education system under even greater stress, destroying about 25 percent of basic and secondary school buildings in the country. Even the Ministry of Education and Professional Training's (MENFP) headquarters collapsed in the earthquake, forcing its staff to work in temporary structures.

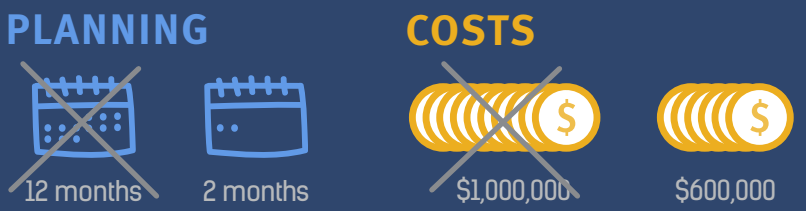


Reinforce concrete school prototype developed and built by the Swiss Cooperation. This MENFP school prototype is being used in several of the schools constructions funded by IDB and co-financings with other donors.

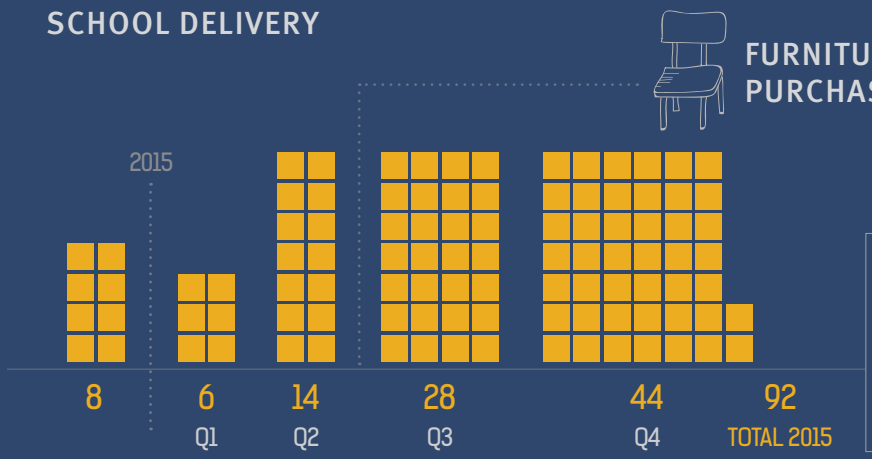
School using metallic structure frame is being built in La Providence, Quest Department in Port au Prince area. This school is funded by IDB with co-financing of the Happy Hearth Foundation

Education for a Better Tomorrow

BETTER CONSTRUCTION STANDARDS AND PROCEDURES



SCHOOL DELIVERY



102,000 SCHOOL KITS

167,000 UNIFORMS

571,000 BOOKS

DELIVERED 2013–2014

800 STUDENTS per school (up from 266)

1:40 TEACHER–STUDENT RATIO (down from 1:50)

800 CLASSROOMS BUILT

60,000 STUDENTS BENEFITING in double shifts

Metallic structure school is being built in Zorange. Department Quest, in Croix des Bouquets area. This school type is used in 10 schools.

To support Haiti's broader education reform and school reconstruction, the IDB pledged to provide $250 million in grants from its own resources and to help raise a similar amount from other donors. Of the $250-million IDB funding, 45 percent has been earmarked for school construction.

The first 19 school building projects got underway in 2011. But in 2012, an IDB-commissioned assessment found that the civil works experienced many problems, ranging from the use of inadequate materials and shoddy workmanship to failure to meet required quake- and hurricane-proof standards. Philippe Bastien, head of quality control efforts at Haiti's Fund for Economic and Social Assistance (FAES), an autonomous public agency supervised by the Ministry of Economy and Finance (MEF), said construction was suspended in 2012 and Miyamoto International, a global structural engineering firm specializing in earthquake mitigation, was brought in to develop new proposals to rebuild these 19 schools.

A goal of 72 schools using new standards and prototypes

FAES officials say work restarted in 2014 to rebuild the initial lot of 19 schools. The agency also made progress in planning to build 53 more schools, for a total of 72 to be completed by the end of 2015. The schools will be built in different lots, with funding from the IDB, Canada, Finland, the U.S. Southern Command, Trinidad and Tobago's First Citizens Bank, the Barefoot Foundation, and the Happy Hearts Foundation.

Most of the schools will be built using a prototype design originally developed by the Swiss Agency for Development and Cooperation (SDC) and other donors, approved and adopted by the MENPF. The schools can receive eight hundred grade 1-6 students in double-shifts, in nine 50 square-meter classrooms, with a teacher-student ratio of 1:40 per classroom. Additionally, two pre-school classrooms will serve 3-6 year olds. Each structure is designed so that air can flow easily through the building, cooling and ventilating the classrooms.

In 2014, the MENFP published a series of norms and procedures designed to standardize Haiti's school infrastructure. Working with the IDB, the Ministry's technical unit, the Direction du Génie Scolaire (DGS or School Building Directorate) published "practical guidelines" for school design and construction, including three different school prototypes, approval procedures for new school projects, and the publication of standardized documents such as plans and regulations.

"These new standards and procedures are saving time and money," said Christian Urbertini, an architect seconded to the IDB from the SDC "The time for planning a new school has gone from one year to as little as two months," he said. Construction costs are expected to drop from approximately $1 million to $600,000, depending on the size and location of the school.

In an effort to promote sustainability, the MENFP is requiring from FAES that all future schools be built to follow the DGS guidelines, using a steel and concrete mix. "Our goal is to have every school made from material that is mostly locally produced," said Oscar Caviglia, a FAES consultant, adding that the new prototypes have also standardized labor practices.

FAES and MENFP engineers argue that local sustainability is critical because most of the schools are being built in rural areas, where large modern buildings have never existed. The new structures will have to be maintained by local contractors using building materials that can be manufactured in Haiti.

In summary, while in the 2012 review numerous problems in school construction were found, to the present when new schools that meet international building codes are opening in Haiti, FAES and MENFP officials say they never lost sight of their mission: to provide children with quality schools that can withstand natural disasters that can desolate their country for centuries. Soon, they say, with the help from the IDB and other donors, Haiti will have many safe schools built to international construction codes.

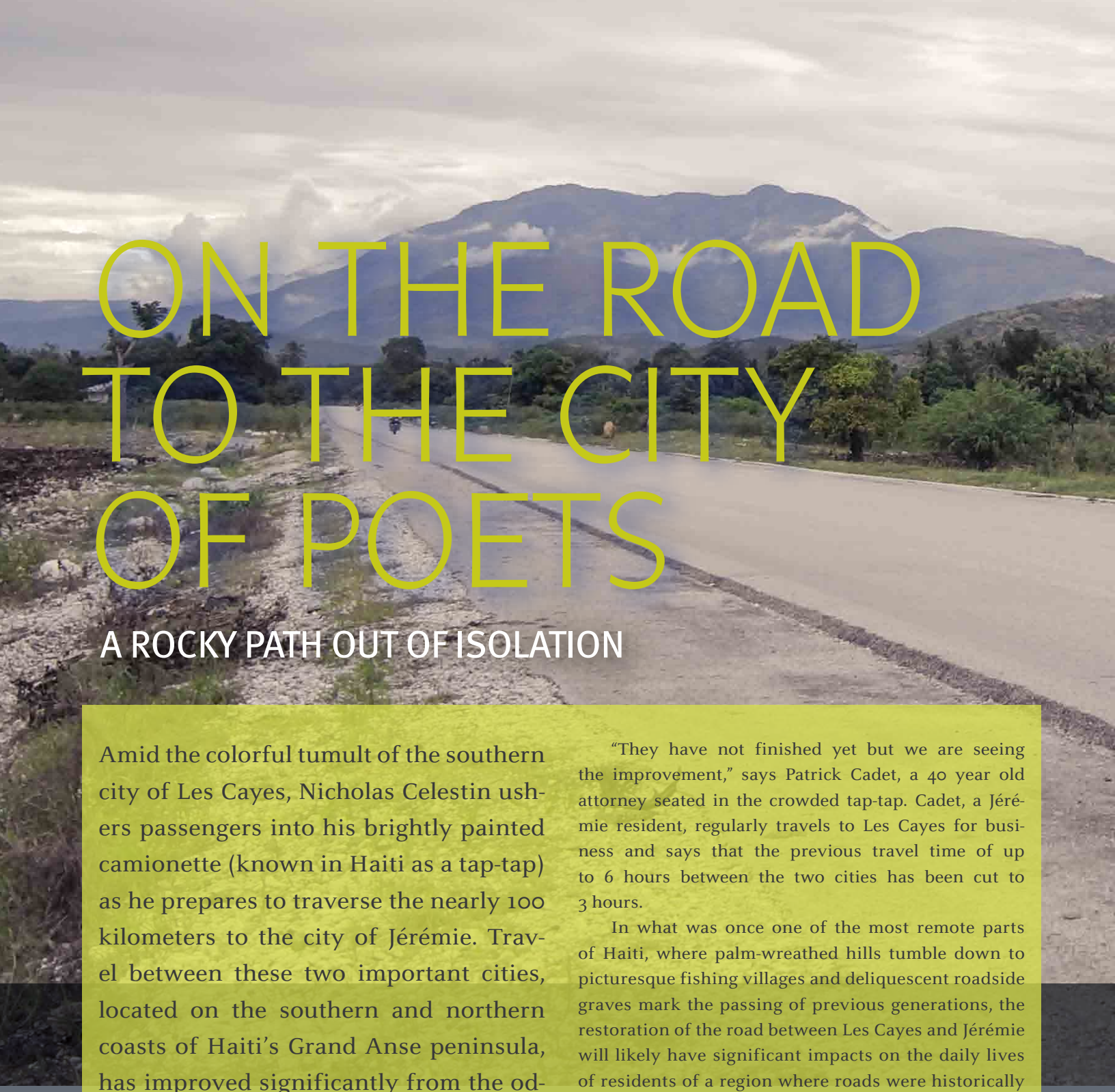
Elie Dubois' north façade severly damaged.

Detail of west façade after installing the carbon fiber reinforcement and before the construction of the metallic gallery.

PRESERVING HISTORY

For decades, many of Haiti's female leaders have been educated at Elie Dubois. The school is considered an important part of Haiti's patrimony. Before the earthquake, two large buildings made up school. One building collapsed, but the main building, dating back 100 years survived despite sustaining serious damage.

A renewed effort to save Elie Dubois began with the engagement of Architecture for Humanity (AFH), a San Francisco-based non-profit organization. "In order to avoid extensive demolition, it was necessary to reinforce the main building with carbon fiber and fiberglass, essentially wrapping it in protective coating to structurally preserve it," Natalie Desrosiers from AFH said. This type of project had never been attempted before in Haiti, but Desrosiers said that there was no other option because of the need to preserve the "historical integrity" of Elie Dubois for future generations.



ON THE ROAD TO THE CITY OF POETS

A ROCKY PATH OUT OF ISOLATION

Amid the colorful tumult of the southern city of Les Cayes, Nicholas Celestin ushers passengers into his brightly painted camionette (known in Haiti as a tap-tap) as he prepares to traverse the nearly 100 kilometers to the city of Jérémie. Travel between these two important cities, located on the southern and northern coasts of Haiti's Grand Anse peninsula, has improved significantly from the odyssey it once was, thanks to a fraught process of road rehabilitation.

"Right now it's getting better, " says Celestin, who hails from Les Cayes and has been plying this route for the last 3 years. "And when they finish, we hope it will be better still."

His passengers concur.

"They have not finished yet but we are seeing the improvement," says Patrick Cadet, a 40 year old attorney seated in the crowded tap-tap. Cadet, a Jérémie resident, regularly travels to Les Cayes for business and says that the previous travel time of up to 6 hours between the two cities has been cut to 3 hours.

In what was once one of the most remote parts of Haiti, where palm-wreathed hills tumble down to picturesque fishing villages and deliquescent roadside graves mark the passing of previous generations, the restoration of the road between Les Cayes and Jérémie will likely have significant impacts on the daily lives of residents of a region where roads were historically so bad that many people opted to travel by boat.

A road worth building

The Grand' Anse is a region extraordinarily rich in history but often sadly neglected.

Thomas-Alexandre Dumas, the father of Alexandre Dumas, author of The Three Musketeers, was born in Jérémie, the son of a white French father and a black slave mother, in 1762. Other famous writers who hailed

Young Haitians travelling on a segment of the Cayes-Jérémie road that has already been paved.

from Jérémie include Etzer Vilaire and Émile Roumer, and for that reason, the town became known to Haitians as the City of Poets.

