

The Great Blue Hole in Belize is a giant underwater sinkhole.

Meeting the Future

Three countries—Belize, Colombia, and Ghana—highlight the potential of technology and innovation to strengthen public finances

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Across the world, countries are coming up with innovative solutions to strengthen public finances, improve accountability and transparency in the public sector, and even generate cash for conservation. Three case studies highlight these novel policy approaches, which could hold lessons for other countries.

In **Belize**, a debt-for-nature swap has cut the Caribbean country's stock of external debt by a striking 10 percent of GDP and is generating cash for conservation to protect the longest coral reef in the Western Hemisphere. There is scope for similar swaps to fund conservation or climate work in other countries with expensive debt on their books.

Transparency organizations, meanwhile, are using open-source technologies to publicize undeclared conflicts of interest by public officials in **Colombia**. This data can be used by Colombia's watchdog, the Office of the Comptroller General, to investigate corruption, and by companies that want to avoid reputational risk.

And in West Africa, **Ghana** is turning to technology to improve access to public services and expand its revenue base. The authorities are consolidating a database of taxpayers, establishing a digital address system, and tapping a fast-growing mobile money system to bring more people into the tax system. So far 15.5 million people have signed up for an official digital ID, and most of the adult population could be covered by the end of this year.

Belize: Swapping debt for nature

Belize's barrier reef is a marvel of biodiversity. Stretching 170 miles through the warm waters of the Caribbean and around atolls, cays, and coastal lagoons, the Western Hemisphere's longest reef is home to some 1,400 species, from endangered hawksbill turtles and manatees to several threatened types of sharks. But climate change and warming oceans, excessive fishing and mangrove felling, and unchecked coastal development all pose risks to the fragile ecosystem.

PHOTO: ISTOCK/MICHAEL CONLIN

The reef's chances of survival received a vital boost last year. On November 5, Belize signed a debt-for-nature swap with The Nature Conservancy (TNC), an environmental organization, which reduced the country's external debt by a striking 10 percent of GDP. Perhaps more significantly, it greatly improved the prospects for marine protection. Belize's prime minister, John Briceño, said the deal would protect the country's oceans and pave the way to strong, long-lasting growth.

Under the agreement, a TNC subsidiary lent funds to Belize to buy back a \$553 million "superbond"—the government's entire stock of external commercial debt, equivalent to 30 percent of GDP—at a discounted price of 55 cents per dollar. It financed this by issuing \$364 million in "blue bonds" in a sale arranged and underwritten by Credit Suisse, a bank. The US government's development bank, the International Development Finance Corporation (DFC), provided insurance. This allowed the loan to have a low interest rate, a 10-year grace period during which no principal is paid, and a long maturity of 19 years.

In return, Belize agreed to spend about \$4 million a year on marine conservation until 2041. It will double its marine-protection parks—spanning coral reefs, mangroves, and the sea grasses where fish spawn—from 15.9 percent of its oceans to 30 percent by 2026. An endowment fund of \$23.5 million will finance conservation after 2040.

Jaime Guajardo, the IMF's mission chief for Belize, said the deal is of tremendous benefit to the country and contributes to the authorities' objectives of restoring debt sustainability, promoting sustainable development, and enhancing resilience to natural disasters and climate change.

Debt-for-nature swaps are not new. They have existed, in one form or another, since the late 1980s. But these early deals typically involved creditor governments writing off debt bilaterally so long as the savings were channeled into conservation: they were, in effect, grants. Two things stand out about the Belize deal. First, the bond market itself provided the "grant" in the form of a discount price. And second, the deal involved debt owed to private creditors and was, in the end, financed by a different class of private investors. It showed the potential for deals with countries that are experiencing economic difficulties and have expensive debt on their books.

Kevin Bender, sustainable debt director at TNC, says Belize itself needed little convincing to press

