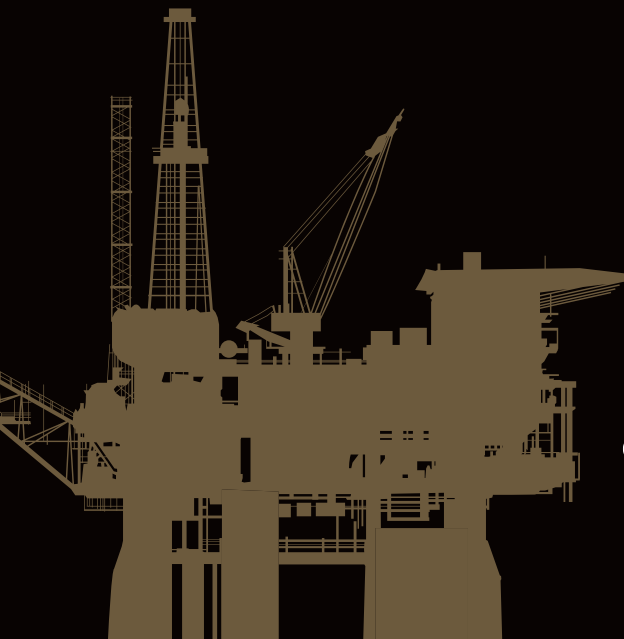


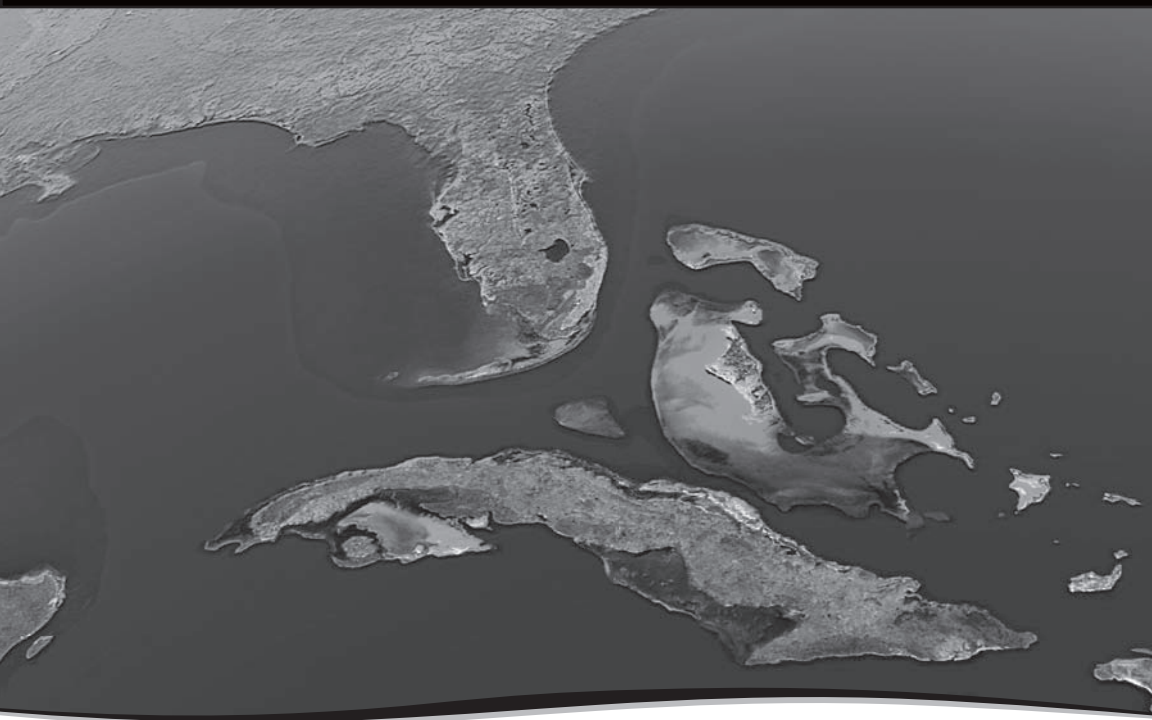


**As Cuba plans to drill in the Gulf of Mexico, U.S. policy poses needless risks to our national interest**



Center for Democracy  
— IN THE —  
AMERICAS





**As Cuba plans to drill in the Gulf of Mexico, U.S. policy poses needless risks to our national interest**



Center for Democracy  
—IN THE—  
**AMERICAS**



**THE CENTER FOR DEMOCRACY IN THE AMERICAS (CDA)** is devoted to changing U.S. policy toward the countries of the Americas by basing our relations on mutual respect, fostering dialogue with those governments and movements with which U.S. policy is at odds, and recognizing positive trends in democracy and governance.

**THE CDA** is an independent, non-profit organization that does not receive financial support from the U.S. or any foreign government.

*For further information about CDA or this report, please contact:*

**THE CENTER FOR DEMOCRACY IN THE AMERICAS**

P.O. Box 53106

Washington, DC 20009

[www.democracyinamericas.org](http://www.democracyinamericas.org)

Copyright © 2011 by the Center for Democracy in the Americas.

All rights reserved.

Printed in the United States of America.

# Contents

Preface..... 1

Summary ..... 5

About this Project..... 9

How CDA Approached the Work..... 11

Findings..... 13

Recommendations ..... 35

The Center for Democracy in the Americas’ Cuba Program..... 43

Acknowledgments ..... 45

Endnotes..... 47

# Preface

**T**his year Cuba and its foreign partners will begin drilling for oil in the Gulf of Mexico. Drilling will take place as close as 50 miles from Florida and in sites deeper than BP's Macondo well, where an explosion in April 2010 killed 11 workers and created the largest oil spill ever in American waters. Undiscovered reserves of approximately 5 billion barrels of oil and 9 trillion cubic feet of natural gas lie beneath the Gulf of Mexico in land belonging to Cuba, according to the U.S. Geological Survey, although Cuba's estimates contain higher figures. The amount actually recoverable remains to be seen.

Finding oil in commercially viable amounts would be transformative for Cuba. Revenues from natural resource wealth have the potential to provide long-sought stability for Cuba's economy and are likely to significantly alter its relations with Venezuela and the rest of Latin America, Asia and other leading energy producing and consuming nations. Discoveries of commercially viable resources would also have an enormous impact upon the Gulf environment shared by Cuba and the United States.

The U.S. embargo against Cuba, a remnant of the Cold War, is an obstacle to realizing and protecting our interests in the region. Not only does it prohibit U.S. firms from joining Cuba in efforts to extract its offshore resources, thus giving the competitive advantage to other foreign firms, but it also denies Cuba access to U.S. equipment for drilling and environmental protection—an especially troubling outcome in the wake of the disastrous BP spill. The

embargo compels Cuba's foreign partners to go through contortions—such as ordering a state of the art drilling rig built in China and sailing it roughly 10,000 miles to Cuban waters—to avoid violating the content limitations imposed by U.S. law.

Most important, due to the failed policy of isolating Cuba, the United States cannot engage in meaningful environmental cooperation with Cuba while it develops its own energy resources. Our government cannot even address the threat of potential spills in advance from the frequent hurricane activity in the Gulf or from technological failures, either of which could put precious and environmentally sensitive U.S. coastal assets—our waters, our fisheries, our beaches—at great peril.

The risks begin the moment the first drill bit pierces the seabed, and increase from there. Yet, our policy leaves the Obama administration with limited options:

- It could do nothing.
- It could try to stop Cuba from developing its oil and natural gas, an alternative most likely to fail in an energy-hungry world, or
- It could agree to dialogue and cooperation with Cuba to ensure that drilling in the Gulf protects our mutual interests.

Since the 1990s, Cuba has demonstrated a serious commitment to protecting the environment, building an array of environmental policies, some based on U.S. and Spanish law. But it has no experience responding to major marine-based spills and, like our country, Cuba has to balance economic and environmental interests. In this contest, the environmental side will not always prevail.

Against this backdrop, cooperation and engagement between Cuba and the United States is the right approach, and there is already precedent for it.

During the BP crisis, the U.S. shared information with Cuba about the spill. The administration publicly declared its willingness to provide limited licenses for U.S. firms to respond to a catastrophe that threatened Cuba. It also provided visas for Cuban scientists and environmental officials to attend an important environmental conference in Florida. For its part, Cuba permitted a vessel from the National Oceanic and Atmospheric Administration to look

for damage in Cuban waters. But these modest measures, however welcome, are not sufficient, especially in light of Cuba's imminent plans to drill.

Under the guise of environmental protection, Reps. Ileana Ros-Lehtinen and Vern Buchanan, Members of the U.S. Congress from Florida, introduced bills to impose sanctions on foreign oil companies and U.S. firms that help Cuba drill for oil, and to punish those foreign firms by denying them the right to drill in U.S. waters. This legislation would penalize U.S. firms and anger our allies, but not stop Cuba from drilling, and will make the cooperation to protect our mutual coastal environment more difficult should problems occur.