On a more ominous note, the region also witnessed the slaughter of its white inhabitants at the hands of the revolutionary forces leader, Jean-Jacques Dessalines, after Haiti's 1804 independence. Dessalines's deputies, Alexandre Pétion and Henri Christophe, did what they could to save lives, without much success.

Today, however, such violence seems quite distant in a region where one can see schoolchildren casually skipping home in the evening's twilight and flinty coastal men casting their nets into the sea come morning.

To reduce the isolation of Jérémie and the Grand' Anse, in 2007, the IDB and Canada's Department of Foreign Affairs, Trade and Development (formerly CIDA) approved $171 million to finance a project to integrate the Southwestern-most part of the country with the rest of the Haiti, rehabilitating the Les Cayes-Jérémie segment of National Route 7. While the mountainous road has long existed, it has never been paved, and in some places it narrows so much that only one lane of traffic is allowed to travel at a time. Additionally, some river crossings were made impossible after heavy rains, causing most people not to travel by road.

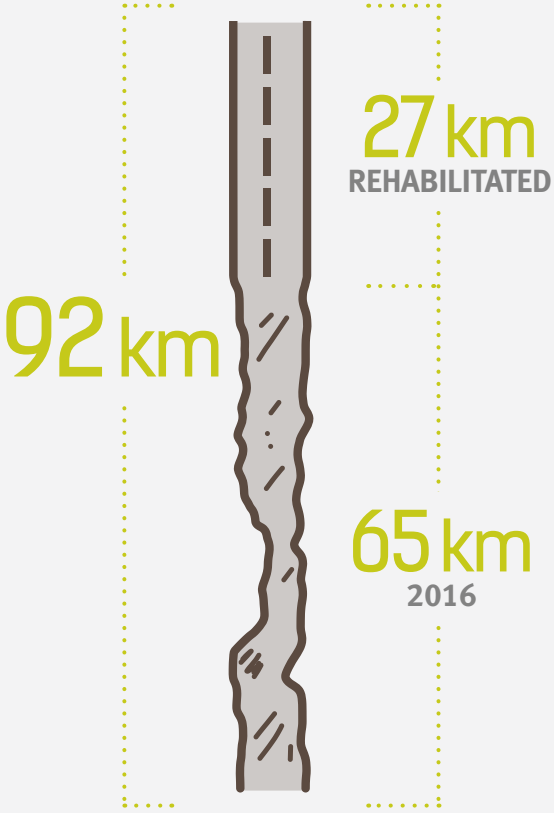
After a troublesome start, results are materializing

The attempt to ameliorate the Les Cayes - Jérémie road, a long hoped-for project, got off to a slow start. The Brazilian construction company Construtora OAS Ltd was hired for the task, but withdrew before completion as a result of land tenure disputes, work stoppages and accusations among residents that, for the ballooning $95 million cost, only 60 percent had actually been accomplished. Ill feelings about the project resulted in violent demonstrations that gripped the normally placid Jérémie.

After more than a year-long suspension, in 2012, completion of the project was awarded to Estrella, a Dominican Republic-based company with a large presence in Haiti, especially post the 2010 earthquake. Estrella

Paving the Way

LES CAYES-JÉRÉMIE:



TRAVEL TIME:

began work on the road in August 2013 and is projecting a completion by early 2016.

While a trip that used to take a minimum of six hours now takes just three and a half, when the project is completed travel time is expected to be reduced to less than two hours. But the benefits go beyond a shorter travel time. Linking Jérémie, the administrative center of the Grand' Anse Department, to Les Cayes will unify the area and incorporate a department that has been isolated for most of the last two centuries. The project has also endeavored to increase job opportunities for women, including working with and handling heavy machinery (a more traditional male role). As important, the project has employed environmental mitigation measures to protect the region's natural resources, including, for example, the joint IDB-Global Environment Fund (GEF) financing for the Macaya Natural Park.

Previous page: Rehabilitated Cayes-Jérémie road segment and buses circulating daily. This page: Mountainous road segment under rehabilitation, including widening of the road so that traffic can circulate in both directions at the same time.

"After 4 months, they had completed a lot of work, and the project is moving forward," said Yvon Antoine Gardère, resident engineer for Cayes-Jérémie road project with Haiti's Ministère des Travaux Publics, Transports et Communications, who spoke from Estrella's offices located in Camp-Perrin, a town 20 kilometers away from Les Cayes. After a rocky start, this project now seems well underway. It is a most hopeful improvement for the residents for, just beyond the walls, Camp-Perrin's lanes are lined by melancholy (but highly picturesque) above-ground tombs of departed residents under dripping vegetation. Such tombs are a tradition in this part of Haiti, and one of which local residents are justifiably proud. Soon, many hope, it will be easier for Haitians and others to come to this historic part of the country and experience all that the Grand' Anse has to offer.

IN THE TIMES OF CHOLERA

An inter-sectorial response to emergency and beyond

Previous page: Haitian mother with treated child

IN OCTOBER 2010, HAITI WAS HIT BY A SERIOUS CHOLERA EPIDEMIC. ONLY NINE MONTHS AFTER THE DRAMATIC EARTHQUAKE, THE FAST-SPREADING DIARRHEAL DISEASE WITH THE ABILITY TO KILL ITS VICTIMS IN JUST 24 HOURS PROVOKED PANIC. WITHIN A MONTH, THERE WERE OVER 11,000 CONFIRMED CASES AND 180 CASUALTIES, AND THOSE NUMBERS WERE GROWING EXPONENTIALLY.

Cholera is mostly spread by digesting water or food contaminated with excrement that has the Cholera bacteria. In fact, modern epidemiology considers its beginnings with a successful experiment to stop the spread of cholera over 150 years ago. Long before microorganisms such as bacteria were known to cause disease, the physician John Snow convinced authorities to close off the wells that had been used by the households where people fell ill in London.

Since the first confirmed cases in Haiti, hundreds of relief organizations returned to the country just months after dealing with the devastation of the 2010 earthquake. At the time, the Ministry of Health and DINEPA (National Agency for Potable Water and Sanitation) were overwhelmed by both the emergency health demands and the need to coordinate massive external support.

Recognizing that time was of the essence, the Haitian government requested the Inter-American Development Bank (IDB) support to scale up its response to the epidemic. Efforts focused on designing a project with the ability to deliver relief quickly and, at the same time, to build local capacity. The resulting 18-month-long project had to deal with the immediate health needs and the challenge of preparing the country to control cholera altogether, a battle expected to last more than a decade.

Within six weeks of receiving the government's request, the IDB board and the Spanish Cooperation Fund for Water and Sanitation in Latin America and the Caribbean approved an emergency project of US$20 million. The project focused on strengthening treatment capacity as well as scaling up pre-emptive actions via community outreach units. At the same time systematic chlorination efforts were put in place both at the production and distribution levels, targeting water kiosks serving low-income neighborhoods as well as households directly.

A coordinated emergency response

To strengthen the government's stewardship, the Ministry of Health and DINEPA were tasked with serving as the executing agencies while UNICEF coordinated the emergency health response and related procurement processes. In the following months, the project built 1,008 oral-rehydration posts and 77 cholera treatment units, and trained 2,780 community outreach agents to deliver key preventive health messages.

Patient-discharge records indicate that close to 140,000 people were treated at the supported facilities and UNICEF estimated that up to 2 million people were reached with core messages on the need to chlorinate household water, the importance of hand washing, and access to oral rehydration solution at the first onset of symptoms.

The Ministry of Health set up a national surveillance system during the first two months of the epidemic which showed that mortality rates started drastically declining from the initial 2.7% of patients,

Haitians stocking up on treated water to avoid possible water contamination.

reaching lows of less than 1% by the ninth month of the epidemic.

The number of people who fell ill with cholera also began to fall: in January 2011, there were 14,000 new cases per week; a year later there were fewer than 1,000 new infections reported weekly. During the 18-month span of the project, the epidemic was downgraded to an endemic state. Although the bacteria are not fully eliminated from the environment, the situation is now considered under control.

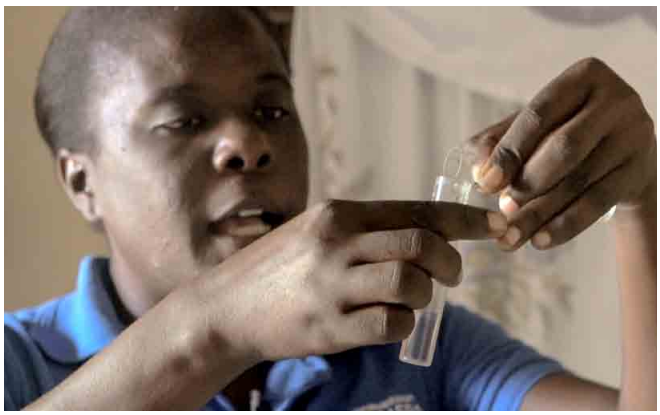
Though even at the height of the epidemic up to 97% of infected patients made a full recovery from dehydration caused by the bacteria, the sheer numbers remind us of the tragic impact this epidemic had on the country. Two years after cholera was introduced to the Artibonite River, there had been 590,856 recorded cases and 7,758 causalities. The fight is not over, as the bacteria continue to affect the population. Of the 65,000 new cases recorded in 2013, 550 people died.

A medium-term solution through water and sanitation

While this project was an emergency response to the cholera outbreak, the water and sanitation projects can be considered medium-term investments rather than emergency response activities. The most critical behavior changes that can help curb cholera are related to household water treatment, hand-washing, home treatment of diarrhea, and latrine use as opposed to open defecation.

It is in these areas that DINEPA is playing a key role in the longer-term response. The project contributed to achieving significant strengthening of the agency's regional network, in particular through communal water and sanitation technicians (TEPAC network) and rural regional units (URD). The TEPAC network now forms a new permanent structure in the communes. These professionals are capable of quickly informing authorities of a potential outbreak of water contamination as they perform routine analyses of water quality both at the water posts and in homes. On the other hand, URDs have gained very important experience in supervising engineering works and their analytical capacity was strengthened via the portable laboratories used to monitor water quality.

The Haitian population has also learned how to better treat water. Altidor, an 8 year-old student in the northern town of Milot, explains what she has learnt



Top: Altidor learning preventive actions such as hand-washing. Bottom: Comita Martin, DINEPA Technician performing routine water quality analyses in a home

from the home visits of her local TEPAC: "My older brother and I go fetch the water. And when we come back with the gallons, we put a drop of Clorox in it".

At the same time, the infrastructure investments such as assuring the level of residual chlorine and functioning of the water networks, upgraded health centers' water and sanitation systems, and provision of sanitary blocks to schools can be expected to be sustained with appropriate maintenance.

Hopefully in the future, also Haiti will benefit from a solid early detection system and sustained local capacity for both prevention and curative care to avoid future water-borne tragedies.

This article is based on a blog series on development effectiveness featuring stories on learning and experiences from IDB projects and evaluations.

Fighting Cholera

PROJECT

1,008 ORAL-REHYD RATION POSTS BUILT

77 CHOLERA TREATMENT UNITS BUILT

140,000 PEOPLE TREATED at supported facilities

2,780 COMMUNITY OUTREACH AGENTS TRAINED to deliver key preventive health messages

UP TO **2 million** PEOPLE REACHED on the importance of preventive measures

EPIDEMIC BACKGROUND

Within a month:

11,000 CONFIRMED CASES

180 CASUALTIES

Two years after:

590,856 RECORDED CASES

7,758 CASUALITIES

RESULTS

MORTALITY RATE		MORTALITY RATE
2.7%	↓	-1%
BEGINNING		8 MONTHS LATER

PATIENTS MADE FULL RECOVERY	NEW CASES PER WEEK		NEW CASES PER WEEK
UP TO 97%	14,000	↓	UP TO 1,000
JAN 2010	JAN 2011		JAN 2012

Power up!

NEW METERS AND CIRCUITS FOR PORT-AU-PRINCE

In the steep mountainside neighborhoods that rise above Port-au-Prince there is a new symbol of progress. Snaking along the sides of the narrow, traffic-clogged streets are thousands of brand new power meters, installed on either concrete or wood poles at a height of about 25 feet.