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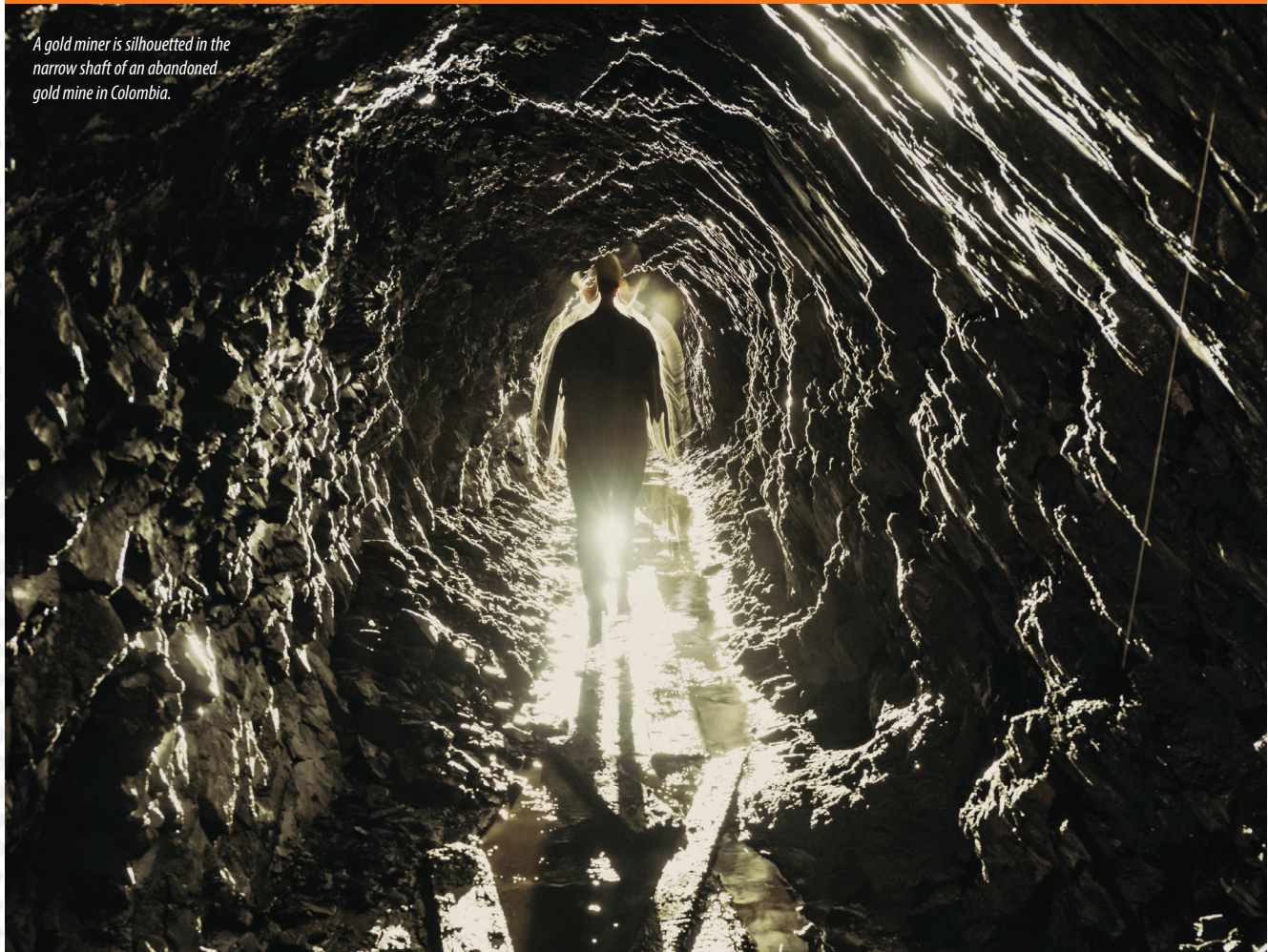
ahead. The government soon recognized the savings and the cash they could generate for conservation. Private investors, however, were cautious about putting money into the blue bonds. After all, a debt swap of this sort is complicated and had not been done before. Investors were also leery of lending to a country with a history of defaults. But momentum built as the DFC, Credit Suisse, and other large institutions signed on.

The US development bank's involvement was crucial. The DFC's insurance meant the blue bonds received a strong investment-grade credit rating (Moody's rated them Aa2), and so even risk-averse investors such as pension funds could be confident they would be repaid. "If we didn't have the insurance, no one was looking to lend to Belize," says Bender.

Investor interest in environmental, social, and governance considerations played a part in marketing the complex product. In Belize's case, TNC's three-decade history running conservation programs in the country meant that investors could be sure that the promised marine protection would actually take place. They would not, in other words, face charges of "bluwashing."

There is scope for more swaps with countries whose debt is trading at a discount or incurring high rates of interest. TNC, which also helped Seychelles—off Africa's eastern coast—restructure its Paris Club debt to official creditors and channel the savings into ocean conservation back in

A gold miner is silhouetted in the narrow shaft of an abandoned gold mine in Colombia.



2016, is exploring similar arrangements in seven other countries.

