



Côte Sud Initiative: Integrated Development in Haiti

In 2010, Haiti remained the poorest country in the western hemisphere, with some of the most severe environmental degradation.¹ Decades of international aid and development efforts had been hampered by corruption, mismanagement, international politics and Haitian political instability.² The country's challenges were dramatically amplified on January 12, when a devastating magnitude 7.0 earthquake leveled large portions of the capital, Port-au-Prince. For months after, earthquake rescue and rebuilding took precedence over all other aid projects.

While the devastation was enormous, the earthquake did provide an opportunity to build better infrastructure and, at the same time, improve education, healthcare and other key social services. Planners had long recognized that too many Haitians lived in the capital; a reverse migration, inadvertently triggered by the earthquake, could have long-term benefits. So in March 2010, the government released a crisis recovery plan for four development hubs outside the capital, including the south.

The southern plan favored an ambitious project already underway, co-sponsored by the United Nations Environmental Program (UNEP) and Columbia University's Earth Institute. The project, dubbed the Côte Sud Initiative (CSI), aimed to take a scientific, long-term approach toward restoring the environmental and economic viability of watersheds in Haiti's southwest. Andrew Morton (UNEP) and Marc Levy (Earth Institute) were co-leading the effort. CSI would require five years of funding; typically, funders committed to international aid projects for only one or two years.

Working together informally in 2009, UNEP and the Earth Institute had selected as the project site the Port-au-Piment watershed, an area some 200 kilometers (125 miles) west of Port-au-Prince. Port-au-Piment was trapped in a cycle of poverty and environmental degradation: deforestation made the region increasingly vulnerable to flooding and landslides, which made it difficult to subsist off the land which, in turn, drove people to charcoal production, which contributed to deforestation.

¹ *CIA World Factbook* www.cia.gov/library/publications/the-world-factbook/geos/ha.html

² Timothy T. Schwartz, *Travesty in Haiti*, BookSurge Publishing, July 5, 2008, ISBN 978-1-4196-9803-3

After the earthquake, CSI took on new urgency. Wanting to integrate their research into a broader development effort, Levy was able to link the watershed initiative to another Earth Institute effort, the Haiti Policy Program, directed by Tatiana Wah. Wah already wore other hats: advisor to the Haitian government on the so-called Millennium Development Goals, and UN technical advisor for the western hemisphere's first Millennium Village Project.³ Wah agreed to partner with CSI on the understanding that the Millennium Village would become part of the larger Port-au-Piment watershed project.

By 2011, CSI had grown in scope and ambition to become a comprehensive development project that included agriculture, ecology, business development, education, fisheries, forestry and healthcare. It would be, all hoped, a model for the rest of Haiti. UNEP officially contracted with the Earth Institute in August 2011, and CSI began in earnest in September, with a grant of \$8 million from the Haiti Reconstruction Fund. Over the next six months, it signed on other nonprofit partners, began a household survey, established a cadre of local healthcare workers and started education, agriculture and forestry projects.

But on March 22, 2012, UNEP notified the Earth Institute that its funding would not be renewed beyond June. The news came as a shock. Wah, however, mobilized her considerable contacts and resources, and soon won the support of the agriculture and finance ministers for redeploying international funds intended for reforestation in the southwest to the Port-au-Piment watershed.

But Haiti was in a fragile political state. The prime minister had resigned in February. In early May, with the advent of a new government, Wah learned that both the supportive ministers had been dismissed. It was a serious setback. The Port-au-Piment project had barely a month to secure funding to keep running. With all Wah's connections and track record in Haiti, what options remained? After mobilizing a network of community groups and technical staff, Port-au-Piment was on the brink of making a real difference. Surely it would not be allowed to close.

International development comes to Haiti

Despite Haiti's rich cultural history and prime Caribbean beaches, the country remained trapped in a perverse web: poverty, natural disasters, political instability and environmental degradation. In the mid-2000s, over half of its 10 million people lived on less than \$1 per day, and 80 percent lived on less than \$2 per day.⁴ Forty-six percent of Haitians didn't have enough to eat, fewer than one in 50 finished secondary school, and less than 4 percent of the nation's land remained forested.⁵ While the international aid community had

³ The Millennium Development Goals, or MDGs, were an ambitious set of UN goals for improving health and wellbeing globally between 2000 and 2015.

⁴ World Bank website www.worldbank.org/en/country/haiti/overview

⁵ The Global Institute theglobalinstitute.wordpress.com/2009/03/19/welcome-to-the-global-institute-blog/

sent millions of dollars to Haiti, critics argued that the aid had limited effectiveness. Corruption, mismanagement, international politics and Haitian political instability combined to keep the majority of Haitians in severe poverty.⁶

MDGs. Reducing poverty in the developing world was a major United Nations goal. As early as 1966, the world body created the UN Development Program (UNDP) to help poor countries develop the institutions and infrastructure needed to withstand crises and lift people out of poverty. UNDP gave international aid donors a framework for contributing to a country's improvement rather than simply providing crisis relief. The UN also addressed environmental concerns, establishing in 1972 the UN Environmental Program (UNEP) to coordinate environmental activities and provide member countries with relevant information.