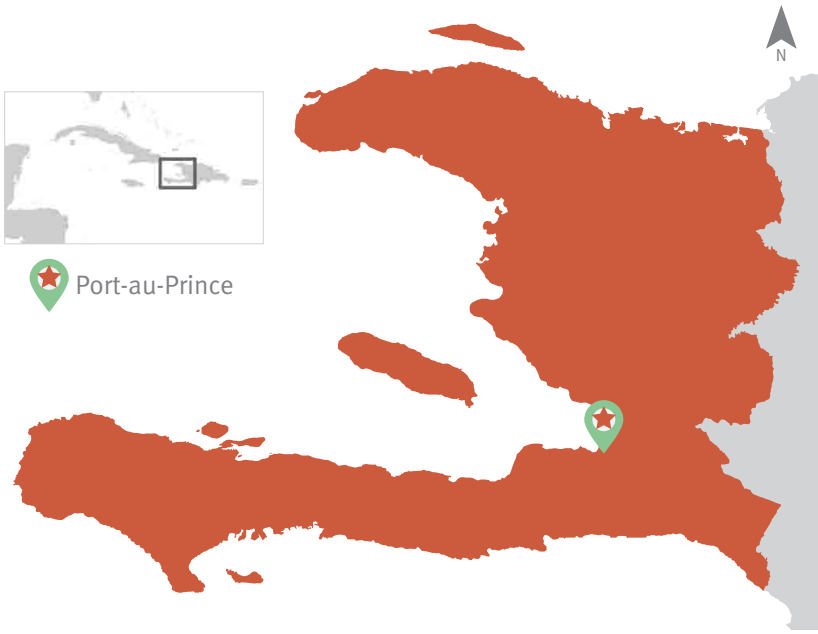
The new meters, 21,000 in all, are the most visible sign of an effort funded by the IDB to rehabilitate Haiti's electricity sector, following the earthquake that struck on January 12, 2010, causing widespread disruption to an already precarious power infrastructure in Port-au-Prince. Further damage was done by two hurricanes in 2012.

Inadequate supply and demand

More than 70 percent of Haitians lack regular access to electricity. About 12.5 percent of Haitians get some power on a daily basis (about 25 percent if illegal connections are counted). For those Haitians who do have power, service is poor, below 11 hours a day, and electricity rates are some of the highest in the world.

Haiti imports all of the oil it consumes and its electricity sector is heavily subsidized by the government ($170 million in FY 2011-2012). Since its establishment in 1971, the state-owned utility, Electricité d'Haiti (EDH), has been unable to generate enough power to meet demand or to collect enough revenue to cover its operating costs. The IDB, the World Bank and the US State Department coordinate their institutional strengthening efforts to increase the efficiency of the energy sector.

Preivous page: New meters set high up on the utility pole to avoid tampering are read remotely by the EDH technicians.



Basic service restored and rehabilitation begins

Five years after the quake, basic if sporadic service has been restored in most areas affected by the disaster, at a cost of more than $83 million. Efforts to upgrade and expand Haiti's electricity sector began in 2006, with the support of several donors, including the IDB, the World Bank and USAID, but little progress had been achieved before the earthquake. Since 2010, donors have provided additional support to improve EDH's performance and to upgrade its infrastructure, a massive effort that is now underway.

According to Fritz Gerval Octave, a senior energy specialist with the IDB, the main focus in Port-au-Prince has been on rehabilitating three electrical circuits and installing new meters outside homes and businesses in and around the municipality of Pétionville. "The logic behind this is that the main problem that EDH faces is what we call non-technical or commercial losses, and what we found is that it involves people stealing power or tampering with meters so they read zero kilowatt hours each month, which means that EDH is not getting paid for the service it provides," he said. The IDB is also funding at the construction of the Tabarre substation, which will also serve the Port-au-Prince area.

In the months following the quake, thousands of people displaced from downtown Port-au-Prince moved up into Pétionville and Canapé Vert. Initial predictions of power and meter usage in the area had been based on population estimates made before the earthquake, which turned out to be far below what was needed. As a result, EDH had to redesign the circuit that served that area. More delays resulted from the difficulty of installing hundreds of meter poles on the steep hillsides of Morne Calvaire and Pétionville, requiring nearly 30 crews of workers.

New meters generate new revenue

The meters are placed high up and are read electronically to make it more difficult to tamper with the equipment. New technology is transforming the way the state utility collects data on power usage. "EDH used to have to come out and read each meter, but with the new system meters are not read one-by-one. They now use a handheld recording unit that reads all the meters on a pole at the same time, and then download the data to EDH's billing system. So, no more reading with the eyes," said Octave. Before the new meters were installed, nearly all electric meters were at ground level or inside people's homes or businesses. As a result, so-called non-technical or commercial losses from people either using makeshift connections or disabling meters approached 80 percent in some areas.

Martín Camille Cange, EDH's coordinator for joint IDB and World Bank power projects, said the new meters are having an impact. EDH figures show that prior to the installation of the new meters, its Pétionville agency was collecting 30-35 million gourdes a month from meter readings. In August 2014, the first month many of the meters went on-line, revenue jumped to 41 million gourdes, rising to 47 million gourdes in September and 53 million gourdes in October. Cange and other EDH officials said they expect revenue to continue growing as more meters come on-line.

In the Du Pont neighborhood of Pétionville, meter readers are now out on the hilly streets reading some of the hundreds of new meters. Yves Jeudi, a Du Pont resident, says he is nervously waiting for his first bill from the new meter installed outside his small home. "Many of my old bills were full of mistakes. I hope the new meter will fix that problem," he said. Jeudi said he is willing to pay but wants a fair bill, and more impor-

Powering Lives

PROJECT DELIVERABLES

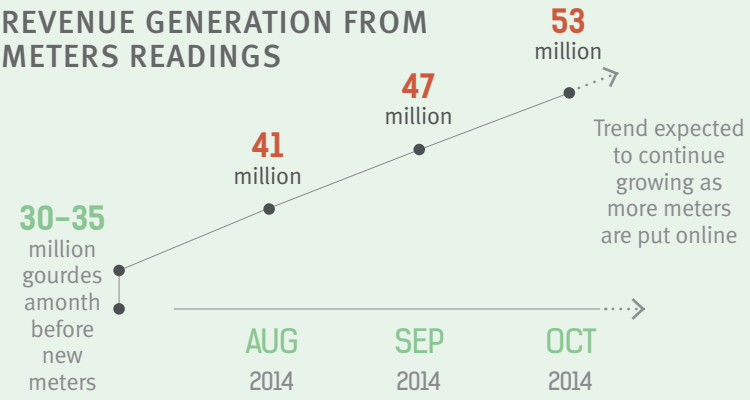
2 CIRCUITS
rehabilitated
2013

21,000
new meters installed
2014

1 CIRCUIT
rehabilitated
2015

TABARRE SUB-STATION
rehabilitated
2016

REVENUE GENERATION FROM METERS READINGS



80% losses from disabled meters and makeshift connections in some areas

NEW METERS:

- ARE MORE DIFFICULT TO TAMPER WITH
- ARE PLACED HIGH UP
- HAVE ELECTRONIC READING

Top: Rehabilitated electricity sub-station. Bottom: EDH Technician installing wires and transformers on top of a utility pole.

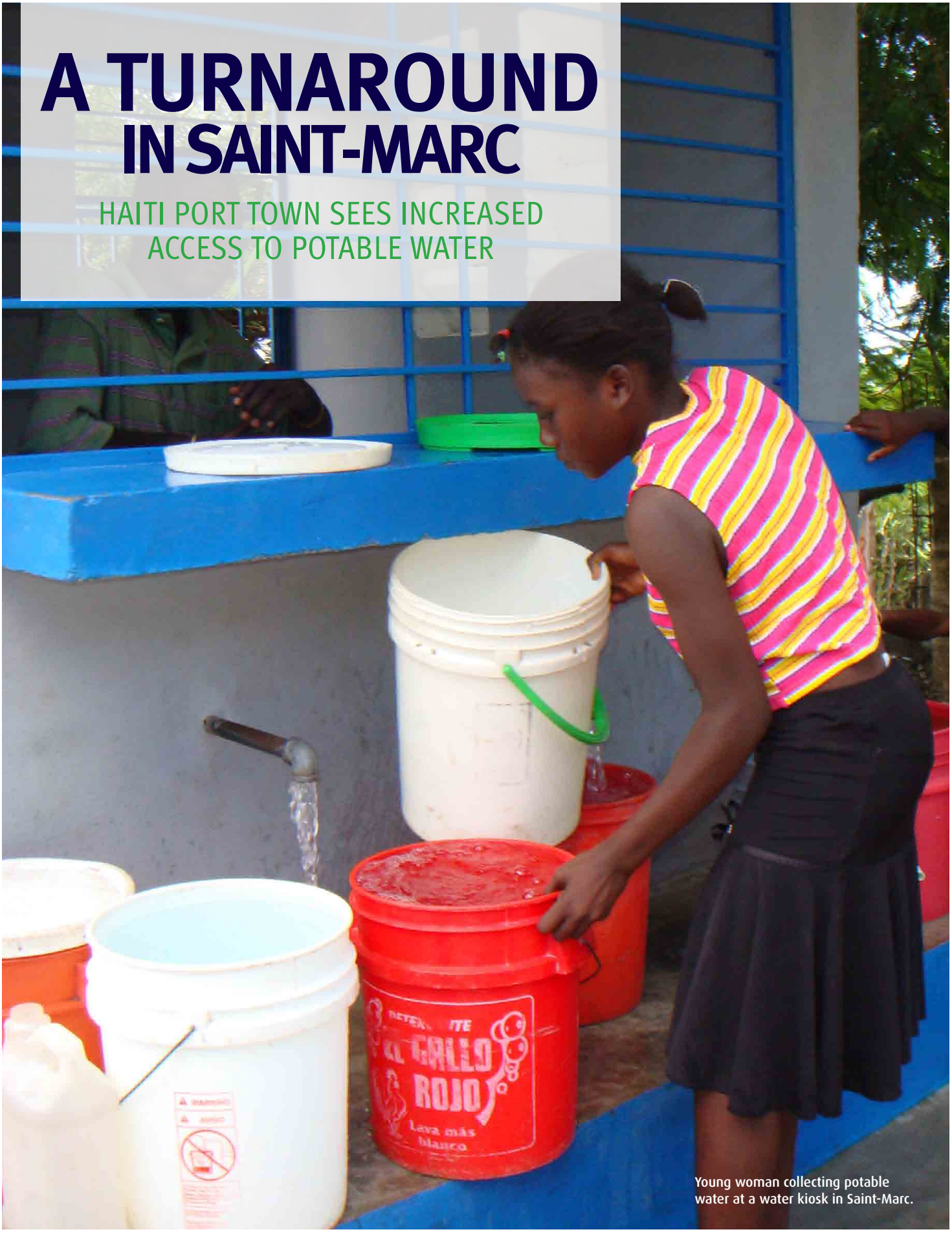
tantly he wants reliable service, which can vary from four to 18 hours a day in his neighborhood.

EDH's Cange is sympathetic to that kind of complaint. "The rehabilitation itself cannot really solve the service problem, because the main issue about the service is the fact that we don't have the capacity to meet the demand," he said. "The rehabilitation helps a little bit because now you have better circuits and you will have fewer breakdowns, but the big problem of service needs to be addressed at the production level. We need higher production to respond to demand," he added.

There have been no protests against the installation of new meters, even in areas where power theft was rife. "The people in Pétionville, they are willing to pay, especially those who used to block the meters. They are paying now, and not only in Pétionville. People are willing to pay if they get good service," said Cange.

A TURNAROUND IN SAINT-MARC

HAITI PORT TOWN SEES INCREASED ACCESS TO POTABLE WATER



Young woman collecting potable water at a water kiosk in Saint-Marc.

Drain valve installed as part of the expansion of the Saint-Marc potable water system.

Boy drinking water from new Saint-Marc water kiosk.