Not all debt-for-nature swaps will have the same impact as the one in Belize, at least not on the debt side. The small Caribbean economy owed creditors a lot of money relative to its GDP. This meant that the impact of the deal on its overall debt-to-GDP ratio was significant. Moreover, its debt was trading at an especially deep discount.

All the same, future debt swaps could still mean cash for conservation or climate projects and some savings. “Some countries have debt on their books that is outrageously expensive,” says Bender. “Why on earth wouldn’t you let us give you the money to pay that off?” Hopefully many more countries with natural wonders like Belize’s barrier reef will take up his offer.

Colombia: Connecting the dots

The Pandora Papers shone a light on the hidden operations of the offshore entities wealthy elites use to avoid taxes and hide their identities and assets. Through the use of trusts, offshore accounts, or

multiple layers of anonymous shell companies, the leak revealed how these privileged people stash their wealth in jurisdictions with low tax rates and a veil of financial secrecy. Such entities may be legal, but the secrecy they provide can give cover to illicit money flows, enabling corruption.

Publicizing information on who owns what can make for change. Using tax microdata from Colombia, for example, Juliana Londoño-Vélez and Javier Avila-Mahecha, from the University of California, Los Angeles, found that the disclosure of hidden wealth by Colombian elites increased sixfold after the Panama Papers leak in 2016. Taxes paid by those listed in the leak more than doubled.

But it shouldn’t require a leak. This kind of information should be available to everyone. More than 160 countries have financial disclosure systems in place requiring public officials to declare their assets, incomes, and interests; in 80 of them that information must be made public. Nearly 90 have passed recent legislation establishing “beneficial ownership” registries—information about who really owns or controls a company. “It kind of stops there

though,” says Andres Knobel, a lead researcher on beneficial ownership at the Tax Justice Network. “There’s this trend to have a beneficial ownership register, but often there’s no public access, except mostly in European countries. Giving public access is the best way to improve verification.”

The not-for-profit organization Global Witness combed through the data of more than 4 million companies when the UK government published its beneficial ownership registry, exposing potential loopholes and signs of money laundering and financial crime.

Global Witness is not the only nonprofit using big data. With seed funding from the IMF’s Anti-Corruption Challenge, Directorio Legislativo and the Extractive Industries Transparency Initiative (EITI) recently created a tool, Joining the Dots, that identifies and publicizes public officials’ potential undeclared conflicts of interest. Using open-source technologies, the tool combines public officials’ financial disclosures with beneficial ownership data to generate red flags, signaling potential conflicts of interest or corruption.

The project was piloted in Colombia after a law was passed in December 2019 mandating publication of public officials’ financial disclosure forms. “We wanted to test the law—we were the first to get access to that information,” says Noel Alonso Murray, executive director of Directorio Legislativo. Colombia is also the only country in Latin America to meet all the requirements of the EITI standard by making data on extractive companies, including their licenses and contracts, widely available. And it is one of 10 countries in the region that require the declaration of beneficial ownership by law.

The law was amended recently to create a beneficial ownership registry, but only government agencies can access it. “It’s a step forward, but not a determinative one really,” notes Alonso Murray. “If you want to fight corruption, you need that registry to be open.”

Knobel agrees. “At least 10 countries in Latin America have a beneficial ownership registry, which is more advanced than most other regions. But there’s only one country, Ecuador, with public access. That’s the main problem—lack of transparency. It impacts verification.”

Without access to beneficial ownership information, EITI and Directorio Legislativo worked with proxies: Colombia’s *compra eficiente*, an open database on procurement, and the EITI portal,

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which publishes extractive sector data, such as company payments and licensing.