Energy policy and environmental protection are classic examples of how the embargo is an abiding threat to U.S. interests. It should no longer be acceptable to base U.S. foreign policy on the illusion that sanctions will cause Cuba's government to collapse, or to try to stop Cuba from developing its oil resources. Nor should this policy or the political dynamic that sustains it prevent the U.S. from addressing both the challenges and benefits of Cuba finding meaningful amounts of oil in the Gulf of Mexico.

The path forward is clear. The Obama administration should use its executive authority to guarantee that firms with the best equipment and greatest expertise are licensed in advance to fight the effects of an oil spill. The Treasury Department, which enforces Cuba sanctions, should make clear to the private sector that efforts to protect drilling safety will not be met with adverse regulatory actions. The U.S. government should commit to vigorous information sharing with Cuba, and open direct negotiations with the Cuban government for environmental agreements modeled on cooperation that already exists with our Canadian and Mexican neighbors.

Most of all, the administration should replace a policy predicated on Cuba failing with a diplomatic approach that recognizes Cuba's sovereignty. Only then will our nation be able to respond effectively to what could become a new chapter in Cuba's history and ours.

There is little time and much to do before the drilling begins.

Sarah Stephens  
*Executive Director*  
February 2011





# Summary

## Findings

- Cuba's domestic production of energy does not meet its daily energy consumption, and the country depends on Venezuela for roughly two-thirds of its daily requirement to keep its economy afloat. This arrangement is unsustainable over the long term.
- Cuba has set aside 59 offshore blocks in the Gulf of Mexico where it may have significant, recoverable supplies of oil. Working with foreign oil companies, drilling is expected to commence later in 2011 using a state of the art rig that was manufactured in China to avoid a violation of the U.S. embargo.
- While the economic impact of a significant oil discovery *could* be felt in Cuba before it even reaches production, oil in commercially viable amounts *would* change Cuba's geopolitical equation south with Venezuela and north with the U.S.
- Cuba's government has a capable environmental program in place, but experts note it has never coped with a major marine spill, and some Cuban officials frankly admit to familiar economic trade-offs in their environmental practices.
- The environmental risks to the Gulf become immediate as soon as drilling begins.

- If a disaster commensurate to the BP spill were to take place in Cuba's waters, Cuba and the U.S. would be hamstrung by current U.S. policy. It impinges on Cuba's ability to provide maximal environmental protection and is counterproductive to U.S. interests.
- Obama administration officials have shown some flexibility in offering visas and supporting other activities that involve environmental cooperation with Cuba.
- Under U.S. policy, drilling in U.S. waters in the Gulf of Mexico is tightly regulated, but Florida's \$27 billion ocean economy is left vulnerable due to the absence of cooperation with Cuba.
- Legislation to prevent Cuba from drilling has been proposed in Congress, and it could make Florida and its coastal economy more vulnerable to a catastrophe if a spill were to occur.
- An entirely new policy is needed.

## **Recommendations**

### **Pursue Unilateral Actions**

- The Obama administration should aggressively and comprehensively use its existing licensing authority to ensure the right firms with the best equipment and expertise are in place to fight the effects of an oil spill.
- OFAC, the Treasury Department office that administers and enforces trade sanctions, should make it clear that efforts to protect safety during drilling by U.S. entities will not be met with negative regulatory consequences.
- The U.S. should ensure that comprehensive information-sharing with the Cuban government is standard operating procedure, conducted openly where possible, and without impediments in areas such as granting visas for Cuban scientists and officials to visit here.

## **Pursue Bilateral Activities and Agreements**

- The U.S. should enter direct discussions with Cuba on energy and environmental cooperation.
- The U.S. should look to existing models for bilateral (such as MEXUS) and trilateral cooperation (as proposed by the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling) for environmental planning with Cuba.

## **Seek and Enact New Statutory Authority**

- The 112th Congress should adopt bipartisan legislation introduced last year by Senators Lisa Murkowski (R-AK) and Mary Landrieu (D-LA), and Representative Jeff Flake (R-AZ)—to allow U.S. firms to participate in oil exploration and effective crisis planning with Cuba.

## **Accept the Reality of Cuba's Oil Program**

- U.S. policy should reflect that an economically stable Cuba best serves the U.S. national interest.
- The U.S. should be encouraging Cuba to be energy independent in light of the strategic and political risks associated with Cuba's continued dependence on foreign oil.
- The U.S. should welcome Cuba's potential impact on the regional energy market.
- U.S. policy toward Cuba should no longer be predicated on Cuba failing.



# About this Project

## Research Series: 21st Century Cuba

In response to its economic crisis, Cuba is taking significant steps to modernize its system for the 21st century. In addition to cutbacks in social benefits, including its iconic ration card, the government plans to lay off 500,000 state workers by April 2011, a number that will rise to a million or more within the next two years.

Cuba's government has also announced sweeping economic reforms to stimulate growth and create employment in the *non-state sector* to absorb these workers. These profound changes are expected to be ratified by Cuba's Communist Party Congress when it meets in April 2011. What the government is proposing, within the context of the Cuban system, is a remarkably different relationship between citizens and the state than the one that has existed since the 1959 Revolution.

Despite recent, meaningful economic liberalizations, U.S. policy remains predicated on forcing Cuba to change its system, politically and economically, to one of Washington's liking and on Washington's terms. Present U.S. policy and Cuba's new direction cannot be reconciled. Our reporting is intended to help policy makers understand Cuba's course, and equip them to make a stronger, more effective case for reforms in U.S. policy that will reflect immediate and future U.S. interests.

In 2010, CDA received the support of the Ford Foundation for a broad research project to assess four key efforts undertaken by Cuba's government to modernize its system and their implications for U.S. policy, and to disseminate our findings to policy makers, foreign policy experts and the public.

We are examining:

- Cuba's efforts to develop its offshore oil resources
- The role of Cuban medical brigades abroad, and free medical education for foreign students in Cuba, in strengthening the country's international position
- Efforts to broaden participation in government and society for Cuba's marginalized populations
- Cuba's efforts to modernize its economic system.

This report on energy is the first of this series.

# How CDA Approached the Work

**CDA** visited Cuba July 8–12, 2010 with a delegation of energy and climate experts. These included Michael A. Levi,<sup>1</sup> the David M. Rubenstein Senior Fellow for Energy and the Environment, the Council on Foreign Relations; Lisa Margonelli,<sup>2</sup> Director, Energy Policy Initiative, the New America Foundation; and, Ron Soligo,<sup>3</sup> economics professor at Rice University and a Rice Scholar at the James A. Baker III Institute of Public Policy.

In Cuba, we met with senior officials responsible for foreign investment, international relations, energy policy, and environmental policy. We conferred with foreign diplomats from nations whose oil companies are collaborating with Cuba on offshore drilling, and with the U.S. Interests Section for its perspective. Our trip to Cuba took place during the BP spill in the Gulf of Mexico, which underscored the vital importance of environmental issues.\*

CDA also conferred with a variety of experts, including Dr. Philip Brenner, Professor, School of International Service, American University; Steven Clemons, founder of the American Strategy Program, the New America Foundation; Jake Colvin, Vice President for Global Trade Issues at the National Foreign Trade Council; Dr. David E. Guggenheim, Senior Fellow,

---

\*Our trip began the day Cuba's Catholic Church announced the agreement that will lead to 52 dissidents being released from prison. We spoke with representatives of the church, Cuba's government, and others about this and other political and human rights related issues during this visit to the island, as is our organization's practice.

The Ocean Foundation; Dr. Lee Hunt, Chief Executive of the International Association of Drilling Contractors (IADC); Dr. Terry Karl, Gildred Professor of Political Science and Latin American Studies, Department of Political Science at Stanford University; Jorge Piñon, visiting research fellow at Florida International University; and, Daniel Whittle, Senior Attorney and Director, Cuba Program at the Environmental Defense Fund. We appreciate their help and insightful counsel.

The expertise provided both by our delegation and these experts helped us gather the facts presented in this report, but the views expressed in this document are CDA's alone.

These interviews—in Cuba and the U.S.—have been supplemented with extensive research, a review of existing literature, and reports in the press on developments in Cuba.