Water for Everyone

2008

SAINT-MARC HAD ACCESS TO WATER ONLY **9** hours per week & OPERATOR COST RECOVERY WAS **3.5%**

2013

OPERATOR COST RECOVERY JUMPED TO **70%**

2014

8,500 households HAVE REGULAR ACCESS TO SAFE DRINKING WATER:

4,500 through individual connections

4,000 through water kiosks

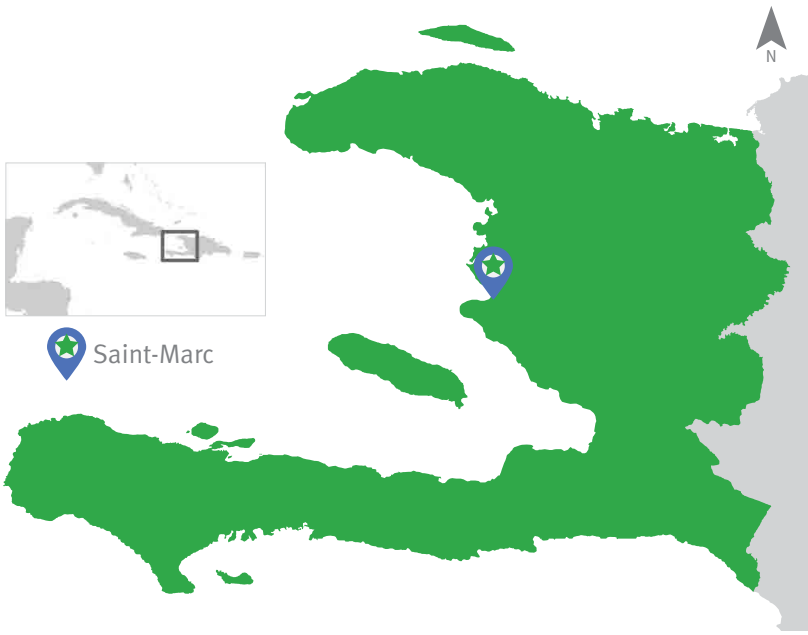
THE WESTERN REACHES OF HAITI'S ARTIBONITE VALLEY SPREAD OUT THROUGH SOME OF THE LUSHEST FARMLAND IN THE COUNTRY. ORBITING LARGELY AROUND THE TOWN OF SAINT-MARC, THE REGION IS FAMOUS FOR ITS RICE CULTIVATION AND LIVESTOCK. SAINT-MARC ITSELF, ONCE A POLITICALLY FRAUGHT, UNSTABLE CITY ABUTTING HAITI'S CARIBBEAN COAST HAS, IN RECENT YEARS, BECOME ONE OF THE COUNTRY'S MOST PLEASANT PLACES.

Frenetic, to be sure, it also boasts restful, shady squares and tree-lined streets going back up into the surrounding hills. Famous also for the strength of slavery-era sociétés secrètes (secret societies, somewhat akin to the Freemasons) such as Bizango in and around it, Saint-Marc today is linked with its rural agricultural neighbors to the west in an energetic attempt to bring low-cost water to the population, a program the IDB has been enthusiastically supporting.

Accessing potable water

Compared with other countries in Latin America and the Caribbean, Haiti has low water coverage rates of about 75% for urban residents (as compared with 97% for the region), and an unreliable supply (less than four hours per day). The situation in Saint-Marc was no better. "Before, we didn't have water every day, and the quality of what we did have was bad, very salty," says Valery Victor, the Director General of the Société des Eaux de Saint-Marc (SESAM) as he sits in his office located off of one of the town's busy main thoroughfares.

His words are, if anything, an understatement, as only six years ago, Saint-Marc had access to water only 9 hours per week. Today, some 4,500 households have regular access to safe water through various individual branches, and enjoy a streamlined billing and payment system; others have access through water kiosks, bringing the total number of households with access to



safe drinking water to over 8,500. This is particularly significant in a region was that was on the fringes of a cholera epidemic that began sweeping through Haiti in late 2010. In the cities that benefited from investments (like Saint-Marc), the population displayed a greater resistance to cholera.

Sarah Matthieussent Romain, a senior water and sanitation specialist at the IDB, says water systems are the key to fighting cholera and other water-borne diseases. "In St. Marc, where we had already completed the system before the cholera crisis, we had no cases of cholera. Cholera is at several sites where there are no water systems. When you put in a water system, you eradicate cholera because people can now access safe drinking water at kiosks," she said.

The project in Saint-Marc, which financed the rehabilitation of its water system (completed in 2009 and improved in 2014), is part of a wider program to develop access to potable water and sanitation in secondary cities. A first project was approved by the IDB in 1998 for $55.6 million, and complemented by the Organization of the Petroleum Exporting Countries (OPEC) with an additional $6.6 million. In 2009, a second project was approved to expand existing networks and construct new ones in their suburban areas. The IDB financed $19 million and Spain's AECID agency provided $20 million.

"The central state remains relatively weak, though" says Victor, when asked about the problems of fraud and theft of water. SESAM has been benefiting from an alternative form of public-private partnership with a delegated management contract with an international firm to increase their operating efficiency. The contract is currently under renegotiation to optimize the performance of the private counterpart, but has already demonstrated results, as cost recovery in Saint-Marc jumped from 3.5% in 2008 to 70% in 2013.

Improving the sanitation system

Along with increased water usage, there is also a need for an improved sanitation system. Haiti's sanitation coverage is the lowest in the region – 31% for urban residents (as compared with 87% in the region). In Saint-Marc, the program financed a used-water network (no city had a centralized sewage system) and a waste treatment center. In a country where half of the population does not even have latrines, and where studies show that the cost of a collective sanitation system would be prohibitive, the program needed to build more than infrastructure—a behavioral change component was needed as well as community participation and hygiene education. Among the elements was a training program and equipment for 45 *bayakous* (latrine cleaners), as well as training in masonry to promote the building of individual latrines.

These investments in infrastructure are not only delivering potable water and much needed and rare sanitation systems to the community of Saint-Marc; they are delivering knowledge and empowering the residents, a benefit for generations to come.

From what was once a city that was associated with Haiti's often explosive political history, Saint-Marc today is pointing the way forward to how incremental improvements in public services can improve the lives of the country's citizens.

STITCHING A MORE SUSTAINABLE GARMENT INDUSTRY

OPERATING BOTH EFFICIENTLY AND PROFITABLY, WHILE MAINTAINING HEALTHY, DIGNIFIED AND EQUITABLE WORKING CONDITIONS

Preivious page: One of the 140 newly hired and trained employee.

Over the past few decades, major clothing and footwear brands and retailers in the developed world have almost completely outsourced their manufacturing operations to offshore locations in search of low-cost labor and production opportunities.

Most clothing companies design and market their products in developed countries while subcontracting production in developing countries where governments provide incentives to attract and retain their business. Unfortunately, in many cases this has resulted in low wages, poor working conditions and unfair labor practices for workers of garment assembly factories throughout the developing world.

Haiti was no exception

Until recently, Haiti was no exception, because of its dependence on low-end products, substandard working conditions are common, wages are extremely low, and they have even declined over time. Yet, the textile and clothing industry plays a critical role in the local economy.

As of 2012, this sector employed more than 29,000 workers and accounted for most of the country's exports (80 percent) and about 10 percent of its GDP. Apparel exports and investments have significantly increased since 2006, thanks to the economic engagement of the United States through the Haitian Hemispheric Opportunity through Partnership Encouragement Act, commonly known as HOPE. HOPE provides tariff-free access for most Haitian garment products into the United States.

Although expanded exports are good news, providing workers with adequate labor conditions remains a challenge. Now, a new Haitian-based garment factory doing business under the name of Industrial Revolution II (IRII), is attempting to depart radically from the prevailing paradigm of low-cost production of commodity garments by establishing a "shared-value" business model that also places emphasis on social advancement for its workers, their families and their communities.

The beginning of an industrial revolution

With the idea of training the local workforce to produce better quality apparel while adhering to superior social and environmental standards, the IRII plant started operating in September 2013, financed by its investors and a $1 million loan from the IDB's Opportunities for

IRII garment cutting, sewing and folding lines.

the Majority Sector, which was used to completely retrofit an old warehouse in an industrial park near the Port-au-Prince airport and to purchase state-of-the-art sewing, cutting and printing equipment. Through the introduction of an innovative manufacturing philosophy that focuses on the implementation of team-based, modular manufacturing techniques that place responsibility for quality of work on teams instead of supervisors, IRII is able to provide better wages and working conditions to its employees without sacrificing competitiveness in the market by saving on the number of managers needed to run the plant.

Training is an integral part of the IRII business model. Workers hired have never worked in the industry before and are trained from scratch on IRII's manufacturing system. The training takes place in an on-site program that lasts up to three months. For many of the 140 employees hired and trained to date, this was their first formal employment. This model has created a new flexible, multifunctional atmosphere for the factory that has optimized workflows, increased quality and responsiveness to quality issues as well as overall productivity. It has also enabled the possibility of doing smaller, customizable runs, with more flexible and quicker turns to meet fast fashion demands. From the workers' perspective, it has also contributed to increase job satisfaction and empowerment. During the first year of operation, voluntary turnover was close to zero compared with industry averages of 25 to 30 percent.

IRII has also been able to pay all its employees well above the established minimum wage set by the Haitian government, thanks to performance incentives. Workers also have a full-time, in-house doctor, a dining hall, access to training facilities, and work in a well-lit, ventilated environment. With these significant improvements over typical working conditions, productivity has been increasing steadily. After only a year in operation the factory is just as efficient as higher-volume producers.

A revolution is not an easy ride

As a young company just starting to build up a solid clientele, IRII has struggled to resolve issues related to its supply chain. Haiti offers obvious competitive advantages over other locations such as the proximity and preferred access to US markets and having low labor costs compared with other countries. However, because

there are no fabric mills in Haiti, all inputs used in garment production have to be imported, together with trims, threads, labels, hand tags and other production materials.

When the volumes of merchandise requested are not high enough, the final cost to customers ends up being more than they are willing to pay. Even though many fashion brands have been quite interested in increasing their responsible sourcing practices, when it comes down to it, price continues to be the biggest decisive factor. In response, IRII management is developing the ability to quickly identify the right type of customers, who place large enough orders so that the fabric can be procured cost-effectively, and subsequently a fair price can be offered to the customer while IRII maintains a satisfactory margin.

An industrial and social revolution

As part of its "shared-value" proposition, the company also plans to earmark 50 percent of its future profits for social programs that will benefit the factory's workers, their families and their communities directly. The idea is to partner with service providers already on the ground, such as Partners in Health, Prodev and the International Rescue Committee, to increase access to healthcare, education and adult vocational training services, and to improve local infrastructure.

"I am painfully aware, like many, that our industry's main vision has been to travel the globe seeking out and supporting the developing countries offering us the least expensive labor," said Joelle Berdugo-Adler, one of IRII's sponsors. "The industry has put thousands of people to work and as such has given people a leg up out of abject poverty, but for me that just is no longer enough."

With efforts to identify a clientele that makes sense for the company, and to adapt quickly to the market, IRII has made solid steps in the right direction, helping to demonstrate to the rest of the garment industry in Haiti that it is possible to produce efficiently and profitably while maintaining healthier, dignified and more equitable working conditions for employees and the surrounding community.

This article is based on a blog series on development effectiveness featuring stories on learning and experiences from IDB projects and evaluations.

Cow wearing traceability tag.

Preserving the farmers' savings

MODERNIZING PLANT & ANIMAL HEALTH PROTECTION SERVICES, A REAL CHANCE FOR HAITI

Along with agriculture, livestock is one of the two main sources of income for Haitian farmers. It is one of the priority clusters in which to invest to foster economic growth in Haiti, as identified by the Working Group on Competitiveness (GC), a Presidential Commission established by former President René Préval.

Raising livestock is typically one of the activities family farms perform to generate additional income, income which is often crucial for families to be able to endure lean periods. According to the Ministry of Agriculture, Natural Resources and Rural Development (MARNDR), 80% of family farms raise poultry, 65% raise goats, 55% raise cattle and 35% raise swine. Additionally, because pack animals remain the primary means of transporting agricultural products, breeding donkeys, mules and horses remains a high priority for family farms.

Livestock assets at risk

For many farmers, livestock farming is a form of savings. The sale of an animal usually occurs when there is a major life event: someone goes back to school, gets married, dies, purchases land or builds a house.

According to the National Food Security Coordination (CNSA), the average price of beef amounts to 10,000 gourdes per adult animal ($ 213), twice the price of pork. This means that by raising two mature oxen, a farmer can help his family rise above the extreme poverty line. A family's livelihood and economic security can rise or fall based on the health of the animals they are raising. When animal diseases sweep across the livestock sector, their impact on the living conditions of farmers is swift and harsh; breeders can fall into extreme poverty overnight. The larger population is also affected when disease curtails availability of meat.

Recent Agricultural Trends

Agricultural production has declined sharply in recent years. In 2010, Haiti was only producing 48 percent of its food; it imported 44 percent, with food aid providing the remaining 8 percent. Even with these declines in production, 60% of the workforce remained engaged in agricultural production, distributed across more than one million small farms.

This decline can be explained by bouts of severe weather, lack of tools, lower-yield producing plots of land and low productivity among farmers, and resulted in lower farm incomes for Haitian peasants. Livestock was and is needed to insulate families from sudden drops in income.