The UN recognized that fighting poverty required a multi-pronged approach. In 2000, it announced eight Millennium Development Goals, or MDGs, an ambitious set of targets for the world community to achieve by 2015. They included:

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. Reduce child mortality
5. Improve maternal health
6. Combat HIV/AIDS, malaria and other diseases
7. Ensure environmental sustainability
8. Develop a global partnership for development

In 2002, the UN Secretary-General commissioned a design for achieving the goals and, in 2005, an advisory body recommended that programs to reach the goals be implemented first in individual villages, and then scaled up. The Millennium Village Project (MVP) was created to target a small number of impoverished African villages with multi-sector programs—in health, education, the environment, and the economy. This integrated approach addressed the reality that all sectors were interconnected. For example, schools often delivered nutrition and health care services, while reliable energy and clean water were critical to health clinics. As of 2012, there were 14 so-called Millennium Villages across sub-Saharan Africa.⁷

MDGs to Haiti. As early as May 2006, Haitian President René Preval had asked Earth Institute (EI) Director Jeffrey Sachs to advise his government on how to achieve the

⁶ Timothy T. Schwartz, *Travesty in Haiti*, BookSurge Publishing, July 5, 2008. ISBN 978-1-4196-9803-3

⁷ The Millennium Villages attracted controversy, in part because the expected benefits would not materialize for a decade or more, which made it difficult to measure success. Moreover, researchers disagreed on how to assess the projects' impacts. Some wanted to compare Millennium Villages to "control" villages in the manner of scientific trials. Others argued that would be both ineffective and morally indefensible. See: Michael Clemens, *Why a Careful Evaluation of the Millennium Villages Is Not Optional*, March 18, 2010, Center for Global Development www.cgdev.org/blog/why-careful-evaluation-millennium-villages-not-optional

Millennium Development Goals. Specifically, Preval asked Sachs to help create the first Millennium Village in the western hemisphere.⁸ EI collaborated on a design for a Millennium Village Project on Haiti's Central Plateau and, in June 2009, founded the Haiti Policy Program (HPP) to bring the Millennium Goals approach and a village to Haiti.⁹ Sachs recruited Tatiana Wah, a Haitian---born Creole speaker, to lead HPP. Simultaneously, the government retained Wah as a senior policy advisory to ensure that lessons learned from the Millennium Village Project translated into policy initiatives to help Haiti achieve the Millennium Development Goals nationwide.

Wah was a regional development and urban planning scholar who specialized in Haiti. Raised in Port---au---Prince, she moved to Brooklyn, NY at 13. She held advanced degrees in urban planning and policy development, and had worked in and taught about development. She had also written a book about tapping the Haitian diaspora for development efforts.¹⁰ Reaching the Millennium Development Goals required governments to undertake projects across sectors—health, education, energy, agriculture, environment, and jobs. "So you would have to take an integrative approach to planning," explains Wah.¹¹

That is one thing the [Haitian government] did not have any experience in. [They] did not understand how health is related to education, how education is related to energy and job creation, etc. All the ministries existed in silos so, even during budget time, before the operational plans were done, [the problem was] how to link the budgets for attaining these goals together.

Regeneration. Meanwhile, the Earth Institute was involved in a separate UNEP project. In 2008, UNEP Deputy Executive Director Angela Cropper called for an initiative to put Haiti on a track of sustainable development.¹² Cropper's proposal was a radical departure for UNEP: it had never before created projects in the field. But in the beginning of 2009, UNEP's Post---Conflict and Disaster Management branch began work on what it called the Haiti Regeneration Initiative (HRI).¹³

⁸ Sachs, an advisor to the Haitian government, had led the advisory group that recommended the creation of Millennium Villages.

⁹ EI's partner in the design phase was the University of Miami's Miller School of Medicine. The HPP was funded by a November 2008 grant from the Green Family Foundation.

¹⁰ Tatiana Wah. *Haiti's Development Through Expatriate Reconnection: Conditions and Challenges.* (Pompano Beach, FL; Educa Vision Inc.), 2003.

¹¹ Author's interview with Tatiana Wah, September 10, 2013, in New York, NY. All further quotes from Wah, unless otherwise attributed, are from this interview.

¹² Author's interview with Marc Levy on September 11, 2013 in New York, NY. All further quotes from Levy, unless otherwise attributed, are from this interview.

¹³ Ibid.

HRI aimed for comprehensive sustainable development in southwestern Haiti, an environmentally damaged area vulnerable to flooding and hurricanes.¹⁴ Four hurricanes struck the region in 2008 alone.¹⁵ With a 20-year horizon, HRI wanted to address the root causes of extreme poverty, including environmental degradation, vulnerability to natural disasters and limited access to social services. It proposed to take a science-based, long-term approach to watershed management that encompassed agriculture, ecology, economics, education, forestry and healthcare. The Norwegian government was the project's primary funder.