# Findings

- 1. While Cuba produces some energy—principally heavy oil and associated natural gas—its domestic production does not meet its requirements for daily energy consumption.**

As of June 30, 2010, the U.S. Energy Information Administration (EIA) reported that Cuba produces 48,230 bbl. of crude oil per day. EIA says Cuba imports 109,000 bbl. of crude oil per day and consumes 162,000 bbl.<sup>4</sup>

- 2. Cuba, once dependent on the Soviet Union for energy imports, now relies on Venezuela for oil to keep its economy afloat.**

Cuba imports roughly two-thirds of its daily oil requirements from its ally Venezuela.<sup>5</sup> Cuba's oil imports are financed under a "doctors for oil" program which provides a subsidy equivalent to a \$2–3 billion annual cash infusion. The program (recently described here ) provides oil and needed revenue for Cuba to absorb fluctuations in the cost of oil despite downturns in state revenues.<sup>6</sup> For its part, the presence of Cuban doctors in Venezuela has enabled President Chavez to meet the goal of Mission Barrio Adentro (Inside the Neighborhood) of increasing access to primary care for Venezuela's medically underserved population.

### **3. Cuba's arrangement with Venezuela is unsustainable over the long-term.**

Cuba's energy dependence on a single country is a significant political and economic risk, as it learned when it lost its access to Soviet oil. A change in Venezuela's government or policy could devastate Cuba's economy overnight.

Jorge Piñon of Florida International University expresses concerns about the durability of Cuba's oil arrangement with Venezuela and the impact on Cuba and the United States if the relationship were to summarily change. As he told the CDA delegation, "The political risk and strategic risk to Cuba and the United States is huge. What if Chavez loses an election, or loses power, or if Venezuela disconnects Cuba from oil for some other reason? That risk is not in the best interests of the United States or Cuba."<sup>7</sup>

Additionally, the arrangement is controversial in both countries. Some Venezuelans, who oppose the Chavez government's close relationship with Cuba, claim that this is a waste of their country's oil revenues. The "oil for doctors" program has also been controversial in Cuba.

Cuban citizens complain it has depleted the supply of physicians in their country. According to MEDICC (Medical Education Cooperation with Cuba), about 20,000 Cuban family doctors provide health services and health education in medically underserved communities in Venezuela.<sup>8</sup>

Cuba recognizes the risk of its dependence, and has engaged in diplomatic outreach to other allies (including Angola, Russia, Algeria, South Africa, and Brazil) that produce oil. But the better solution may lie offshore, if supplies are recoverable and in amounts that meet Cuba's own domestic requirements.

### **4. Cuba may have significant, recoverable supplies of oil offshore in its Economic Exclusive Zone (EEZ).<sup>9</sup>**

The U.S. Geological Survey estimates that Cuba has 4.6 billion barrels of oil and 8.6 trillion cubic feet of natural gas in undiscovered reserves.<sup>10</sup> Official estimates by Cuba roughly double those of U.S.G.S. The Financial Times of London quotes Manuel Marrero Faz saying the reserves equal upwards of 20 billion barrels.<sup>11</sup>

Lisa Margonelli of the New America Foundation, speaking at the National Foreign Trade Council, pointed to the effort underway by Cuba's partners

to build a rig in China for its planned offshore drilling in the Gulf. She said that if the oil companies are commissioning a “whole rig for ultra deepwater drilling that suggests a serious commitment and possibly a fair amount of oil.”<sup>12</sup>

At the same meeting, Ron Soligo concurred that the U.S.G.S. thinks there are “commercial quantities” there. But Soligo wondered, “Are these big fields or discrete pockets of oil?”<sup>13</sup> How questions like this are answered will determine the significance of Cuba’s resources and their potential.

##### **5. Foreign investment in key economic industries—including in energy and related sectors—is a high priority of Cuba’s government.**

Cuba opened up to foreign investment in oil exploration and production in 1995, when the country’s National Assembly passed the foreign investment law (Law No. 77<sup>14</sup>) that provided a legal structure for regulating foreign investment and rules of transparency to benefit investors.

Cuba allows for the participation of foreign investors through the Cuban Model of Production Sharing Contract (or PSC), a partnership between CUPET, Cuba’s national oil company, and a contractor company, equivalent to a joint venture.

Attracting foreign investment and establishing more efficient and reliable relationships with foreign firms is a core objective of President Raúl Castro. Strategies for how to open Cuba to greater foreign investments are being discussed in the lead up to the April 2011 Cuban Communist Party Congress. Cuba clearly sees the link between increased foreign investment and job creation for Cubans, and energy investment already figures prominently in Cuba’s economic planning going forward.

In July, the staff at the Ministry of Foreign Investment (MINCEX) told our delegation that Cuba’s foreign investment priorities include replacing imports; risk exploration contracts in the EEZ; investment in petrochemicals (for the production of aluminum containers, cardboard boxes and plastic wrap); energy conservation, and solar power.

A brief examination of its investment strategy suggests that Cuba believes it will play a growing regional role in energy that goes beyond exploration and recovering resources for its own use, and that it perceives foreign investment as critical to its success.

A foreign observer in Cuba listed a series of energy-related investment projects planned or underway in Cuba:

**Mariel Port:** Mariel is being built with investment and support from Brazil. It is conceived as a Super Port. Mariel will provide logistical support for the oil industry and the drilling to take place in the Gulf. It will also be a site for shipping containers, and ultimately may be a bonded warehouse for trade with the rest of the Caribbean and the United States once the embargo ends.<sup>15</sup>

**Santiago de Cuba:** Cuba is doubling the capacity of the refinery located in Santiago.

**Cienfuegos:** Cienfuegos is a project involving refining and production. Reuters reported that a unit of China's National Petroleum Corp. is set to begin a \$6 billion upgrade of the refinery complex.<sup>16</sup> They are also building holding tanks for oil. But the delegation was told it will also be a petrochemical complex with as many as 19 factories.

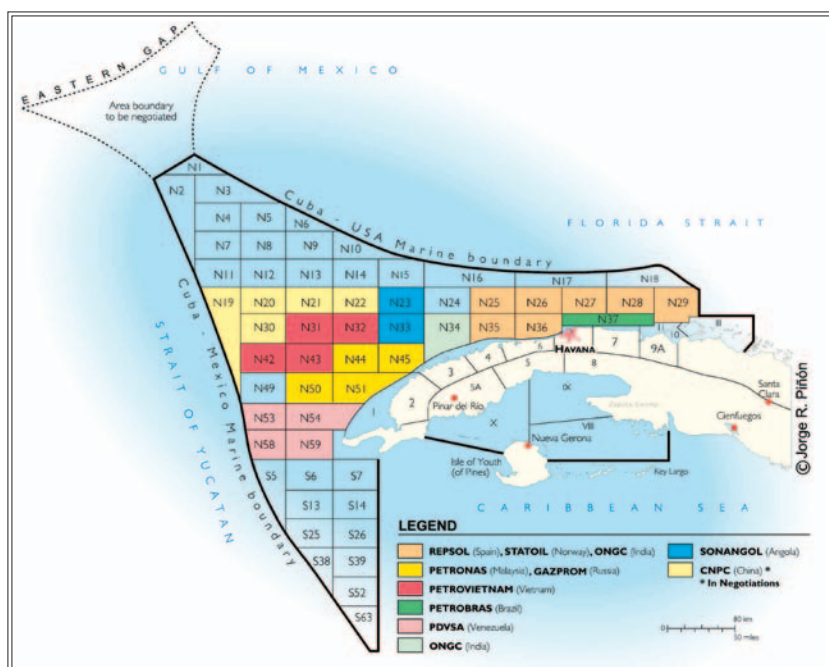
**Matanzas oil refinery:** Matanzas, an energy center in Cuba, which is already used as a port for receiving tankers of oil from Venezuela, is receiving additional investment to expand Cuba's oil refining capacity.

Jorge Piñon estimates that Cuba will spend \$8.8 billion in expanding its refining capacity in the next ten years.

## **6. Cuba would welcome U.S. investment.**

At MINCEX, the staff discussed the impact of the embargo on Cuba's access to capital. Ministry staff said the embargo is harmful to Cuba's ability to attract foreign investments, capital, and technology. Cuban officials repeatedly emphasized that the country is open to any foreign investor, and that Havana would welcome U.S. investment, subject to the same conditions it places on all foreign investors.

According to a senior official in Cuba's diplomatic corps, when Cuba decided to drill off-shore in the Gulf of Mexico in the mid-1990s, the first letters sent by Cuba's government to invite foreign concerns to participate went *exclusively* to U.S. energy companies. They declined interest, due to the embargo, and Cuba looked for partners elsewhere.



The chart above depicts offshore blocks reserved for drilling while showing properties jointly held by foreign investors.

## 7. Cuba's government has established 59 offshore blocks for exploration.

Cuba has designated a total of 59 blocks offshore, each covering 2000 square kilometers. The average depth of the blocks is 1,400 meters (or 4,500 feet). More than 20 blocks are contracted out to foreign investors.