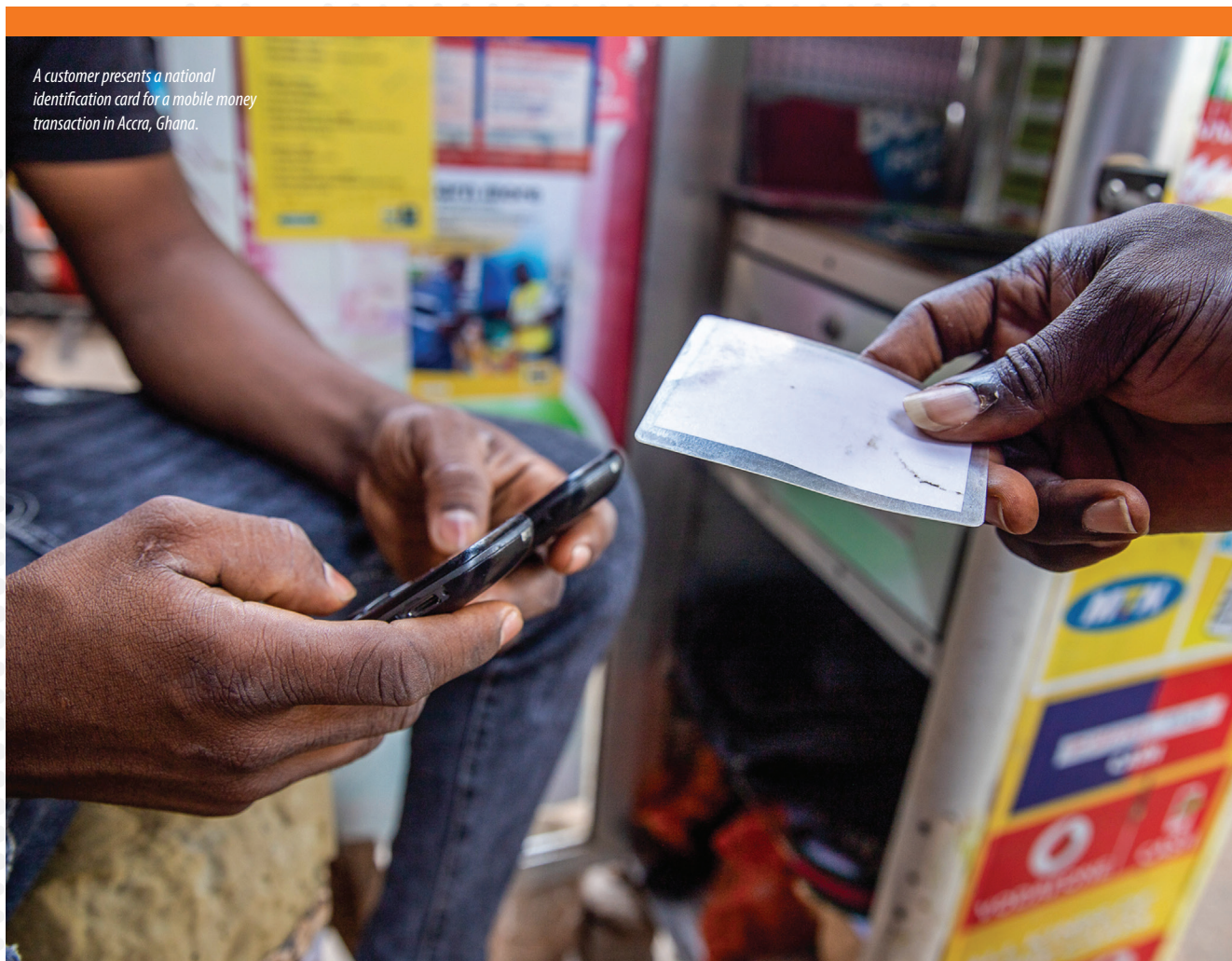
Sifting through the data, the team found a total of 20,969 red flags, involving 19,814 politically exposed persons. More than 20 percent were high- and middle-ranking officials, meaning 2 out of 10 prominent politicians in Colombia showed inconsistency in their disclosures. “Not all of those red flags finish in some sort of conflict of interest or personal enrichment,” adds Alonso Murray. “But they could. You have a much more concrete universe to work from. Especially for agencies that are under-resourced.”

Colombia’s Office of the Comptroller General, the country’s fiscal watchdog, is the agency most likely to use the data, which is now publicly available. But governments typically use this sort of data only when undertaking an investigation. “The real value,” says Knobel, “is being able to do these checks in advance—using it as a more preventive measure.” Journalists and transparency organizations usually take on this role. But businesses have an interest as well. “Investors and companies want to know who they’re doing business with. Banks want to know their clients. It really enables business to prosper, the right business,” says Knobel.

The team is now trying to implement a similar project in Nigeria, though the tool will need adjusting. Fortunately, it’s flexible. If financial disclosure forms are public, and there is at least one data set on procurement or beneficial ownership to cross-check, it can work. Even in countries with limited information, proxies can be used, as was done for Colombia, though the quality of the data will vary. “It is a lot of work to clean the data,” adds Alonso Murray.

Sorting through unwieldy and badly formatted data is time-consuming and difficult. But it’s manageable. The “real challenge,” says Alonso Murray, “is getting governments on board to open their registries.”

A customer presents a national identification card for a mobile money transaction in Accra, Ghana.