In early 2009, HRI Manager Andrew Morton contacted Marc Levy, deputy director of the Earth Institute's Center for International Earth Science Information Network (CIESIN), about partnering with UNEP on the Haiti Regeneration Initiative.¹⁶ The two organizations agreed to collaborate and, on March 15, Levy and Alex Fischer, a CIESIN research associate, began a tour of Haiti's south coast to assess the impact of the 2008 hurricanes and floods. In April, Fischer was appointed program manager.

Levy and Fischer recommended focusing on a single watershed, with a program to collect baseline and ongoing data in order to implement an integrated, multi-sector development project based on that data. To select a watershed, Levy, Fischer and the research team looked at several key factors: population, size, environmental hazards, local organizations and existing investment. Despite limited information about watersheds in Haiti's south, they were able to zero in on the Port-au-Prince watershed, a 102-square-kilometer area about 200 kilometers west of Port-au-Prince with an estimated population of 30,000 people. They first visited the watershed on June 15, 2009. In September, UNEP published a preliminary concept note for HRI. The document summed up the initiative's scope and ambition:

The Haiti Regeneration Initiative is being developed on the principle that large scale, chronic problems need ambitious, innovative solutions. The vision is both simple and bold—to build and support a national movement in Haiti that understands the underlying issues and tackles them in an organized and integrated way. Well-planned, concerted action will be required over the next 20 years and beyond. The Regeneration Initiative aims to reduce poverty and vulnerability to natural disasters—including climate change—through the restoration of ecosystems and livelihoods based on sustainable natural resource management.

¹⁴ UNEP website. See:

www.unep.org/disastersandconflicts/CountryOperations/Haiti/AidCoordinationforSustainableDevelopment/tabid/106580/Default.aspx

¹⁵ Jeffrey Masters, *Hurricanes and Haiti: A Tragic History*, Weather Underground. See:

www.wunderground.com/hurricane/haiti.asp

¹⁶ CIESIN collected and analyzed interdisciplinary data on people and the environment, and integrated the information with geospatial data. See: www.ciesin.org/

That fall, the Earth Institute team set up a remote office in UNEP's Port-au-Prince office and began planning the data collection phase of the project. The project set ambitious goals to develop new approaches to the intertwined challenges of social, economic, environmental and political fragility in Haiti, and to document the work through comprehensive monitoring. Levy sums up the challenge: "It's not applying best practices. It's not translating mature science to a new place. It's inventing something that people don't know how to do yet."¹⁷

Earthquake and a strategy rethink

Late on the afternoon of January 12, 2010, Levy, Fischer, Morton, and several other UNEP staff had finished a series of meetings in Port-au-Prince. They decided to stop at the UNEP office, located in the UNDP compound, before going back to the Hotel Montana where they were staying. Meanwhile, Wah and a research assistant had stopped by Wah's apartment in Port-au-Prince on their way to a meet a group of Columbia University students at the same hotel. Wah got a call: the students were headed to the UNDP office instead. Then, at 4:53 p.m., a magnitude 7.0 earthquake struck 10 miles southwest of Port-au-Prince.¹⁸ At Wah's apartment, "everything shifted," she recalls.

It just moved all at once: the dressers, the desk, the dining room table. We thought at first it was just a bomb, and then it kept going. We couldn't get out. [Eventually] we had three guys hold these stairs for us to escape from the house. The stairs were shaking. Every split second there was a shake.

Wah and her assistant walked to the UNDP compound to find Levy, Fischer and the other Columbia University students, who were helping move injured people from the UN Headquarters. The building had collapsed and killed 84 of the UN staff. "It was horror everywhere," she says.

It was as if everything was bombed. White soot was everywhere, from the horrible cement that these houses were built on. Everybody was covered in white all over, and everyone was huddling together and praying. That was all we saw for miles.

The UNDP office in the UN complex withstood the earthquake; Levy, Fischer, Morton and their team were unhurt. They were lucky. "Normally at that time of day, it would have been a coin toss as to whether we go back to the Hotel Montana or go back to the office," notes Levy. "And luckily we went to the office because the Montana, very few people survived

¹⁷ Author's interview with Marc Levy on September 11, 2013 in New York, NY. All further quotes from Levy, unless otherwise attributed, are from this interview.

¹⁸ US Geological Survey. See: <http://earthquake.usgs.gov/earthquakes/eqinthenews/2010/us2010rja6/>

that. The whole place just collapsed.”¹⁹ The steep hillsides around Port-au-Prince meant that numerous buildings, like the Montana Hotel, slid off their pillars and down the slopes.