But livestock is also highly vulnerable, mainly due to the prevalence of animal diseases such as Classical Swine Fever (CSF), Teschen, Coal, and Newcastle diseases, and avian flu. Haitian peasants still vividly recall the painful experiences brought about by the African swine fever (ASF) that occurred between 1978 and 1984, resulting in a tremendous and sudden loss in value.

To avoid a repeat catastrophe, the Haitian government and the IDB are working on a public animal health policy to strengthen swine vaccination programs against major diseases affecting the country such as PPC and Teschen disease. They have also supported the vaccination of more than 70 percent of the swine population (currently estimated to total

Green Economy: Empowering Agriculture

PROJECT

4,586,820
ANIMALS VACCINATED OR REVACCINATED against Classic Swine Flu, Anthrax and NewCastle disease

70% OF THE PIG POPULATION VACCINATED
(about 800 000 heads)

620,000 CATTLE HEADS EQUIPPED WITH TAG TO INCREASE TRACEABILITY

HAITI 0000 00005

COLD CHAIN POWERED BY A SOLAR ENERGY SYSTEM to facilitate the vaccination campaigns and conservation of animal health products set up in 140 communes

4 R&D CENTERS RENDERED OPERATIONAL

STRONGER PUBLIC ANIMAL HEALTH POLICY UNDERWAY

OVER THE LAST 20 YEARS

OVER 1,000 VETERINARIANS TRAINED

550 ANIMAL HEALTH GROUPS CREATED

AGRICULTURE

60% OF WORKFORCE

OVER 1 MILLION SMALL FARMS

FOOD SUPPLY (2010)

48 % PRODUCED

44% IMPORTED

8% FROM FOOD AID

ESTIMATED LOSSES (2013)

OVER $1 MILLION FOR CATTLE
(due to African Swine Flu and Teschen disease)

OVER $1.5 MILLION FOR POULTRY

Farmer gathering for animal trading.

800,000) by the Animal Health Directorate. The IDB further supports programs to fight Anthrax and Newcastle disease.

The Rural Supply Chain Development Program (DÉFI) and the Program of Modernization of Animal and Plant Health Services (SPS), financed jointly by the Haitian government and the IDB, target a number of concerns: low productivity among livestock, cattle rustling, low levels of investment by the Haitian state and donors in breeding, and low levels of technology use by farmers. For example, to prevent theft of livestock, the MARNR has implemented, with the support of the IDB and the World Bank, and in close cooperation with other ministries (especially the Ministry of the Interior), a project to identify the cattle population to improve monitoring and control of animals movements; more than 1.3 million tags used to identify animals have been purchased to date.

Strengthening animal & plant health services

The IDB-financed DÉFI and SPS projects also target increasing animal health care, strengthening the infrastructure for animal health and diagnostics, as well as the organizational structure of the official veterinary services for the state. Haiti does not have a well-functioning and effective veterinary inspection system. Slaughterhouses are rudimentary and cannot certify or guarantee the quality of the meat supply, even if an animal is in good health prior to slaughter. The SPS is

Traceability earring being prepared.

Cow being equipped with a traceability tag.

Packaging at a mango factory.

also trying to address the shortage of specialized veterinarians and top and middle managers in the animal health sector.

In collaboration with other partners, such as the European Union (EU) and the Inter-American Institute for Cooperation on Agriculture (IICA), the IDB funded a project to counter the Classical Swine Fever (CSF). This allowed the MARNDR to proceed with the vaccination of pigs, start the construction of rural health infrastructure and make basic agricultural health services available.

An investment plan for the modernization of animal and plant health protection services was prepared, which sets measurable medium- and long-term objectives to improve animal and plant health and promote food safety, including through the strengthening of the health inspection functions at the MARNDR. It also focuses on educating the general population about food safety, the cooperation of public officials involved in health inspection with mayors, hotel managers and large commercial areas, and the construction of modern slaughterhouses and slaughter slabs that meet the health standards. A substantial body of veterinary inspectors will also be trained. The investment plan also contemplates the creation of an independent agency for agricultural health and food safety. Better animal welfare should lead to an increase in poultry and pig productions.

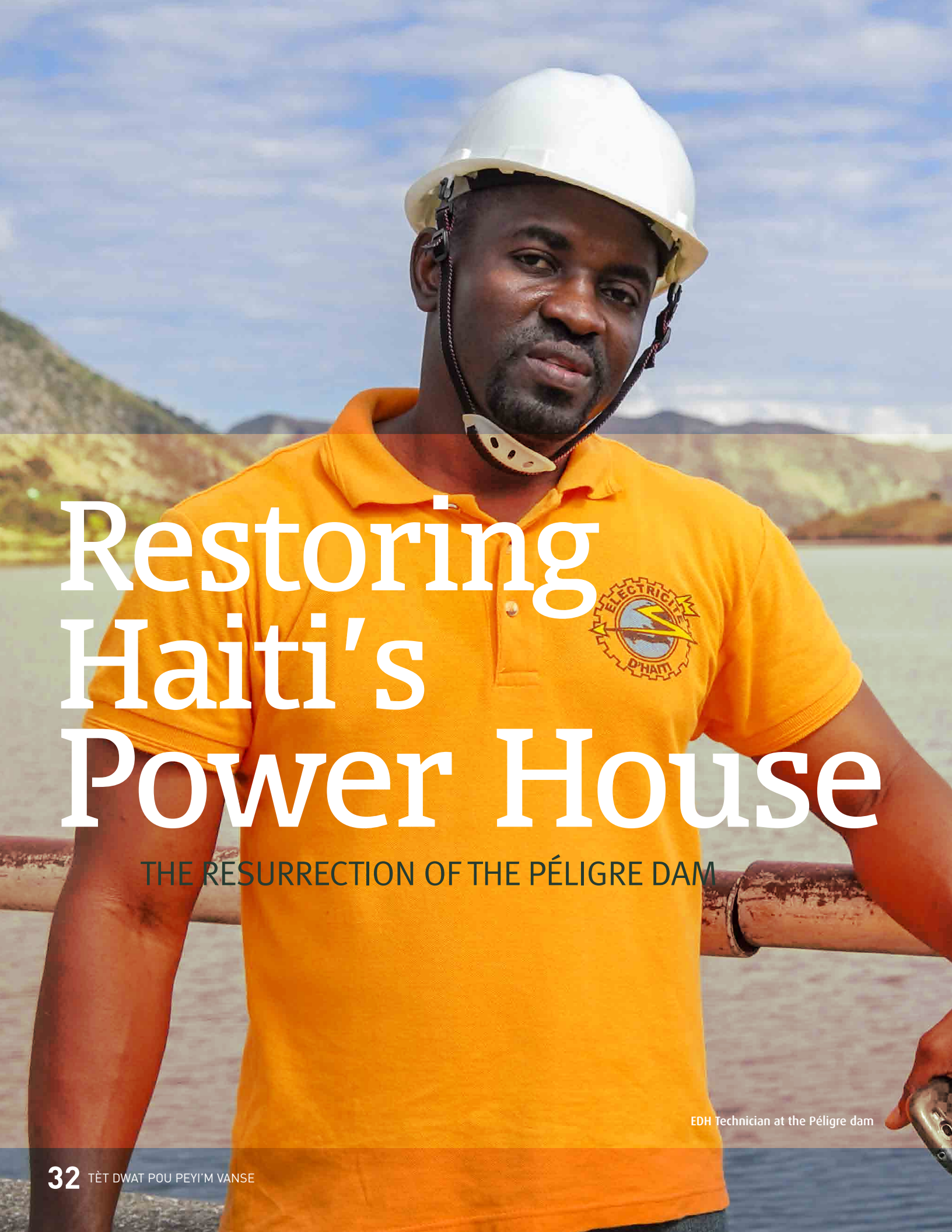
"The projects have led to the creation of Animal Health Groups in rural communities, which are groups of farmers in 90% of the districts, and that are interested in achieving greater productivity and improving animal health," said Dr. Max Millien, coordinator of the animal and plant health protection unit of the MARNDR, who also oversees the SPS project approved in July 2014. According to Dr. Millien, who monitored the execution of the DÉFI project, the IDB has contributed much to the development of the Animal Health Groups, which should have a major positive impact on the socio-economic development of the rural population.

Dr. Michel Chancy, Secretary of State for Animal Production, estimated that the animal health component of the DÉFI project has reached 80 percent completion. A number of objectives have not yet been met. For example, among other things, the reopening of research centers has not yet been possible because it has been difficult to recruit managers capable of doing scientific research.

Focusing on the positive, the Secretary of State goes on to explain how the MARNDR, with IDB support, has set up a cold chain powered by a solar energy system to facilitate the vaccination campaigns and conservation of animal health products in 140 communes of the country's 10 departments. He also credits the high success rate of the program to the quality leadership and thought the ministry has invested in these matters. Dr. Chancy considers these two factors critical to the success of the projects.

Restoring Haiti's Power House

THE RESURRECTION OF THE PÉLIGRE DAM



EDH Technician at the Péligre dam

UNDER A BRILLIANT, BLUE CARIBBEAN SKY, ERNEST CADET, A HAITIAN ENGINEER AND CHIEF OF ELECTRICAL SERVICE FOR THE ELECTRICITÉ D'HAÏTI STATE POWER COMPANY AT THE PÉLIGRE DAM, DONS HIS HARD HAT AS HE STROLLS IN THE PERPETUAL TWILIGHT CAST BY THE MASSIVE STRUCTURE'S LOOMING SHADOW.

"Here you have the dam, and the electricity generating center," Cadet explains to a visitor. "The water is captured by the reservoir and passes with a lot of force through the turbines, which transforms this pressure into hydroelectric energy."

The story of Péligre Dam, in many ways, mirrors Haiti's recent history, as a country with a glorious past that has often struggled to provide basic services for its people. At the Péligre Dam, the most important electricity generating plant in the country, and one that does not make use of expensive fossil fuels, a massive rehabilitation effort is underway.

It was the late 1940s, barely ten years after the end of a two-decade long U.S. occupation, when Dumarsais Estimé, president of a now-sovereign Haiti, had a plan. By blocking the path of the Artibonite River, the country's longest and most important tributary, his government could control flooding and the irrigation of the eponymous valley, and generate badly-needed electricity for residents of what was then, and remains today, an impoverished country with spotty electrical service. Estimé was overthrown before his plan was fully realized, but the military dictator who followed, Paul Magloire, made the completion of the Péligre Dam the touchstone of his six year reign as Haiti's president until he, too, was overthrown in December 1956.

For years, Péligre Dam, and the beautiful Lake Péligre, created by the damming of the Artibonite River, stood as symbols of Haiti's unrealized potential. Construction of Péligre's three massive 18-megawatt generating turbines was finally completed in 1971, the same year the government of dictator Jean-Claude Duvalier created Electricité d'Haïti (EDH), the government agency tasked with producing, transporting, distributing and commercializing electricity in the country.

But the electricity produced was outpaced by the growing demand of a burgeoning population that was relocating from the countryside to the capital city of Port-au-Prince. Heaving political turmoil made maintenance of the facility a challenge, but when the turbines approached the end of their useful lives in recent years, slowed down by sedimentation and simple age and leaving only one of the three fully functional, an unexpected opportunity presented itself.

Back to the original generation capacity

Like a sentinel, set among Haiti's mountainous Central Plateau region which gazes over the fertile Artibonite Valley, the Péligre Dam is now a hive of activity with daily operations buttressed by a restoration plan to get the dam operating at its full capacity once again. This rehabilitation plan, which enjoys the support of several donors, is being executed under the auspices of Haiti's Ministère des Travaux Publics, Transports et Communications. In December 2008, the IDB announced a $12.5 million grant to the government of Haiti, complemented by $15 million in co-financing from the OPEC Fund for International Development (OFID) and EUR 10 million from KfW (Germany's development agency). In December 2011, an additional $20 million IDB grant was announced, supplemented in 2013 by an increase in KfW's funding, bringing their total investment to EUR 20 million.