Cuba's Ministry of Basic Industry (MINBAS) administers Cuba's energy program and offshore exploration. Cuba has been drilling offshore for several years, but from *on-shore* rigs using horizontal drilling techniques. These have mostly been performed by Great Wall Drilling, a Chinese contractor.<sup>17</sup>

## 8. Cuba is working with foreign oil companies to explore blocks offshore.

With drilling to take place in 2011, attention is now shifting to the international partners who will work with Cuba on exploration offshore. Due to the embargo, the U.S. is noticeably absent from the roll call of partners<sup>18</sup>—from

Spain, Malaysia, Norway, India, Russia, Vietnam, Brazil, and Venezuela<sup>19</sup>—who are poised to help Cuba exploit these resources.

Repsol, an oil company from Spain, will drill first. Repsol holds the rights to drill in six blocks in the Gulf of Mexico in a production-sharing agreement with CUPET, Cuba's national oil company.<sup>20</sup> In its share, Repsol has a 40% majority interest; Statoil, Norway's national oil company, holds 30%; and India's state Oil and Natural Gas Corporation (ONGC) holds the remaining 30%.<sup>21</sup>

Diplomats in Havana told Reuters that Malaysia's PETRONAS, which has partnered with Russia's Gazprom, will get the rig next, after Repsol completes drilling.<sup>22</sup> PETRONAS, which has four exploration blocks, has conducted seismic work and built offices for a battery of employees who will come to Cuba for the project, their sources said.<sup>23</sup>

According to one foreign analyst, Cuba's foreign partners have spent hundreds of millions of dollars preparing to drill off the coast. Lisa Margonelli adds, "There is the cost of the rig alone, and then there is the risk involved in building a rig for Cuban use which then must comply with the embargo—meaning it's not easily repurposed for use around the globe. In the oil industry, what's significant is not simply the investment in dollars, but the implied risk of making investments that cannot easily be recovered."<sup>24</sup>

## **9. Offshore drilling will commence with a state of the art rig manufactured in China.**

Our delegation was advised by MINBAS that Cuba and its partners plan to drill seven exploratory wells in 2011–2012 in the blocks where seismic work has already been carried out.<sup>25</sup>

"Repsol signed a contract for a semisubmersible Italian rig built in China that won't violate the embargo," according to the *St. Petersburg Times*.<sup>26</sup> "The rig can operate in depths of 11,811 feet—*twice as deep as the doomed Deepwater Horizon rig*... The first block Repsol is expected to explore lies under 5,600 feet of water—600 feet deeper than where BP's Deepwater Horizon well exploded in April—and about 55 miles south of Florida's Marquesas Keys."

The rig is state of the art, a sixth generation Norwegian design. It is expected to arrive in Cuba's waters late in the second quarter or the beginning of the third quarter of 2011.<sup>27</sup>

## **10. The timeline from exploration to production unfolds from 2011 to 2017 or 2018.**

A deep-water well takes between 6–18 months to drill.<sup>28</sup> Once an oil field is discovered, evaluation wells have to be drilled, and then a production scheme is drafted. Each field will require its own tailor-made technology. It will take three to four years after that to get into production. The schedule will depend on the depth of the water, and the remoteness of the well.<sup>29</sup>

Taking these variables into consideration, a plausible timeline for Cuba's offshore energy development would be as follows:

Exploration: 2011–2012

Evaluation: 2012–2013

Production: 2014–2017, 2018

As Ron Soligo told the National Foreign Trade Council, “The timeline for developing the resources depends on what they have.”<sup>30</sup>

## **11. The economic impact of a significant oil discovery could be felt in Cuba before it reaches production.**

Cuba has lacked adequate access to foreign exchange to pay for imports and to meet its obligations. The economic reforms undertaken by President Raúl Castro are aimed at addressing that problem in the short-term, and progress is being made.<sup>31</sup>

A foreign diplomat told the delegation, “If—and when—it is heard that oil is found in commercial quantities, that will make a big difference economically for Cuba even before the oil is ever brought on line.”<sup>32</sup>

## **12. Oil in commercially viable amounts would change Cuba's geopolitical equation.**

As Jorge Piñon testified before Congress, “If Cuba's undiscovered reserves are proven, it would take between three and five years for their development, and production volumes would have to reach a level of over 200,000 barrels per day to have the same economic benefit as that derived today from Venezuela's oil subsidies.”<sup>33</sup>

Were this threshold met, Cuba would no longer be dependent on Venezuela

to provide it with subsidized shipments of oil. It would be energy independent.

Lisa Margonelli takes note of the fears about Venezuela and China operating in the region and establishing spheres of influence near the U.S. In light of these fears, she says “We won’t be acting on our own interests if we tighten the screws and pursue a policy that drives out everyone except Venezuela and China.”<sup>34</sup>

### **13. The environmental risks posed by drilling in the Gulf of Mexico are immediate.**

An environmental problem could arise as soon as the first drill bit penetrates the sea bed and the risks increase from there.

As Lee Hunt of the International Association of Drilling Contractors (IADC) told us, “If they encounter an undetected pocket of natural gas, you can end up with a rig on fire, and a limited oil spill. Once the drilling takes place at 5,000, 6,000, or 7,000 feet, and you’re finding a substantial quantity of hydrocarbons, if you cannot control the pressure, then an oil spill of greater proportions becomes a possibility. It can be managed [if the proper tools and equipment are available].”<sup>35</sup>

Some of the drilling of exploratory wells over 2011–2012 will take place in waters deeper than BP’s Macondo well and within 50 miles of Florida’s beaches.<sup>36</sup> This raises alarms among some in the scientific community.

As the *New York Times* reported, “Ocean scientists warn that a well blowout similar to the BP disaster could send oil spewing onto Cuban beaches and then the Florida Keys in as little as three days. If the oil reached the Gulf Stream, a powerful ocean current that passes through the region, oil could flow up the coast to Miami and beyond.”<sup>37</sup>

### **14. Cuba’s government has an environmental program in place.**

Cuba has demonstrated a serious commitment to the environment since the 1990s. In 1995, Cuba’s National Assembly created the Ministry of Science, Technology and the Environment (CITMA). In 1997, the National Assembly adopted Law 81, a statutory framework for protecting the environment.<sup>38</sup>

Cuba amended its constitution to declare environmental protection a core duty of the government and its citizens. Cuba has nearly phased out



bottom trawling on its entire continental shelf. It has also vowed to protect 25 percent of their coastal waters as marine parks or reserves, and is on track to accomplish that objective.<sup>39</sup>

According to one environmental leader, Cuba has built up an impressive array of environmental policies, some based on U.S. and Spanish law.

Dr. David Guggenheim, Senior Fellow at the Ocean Foundation said this about Cuba's environmental commitment: "It is true that the economic machine on Cuba didn't spin up to the level of its neighbors, but you have to give credit where credit is due. They have very strong laws, and one thing that I have noticed over the

years, is that Cuba has an unwavering respect of science and scientists. There is tremendous respect for the country's scientists, they put these people on pedestals, and listen. Science has a place in shaping policy."<sup>40</sup>

According to the CITMA staff, Cuba has plans for addressing spills, including training plans that are periodically tested and revised.

The government has assessed the risk to Cuba from hydrocarbon spills. In the Cuban civil defense culture, there is already a system of surveillance, putting up barriers, and using bio-controllers to degrade the oil. Civil defense works in Cuba in the event of hurricanes and natural disasters. In fact, the U.S. sends people from Galveston, New Orleans, and elsewhere on the Gulf Coast to learn from them.<sup>41</sup>

However, Cuba has no significant experience with major marine-based spills.

Cuba is working with its drilling partners to observe international safety and environmental standards. According to the CITMA staff, Cuba has adopted the "Safety Case" approach for its offshore drilling program.<sup>42</sup>

Lee Hunt noted that Saipem, the owner of the rig that will drill for Repsol,

*It is true that the economic machine on Cuba didn't spin up to the level of its neighbors, but you have to give credit where credit is due. They have very strong laws, and one thing that I have noticed over the years, is that Cuba has an unwavering respect of science and scientists.*

had been instructed by CUPET (Cuba's national oil company) to utilize IADC safety case guidelines. Saipem and Repsol are both members of IADC.<sup>43</sup>

The MINBAS staff also spoke to CDA about Cuba's environmental concerns from their perspective as participants in offshore drilling with international partners. "We are all aware of the potential impacts of an accident," one official said. "There is risk and the human factor. Supervision and surveillance are extremely important. On the rig, the partner is making the decisions. But CUPET is there and involved in decisions."<sup>44</sup>

According to Hunt, Cuba has previously sought out resources for deep water, offshore drilling requirements from credible international sources. Cuba contacted IADC, expressed interest in the Safety Case guidelines, and attended an International Regulators Forum.

Daniel Whittle, Cuba Program Director for the Environmental Defense Fund, believes that Cuba is determined to avoid a BP-style disaster: "They simply have too much at stake, politically, economically, and ecologically to do otherwise."<sup>45</sup>

### **15. Cuba's environmental plan relies on the competence of its foreign partners.**

Cuba's environmental scheme is developed; they have laws and procedures in place. But the offshore approach depends on their partners doing the right thing and on participants obeying international standards.