The earthquake destroyed thousands of structures in the capital, including the presidential palace. Estimates of the dead ranged from 46,000 to 316,000.²⁰ One and a half million people were displaced, creating an internal refugee crisis. Losses were estimated at \$8--\$14 billion.²¹ The Reuters Thompson Foundation called it the biggest urban disaster in modern history.²²

Higher priorities. Work on the Haiti Regeneration Initiative and the Millennium Village Project was put on hold as all available resources went into helping Haiti recover from the earthquake. "My first thought was, my job changed," says Wah. "I can't even mention MDGs or MVPs when 300,000 people have just died." Even if Wah had wanted to pursue the Millennium Village Project, there was no one in the government to work with. All 18 of the Government of Haiti's national ministry headquarters had collapsed (the regional offices were not damaged). In the Ministry of Planning alone, 36 people died. "The top managers who I had been talking to were no longer there," she says.

Prime Minister Jean-Max Bellerive had been in office only two months when the earthquake struck. On April 15, the Haitian parliament approved the Interim Haiti Recovery Commission (IHRC) to coordinate relief efforts. Bellerive and former US President Bill Clinton were co-chairs. (Together with former President George W. Bush, Clinton also launched the Clinton-Bush Haiti Fund to raise funds in the US.) Wah, who had represented Haiti's interests in the design of the IHRC, was named its director of strategy and planning.

The international community and the government of Haiti also created the Haiti Reconstruction Fund (HRF), which pooled and distributed funds for rebuilding. The UN, World Bank and Inter-American Development Bank were authorized to draw from the fund to finance specific projects. The IHRC would receive and vet project proposals, then submit approved proposals to the HRF for funding.

Reverse migration. The earthquake had displaced hundreds of thousands from the capital, increasing development pressures in rural areas as many returned to extended families in their home regions. Rural communities strained to absorb the influx: more people

¹⁹ Next to the UNDP compound was a 7-story building that housed the United Nations Stabilization Mission in Haiti (MINUSTAH), or peacekeepers. The MINUSTAH building collapsed, killing 102 staffers. "By the time I saw them, Marc and Alex were carrying folks on stretchers," says Wah. "The bodies piled up one on top of another, and just the mess of it all, it was just shocking."

²⁰ Maura R. O'Connor, "Two Years Later, Haitian Earthquake Death Toll in Dispute," *Columbia Journalism Review*, January 12, 2012. See: http://www.cjr.org/behind_the_news/one_year_later_haitian_earthqu.php

²¹ Reuters Thompson Foundation. See: <http://www.trust.org/spotlight/Haiti-earthquake-2010>

²² Ibid.

meant greater demands on already limited food supplies, health services and jobs. The southern coastal areas and mountains had limited capacity to support a growing population. The south already had high food insecurity, serious malnutrition, and weak social services. The region was also particularly vulnerable to hurricanes and flooding. Nevertheless, many people headed south. Wah recalls:

We started with the map of where these people went after the earthquake, because people went back home. And that's when we started seeing the number of people who went back into the south. It's a very vulnerable place, but people still went back there.

Planners had long grappled with overpopulation in the capital, and slowing if not reversing rural-to-urban migration was a government priority. "[Port-au-Prince] was not built to hold two million people," says Wah. So rather than being sidelined by the earthquake recovery imperative, the south became a key part of the government's recovery strategy. Meanwhile, in February 2010 the UN, with government assistance, conducted a post-disaster needs assessment to put a dollar figure on replacing what was lost, says Wah. But Prime Minister Bellerive didn't want recovery efforts simply to restore what had been. "It wasn't built right in the first place," says Wah. "We needed to start over. There was no sewer system or access to safe water or sanitation for most." The government labeled the recovery effort the "refoundation" of Haiti.

In March 2010, the government released a crisis recovery plan that called for four development hubs outside the capital, including the south. The UN's assessment report, together with the government's recovery plan, led to a donor conference in New York on March 30, during which countries pledged \$9.3 billion toward recovery and development.

Watershed moment. At the same time, the Earth Institute considered moving the Haiti Regeneration Initiative watershed project to a suburb of Port-au-Prince. "You don't have to go too far outside of Port-au-Prince [to] get a lot of these same ecological problems: deforestation, flooding, erosion and so on," says Levy. But after the Port-à-Piment municipal government reported a post-earthquake population increase of 50 percent, they decided to stay put.

By spring 2010, UNEP had completed two reports about environmental recovery and poverty reduction with a focus on watersheds. Their analysis showed that international aid projects typically spanned only a year or two. In the reports, UNEP acknowledged that short-term funding would be inadequate for this type of project. "One of the key lessons learned from earlier initiatives in Haiti is that over-reliance on short term aid funding (particularly ad hoc grants of 1-3 years) undermines project impact and sustainability," said one.²³ The second report concurred. It stated:

²³ Haiti Regeneration Initiative Preliminary Concept Note, September 2009, United Nations Environment Program.

