

Caribbean countries are known

for their tropical climates and beachfront views, but the region is poised to become more than a cruise ship port of call. Amid global economic shifts and struggles, these developing nations see an opportunity to spur growth. But before it can position itself as a blooming business environment, the Caribbean must upgrade its aging energy, water and transportation infrastructure.

Covering more than a million square miles (2.6 million square kilometers), the Caribbean is home to 7,000 islands and islets. Its states range in size from the tiny islands of Montserrat and Anguilla, with populations in the thousands, to the larger landmasses of Cuba, Haiti and the Dominican Republic, which boast more than 10 million residents each.

The Bahamas and Puerto Rico rank among the wealthiest Caribbean economies, thanks to their respective tourism and manufacturing industries, while Jamaica is among the poorest, partly because of its reliance on agriculture.

But even the region's wealthiest nations are struggling to elevate their public infrastructure to global standards. Vulnerability to economic and climate shocks, coupled with high project development costs, limited talent pools and slow economic growth, have made it difficult for Caribbean countries to make the intensive investments required.

"We are hopelessly behind when it comes to infrastructure," says Brian Samuel, public-private partnership (PPP) coordinator for the Caribbean Development Bank (CDB) in St. Michael, Barbados.

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In 2014, CDB determined that the Caribbean would need an investment of US\$30 billion over 10 years to modernize its energy, transportation and other infrastructure—and that's far more than the governments have to spend, Mr. Samuel says. "There is a lot of room for private investment in the region."

Mr. Samuel's team has been pushing for more PPPs to support infrastructure development in the region. This would be helpful, as PPPs often deliver infrastructure projects faster and at a lower cost than traditional government projects, he says.

PHOTO BY MIKEY TOY

"Private companies bring efficiencies and accountability to these efforts, which is sorely needed."

THROWING A LINE

External assistance could help Caribbean projects improve their performance. Currently, infrastructure projects often go over budget and are delivered late, which drives up costs for the already resource-constrained governments, according to a [World Bank](#) report. For example, a recent high-profile project to rebuild Jamaica's North Coast Highway from Montego Bay to Negril was delivered three years late and US\$47 million over budget. And that's a common situation, Mr. Samuel says. "There

is no accountability in the government, and if projects run late, no one really cares."

The lack of project management maturity in the region makes it especially difficult for Caribbean countries to streamline their infrastructure development processes. Poor management practices drive up project costs and leave fewer resources for the development of standardized project management practices. "It is a vicious cycle," Mr. Samuel says.

Although PPPs are still relatively new in some Caribbean countries, the region already has seen some success. One of its biggest PPP projects is underway in Jamaica, where the country is about



St. Lucia hopes to redevelop its Hewanorra International Airport.



The toll road under construction in Jamaica

to wrap up a project to complete a 230-kilometer (143-mile) toll road connecting Kingston with Montego Bay and Ocho Rios that was originally launched in 1999. The project is being constructed by China Harbor Engineering Company (CHEC), which invested US\$600 million to support the US\$1 billion effort.

Once it's completed in early 2016, CHEC will hold a 50-year concession, in which it will operate and maintain the road and collect all tolls. CHEC also owns the rights to develop 1,200 acres (485.6 hectares) of land contiguous to the highway, where it plans to build three hotels and 600 housing units. The Government of Jamaica also is moving forward with a concession for its second international airport, the Norman Manley International Airport in Kingston.

Other countries are following Jamaica's lead. Grenada, Trinidad and Tobago, and Haiti have established PPP frameworks within their respective governments that include provisions for investors, including the legal right to establish a special-purpose vehicle company—a group of companies created to help finance and execute a PPP project—as well as terms and conditions under which public assets may be transferred to non-public entities. They also include provisions for governments to provide financing where relevant, for example, to provide subsidies or to make long-term commitments of public expenditure for the life of the PPP contract.

"Having the legal framework in place to support

PPPs is the most important step to getting these projects moving," says Daniel Melo, CEO of AG Engenharia Peru and former project finance director for the Latin America region, based in Lima, Peru. "If you don't have good rules and guidelines, it is very difficult to get private investors interested."

On the execution front, Cuba is talking to global investors from the oil and gas industry about offshore drilling opportunities. St. Lucia began accepting bids in May 2015 to redevelop its Hewanorra International Airport through a PPP with a 30-year concession. And the tiny country of Suriname is pursuing a solar energy PPP project in conjunction with alternative energy company WTEC from the United States. Jamaica, Grenada and Haiti also are pursuing PPPs to expand their ports for cruise ships.

"In the Caribbean region, where the fiscal limitations are extremely high and the infrastructure gap is great, the PPP model can help governments reduce the gap and provide quality service to their populations," Mr. Melo says. "However, the lack of knowledge and awareness of the design and implementation of this model needs to be intensively [addressed] by the Caribbean governments."

For example, government representatives in ministries, regulatory agencies and utilities need in-depth training on the PPP design and implementation process, Mr. Melo says. By developing an overarching national development strategy, governments can create a positive and transpar-

ent investment environment for private-sector partners, he says.

"In order to implement successful PPP programs, many Caribbean countries still need to develop a road map that sets development objectives and goals with concrete milestones."

SHORING UP TALENT

The Dominican Republic (DR) has seen significant advances in infrastructure projects in recent years, spurred by private investment. Training and development offered by foreign companies has helped the country's construction industry mature, says Bryan Henriquez, PMP, business development specialist for AES Dominicana, the DR subsidiary of energy developer AES Corp. in Santo Domingo, Dominican Republic.

"Ten years ago, we had a lot of issues finding project management talent, but now people are a lot more interested in learning project management practices and obtaining certifications," he says. "They understand the importance of having processes and knowledge in place to manage these projects in the best possible way."