Jorge Piñon lists the qualifications of Cuba's partners as follows: "India's ONGC discovered the deep water Bombay High field and is well experienced in deep water operations, the same with Malaysia's PETRONAS. Repsol finished at the end of last year (2009) the Buckskin project, a 28,000-plus feet deep well in the U.S. Gulf of Mexico about 200 miles south of Houston. Petrobras and Statoil are probably the most experienced. PetroVietnam is a partner with Conoco in the China Sea and they operate the deep water White Tiger field. The only one with no deep water experience is PDVSA. But remember most if not all of the drilling operations are to be conducted by the owner/operators of the leased semi-submersibles...not by the holders of the concessions."<sup>46</sup>

That said, Lee Hunt reminded us: "Companies preparing to work in Cuba

have adequate resources but not comparable to the combined U.S. government and industry resources that were available in the Gulf to manage the Macondo spill.”<sup>47</sup>

A foreign diplomat provided our delegation with one concerning evaluation. He said some of Cuba’s partners “see Cuba as something of a laboratory” for gaining experience in deep water.

#### **16. Cuba’s officials frankly admit to familiar trade-offs in their environmental practices.**

When our delegation met with staff at the Ministry of Foreign Investment (MINCEX), we asked about the impact of the BP spill on Cuba’s goal of promoting direct foreign investment in the energy area and whether it diminished the zeal of investors—or Cuba—for deep water drilling.

The staff replied: “No, not at all. We continue to work with foreign investors to sign agreements for the prospecting of oil on the high seas. The rigs working now continue. But we are much stricter in those areas to avoid what happened with BP. We have not changed regulations. Our regulations include some controls. We have moved to strengthen the controls without making everyone’s life impossible. *There is a balance: Develop tourism, increase tourist arrivals; Increase oil. Protect the fisheries.*”<sup>48</sup>

The staff at MINBAS made a similar point. One challenge they related was the need to protect the beaches of Varadero, a major tourist attraction, which is also an important place for the oil and gas industry.

While Cuba has a government structure and tough laws in place, it faces its own limits in experience and resources as well as complications in balancing economic and environmental priorities.

In addition, because of obstacles raised by the embargo, there are limits to what Cuba can do internationally to raise its environmental standards.

#### **17. The U.S. embargo impinges on Cuba’s ability to provide maximal environmental protection and is counter-productive to U.S. interests.**

The embargo prevents Cuba from having adequate access to the range of tools needed to drill safely or respond to emergencies should one develop. The embargo restricts Cuba’s access to knowledge and associations that

would help it plan for or react to a spill. The embargo prevents meaningful participation by U.S. private sector firms in planning for reaction, containment, or remediation efforts.

While licenses allowing otherwise prohibited U.S. participation in such activities can be granted by OFAC to address exigent circumstances on a discretionary basis under the U.S. sanctions regulations, the embargo has

*The embargo prevents Cuba from having adequate access to the range of tools needed to drill safely or respond to emergencies should one develop.*

forced Cuba to seek access to drilling equipment and support by convoluted means.<sup>49</sup>

U.S. policy also subjects the adjacent waters of the Gulf of Mexico and the Florida Straits to entirely different regulatory schemes,

leaving Florida with significantly less than adequate protection. Finally, the policy limits the ability of the U.S. to plan for disasters like the BP spill or to cooperate with Cuba in anticipation of them.

#### **18. Cuba and the U.S. would be hamstrung by the embargo if a disaster similar to the BP spill took place in Cuba's waters.**

The BP disaster highlights the needs for a timely response to spills, the containment of damage, and clean-up. There were approximately eight rigs capable of drilling relief wells to the depth of Macondo that were available in the Gulf. If the blow-out occurred in Cuban territorial water, the embargo would not allow rigs capable of drilling relief wells to be contracted by the operator (Repsol or CUPET, in the first instance).

Companies under the current rules cannot hire a U.S. firm to drill a relief well. In fact, legislation<sup>50</sup> introduced in the U.S. Congress in 2010 would have penalized such activities under The Helms-Burton Act.<sup>51</sup>

Of greater risk and concern, however, is that spills are often more likely because of hurricane activity prevalent in the Gulf, and are exacerbated by the role hurricanes play in spreading oil after a spill.<sup>52</sup>

In the event of a spill, were assistance from U.S. firms permitted, relief would take 24–48 hours to arrive on scene. Barring their participation,

however, it would take 30–50 days for help to arrive from Brazil, Northern Europe, Africa, or S.E. Asia. In the case of the BP spill, as Lee Hunt said, “Admiral Landry<sup>53</sup> (8th Coast Guard District Commander) had personnel 24 hours x 7 days a week on phones to get booms; can Repsol or any subsequent operator do that?”<sup>54</sup>

OFAC, the Treasury Department office that administers and enforces trade sanctions, has authority to issue licenses on an emergency basis, but the BP spill shows that the early, critical response needed would be made slower by the time required to procure licenses.<sup>55</sup> The Obama administration argues that some firms are pre-cleared to respond. But experts say the current scheme makes it impossible to pre-clear the correct technology, and that much more needs to be done—and can be done—under current law.

Despite Cuba’s best efforts, experts are also alarmed by its lack of equipment to respond to a spill. As the International Herald Tribune and the *New York Times* reported last year, “The nascent oil industry in Cuba is far less prepared to handle a major spill than even the American industry was at the time of the BP spill. Cuba has neither the submarine robots needed to fix deep water rig equipment nor the platforms available to begin drilling relief wells on short notice.”<sup>56</sup>

### **19. Cuba’s effort to obtain a rig that complied with the embargo is an example of the perverse effects of U.S. policy.**

“Repsol, a Spanish oil company, is paying an Italian firm to build an oil rig in China that will be used to explore for oil off the shores of Cuba.”<sup>57</sup>

Because of restrictions against U.S. content in technology used in Cuba, Repsol was forced to go through a circuitous route to secure an offshore drilling rig.<sup>58</sup> Under the embargo, rigs cannot contain more than 10% U.S.

*Repsol, a Spanish oil company, is paying an Italian firm to build an oil rig in China that will be used to explore for oil off the shores of Cuba.*

parts. Repsol contracted with Saipem, a subsidiary of Italy’s Eni, SpA, for a rig that has been built in China at the Yantai Raffles YRSL.NFF shipyard.<sup>59</sup>

Photo by Piero Paolini courtesy of Navire Armatori



Scarabeo 9 will be used by Repsol and other partners to drill in the Gulf of Mexico.

The rig, Scarabeo 9, is called by industry sources “the latest technology for deepwater drilling operations.”<sup>60</sup>

According to Hunt, several deepwater drill ships operating in non-Cuban waters in the Gulf Coast were built by the same firm in China and are similar to the Saipem rig except that they include substantial and critical U.S. components.

Although Jorge Piñon told the *Miami Herald* that Scarabeo 9 conforms to the U.S. embargo’s content requirements, but contains a blow-out preventer manufactured in the United States, Lee Hunt is not certain that the blow-out preventer in the rig destined for Cuba is of U.S. origin, crediting speculation that it was manufactured in Norway.<sup>61</sup>

Either way, Hunt argues, this poses problems:

- If it is a U.S. manufactured BOP (blow-out preventer): Saipem can’t hire the U.S. manufacturer to commission the stack, test and certify its integrity

because of the embargo. Saipem can't buy an OEM replacement (can't replace a damaged part with a U.S. part); it would need a copycat part, requiring the replacement to be flown in from Europe or Asia instead of the U.S.

- If it is Norwegian, the need for a replacement part would also necessitate a back-up to be flown in from overseas.

## **20. U.S. policy makers have taken certain low-profile steps that make sense.**

The U.S. shared information about the BP spill with Cuban officials and took other steps to discuss the ramifications of the crisis in activities that took place largely “below the radar.”

The U.S. Interests Section in Havana informed the CDA delegation that a ship operated by the National Oceanic and Atmospheric Administration (NOAA) had traversed Cuba's waters, with Cuban government permission.<sup>62</sup>

Rear Admiral William D. Baumgartner, the U.S. Coast Guard Commander for the Southeast, told the *Miami Herald*, on September 30th, 2010, that U.S. officials shared information with Cuba's government during the Deepwater Horizon spill last summer “so that they knew what was going on,” although Cuban government officials reminded our delegation that this information sharing was required of the United States by international law.<sup>63</sup>

The U.S. State Department and the U.S. Interests Section in Cuba are credited with efforts to provide visas that enable non-governmental organizations and others to promote exchanges including those that further environmental cooperation.

In September 2010, 17 Cuban delegates with U.S. visas were able to attend the fourth gathering of the Tri-National Initiative on Marine Sciences and Conservation in the Gulf of Mexico and Northern Caribbean (Cuba-Mexico-USA) in Sarasota, Florida.<sup>64</sup> This initiative addresses issues involving marine research and environmental conservation in the Gulf of Mexico, including protection of coral reef, fisheries management, and shark conservation.