The Haiti Regeneration Initiative... is not a conventional project but instead the proposed start of a national scale campaign with a targeted turnover of over 3 billion dollars over a 20---year period. Hence the vision and goals are extremely ambitious and the design and planning process is quite elaborate.²⁴

On March 22 and 23, 2010, key players from the government, UNEP, donor organizations and the Earth Institute met in Miami to review post---earthquake thinking on Haitian redevelopment. According to Levy, participants discussed ecological sustainability, decentralized economic development and evidence---based, science---grounded development strategies. The meeting also focused on reducing risks from disasters. Hurricanes, in particular, were an endemic threat, and played a part in landslides and unhealthy watersheds. There had been recent episodes of silt and mud inundating slums around Port---au---Prince after upstream deforestation. "There was no point protecting yourself against earthquakes if all these other disasters were going to kill people," says Levy.

Norway steps up. As part of the influx of international aid following the earthquake, the Norwegian government pledged NK800 million (\$127 million) in reconstruction and development aid, with an initial NK200 million (\$31.8 million) committed to the Haiti Reconstruction Fund. Norway targeted its assistance to the south—neglected by other donors—with the aim of giving residents reason to remain in rural areas rather than migrate to cities, and to identify pathways to more resilient communities, both ecologically and socio---economically.²⁵

For the HRI watershed project, the pieces were beginning to come together: government interest with post---earthquake urgency, a deep---pockets international funder claiming the south as its turf, the UN taking the long view, and the Earth Institute with its scientific approach to sustainable development. The missing piece was an integrated, multi---sector development project. So Levy and Morton approached Wah about joining CSI, and moving the envisioned Millennium Village from the Central Plateau to the south. Wah agreed readily. Such a move dovetailed with the government's focus on the south and decentralization.

So in March 2010, the combined watershed reclamation project plus Millennium Village became the Côte Sud Initiative, a subset of UNEP's Haiti Regeneration Initiative. CSI included intensive investment in the Port---à---Piment watershed, and other projects across a 10---county (*commune*) region. The Millennium Village, a geographic subset of the

²⁴ Haiti Regeneration Initiative: Study of lessons learned in managing environmental projects in Haiti. See: <https://www.cimicweb.org/cmo/haiti/Crisis Documents/Cross Cutting Issues/Environment/UNEP - Lessons Learned in Managing Environmental Projects in Haiti.pdf>.

²⁵ "Norway joins Interim Haiti Recovery Commission," Norwegian Ministry of Foreign Affairs website, June 18, 2010. See: http://www.norway-un.org/NorwayandUN/Selected_Topics/Humanitarian-Efforts1/Norway-joinsCommission-in-charge-of-Haitis-recovery-and-development/

watershed, aimed to bring intensive investment in social services to a small area (the goal was \$120 per capita per year).

The Port-au-Piment watershed reclamation portion of CSI was known as the Haiti Southwest Sustainable Development Project. Says Levy: "There was a desperate desire for a proven model of how to achieve sustainability at a watershed scale that was going to be relevant for the entire country, including the immediate environs of Port-au-Prince." With luck, CSI would be that model.

Dollars and data

Wah sat on the Interim Haiti Recovery Commission's project review committee. When HRI came before the review committee, Wah recused herself. On October 6, 2010, the IHRC approved the Initiative's concept note; two weeks later, the Haiti Reconstruction Fund (HRF) approved funding. The concept note stated clearly that CSI was a five-year project, with ambitions going out 20 years. The five-year budget proposal specified eight sectors:

- Agriculture
- Education
- Health and Nutrition
- Environment
- Water and Sanitation
- Information, Communication and Technology (ICT)
- Infrastructure, Energy and Transportation
- Capacity Development and Links to Government

HRF granted the Haiti Southwest Sustainable Development Project portion of CSI \$8 million (of the Norwegian funds) for January 2011 through March 2012 to develop the program.²⁶ For the Côte Sud Initiative, 2011 was Year Zero, a period to gather baseline data and plan projects. Activities would start in 2012 and run through 2016. CSI staff had asked for a four-year funding commitment, but post-earthquake funding was given in one-year increments. In meetings with the CSI team, Norwegian government representatives said they were committed for the long term, but could sign only one-year contracts, recalls Levy. "It was hot and dusty and I remember sitting at a picnic table on the phone with [Earth Institute Director] Jeff Sachs to get his guidance and blessing on what to do," he recalls.

I said, "Do we take this on a leap of faith and start a four-year project with just one year's money in the bank, or do we redesign this as a set of activities that at the end of a year we can walk away from and we wouldn't have wasted our time?" And Jeff was really, really strong. He just didn't hesitate. He said, "No, act

²⁶ UNEP in Haiti: 2010 Year in Review, February 2011.

as if you've got all the money. Don't do it piecemeal. That's just not worth it. I trust the Norwegians."