"You have a beautiful power generator here, but it is 43 years old," said Stephan Bourgeois, safety officer for the French company, contracted to restore the electromechanical and hydromechanical equipment of


Péligre dam

Sustainable Power Generation

IMPORTANCE OF PÉLIGRE

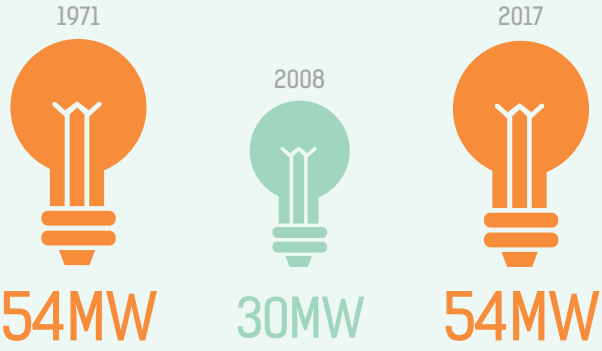
HAITI'S LARGEST POWER PLANT

INSTALLED GENERATION CAPACITY: 54MW

HAITI'S INSTALLED GENERATION CAPACITY IN 2013: ABOUT 300MW

100% RENEWABLE ENERGY

PÉLIGRE'S GENERATING CAPACITY THROUGH THE YEARS



the plant. "[Once the rehabilitation is complete,] the difference will be something like 20 or 30 megawatts more. This plant will be twice as powerful." In 2008, the plant's capacity was down 40%. Upon full rehabilitation, the three turbines will be back to producing the original 54 megawatts (about 20% of the total installed generation capacity in the country in 2013).

The complex still represents one of the more intricate engineering feats in Haiti. A massive concrete dam looms over the facility controlling the flow of water, while deep in its innards, massive turbines rotate slowly next to cable rooms and switchboards feeding power to nine substations in and around Port-au-Prince. Looks can be deceiving. In the estuary water beneath the dam, shirtless men fish with spears while schoolchildren, farmers and the odd farm animal wander over the top of the structure from one side of the river to the other. Humming birds that live in the dam's alcoves flit musically to and fro overhead.

Preserving the Artibonite Valley has been a key consideration of the undertaking. Because emptying the Péligre Lake to carry out the rehabilitation work would have had disastrous environmental and social impacts, authorities opted for securing the first turbine through an underwater effort in order to avoid flooding the valley. Works to dismantle and rehabilitate the first turbine began in March 2014. All three turbines are expected to be fully operational by the beginning of 2017.

In addition to supporting the rehabilitation of the Dam, in December 2014, the IDB approved a $7.7 million grant, with $16 million co-financing from the Haiti Reconstruction Fund (HRF), to rehabilitate the transmission line that delivers Péligre-produced electricity to Port-au-Prince. Today, besides supplying power to the capital, the dam also supplies power to some rural communities in the Artibonite Department itself, including the towns of Marmelade and Saint Michel de l'Attalaye.

The waters of the Artibonite River, which start in the neighboring Dominican Republic, may yet prove to be a key component in Haiti's ability to deliver public services to its people, as a rehabilitated Péligre Dam helps to make good Haiti's previous promises.

Girl collecting potable water at the water kiosk in Grande Saline

Water everywhere

(and finally some to drink)

FIGHTING DISEASE AND POVERTY WITH CLEAN WATER AND SANITATION

Grande Saline is a small fishing community in Haiti, 145 kilometers north of Port-au-Prince. The town is near a large estuary where the Artibonite River flows into the Caribbean Sea. Even though they live on the banks of one of the largest rivers in the country, the people of Grande Saline have never had a source of clean drinking water. As its name implies, the water in Grande Saline is too salty to drink and even wells cannot be dug in the area. For as long as the town has been in existence, the people of Grande Saline have had to get their water from small water tankers that ply the river or travel to St. Marc, 40 kilometers away.

Potable water flowing out of the Grande Saline water kiosk

Latrines under construction in Grande Saline

But in February 2014, a new water treatment plant opened and now the more than 2,000 residents of Grande Saline can buy clean water at a kiosk at the plant to use for drinking, cooking and even bathing.

The water treatment plant has transformed the lives of people like Nerlan, a young woman who is raising four children. "Before the plant, we had to go long distances to get water and we had all kinds of infections from bathing in the river," she said.

The Grande Saline water plant was constructed as part of a $10 million grant to upgrade water and sanitation services in rural areas of Haiti. Funded in part, by the Government of Spain's Water and Sanitation Cooperation Fund for Latin America and the Caribbean, (FECASALC), the program is one of several IDB initiatives that, together with other donor partners, support Haiti's National Directorate for Water and Sanitation (DINEPA) post-earthquake reconstruction efforts.

Building a water and sanitation infrastructure

Haiti has the lowest rates of water and sanitation services in the Western Hemisphere. Only 75% of urban residents and 47% of rural households have access to drinking water, with the water supply only averaging about four hours a day. About 30% of all water produced is lost and between 53% and 83% of the water produced is not billed. There is no national sewerage network in Haiti and only 31% of the urban population has access to sanitation facilities. That figure drops to 16% in rural areas.

Those statistics are now largely a thing of the past in Grande Saline. Gentilé Senat is a project manager at DINEPA who has been working to upgrade the town's water and sanitation infrastructure for the past six years.

"So what we did is build a water treatment station that is actually a desalinization plant. We took the water from the river that is not softened and then we have different treatments that filter the water and provide potable drinking water. Given that in this area they had a lot of issues in terms of energy availability, we chose to power this plant with solar energy," said Senat.

The plant has the capacity to generate 1,600 gallons of fresh water a day. Water can also be stored in a small reservoir and a second reservoir is under construction. Customers used to pay 75 gourdes for a five-gallon bucket of water (about $0.08/liter); they now pay 15 gourdes (a little above $0.01/liter). Since the plant is solar-powered, residents of Grande Saline now have the added benefit of being able to use the water kiosk office at the plant to charge their cell phones.

Senat says running the operation requires technical knowledge and community support. An IDB study in 2004 found that many of the water and sanitation systems built in Haiti break down less than ten years after being built, and that 50% of water treatment systems break down after just two years.

The Grande Saline plant operates with a small staff of two operators and two field agents who can offer technical support. A local community board runs the plant and Senat says DINEPA's agreement with the board calls for extensive training.

"We made sure we signed a contract to do training for one year before they operate it themselves," said Senat who also said DINEPA put together a financial plan for the committee to run the plant so that one day it will become sustainable, operating solely on revenue it generates.

Alexis Gracia, one of the two operators of the plant, who is also a member of the committee overseeing its operation, said DINEPA has offered critical support since the day the plant opened in February 2014.

"They have helped us with technical diagnosis such as chlorination, and they work closely with us," said Gracia.

The Miracle of Clean Water

WATER (GRANDE SALINE)

47%
RURAL HOUSEHOLDS WITH ACCESS TO DRINKING WATER

WATER SUPPLY AVERAGES ABOUT 4 HOURS A DAY

2,000 BENEFICIARIES OF POTABLE WATER

PLANT CAPACITY: 1,600 GALLONS OF FRESH WATER A DAY

DROP IN PRICE FOR A 5-GALLON BUCKET FROM 75 GOURDES TO 15 GOURDES

SANITATION (PONT SONDÉ)

16% OF THE RURAL POPULATION HAS ACCESS TO SANITATION FACILITIES

LATRINES IN SCHOOLS AND MARKETS TO REACH 38,000 PEOPLE

Latrines to combat cholera

Just a short distance away from the Grande Saline water plant in Pont Sondé, the site of a large market just outside the town of St-Marc, workers are busy building latrines. The project is funded by FECASALC and is expected to be completed in 2015.

Gentilé Senat of DINEPA says the latrine project should provide sanitation services for about 38,000 people or 64% of the population living in Pont Sondé and Grande Saline. Latrines have been built for six schools in the area with two more planned and latrines and water kiosks are being built inside the Pont Sondé market. Gentilé Senat says eventually the project hopes to reach 60,000 people who lack access to water and sanitation facilities.

"These are important meeting points at which people can become more susceptible to cholera," said Senat who adds that just as in the case of the Grande Saline water treatment plant, DINEPA signs agreements with local authorities to operate the facilities. Waste from the Pont Sondé latrines will be removed for treatment at the nearby St. Marc waste treatment plant. In the cities that have benefited from investments (like Saint-Marc), the population displayed a greater resistance to cholera.

PAVING A ROAD TO EQUALITY AND GREATER PROSPERITY

JOURNEY THROUGH HAITI'S HISTORY THROUGH REHABILITATION OF ROUTE NATIONALE 1

Traveling from Haiti's capital, Port-au-Prince, in the south, to its second-largest city, Cap-Haïtien, on the northern coast, takes a traveler through many of the facets of Haiti's complex national character.

Shortly after veering north from the capital one passes through Cabaret, a town the dictator François Duvalier renamed Duvalierville in 1961, declaring that one day it would rival Brazil's modernist showpiece, Brasilia. The name was changed back in 1986. Afterward is the town of Arcahaie, where Haiti's revolutionary leader, Jean-Jacques Dessalines, ripped the white out of the French tri-color flag, leaving only the blue-and-red that remain today in Haiti's national flag. A little further down the road, one passes chic seaside resorts to the west along the Côte-des –Arcadins, where a Club Med once stood (and may yet again), and a dock rising from the water of the bay that now serves as a ferry station for boats going to and from the massive Île de la Gonâve. Through bustling Saint-Marc and through roiling Gonaïves, where Haiti declared its independence from France in 1804, the road climbs into the steep mountains and passes

through towns with names like Limbé and Plaisance, before twisting downward again to Cap-Haïtien, its historic jewels glittering at the end of the drive.

Connecting the two most important international seaports

Road transport is the leading mode of transportation for cargo and passengers in Haiti and thus, the improvement of the road infrastructure is a fundamental mechanism for economic development and for the intra- and inter-regional integration. The efforts of the Haiti's Ministère des Travaux Publics, Transports et Communications (MTPTC) to rebuild Haiti's transportation infrastructure are coming to fruition in the consolidation of a high quality corridor that integrates three of the country's most populated departments, Ouest, Artibonite and Nord, along the National Route 1.
This corridor, connecting the principal cit-

ies and productive regions, improves access for the local population, rural producers, transportation companies, and improves the international integration by connecting the two most important international seaports. The rehabilitation, financed jointly by the Government of Haiti and the IDB, is still ongoing, but improvements are already apparent. The travel time between Port-au-Prince (Bon Repos) and Gonaives along the RN-1 has been reduced by half, from more than four hours to about two hours.

"There is a lot of beautiful work going on to fix this road," says Patrick Gustave, a Haitian employee of the Dominican Republic-based Remix, which is doing extensive work to restore and maintain National Route 1 between the cities of Gonaïves and Ennery.

"This road is no longer as it was before, and we are happy that the government has been working on this," says Gustave, standing in a hard hat and supervising work at the hamlet of Poteaux.

All along the road one can see evidence that road improvements deliver many more benefits to the residents. Hotels are springing up in once quiet (but quite picturesque) hamlets such as Ennery, and fleets of air-conditioned, comfortable buses now make the journey between Cap-Haïtien and the capital where once only the heartiest (or fool-hardiest, depending who one spoke to) tap tap drivers would previously go.

The project, inaugurated in 2011, is massive, involving the upgrade of nearly 240 km of the primary road network. Already, the drive between Haiti's capital and Gonaïves is smooth, nearly re-

Connecting Cities for a Better Economy

ROADS RECEIVING ROUTINE MAINTENANCE

PORT-AU-PRINCE–CAP HAÏTIEN
235 km

2012
PORT-AU-PRINCE–GONAÏVES
137 km
REHABILITATED

PRESENT
GONAÏVES–PLAISANCE
50 km
UNDERWAY

2020
PLAISANCE– CAP HAÏTIEN
48 km
TO BE COMPLETED

TRAVEL TIME PORT-AU-PRINCE–GONAÏVES

4 hrs
2005

2 hrs
2014

ROADS RECEIVING ROUTINE MAINTENANCE

10%
2011

47%
2014

80%
2020

TRAINING IN HEAVY MACHINERY AND ROAD MAINTENANCE

330 TOTAL PARTICIPANTS
75% of them women

All pictures: rehabilitation works on RN1, including widening of the road, smoothening of sharp curves and evacuation of rain water.

paved the entire distance, whereas before it was a jagged and pot-holed mess. And the road from Gonaïves to Cap-Haïtien is better than it once was. Unfortunately, recent heavy rains have somewhat degraded the road through Haiti's northern mountains, but this road, too, shall further improve, as rehabilitation has started on the 50 km separating Gonaïves from Plaisance, and the design studies for the rehabilitation of the final 48 km to Cap Haïtien are underway.

Many beautiful roads have been built in Haiti over the years, but have decayed, often due to lack of road maintenance. Whether the fine work to rebuild the arteries of roads today linking Haiti's north-south corridor will represent a definitive break from this pattern, ushering in a new, sustainable era of connectedness for Haitians, is perhaps the most important question. To support MTPTC overcome that challenge, the rehabilitation projects include the financing of maintenance for two years. In addition, the IDB is supporting the institutional strengthening of the MTPTC, in particular the modernization of road maintenance management. These efforts are aimed at increasing the percentage of roads receiving routine maintenance from 47 percent last year to 80 percent by 2020.