Cuban and Mexican environmental officials are key members of this initiative. Last year, the U.S. government sent a single official from NOAA to participate.

## **21. Existing policy is inadequate and responses would come too late.**

Administration officials have said that they would provide piecemeal responses to a spill under existing licensing authority. As the *Houston Chronicle* reported, for example, “In July, the Obama administration signaled its intent to grant licenses to specific companies providing services related to ‘oil spill prevention and containment support.’”<sup>65</sup>

In a written response to a question submitted by a reporter to the State Department, Philip J. Crowley, Assistant Secretary for Public Affairs, said, “U.S. oil spill mitigation service companies can be licensed through the Treasury Department’s Office of Foreign Assets Control (OFAC) to provide oil spill prevention and containment support to companies operating in Cuba. We will continue to pursue these and other initiatives within our authority in order to minimize risk to U.S. waters and shores.”<sup>66</sup>

Later, the *New York Times* quoted Charles Luoma-Overstreet, a State Department spokesman, saying licenses allowing U.S. firms to respond to an oil spill would be granted on an “application-by-application basis,” but said that he would not comment on the criteria.<sup>67</sup>

But, as an industry insider told CDA, “Do not let this statement fool you... we need legislation and or an executive order allowing all petroleum services and equipment companies to do business in Cuba. How are we are going to know at the time of an accident in Cuban waters what piece of equipment is going to be needed from what company? In case of an accident, we do not have the luxury to apply for a license for a specific product and or service from a specific company.”

## **22. U.S. policy stops short of meaningful cooperation with Cuba.**

As Rear Admiral Baumgartner said in an interview with the *Miami Herald* editorial board “There is not a bilateral U.S.-Cuba agreement on oil spills right now.”<sup>68</sup>

This is in contrast with an arrangement that the U.S. has had in place with Mexico since 1980 in the event of a crisis.<sup>69</sup> The so-called MEXUS plan provides for on-scene coordinators, a joint response team, response coordination centers, rapid notification protocols, customs and immigration procedures, and communications. Exercises to test the plan were conducted at least as recently as in the mid-1990s.



“We have longstanding agreements with Mexico about how we would manage incidents and the MEXUS plan is routinely monitored,” Baumgartner said. But, he “acknowledged the United States—which has enforced a trade embargo against Cuba for five decades—has no emergency response agreement with Cuba for oil spills.”

As Daniel Whittle told us,  
“Current U.S. policy creates  
an atmosphere of paralysis  
which prevents any serious

*Current U.S. policy creates an  
atmosphere of paralysis...*

level of engagement between companies, and groups that could do the research and work on the ground to understand what is at stake, understand where drilling should occur, and how to prepare for the worst. It makes all of that extremely difficult to do.”<sup>70</sup>

### **23. U.S.-Cuba policy creates a blind spot in our national interests.**

The reluctance of U.S. policy makers to acknowledge the legitimacy of Cuba’s government leads to short-sighted behavior that is counterproductive to U.S. interests.

During the BP spill, the U.S. State Department held two conferences that affected the U.S. position in the Caribbean from which Cuba was explicitly excluded.

On May 27, 2010, the Inaugural Caribbean-U.S. Security Cooperation Dialogue took place and was attended by all Members of CARICOM, the Dominican Republic, and partner nation observers.

Although the U.S. engages Cuba on Coast Guard issues, migration, and law enforcement matters on a piecemeal basis, Cuba was not invited to attend or observe this conference, despite its pivotal place in the Caribbean.

Similarly, on June 1, 2010, the U.S. State Department’s Bureau of Consular Affairs held a hurricane preparedness workshop in Washington. As the Department said at the time, the conference was held because protecting the safety and security of U.S. citizens overseas is paramount. The agenda included discussion of the 2010 hurricane forecast, current response plans, and how to effectively alert U.S. citizens abroad of hurricane threats. Despite Cuba’s global reputation for its civil defense and hurricane response—and U.S.-Cuba coopera-

tion allowing for U.S. hurricane hunters to fly in Cuba's airspace—once again, Cuba was not allowed to join other foreign embassy officials in the discussion.

To address oil and environmental issues going forward, U.S. policy must mature in its dealings with Cuba by engaging with Cuba's government directly, on a more consistent basis, and at the highest appropriate levels. To its credit, The National Commission<sup>71</sup> on the BP Deepwater Horizon Oil Spill and Offshore Drilling has recommended direct talks between the U.S. and Cuba on oil leading to a comprehensive agreement on drilling and safety standards.<sup>72</sup>

Experts believe that existing international agreements of which the U.S. and Cuba are both signatories—including the 1983 Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region, and the 1990 Convention on Oil Pollution Preparedness, Response and Cooperation—provide rubrics under which both countries could negotiate environment agreements.<sup>73</sup>

For the long-term, direct negotiations with Cuba must become the rule, desirable for all subjects, including the environment.

#### **24. Were a spill to occur, Florida's coastal economy could suffer a catastrophe.**

According to the Florida Fish and Wildlife Conservation Commission, recreational saltwater fishing provides \$5 billion and over 50,000 jobs in economic benefits to the state annually.<sup>74</sup>

The Natural Resources Defense Council (NRDC) says that fish hatcheries, fishing, seafood markets, shipbuilding and repair, transportation, tourism, and recreation account for \$27 billion in annual economic value to the state.<sup>75</sup>

*According to the models, 90 percent of the oil would go to the Florida Keys and up the East Coast of Florida. It's Florida's problem.*

If a spill took place in the Gulf of Mexico off Cuba's coast and the embargo prevented a meaningful U.S. response to the disaster (or planning ahead of time), Dr. Guggenheim told us,

"According to the models, 90 percent of the oil would go to the Florida Keys and up the East Coast of Florida. It's Florida's problem."<sup>76</sup>

**25. Under the status quo, the U.S. has vastly different regulatory programs for the adjoining waters of the Gulf of Mexico and the Florida Straits.**

The BP oil spill demonstrated to U.S. policy makers the need for tougher safety and environmental standards for drilling in the Gulf of Mexico. The administration has already taken steps in this direction, and the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling is urging that additional measures be taken, affecting both the domestic industry and activities undertaken in the waters shared by the U.S., Mexico, and Cuba.

Until a comprehensive plan is put in place with cooperation by Cuba's government, the Gulf coast will be under two vastly different regulatory schemes—a strict one for U.S. waters and another one supported by no agreement between Cuba and the U.S.

As Lee Hunt said, it is “inconsistent to strictly regulate offshore drilling in the U.S. Gulf of Mexico and have inadequate plans for protecting the Florida coastline from drilling in Cuban waters.”<sup>77</sup>

**26. Legislation proposed in Congress would make Florida more vulnerable.**

*Only nine weeks after the BP spill took place*, Rep. Ileana Ros-Lehtinen, who now serves as Chairwoman of the House Committee on Foreign Affairs, introduced legislation to apply sanctions contained in the Helms-Burton Act to foreign entities, foreign aliens, and U.S. persons who facilitate Cuba's ability to develop petroleum resources off its submerged lands.<sup>78</sup>

In the 112th Congress, legislation introduced by Rep. Vern Buchanan (FL-13) would impose penalties on Repsol for helping Cuba to drill offshore by denying it access to leases and permits for drilling in waters controlled by the United States.<sup>79</sup>

In both cases, the legislation is designed to hamstring Cuba's efforts to recover the oil off its coast, and prevent Cuba from benefitting economically from resources it brings on-shore to refine and sell.

Would such legislation, if enacted, work? Daniel Whittle is skeptical, “Punitive measures designed to discourage foreign oil companies from doing business with Cuba will only work so long, if at all. Cuba will eventually drill, if not with

Spanish companies with Russians or with Chinese or others. The time to engage is now to make sure that drilling, if done, is done in the safest manner possible.”<sup>80</sup>

Although both legislators explained their proposals as efforts to protect Florida’s coast, their motivation is more likely political and economic. As one foreign diplomat told the delegation in Havana, “oil puts the embargo further down the path of irrelevance.”<sup>81</sup>

Nevertheless, in the absence of a more vigorous government policy to protect the coast, and with the private sector as the first line of defense against spills, adoption of the legislation could leave the U.S. and Florida in a worse position environmentally than it is today. Such a law would also anger U.S. allies. Finally, eliminating companies like Repsol from competing to bid on U.S. offshore oil resources deprives U.S. taxpayers of revenues that would accrue in a more free market. In other words, limiting competition for U.S. oil resources for political reasons does a disservice to U.S. taxpayers.

## **27. The need for action is imminent.**

In 2011, drilling will take place in Cuba at sites that lie approximately 50 miles from the Florida coast. Action is needed to address the numerous policy questions that we have identified right away.