Closing the data gap. On January 4, 2011, UNEP and the Haitian government formally launched the Côte Sud Initiative. The CSI team hit the ground running, launching into data collection. Little existed, recalls Project Manager Fischer:

We didn't know the rainfall averages or spatial patterns very well. We didn't have information on the soil quality or characteristics. We didn't have information on attendance rates in schools or literacy rates. We don't know which schools have latrines and which schools have school meals programs.²⁷

Data was critical for sustainable *development*, says Wah. To help farmers, for example, development officers needed information not only on soil and climate conditions, but also about the farmers' level of knowledge, whether they had access to agriculture extension agents, and their cultural preferences for food crops. Within eight months, for example, the team had found that the upper watershed, roughly one mile from the coast and 800 meters in elevation, had more than double the average daily rainfall of the coast. This huge rainfall variation had significant impacts on agriculture, early warning for floods, and the topography in the small watershed.

Another focus of the Millennium Development Goals was providing access to basic services. That meant learning where the population was concentrated, what routes people took and what obstacles existed. Building new schools, for example, wasn't sufficient; students had to be able to get there. Explains Wah: "In the [Port-au-Piment] watershed during the hurricane season, you're lucky if the kids spend three weeks in school [during] a 4 ½-month period, because they can't cross rivers." Similarly, curbing charcoal production—the main cause of deforestation—was not simple. Previously, armed forest rangers had patrolled the area. "That didn't turn out well," says Wah. "You've got to understand what folks need. This is 200 years in the making. You're not going to undo it in a year or two."

For the first half of 2011, the CSI team surveyed households in the watershed, built weather stations, and recruited a team of agronomy students to measure soil conditions. It was the first time anyone in Haiti had assessed soil conditions throughout a region or correlated household surveys with ecological measurements. The CSI team also counted the number of schools in the watershed, which helped them price school meals programs, support parent-teacher associations and determine if there were enough schools to meet the demands of the current population. Through its implementation partners, CSI also provided business training, health initiatives, and agricultural subsidies.

²⁷ Author's interview with Alex Fischer, September 10, 2013 in New York, NY. All further quotes from Fischer, unless otherwise attributed, are from this interview.

The data helped inform the project design—always a challenge in multi-sector development, says Fischer. Project managers had to balance the demands of different sectors within the constraints of a budget. The health sector was expensive and typically took a high proportion of a budget. Infrastructure, too, was costly. "If you want to do one road, that eats up a huge portion of your budget right off the bat," says Fischer. Education was certainly a priority as well. "But how much of the budget do they get and what do they spend it upon?" he says.

Bureaucracy and capacity

But CSI quickly ran into trouble. Because lead partner UNEP was a UN entity, most of the project hiring and procurement went through the United Nations Office for Project Services (UNOPS). The UN presented this to the Côte Sud Initiative team as an advantage: UNOPS specialized in operational support; it would shoulder the burden of staffing and outfitting the project, and accomplish it more efficiently than the CSI team could. The reality was different: some job descriptions were incorrect; hiring moved slowly. "In retrospect, I think I should have screamed bloody murder earlier, rather than wait as long as we did," says Levy.

Similarly, coordination within the fledgling CSI organization was problematic. The environment sector leader was a UNEP staff member whereas the education and health leaders were not and, as Wah recalls, the two sets of sector leaders didn't communicate well. At the same time, Wah found it challenging to stay on the same page as UNEP Country Program Manager Antonio Perera, who was responsible for managing the Millennium Village Project. Part of the problem was that Perera was based at UNEP headquarters in the south and Wah was based in Port-au-Prince at the prime minister's office.

Meanwhile, Wah thought that the role of the Earth Institute was to provide technical assistance to the sector leaders and help them with planning and budgeting. She argued that a science coordinator—always intended to coordinate the sector leaders—should be the hands-on manager. Midway through 2011, however, UNOPS still had not hired a science coordinator for the Port-au-Piment component of the CSI. So Wah and Fischer assigned themselves to what they hoped would be temporary jobs as co-science coordinators. "Of course, Alex [Fischer] took the brunt of the job," says Wah.

Meanwhile, other organizations joined the partnership. International NGO Catholic Relief Services (CRS) took on the work of implementing the Millennium Village Project. "They have cars, distribution facilities, community liaisons, and a lot of agents in the field. They were the best conduit and had the experience for channeling money down to the ground level," says Fischer. The Organization for the Rehabilitation of the Environment (ORE), a Haitian NGO, joined and focused on agriculture and reforestation. "[They] were big proponents of the data-driven approach because they're also researchers," says Fischer. "We conducted a lot of our studies jointly with them."

Connecting with the community. In October 2011, a strong tropical storm lingered over the south for 4 days, leaving more than 12 inches of rain. The storm produced significant flooding that cut off towns in the upper watershed. The CSI coordination unit kicked in, helping the national relief system meet local needs, such as airlifting medical supplies into remote areas and delivering food when supplies ran short. This was the first sign for the community that the program was bringing results.²⁸ But it wasn't enough to stave off discontent..

What CSI experienced as steady progress in the project, the local community saw as inaction. By fall 2011, community and local government leaders had grown frustrated with the project, in part because it was nearly a year since the Initiative's public launch and they hadn't seen results. The contracting and startup delays weren't visible to the community. In addition, a lot of the early work was research, but "folks were in a rush for the projects to actually start landing," says Wah. At the same time, communication about the project was piecemeal because so many different entities were involved. Regional ministerial directors "didn't really know what was going on," says Wah.