The road to equality

No matter how important the economic results, this heavy infrastructure program does not leave social development aside. The Government of Haiti has placed an emphasis on the integration of women into these public work opportunities, both through skill development and support to find employment in infrastructure projects. Women in the southwestern and northern part of the country participated in training on heavy machinery, road maintenance work and the creation of microenterprises (in support of the road sector), as part of the Action Plan for Equality between Men and Women, with support from the IDB and Canada's Department of Foreign Affairs, Trade and Development (formerly CIDA).

During the implementation of the Action Plan, results were impressive. A group of 30 women were trained in the North of Haiti in heavy machinery operations. Another 250 participants, 176 of whom were women, were trained to perform tasks that contribute to road maintenance, and 50 people, of which 41 were women, were trained in microenterprise creation.

The program's communication campaign slogan, "Mwen se fanm epi mwen chwazi yon metye ki pa tradisyonèl pou fi," (I'm a woman and I chose a non-traditional job for women) very much reflected the spirit of the women graduating from the training programs and the sense of pride they felt about their accomplishment. Some women had never even dreamed of driving a car, let alone a backhoe, and their success left them feeling as though they had done the impossible.

PROTECTING HAITI'S BREADBASKET

An Irrigation Program Promotes Greater Prosperity Among Farmers

About half of Haiti's 10.4 million inhabitants live in rural areas and a vast majority consider themselves farmers. The Artibonite department, the largest of the 10 that make up the country, is the main agricultural center of the country. The department is named after the Artibonite River, the longest and most important river in the country. The river begins in the Cordillera Central in the Dominican Republic and travels west, meandering along the Haitian-Dominican border, through Lake Péligre and its hydroelectric dam, and continues northwest, ending in the Gulf of Gônave at Grande Saline.

The Artibonite River gave birth to the most fertile irrigated area in the country, the Artibonite Valley. Over 285,000 people live in the Valley, spread among approximately 700 villages. Most of the inhabitants endure conditions of extreme poverty. This area is the principal rice growing region in the country largely a result of the irrigation system established following the construction of the Péligre Dam in 1950. There are more than 50,000 agricultural farms covering about 30,000 hectares of land equipped with full or partial irrigation and drainage works. Most farmers are small holders and a substantial proportion of families cultivate less acreage than required to sustain themselves.

Haiti's Artibonite Valley—a patchwork of green fields and flood plains hemmed between looming mountains on one side and the sea on the other—evokes for many Haitians a highly distilled essence of their nation's history and culture. As the country's largest agricultural breadbasket, with a long history of farming rice and other staples as well as raising livestock, The Artibonite has also often found itself at the crossroads of Haiti's history, sometimes quite literally, from the creation of the Haitian flag proclaimed in 1803 in Arcahaie to Haiti's independence from France (in 1804 in Gonaïves).

Despite its apparent richness in terms of farming (its annual agricultural output is around US$57 mil-

Efficient Water Usage

RESULTS & OUTPUTS

Right bank master canal protected to
IRRIGATE 30,000 HECTARES

IRRIGATED AND DRAINED AREA INCREASED IN 7,000 NEW HECTARES
during the dry season (5,000 in the wet season)

2 RIVER BANK WALLS REPAIRED
to protect the main irrigation channel from erosion and collapsing

WORKS UNDERWAY TO REHABILITATE CANNEAU DAM
and improve management of the perimeter irrigation

2,000 FARMERS WERE GIVEN ACCESS TO TECHNOLOGY PACKAGES
to increase their productivity

35,000 FARMERS ORGANIZED
in water users associations

BACKGROUND ON ARTIBONITE VALLEY

MOST FERTILE AREA

LARGEST IRRIGATED AREA IN THE COUNTRY

90% OF THE VALLEY IS PLANTED WITH RICE

Over **285,000** INHABITANTS IN ABOUT 700 VILLAGES

MAJORITY OF FARMERS ARE **SMALL HOLDERS**

MOST OF THE INHABITANTS ENDURE CONDITIONS OF **EXTREME POVERTY**

lion), the Artibonite has been greatly disadvantaged by repeated natural disasters. The region was badly battered by Hurricane Jeanne in September 2004 and heavily affected by four successive storms—Fay, Gustav, Hanna, and Ike—during the brutal 2008 hurricane season. The cumulative death toll for these storms was in the thousands.

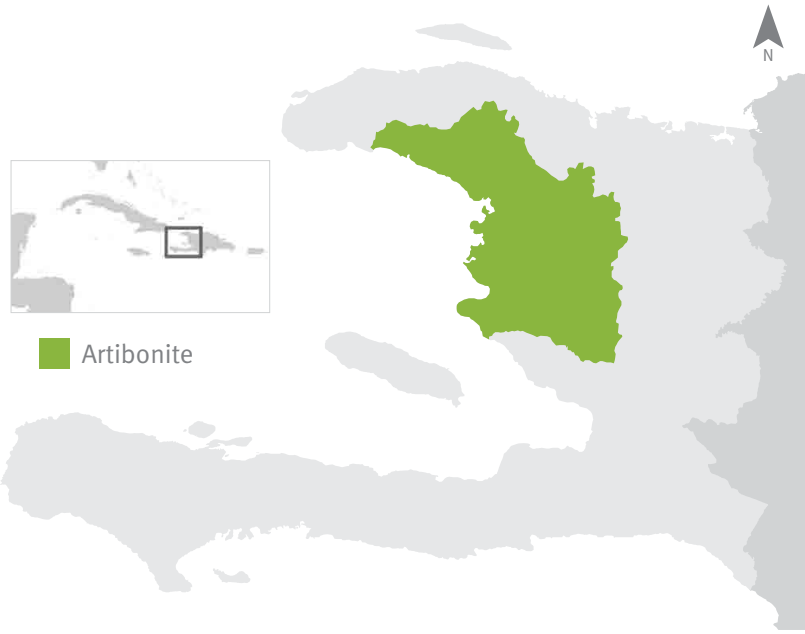
Building irrigation and protection infrastructures

Given the region's demonstrated susceptibility to such natural vagaries, a series of agricultural intensification projects that sought to increase the efficiency and sustainability of its irrigation systems were initiated between 2003 and 2014, for a total investment in excess of $100 million. The goal of these projects was to address deficiencies and frailties among the irrigation canals in the region.

As one drives through the Artibonite, the hardship and the vulnerability of the farmers' work become abundantly clear. Though some large estates do exist, the majority of Haiti's farmers are small-plot tillers who generally make enough to feed themselves and then a little extra. That being the case, one bad season can spell catastrophe.

Haiti is one of the largest consumers of rice per capita in the Latin America and Caribbean region, 80 percent of which is imported. Almost 90 percent of the valley is planted with rice. A very high percentage of the soils present excellent characteristics for agricultural production. However, crop yields in the Artibonite valley remain very low. Difficulties in water management, the lack of means for producers to invest in agricultural intensification or to add value to their production, as well as the lack of technical support are the

This page: Erosion protection infrastructures and bridge to allow year-round river crossing. Next page: Dry storage infrastructure.
Next page: Farmer irrigating his culture



main limiting factors for improvements in agricultural productivity and competitiveness in the valley.

The IDB-financed program is threefold: it supports irrigation infrastructures, flood protection infrastructures, and social management of water usage. The program helps protect the right bank master canal to secure water for all 30,000 hectares within the irrigation district and increase the irrigated and drained area in 7,000 new hectares during the dry season (5,000 in the wet season). Additionally, two river bank walls have been repaired to protect the Artibonite's main irrigation channel from erosion and collapsing. Works have also started to rehabilitate and protect the Canneau dam and improve management of the perimeter irrigation. Additionally, close to 2,000 farmers were given access to technology packages to increase their productivity, and the socio-institutional water management scheme has been reformed, allowing 35,000 farmers to organize in water user associations.

"This is an important part of the intensification program, the protection of the crops," says Alda Godesque, who is working with the Organisme de Développement de la Vallée de l'Artibonite (ODVA), as he surveys a flood barrier that has been reinforced to protect a rice field deep in the valley, about 20 minutes' drive east from Haiti's National Route 1. "This protects 3,000 hectares where they cultivate rice, tomatoes, and other crops."

Gazing out over the situation, three men stop their work in the fields to come and chat with a visitor.

"Every time a hurricane would come through, water would overflow the canal and we couldn't work," says Damas Jeremie, a 34-year old farmer. "The road would be destroyed. The program has helped reduce those impacts."

Strengthened management for improved sustainability

In spite of the satisfactory results, the Artibonite Valley still faces challenges to ensure that water flow for irrigation is secured in the long-run. The challenges along the irrigation district pertain to the inadequacy of the water and sediment management infrastructure and the weakness of the current watershed governance framework. These are the two objectives the most recent project seeks to achieve by building water and sediment management infrastructures and strengthening the institutional capacity of the actors involved in the watershed governance.

The coordination between upstream and downstream actors (Electricité d'Haïti which manages the Péligre dam and the ODVA) is another critical component for success, both for this program

and the rehabilitation of the Péligre dam. While Péligre is a critical source of energy for the country, managing Péligre with the only objective of maximizing power generation can have disastrous economic consequences downstream.

On the other side of National Route 1, on the edge of fields and canals where men and women are taking their evening baths as the sun sets low over the endless countryside, a sunset so vivid as to be almost hallucinatory is beginning to form in the sky, perhaps a reminder of the vastness and promise of this valley. And on a small bridge overlooking a recently reinforced irrigation canal, a 40 year-old farmer named Jean Elie says he approves of the work that has been done here.

"It profits us," Elie says. "Because control of water is truly important."

Dream on

EDUCATING CHILDREN TO KEEP THEIR HOPE ALIVE

Students in the courtyard of the Etzer Vilaire school

Guervensky Clerjuste is 10 years old. He is in his fifth year of primary education at the Etzer Vilaire School, also attended by his little sister. His big brother is in his third year of secondary education in another private school in Gonaïves, capital of the Artibonite Department. Dreams fill his head, the dearest, becoming a doctor. To achieve his dream, he has been studying very hard since he began primary school. In first grade, he was first of his class with a grade-point average of 8 out of 10.

Impeccably dressed, lively and alert, no one would suspect that he would experience financial problems at home. However, since the death of his father in 2006 - he was only two - his mother is left alone to provide for the family's needs. Guervensky's mother improvises as merchant: sometimes she sells used shoes, sometimes fritay (fried snacks); sometimes, she alternates selling shoes during the day and fritay at night.

A few hundred meters from the Etzer Vilaire school, Miguel Mézil, sixth-grader at the Fondation Michel Félix Bastien school, prepares for his end-of-primary-education examination, which will take place in June. Age 12, Miguel is originally from Plaisance in the Northern department, more than fifty kilometers from the school. His parents are farmers, and gave birth to seven children, four boys and three girls. Since she couldn't guarantee the quality of his education, Léone Charles, Miguel's mother, entrusted him to her sister who lives in the city of Gonaives. Miguel visits his parents one week a year during the summer break. His precarious situation does not deter him from his dream: "I'll become an engineer to build a house for my parents," said Miguel. In fourth and fifth grade, he was already first of his class.

Betting on education

Besides their poor living conditions, Guervensky and Miguel share another common feature: they benefit from a scholarship as part of the Education for All (EPT) program, financed jointly by the IDB, the World Bank, Canada, and the Caribbean Development Bank, and implemented by the Ministry of National Education and Professional Training (MENFP). In addition to increasing access to education, EPT aims at improving its quality by provisioning textbooks and requiring that participating schools recruit a minimum of two qualified teachers, knowing that 56 percent of primary teachers are underqualified. Guervensky and Miguel represent an entire class of children who could not have easily attended primary school without a subsidy from the government, an international agency or a non-governmental organization (NGO).

The Etzer Vilaire school performs well on primary school examinations. "In general, almost all students pass their primary school examinations," said Mr. Enock Fleuridor, the educational director. The school recruits mainly teachers who graduated from teacher training schools. One of the major concerns of the school is the growing demand by parents for the tuition waiver program that the school fails to satisfy. Students from preschool qualify first, and if there are additional spaces, priority is given to the poorest. But sometimes the amount made available by the EPT cannot even fund all those completing preschool.

During the school year 2013/2014, 304 out of 612 students of the Etzer Vilaire school's primary section received tuition waivers, financed by the IDB through EPT. The cost of funding is $90 per student, covering the annual school fees under an agreement negotiated between the Haitian government and the schools participating in the program. The entry fees range from $17 (750 gourdes) for the first year to $20 (900 gourdes)

Etzer Vilaire school in Port-au-Prince, where half of the primary students received tuition waivers financed by the IDB

Students at Fondation Félix Bastien school.