As Steven Clemons of the New America Foundation told us:

“It’s time for U.S. foreign policy in Latin America to enter the 21st Century. We have to dispense with the illusion that economic strangulation is going to happen and cause Cuba to surrender its socialist system,

*We have to ... stop believing that  
U.S. sanctions are going to  
stop Cuba from developing its  
energy resources. They won’t.*

and stop believing that U.S. sanctions are going to stop Cuba from developing its energy resources, with or without U.S. help. They won’t. It’s time to view Cuba’s oil assets as a

positive development, because oil will mean a more stable Cuba and enable the U.S. to participate and better protect Florida and the rest of the Gulf Coast from the consequences of a spill.”<sup>82</sup>

The administration and Congress should move, promptly, to change U.S. policy so that we can realize the advantages of Cuba's energy exploration program and protect the United States against possible environmental damage should a spill occur.



# Recommendations

**B**ased on these findings, the Center for Democracy in the Americas urges U.S. policy makers to adopt 10 steps to vastly improve U.S. policy, to open opportunities for the U.S. private sector, and to protect the Gulf Coast, as Cuba begins a new chapter in oil exploration.

## Pursue Unilateral Actions

- 1. The Obama administration should use its existing authority now to award licenses to firms and individuals with the equipment and expertise to fight the effects of an oil spill.**

As Robert Muse and Jorge Piñon said last year, the administration has regulatory authority to provide licenses and promulgate new regulations for “any conceivable response” to an environmental problem in Cuba.<sup>83</sup>

While the Cuban Assets Control Regulations administered by OFAC include a variety of prohibitions that generally bar U.S. private sector participation, involvement or cooperation in connection with the exploration or development of energy sector resources associated with Cuba, or related environmental concerns, OFAC retains discretionary authority to license such activities by U.S. persons where it is determined by the executive branch to be consistent with U.S. national interests. Such licensing determinations are generally within the scope of the authority of the President of the United States with respect to matters of U.S. foreign policy and national security.

By moving far beyond the meager licensing activity that has already taken place, the Obama administration could ensure that the international oil companies working with Cuba have full access to U.S. technology and personnel in order to prevent and/or manage a blowout.

Speed is of the essence in dealing with oil spills. The rate of oil spreading, the degradation of the compounds which may be burned, the creation of emulsions, and the arrival of storms are all time-sensitive variables that can magnify the damage from a spill.

Rather than subjecting an environmental response to lengthy delays, this new approach to licensing would enable helicopters and equipment to reach the site of an environmental problem within twenty-four hours of notification. A much more aggressive plan is needed in advance, replacing the existing approach of providing licenses on an application-by-application basis, so action can take place unencumbered by any regulatory delays at the onset of a crisis.

## **2. OFAC should make clear that efforts to increase drilling will not be met with negative regulatory consequences.**

While the Cubans are prepared at the managerial level and understand the challenges, training is very much needed at the operational level. IADC can assist Cuba with its efforts to meet Safety Case Guidelines for evaluating

health, safety, and environmental risks. IADC focuses on rig safety and blow-out prevention. It has worked on hurricane procedures, mooring guidelines, and other concerns with relevance to drilling in the Gulf of Mexico.

As one industry insider told CDA, “The guys who

wear the hard hats and coveralls, and the people who manage them, need operational deepwater well control training because they don’t yet have the experience drilling offshore at these depths.”

*The guys who wear the hard hats and coveralls, and the people who manage them, need operational deepwater well control training because they don’t yet have the experience drilling offshore at these depths.*



- 3. The U.S. government should ensure that comprehensive information sharing with the Cuban government is standard operating procedure, conducted openly where possible, and without impediments in areas such as granting visas.**

While the U.S. did share information with Cuba during the BP crisis and visas were awarded to 17 Cuban scientists to attend a marine conference in Florida, the weight of the U.S. regulatory apparatus and the habits of U.S. diplomacy lean against cooperation with Cuba on a day-to-day basis. In the future, information-sharing with Cuba should take place openly, and obstacles to obtaining visas should be removed, so that cooperation and collaboration with Cuba is encouraged as a matter of course.

## **Pursue Bilateral Activities and Agreements**

- 4. The U.S. should enter direct discussions with Cuba on energy and environmental cooperation.**

Officials speaking to the CDA delegation at CITMA, the ministry with environmental oversight, said that Cuba would welcome cooperation with the United States on energy and climate issues. They referred to earlier environmental projects regarding sharks, turtles, dolphins, and migratory birds. Referring to the BP spill, they said: “what is going on (now) creates new areas where we could do more work.”<sup>84</sup>

Lisa Margonelli recommends that the U.S. and Cuba should talk about standards for drilling and safety, protecting fisheries, and responses to possible damage during storms, all issues on which the U.S. and Cuba have shared interests.<sup>85</sup>

According to one official at Cuba’s Ministry of Foreign Relations, Cuba did propose an environmental cooperation initiative during a 2010 round of the U.S.-Cuba migration talks. This official told our delegation that there was no meaningful U.S. response.

In fairness, Cuba’s government is not always easy to deal with, either for bureaucratic, political, or ideological reasons. But under the circumstances, we should test how far they are willing to go.

Cuba has shown a willingness to cooperate when possible—granting

airspace for U.S. planes providing earthquake relief to Haiti, cooperating on drugs, and periodic, joint military exercises at Guantanamo—and such cooperation will be essential in fighting a possible oil spill.

As we learned in Haiti after the earthquake, and in the Gulf after the BP disaster, crises of these kinds will require heavy military and Coast Guard responses. Currently, most officials on each side do not know who their counterparts are.

The U.S. and Cuban governments should agree to meaningful cooperation between their militaries—The Ministry of the Revolutionary Armed Forces (MINFAR) on the Cuban side and the Southern Command (SOUTHCOM) on ours—and the two countries' Coast Guards. Increased military and Coast Guard cooperation, including exercises not directly related to oil spill response and clean up, will help build confidence and familiarity between many of the players if a spill does occur.

The environmental benefits to such cooperation are clear. As Dr. Guggenheim told us, “We are trying to protect species like sea turtles and sharks, and marine mammals like whales and dolphins, and fish species like blue fin tuna that travel hundreds and thousands of miles across international borders. Their existence depends on the policies and practices of many countries. So we are kidding ourselves if we think we can protect those species without engaging the entire neighborhood, including Cuba. That means not only working together on policy issues but working together on science and gathering the basic information we need to support policy.”<sup>86</sup>

## **5. Models and recommendations already exist for bilateral and trilateral agreements.**

An agreement similar to the MEXUS plan should be negotiated with Cuba.

The International Association of Drilling Contractors has put forward a plan titled “One Gulf,” that starts with eliminating regulatory barriers to a proper response contained in the embargo against Cuba, and would then establish common well control standards and safety training, and provide for the sharing of spill containment and cleanup technology.<sup>87</sup> The IADC proposal would formalize U.S., Mexico, and Cuba cooperation to address environmental issues.

The National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling made a similar recommendation: “It is in our country’s national interest to negotiate now with these near neighbors (Cuba and Mexico) to agree on a common, rigorous set of standards, a system for regulatory oversight, and the same operator adherence to the effective safety culture called for in this report, along with protocols to cooperate on containment and response strategies and preparedness in the event of a spill.”<sup>88</sup>

### **Seek and Enact New Statutory Authority**

#### **6. Bipartisan legislation introduced last year to permit U.S. firms to participate in oil exploration with Cuba should be adopted in the 112th Congress.**

The U.S. industry is barred from exploring for oil with Cuba by operation of the embargo. Legislation introduced in the House by Rep. Jeff Flake (AZ-6),<sup>89</sup> and sponsored in the Senate by Senators Lisa Murkowski (AK) and Mary Landrieu (LA) during the 111th Congress,<sup>90</sup> would have ended that prohibition.

The bills would permit U.S. companies to engage in transactions and export equipment without license for the exploration of offshore oil in Cuban waters, and require the Secretary of the Treasury to provide general licenses for individuals involved in these activities. The Flake bill also would make it possible for such oil to be exported into the U.S. market.

It is not too late for U.S. firms to make a difference. As Dr. Philip Brenner advised us, “Cuba has not yet locked in contracts for all of its oil reserves. Opportunities still exist for U.S. energy companies, especially because some of Cuba’s alleged benefactors—such as China—have squeezed out terms less beneficial to Cuba than U.S. firms might demand.”<sup>91</sup>

Adoption of this legislation would put the unique resources and high environmental standards of the U.S. industry to work in Cuban waters, and it would acknowledge the economic benefits—to Cuba and the United States—as well as the environmental and foreign policy advantages of our cooperating with Cuba in this endeavor.

Photo by David Dreyer



Cuba's "Energy Revolution" is commemorated on its ten peso note.