But finally, in late 2011, the Côte Sud Initiative team started to implement Year One projects: they built additions and upgrades to health clinics, provided fertilizer to farmers, gave vaccinations, improved school facilities and invested in local businesses. Moreover, the Initiative belatedly let the locals know that it planned to hand over the project to the community and ensure their active role in the projects, including receiving funding directly. That made a measurable difference in community attitudes. "They didn't realize that at first," says Fischer. "Once that became clear, they became invested in the process. The community started becoming [our] most vocal advocate."

Shifting politics and realities

By January 2012, the CSI team felt good about its progress. It had completed baseline data collection, and used that to craft a five---year strategic plan, with costed programs, one of the initiative's first major deliverables. Each year of the plan called for specific interventions. "At the beginning, there's a larger investment in expensive infrastructure, and then as you move into the middle to end of it, it's a lot more about building out programs and services," says Fischer. CSI, based on the MDG global estimate of \$120 per capita to provide a package of services to a community, set its budget at \$18.7 million over five years.

Then, on February 24, there was a shakeup in Haiti's government. Prime Minister Garry Conille, who had replaced Bellerive only four months earlier, resigned. Conille had supported CSI and agreed to allocate government funding to it; at the very least, a new prime

²⁸ See: <http://blogs.ei.columbia.edu/2011/10/19/partnership-framework-supports-emergency-response-to-floodingalong-haiti's-southern-coast/>

minister would have to be brought up to speed. *Norway says no.* The surprises were not over. In December, CSI had reapplied to Norway for another year's funding. But on March 22, UNEP's Morton e---mailed with bad news: Norway was slashing the CSI budget—a signal it would not renew. Apparently, it was no longer interested in multi---sector investments but preferred instead to fund a series of small---scale hydroelectric projects.

Wah and her colleagues had felt apprehensive for several months about the Norwegian commitment. Over its year of involvement, Norway had sent various representatives to discuss CSI, and each had brought a different perspective, recalls Wah. For example, one representative talked about taking a human---rights based approach to development. "No one knew what that really meant on the ground," she says. In mid---February 2012, Joel Boutroue, a Frenchman representing Norway's interests in the project, expressed concern that CSI didn't have an exit strategy. "Well, the exit strategy was for the government to take it over," notes Wah.

Nonetheless, the decision to cut funding took CSI aback. The team was unprepared in part, says Wah, because the Norwegian visitors had said nothing "until we started reapplying for the monies. It was mindboggling, because [at the same time,] they gave money for an MVP in Africa." Moreover, the Norwegians had seen the CSI concept note, which described it as a five---year project with a 20---year horizon, says Fischer.

They came to the south and they stood in the middle of this highly eroded river bed and said, "We're here with this project, we're here for five years, we want this to work." It was documented in the news reports, and all of our partner organizations who were there also heard them say that. And the community very explicitly heard them say that.

Fortunately, thanks to the concern over Norway, CSI had started to solicit other potential funders for the next year of operations. Among those, Wah had approached the Inter---American Development Bank, which held two blocks of funds dedicated to projects in the south. The first was \$14 million from Norway (channeled through HRF) for watershed reclamation projects, while another \$30 million in unspent funding for environmental regeneration came from multiple donors. On March 6, Wah had met with IDB officials to discuss funding for Port---à---Piment's next stage. She would have to follow up.

Waning support. With funding evaporating, UNEP wanted to ensure the broader CSI project moved forward in some form. UNEP staff, in an effort to save portions of CSI and placate the Norwegians, recast it to focus narrowly on fisheries, agriculture and hydroelectric power. But the Earth Institute research team disagreed with this change, arguing that such efforts were "not going to get anywhere near environmental revitalization," says Wah. The EI team decided to seek additional funding for the watershed project independent of UNEP. Levy recalls a series of unpleasant meetings and phone calls with UNEP

staffers. "They tried very, very hard to talk me out of the strategy of seeking funding on our own." he says.

I remember one particular meeting in Port--Salut, the place where we had our local base in the region, and ... the head of the UNEP office just lashed out at us and said, "You can't do this. It's going to backfire. It's not going to work."

Levy understood that UNEP was *reacting* to political realities. "I think they were looking for a safer way to continue, and the positive spin on it would be that it's better to have a well--funded, continuous program that's doing good in, say, two sectors than to have a dead program that was trying to pursue [eight] sectors," he says. But the Earth Institute team didn't agree that all was lost. They were disappointed by their partner's willingness to walk away from the Port--à--Piment component of the initiative, which they considered the core of the original objective: to solve complex, intertwined development challenges.