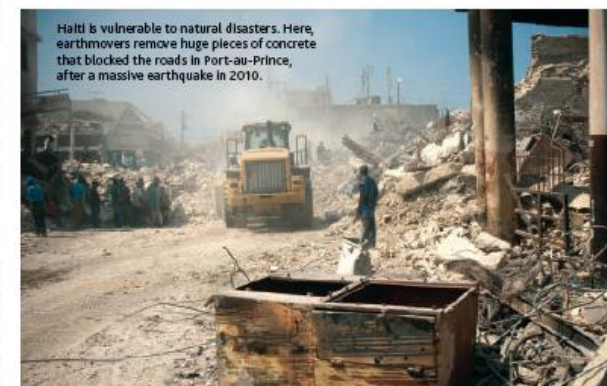
Haiti, on the other hand, is still behind the curve. Although Haiti shares an island with DR, its culture, investment history, and approach to planning and managing infrastructure development is a world apart. Haiti is the poorest nation in the region and has the least-developed infrastructure. It suffers from a sagging economy, ineffective government

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The St. Maarten Power Generating Plant in Philipsburg, St. Maarten



Haiti is vulnerable to natural disasters. Here, earthmovers remove huge pieces of concrete that blocked the roads in Port-au-Prince, after a massive earthquake in 2010.

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and a history of poor-quality construction methods that make it extremely vulnerable to common environmental hazards. For instance, the 2010 earthquake devastated the nation in large part because of poor building design standards.

"Haiti is trying to play catch-up with its infrastructure development," says Tracy Kijewski-Correa, associate professor of civil engineering at University of Notre Dame and co-founder of Engineering2Empower (E2E), a nonprofit group of faculty and students from Notre Dame working across Latin America. Factors including a lack of formal training, insufficient government oversight and a weak supply chain create significant barriers for private development.

"The biggest challenge is that there is no rule of law," says Ms. Kijewski-Correa, who is based in Notre

Dame, Indiana, USA. Without strong courts and building requirements, investors can't be sure that contracts are being honored. "Something as simple as a person claiming land rights to a project site can shut it down, because there is no judicial system to address the complaint," she says. That leads to corruption and a culture of bribery, which adds time, cost and risk to every project. "It scares most investors away."

As a result, Haiti relies primarily on global nonprofit agencies to help it finance, build and upgrade its woefully inadequate infrastructure. Still, these groups must adapt to the culture if they want to get anything accomplished. The best way to start is by talking to the locals, Ms. Kijewski-Correa says. "We refer to this as human-centered project management."

Rather than forcing local contractors to follow global project management practices developed in other countries, E2E encourages companies to try to understand the obstacles local project teams face. They need to determine how locals typically deal with these obstacles and collaboratively brainstorm other possible solutions. One of the results of this collaboration was the recommendation to have Haitian contractors take an oath to protect Haiti's children—which meant building durable structures. Contractors that took the oath have earned

PHOTO BY MIKE TOY



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praise and respect in the community, which in turn inspires them to keep their word.

"They came up with a culturally appropriate solution that is more effective and scalable than hiring 100 inspectors, because it is about trust, empowerment and pride," Ms. Kijewski-Correa says.

PUDDLE JUMPERS

Island supply chains create another unique obstacle for Caribbean project teams. They must plan carefully to make sure they can get people, equipment and raw materials to a job site in the middle of the ocean. "You have to have a mature supply chain, because when your project is on an island, nothing is produced here," Mr. Henriquez says.

Even basic construction resources, such as ready-mix plants, cranes and pump trucks for concrete, don't exist on the smaller islands. In many cases, project owners need to factor the additional cost of bringing in trucks and heavy equipment into the contract—and have a plan in place to deal with that equipment when the project is over.

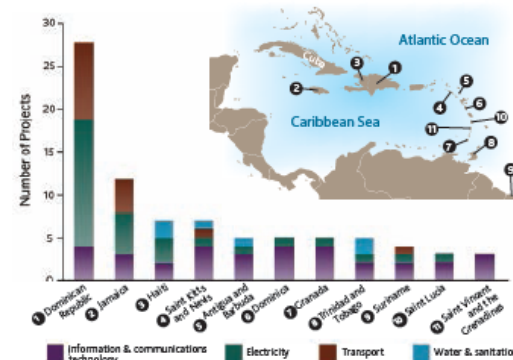
"Mobilization and demobilization can be the biggest part of the project price," Mr. Samuel says. He says savvy contractors always are focused on the next project as a way to avoid demobilization costs. For example, CHEC, the Chinese engineering company that is wrapping up the Jamaica toll road program, is partnering with bidders on the Kingston airport upgrade so the company can keep those assets in operation. "If you can avoid demobilization it adds real savings," he says. It can also give project leaders a significant cost advantage over other bidders who need to ship in their equipment.

Despite these challenges, the Caribbean has a wealth of opportunities for private project investors. Countries across the region have a significant need for infrastructure upgrades, and the increasing adoption of PPP rules suggests they are eager to embrace foreign partners.

"If you are willing to brave the risks, it's a great business environment," Mr. Samuel says. "Plus, it will be like working in paradise." **PM**

PPPs across the Caribbean

Over the past 20 years, the Caribbean has drawn more than US\$8.5 billion from private investors to support 95 infrastructure development projects in the region's 11 countries, with the Dominican Republic and Jamaica taking the lion's share. While some of these projects follow a public-private partnership (PPP) model, the investment structure also includes privatizations of public utilities, regulated green-field private investments and joint ventures. The PPP models are predominantly used for power and transport projects, including roads, airports and ports. There also have been private investments in telecommunications networks, clean water systems and wastewater treatment plants.



Source: Caribbean Infrastructure PPP Roadmap, March 2014, PPIAF, The World Bank Group