Ghana: Digital transformation

How do you tax a person you have no record of? Or a property you never knew existed? In Ghana, the government is using digitalization to overcome these challenges and grow its revenue and economy.

The West African country is working to consolidate a database of taxpayers, establish a digital address system, and harness a burgeoning mobile money system. The goal: increase tax revenue, improve transparency, and ensure compliance.

“It is possible to be born in Ghana, to live a full life, to die and be buried, and there will be no trace of you on any documentation,” Vice President Mahamudu Bawumia said in a recent speech.

One of the main pillars of Ghana’s initiative is simple—establish a reliable record of its population of roughly 31 million. Through its Ghana Card initiative, the government has so far been able to enroll 15.5 million people with the goal of covering most of its adult population by the end of this year.

Behind every card is a unique national identification number, biometrically enabled through

fingerprints, that will be the entry point for everything, including filing taxes, opening a bank account, registering a SIM card, obtaining a driver’s license, or renewing a passport.

Most important, the identification number doubles as a tax ID, allowing the government to widen the tax net among economically active adults. This is critical in a country where the revenue-to-GDP ratio has lagged others in the region.

The more numbers that are issued, the wider the tax net grows. Under the old system of tax identification numbers, only 3 million had been registered, said Maxwell Opoku-Afari, first deputy governor of the Bank of Ghana, the country’s central bank.

The same effort has gone into documenting properties in a new national digital address database. Using GPS, Ghana’s Land Use and Special Planning Authority has identified 7.5 million properties that can now be added to tax rolls.

The Ghana Revenue Authority is bolstering collection of taxes and fees by conditioning renewal of driver’s licenses and professional licenses on

tax payment. A new government portal, Ghana.gov.gh, provides a one-stop shop for a range of government services that can be handled online and can prevent losses to corruption. Ghana's Revenue Assurance and Compliance Unit is also stepping up audits of large companies, especially those involved in the country's sizable mining and resource extraction industry.

The electronic collection of fees and taxes and other tax measures introduced in the 2022 budget should help the country significantly increase its tax-to-GDP ratio, which is currently 12 percent, to about 16 percent at the end of 2022, said Opoku-Afari, who also sits on the board of the Ghana Revenue Authority.

"We are coming at it from all fronts—digitalization, compliance, enforcement, and cleaning up loopholes—to be able to raise our tax-to-GDP ratio over the medium term to a 20 percent target," he said.

This comprehensive digitalization initiative is bringing progress, albeit gradual, in revenue collection. Any future success, however, could get a boost from the country's robust and unique mobile money system.

Ghana has one of the most active and fastest-growing mobile money markets on the continent. It was also the first country to create a system that is completely interoperable between the country's three mobile networks and with bank accounts. For example, a person using a mobile money account provided by mobile phone service MTN can make a payment to someone who uses Vodafone. Funds can also be transferred from a mobile wallet to a traditional bank account.

Unlike in other mobile money systems, the Bank of Ghana oversees all transactions through its subsidiary, Ghana Interbank Payment and Settlement Systems. There are roughly 19 million active mobile money accounts.

This system forms another pillar of the government's digitalization agenda. It has also introduced a powerful tool of financial inclusion the government is seeking to leverage.

As part of the 2022 budget, Ghanaian legislators are considering a so-called e-levy on electronic transactions, which would apply to mobile money payments, bank transfers, and merchant payments. The 1.75 percent tax would apply to transactions beyond the first 100 Ghanaian cedis (\$16) a day and provide a new source of revenue.

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The government sees the e-levy as an opportunity to bring a growing portion of economic activity, much of it covering the informal economy, into the tax net. However, some argue that taxing mobile money transactions could send people back to cash and reverse a positive trend.

"The e-levy is a way of extending these services in terms of a social contract and everyone participating in the payment of tax," said Opoku-Afari. "The question is more about creating a careful balance between financial inclusion and revenue generation."

The Bank of Ghana is also working to launch a pilot of a new central bank digital currency, the e-cedi, later this year that could further widen the availability of financial services.

"The next challenge is to equip the tax administrator with the capacity and technology to leverage big data. That's where there's still some work to do," said Albert Touna-Mama, the IMF's resident representative in Ghana.

The private sector, which has already been involved in several initiatives, is looking to harness government data to add value for users.

"The government's work is putting the foundation and making it easy for the private sector to put the building blocks on top," said Patrick Quantson, chief transformational officer for DreamOval Limited, a Ghanaian fintech company. "I think, fundamentally, the work the government needs to do for this digital investment is to open it up from day one." **FD**

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