Fondation Félix Bastien school in Port-au-Prince, where half of the primary students received tuition waivers financed by the IDB.

for the sixth year of primary education. Monthly fees range from $6 (250 gourdes) for the first year to $9 (400 gourdes) for the sixth year of primary education.

It is evident that for a family of seven children, such as Miguel Mézil's, who does not earn more than $1.25 per day ($37.5 per month), meeting such costs can be a very difficult exercise.

To promote equal chances and greater access to education, the program focuses on funding a cohort of students for six years to allow them to complete their primary education, specifically in non-public schools, where parents must pay tuitions. During the school year 2013/2014, the IDB financed 47,170 students in 1,165 non-public schools across 115 municipalities in the Artibonite department for a total of $5.11 million. The program's sustainability is an even greater challenge as 88 percent of schools in Haiti are non-public, and thus charge tuitions.

The EPT tuition waivers represent only one part of IDB's education programs in Haiti. Other programs are designed to build schools to increase the supply of both academic and vocational education. Overall, the IDB allocates $174 million to educational programs through four programs. IDB's support is aligned with the Hai-

Students at Fondation Félix Bastien school.

tian Government's education policy to make education free and compulsory, and to improve its quality. Since taking office in May 2011, the President of the Republic of Haiti, Michel Joseph Martelly, has made education one of his mandate's priorities.

In addition to its own financing, the IDB has mobilized co-financing from other donors for a total amount of $52 million. For example, the Haiti Reconstruction Fund (HRF) provided a total of $18.7 million, including $10 million for the reconfiguration of the education sector and $5 million for the implementation of the education reform. The European Union funded the vocational training program in the amount of $7.5 million, while the Canadian government is funding the education sector reconfiguration program up to $17.7 million. Finland also supports the education program with $6.5 million.

IDB's choice to promote access to education for young Haitians did not happen by chance. It is based on empirical evidence demonstrating that access to education is a social advancement vector, thus of fight against poverty, but also a factor of growth and economic development. The $174 million invested in the education system in Haiti nourishes the hope of young people in a better future and a prosperous Haiti.

Educating the Workforce of the Future

EDUCATION TUITION WAIVER

SCHOOL YEAR 2013/2014, IDB FINANCED

$5.11 MILLION

47,170 STUDENTS

1,165 NON-PUBLIC SCHOOLS

ACROSS 115 MUNICIPALITIES IN THE ARTIBONITE DEPARTMENT

EDUCATION ON A FAMILY BUDGET

MONTHLY INCOME $37.5

EDUCATION FEES $6–$9 PER CHILD

LACK OF ACCESSIBLE EDUCATION

88% OF SCHOOLS ARE NON-PUBLIC

12% OF SCHOOLS ARE PUBLIC SCHOOLS

MADE IN HAITI

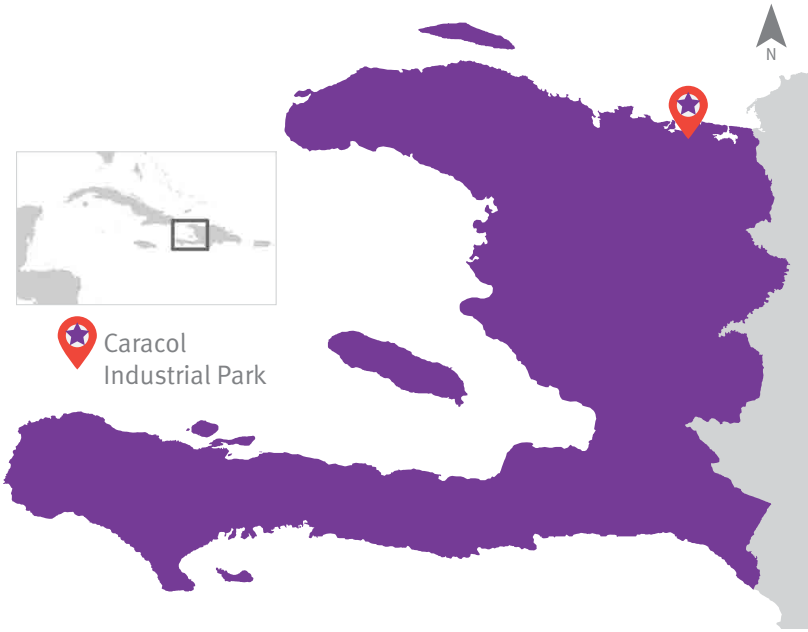
Investments to build the Haiti of the future

Perhaps no international project in Haiti has attracted more attention than the Caracol Industrial Park (PIC), located in a northern village by the same name which is about 20 minutes southeast of Haiti's second largest city, Cap-Haïtien.

Banana palms and flowering hibiscus frame the road that connects Cap-Haïtien and the PIC, passing through towns like Limonade on the way there.

After the 2010 earthquake that devastated the capital region, the Government of Haiti bet on a new model of development that went beyond reconstructing the capital, to create strong economic activity centers outside Port-au-Prince. Launched by Haitian president Michel Martelly in October 2012, the PIC, with a total investment exceeding $300 million, is the result of a partnership between the government of Haiti, USAID and the IDB to encourage private sector investment and create jobs in one of the Countries most northern cities.

Previous page: PIC employees on the garment production line



Investing in the future

While the focus of IDB grants financed the construction of manufacturing facilities, canteens, dormitories and a water and sanitation system to meet the demands of current and prospective tenants, USAID financed the construction of a 10 MW power plant and 750 houses located nearby. The Agence Française de Développement (French Development Agency) will co-finance a permanent site for solid waste; and, the European Union's program rehabilitated the Route Nationale 6, leading from Cap-Haïtien to Caracol and onwards to Ouanaminthe.

The most recent IDB grant is now financing transport projects, other public works in the communities that surround the PIC (e.g., a bus garage and a bike path that will connect the PIC to the town of Caracol) and other urban development projects. The grant also provides funds to create a management structure at the Three Bays National Park (PN3B), Haiti's first marine protected area, which will preserve the mangrove forests that frame the Limonade and Caracol bays, the eelgrass beds within the bays, and a peripheral coral reef that extends along the shore close to the entrance to Fort Liberté Bay.

Two of the main problems facing Haiti are unemployment, estimated at 40.6 percent in 2010, and the fact that 71 percent of the population lives on wages of less than two dollars a day. Investment in the PIC is focused on job creation. After a slow start, the jobs are starting to grow exponentially, doubling every year

PIC factory building

PIC employee sewing

since its inauguration. Today the Park employs more than 5,000 people, and continues to expand at a rapid pace. Various employment kiosks have been set up in nearby population centers—Cap-Haïtien, Fort-Liberté and Trou-du-Nord—to recruit and employ locals. As a result, 98 percent of the employees are Haitian, the vast majority of whom are women. Moreover, for the 80 percent of PIC employees had never who had a formal job before working at the PIC, the opportunity represents much more than a higher wage. Employment at the PIC delivers other important social benefits, e.g., paid vacation, health insurance and a pension plan.

Christine, a PIC employee, works on production line 10. She is a mother to six boys. Before obtaining a her current job at PIC, where she spends her day in a modern, clean and safe facility, she used to have to travel all the way to the border with the Dominican Republic to buy rice and beans in bulk for resale in Cap Haïtien, almost 60 kilometers away. While her husband did not initially approve of her getting a job, he now admits that two sources of income in the family are better than one. Christine is now able to pay her neighbor 15 gourdes to charge her cell phone. "I am happy to be able to buy food, clothes and shoes for my boys with my salary," she said.

"At the end of the day we are seeing a radical, total and positive change in the lives of local residents," says the PIC's Environmental, Health and Safety (EHS) Manager with the Société Nationale des Parcs Industriels (SONAPI), which runs the park.

The PIC also helps bring in much needed foreign currency to Haiti. PIC exports reached $55 million in 2014, up from $26 million in 2013, and are expected to surpass $100 million in 2015.

Among the park's current major tenants are the South Korean garment manufacturer, S&H Global, which supplies clothing to U.S. chains like Target, Wal-Mart and The Gap, and the Haitian painting firm, Peintures Caraïbes. S&H Global, the anchor tenant, continues to plug away at its expansion plan, hiring 60 new employees every week.

PIC generates a development impact beyond the park

New businesses are multiplying rapidly outside the park. In response to the growing demands of those persons gainfully employed at the PIC, according to SONAPI, over 700 micro- and small businesses such as restaurants, convenience stores and beauty parlors opened in communities surrounding the park in the last 12 months, moving about $30,000 in the local economy on a daily basis.

"The park is a vector of change," says Jean Chery, a Haitian who also works for SONAPI at the park. "It brings structure, hope, and a sense of pride to the community. Employees are acquiring some skills they didn't have before and they can eat every day. You are seeing life around here changing, booming."

Around the park, some 8,500 homes now have access to electricity for the first time. Between the park and the town of Limonade, on a flat plain under the gaze of the brooding mountains that shelter the fortress of Citadelle Laferrière, a visitor finds row-after-row of brightly-painted, immaculately-maintained homes.

Aerial view of the PIC prior to construction in January 2010.

Aerial view of the PIC in January 2014.

"It has electricity and water, and we are happy with it," says 32 year-old Nadia Pierre as she sits on the front stoop of one such home.

Another PIC employee, Ysenamene, is 35 years old and a single mother of six. She had never held a job before working at the PIC. She started about two years ago, working in the packing area. She is now a supervisor on the line that sews tags in the clothes. She lives in one of the 750 houses built by USAID in the Caracol-EKAM site now known as "Village la Différence." She has access to potable water and electricity, and with her salary she can even afford to pay someone to take care of her children and help them with their homework until she returns home from work.

Late on a Friday, after the PIC has gone dark, its doors closed for the night, a traveler on the road back to Cap-Haïtien can find the residents of nearby Limonade are in a party mood. Men play dominos on the street, young men and women flirt, and women fry Haitian marinade (a kind of doughy pastry) in large metal pots to sell. In Limonade, the gentle country town, there is a sense that, however imperfect, the Caracol experiment is indeed bearing its fruits. "We have electricity now," says 65-year old Norvella Ateus, a resident of Limonade, dignified in a straw hat and purple blouse as she sits on a low wall chatting with her neighbors. "[S&H Global] built a school. Things are getting better."

Further down the road, on Cap-Haïtien's Boulevard du Carenage, the night is lively. Crowds fill its restaurants and walk along its malecón-front promenade. Here, too, life is getting better.

Men working in a garment factory at the PIC.

Impacting Lives

JOBS CREATED (CUMULATIVE)

2012: 1,324

2013: 2,076

2014: 4,672

TODAY >5,000

EXPORTS

2012: $25 MILLION

2013: $51.2 MILLION

ENERGY SUPPLY (OUTSIDE OF THE PARK)

2013: 872 CONSUMERS (4,300 residents)

2014: 8,646 CONSUMERS (43,000 residents)

HOUSING IN SURROUNDING COMMUNITIES

2012–2013: 750 HOUSES BUILT (in Cahesse) by USAID for victims of the earthquake

2014: 242 HOUSES IN CONSTRUCTION (in Terrier Rouge)

OVER 700 MICRO- AND SMALL ENTERPRISES CREATED IN 2014 IN SURROUNDING COMMUNITIES

TÈT DWAT POU PEYI'M VANSE

STORIES OF HOW HAITI IS MOVING FORWARD

Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library

Tèt dwat pou peyi'm vanse = Stories of how Haiti is moving forward / Jim Teeple, Michael Deibert, Meri Helleranta, Pablo Antón-Diaz, Viviane Azevedo, Thomas Lalime, edited by Caroline Sipp.

p. cm.

Text in English and Haitian French Creole.

1. Economic development—Haiti. 2. Rural development—Haiti. 3. Community development—Haiti. 4. Education—Haiti. 5. Energy—Haiti. 6. Agricultural administration—Haiti. I. Teeple, Jim. II. Deibert, Michael. III. Helleranta, Meri. IV. Antón Diaz, Pablo. V. Guerra, Viviane N. de Azevedo (Viviane Nogueira de Azevedo). VI. Lalime, Thomas, -1976. VII. Sipp, Caroline M., 1978-, editor. VIII. Inter-American Development Bank. Country Department Haiti.

IDB-AR-114

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MARNDR, Pages 28–31
Catianne Tijerina, Page 31
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Printing
IDB La Imprenta

Printed in United States of America