Fragile state factor

The Norwegian decision set off a scramble to find alternative funding. First, Earth Institute Director Sachs approached top officials in the Norwegian government, to no avail. For their part, Wah, Levy and Fischer approached multiple potential funders: the Clinton--Bush Haiti Fund, the Red Cross, Mercy Corps, the European Union, and the governments of France, Italy, Spain, Germany and Qatar.

In response to the immense challenges in Haiti, international aid donors had informally divided the country geographically and directed their investments to specific territories, says Wah. Norway had adopted the orphan region in the south around Port--à--Piment, and it was difficult to entice other nations to invest there. Other funders typically focused on one sector and didn't support a multi--sector approach. Most of all, funders repeatedly wanted "quick--wins": projects with immediate results and short time frames.

Discouraged but not defeated, Wah stepped up efforts to redirect the IDB funds to the Port--à--Piment project. The Ministry of Agriculture was in charge of disbursing the IDB monies. Wah knew Agriculture Minister Hebert Docteur and was confident she could secure his support. On Sunday, March 25, 2012, the Earth Institute team made a presentation to Minister Docteur and his staff in Port--au--Prince which included a 3D model of the Port--à--Piment watershed. He "absolutely loved the idea," Wah says. "It was the first integrated approach to deal with watershed management that he had ever seen."

Later that same day, Docteur put in a formal request to Minister of Finance André Lemercier Georges, who chaired the HRF steering committee, for \$14 million to be allocated to Port--à--Piment watershed project. The next step was to persuade Lermercier

Georges to sign off on the reallocation. Five days later, on March 30, the Haiti Reconstruction Fund steering committee met. Wah was the representative for the prime minister's office. At the meeting, Norway's representative, Eva Tuft, told Wah that Norway no longer wanted to fund a Millennium Village in Haiti nor would it approve reallocation of the IDB funds to the Port----à----Piment watershed project unless the Haitian ministries of finance and agriculture requested it directly. "The Norwegians didn't want [IDB funding] going to this project," says Fischer. "I never heard any specific substantive reasons why they were so opposed to it."

But Minister Docteur remained a supporter as did the Port----à----Piment community. Local leaders called the minister and ministry officials themselves, voicing support for the funding. On April 11, Minister Docteur paid a surprise visit to Port----à----Piment, bolstering the team's hopes. Docteur also wrote personally to Lemercier Georges, who had not yet signed the reallocation directive, to ask that the Finance Ministry support the funding request. Wah spoke with senior staff at Finance, who said the Port----à----Piment project had their support. But they also told her that the ministry was getting pressure to block the reallocation.²⁹

New government. Then on May 4, as the Port----à----Piment team fought to secure the IDB funding, Haitian President Michel Martelly finally appointed a new government; Laurent Lamothe would be prime minister. Within a week, Finance Minister Lemercier Georges and Agriculture Minister Docteur were out of office. "Although I had great relations with the director of the Haitian Reconstruction Fund, without the minister of finance's signature I couldn't go the next step," says Wah.

The clock was ticking. The project continued to spend down its original funds while expanding service delivery and building relationships. If new funds were not in place by June, the project would run out of money to pay staff. That would mean the end of the original CSI. The new minister of finance, Marie Carmelle Jean----Marie, took office on May 16. Wah had worked with her, and was confident that she would support the reallocation of IDB funds. But as with all incoming ministers, she confronted a wide range of requests, obligations and pressure from multiple parties.

The Earth Institute had managed projects across the world, including in some of the most difficult settings in Africa. Yet this one posed challenges that confounded even its expectations. Was it possible for a development project targeting complex, interconnected social, environmental and economic issues to function in such a fragile political context? With numerous lessons learned and an emerging body of best practices for aid, how could donors repeat the mistakes that the original Haiti Regeneration Initiative concept note had identified?

²⁹ Ibid.

Could Wah and the Port----à----Piment supporters convince the international donor community of the merits and secure funding in such a short time frame? Or could Wah get the required government signatures and file the paperwork to secure the IDB funding in time? Even if she got the money, what would the Port----à----Piment project's future be without support from the United Nations? How could the team find a way to continue a project that had finally won local buy----in, that would provide the first concrete example of implementing Millenium Development Goals in Haiti, and that promised to be a model for Haiti's future development?

Appendix 1

Guide to acronyms used in case:

CIESIN ---- Center for International Earth Science Information Network (unit of the Earth Institute)

CRS ---- Catholic Relief Services

CSI ---- Côte Sud Initiative

EI ---- Earth Institute

IHRC ---- Interim Haiti Recovery Commission

HRF ---- Haiti Reconstruction Fund

HRI ---- Haiti Regeneration Initiative

IDB ---- Inter----American Development Bank

MDG ---- Millennium Development Goals

MINUSTAH ---- United Nations Stabilization Mission in Haiti (Mission des Nations Unies pour la stabilisation en Haïti)

MVP ---- Millennium Village Project

ORE ---- Organization for the Rehabilitation of the Environment

UNDP ---- United Nations Development Program

UNEP ---- United Nations Environmental Program

UNOPS ---- United Nations Office for Project Services