## Accept the Reality of Cuba's Oil Program

### 7. The United States is served by an economically stable Cuba.

Cuba is currently undertaking significant economic reforms. It has announced layoffs for 500,000 state workers and proposed economic reforms to enable Cuba's nascent private sector to absorb them. More Cubans working in the private economy will provide more Cubans with greater personal autonomy. If Cuba is able to develop its hydrocarbon reserves in a manner that places the Cuban economy on a more sustainable footing, this could lessen the possibility of another migration crisis or other forms of instability.

Cuba's economic plans include its vision for oil. As Lisa Margonelli said at the National Foreign Trade Council, "Cuba has an elaborate plan to be a port, to be a source for refined products, to serve as a bonded warehouse for the distribution of goods throughout the region. Despite being a small country, they are thinking about energy and their economic future in a big way."<sup>92</sup>

Economies dependent on the extraction of natural resources are often unsuccessful. Finding oil can be a double-edged sword. Cuba having foreign

partners will help them guide the process of incorporating these resources into its economy over time. Given the time required to monetize the oil, Cuba should aim for having healthier economic and political institutions operating before the oil money starts to flow.

**8. Cuba's potential contribution to the regional energy market could be valuable to the U.S.**

Professor Soligo cites several benefits to the United States if Cuba is able to realize the potential of its oil resources in the Gulf of Mexico. In his remarks at the National Foreign Trade Council, Professor Soligo said, "Whoever develops these resources it would be good for the United States."<sup>93</sup>

For example, Professor Soligo observed that Cuba has the potential to develop an ethanol industry, and the U.S. cannot meet its ethanol targets without imports. Policy changes would be required to allow Cuba access to the U.S. market, and would provide substantial environment and energy policy benefits were they to be made. While Cuba has opposed using corn for ethanol, it has the resources to produce cellulosic material in its place.

Lisa Margonelli observes, "It is in U.S. interests to create fair price competition for Cuban oil rather than forcing them into one-buyer fixed price contracts with China. Securing the flow of more oil into the world spot market has been one of the few effective American responses to OPEC's pricing power since 1979."

**9. U.S. policy should welcome the geo-political changes oil could usher in.**

Cuba is unlikely to disassociate itself from Venezuela or China regardless of what the U.S. does. Still, Cuba's post-revolutionary history is defined, in part, by its dependence on the former Soviet Union and later on Venezuela, and the development of its offshore resources could give the island's economy greater independence than it has enjoyed to date.

If Cuba were no longer dependent on Venezuela, and the U.S. engaged in cooperative efforts on oil and the environment, we would be establishing deeper and more positive ties with Cuba's government and signal to its citizens that we have a stake in their success.

## **10. U.S. policy toward Cuba should no longer be predicated on Cuba failing.**

For more than 50 years, U.S. policy toward Cuba has been predicated on regime change; the Cuban government being overthrown, or being strangled into submission by U.S. sanctions or the pressure of diplomatic isolation.

It should no longer be acceptable to base U.S. foreign policy on the illusion that sanctions will cause Cuba's government to collapse, or even stop Cuba from developing its oil resources. Nor should the inertia exhibited by this policy or the political dynamic that sustains it prevent the U.S. from addressing both the challenges and benefits of Cuba finding meaningful amounts of oil in the Gulf of Mexico.

The embargo imposes real constraints on the government's ability to protect our nation against the potentially grave consequences of an environmental disaster linked to drilling for oil in the Gulf of Mexico by Cuba and its foreign partners.

As one expert told us, "Cuba is a country with whom we have virtually no diplomatic or commercial relations. If a well gets out of control, we have no genuinely effective recourse if we're waiting for a transition in Cuba's government to occur."

If Cuba brings commercially viable amounts of oil out of the Gulf, the embargo becomes even more irrelevant than it is today. How should the U.S. respond, especially now that drilling in 2011 is a *fait accompli* and will take place approximately 50 miles from our shores?

The U.S. should respond by changing the policy, in the ways we describe here, so the national interest of the United States can be realized and protected.

# The Center for Democracy in the Americas' Cuba Program

**T**he Center for Democracy in the Americas<sup>94</sup> advocates the reform of U.S. policy toward Cuba. Our goal is to replace the existing policy of economic sanctions and diplomatic isolation with a policy that will permit travel to Cuba for all Americans, promote diplomatic engagement, and look forward to normalizing relations between the United States and Cuba.

Changing U.S. policy would have a beneficial and lasting impact on both U.S. and Cuban citizens, and send a powerful signal to Latin America that the United States is ready to write a new chapter in its relationship with the region.

CDA is unique among many Washington-based non-governmental organizations because it has a license from the U.S. Treasury Department enabling us to host travel to Cuba. It permits us to conduct research in the embargoed country and host delegations of U.S. decision makers to the island for first-hand experience of Cuba and the impact of U.S. policy.

Since 2001, we have led over thirty trips to Cuba hosting largely bi-partisan delegations, including for Members of the House and Senate and many professional staff. Through these trips, CDA has also built productive relationships with Cuban officials, leaders of civil society, academics and artists, dissidents and human rights advocates, and ordinary Cubans in Havana and across the island, connecting them to the policy debate here in the U.S.

Over the past several years, CDA delegations visiting Cuba paid close attention to its energy policies. We have reported on what Cuba called its

“energy revolution.” After years of shortages and black-outs, Cuba overhauled its electrical grid, stepped up the use of natural gas and renewable energy, and focused on conservation.

In our 2009 report, “*9 Ways for US to Talk to Cuba and for Cuba to Talk to US*,” CDA proposed several areas where U.S. policy should promote mutually beneficial engagement with Cuba, including cooperation on energy.<sup>95</sup>

CDA disseminates information from our travel and research to policy makers, the press, and the public at-large. We publish trip reports, formulate ideas and strategies for reforming the policy, hold colloquies, engage with the media, produce video interviews with Cuban citizens and post them on the Internet, and send a weekly e-newsletter about Cuba and U.S. policy that is read by senior administration officials, Members of Congress, and respected journalists plus over 7,000 subscribers in the U.S. and abroad.



# Acknowledgments

**T**his report would not have happened without significant contributions from a number of generous individuals and organizations.

We thank the Ford Foundation, and especially Mario Bronfman, for their financial support and continuing encouragement of CDA's work.

We thank all of the area experts—those quoted and without attribution—who helped us navigate through these questions and deepened our understanding of the energy and environmental issues that fall outside of our skill set. We particularly want to thank Lisa Margonelli, Michael Levi, and Ron Soligo who journeyed with us to Cuba and stuck with us throughout.

At the outset, we reminded readers that the views expressed here are CDA's. At the conclusion, we must also remind you that errors in the text are our responsibility alone.

Bonnie Goldstein, a former member of CDA's board, sprang forward when we needed her, and provided invaluable copywriting help. Collin Laverty, a current board member, also reviewed the text, and enabled us to benefit from his superior knowledge of Cuba policy. Belle Elving, a former journalist, provided fresh eyes and remarkably useful edits.

The staff of the Center for Democracy in the Americas—Kendra Seymour, assistant director; Patricio Zamorano, senior analyst; and Lisa Llanos, consultant—made it possible for this report to be produced while the balance of our work was getting done.

Finally, our thanks to David Dreyer and the team at TSD; we could not have produced this report without them.



# Endnotes

1. Biographical information for Michael A. Levi available at: <http://www.cfr.org/experts/energy-energy-security-technology-and-foreign-policy/michael-a-levi/b11890>
2. Biographical information for Lisa Margonelli available at: <http://www.newamerica.net/user/115>
3. Biographical information for Ron Soligo available at: <http://bakerinstitute.org/personnel/rice-scholars/rsoligo>
4. Country Data, Cuba. U.S. Energy Information Administration, Independent Statistics and Analysis. <http://www.eia.gov/countries/country-data.cfm?fips=CU#data>
5. "Oil exploration in Cuba expected to go ahead." Marc Frank, *The Financial Times*. August 29, 2010. <http://www.ft.com/cms/s/0/63317958-b3af-11df-81aa-00144feabdc0.html>
6. "Cuba trades doctors for dollars." Nick Miroff, *The Global Post*. January 14, 2011. <http://www.globalpost.com/dispatch/cuba/110113/cuba-oil-doctors-castro>
7. Jorge Piñon, visiting research fellow at Florida International University, meeting with CDA delegation, Miami, Florida, July 8, 2010.
8. "Cuba & Global Health Workforce: Health Professionals Abroad." Medical Education Cooperation with Cuba (MEDICC). <http://www.medicc.org/ns/index.php?s=12&p=0>
9. An Exclusive Economic Zone (EEZ) is a concept adopted at the Third United Nations Conference on the Law of the Sea (1982), whereby a coastal State assumes jurisdiction over the exploration and exploitation of marine resources in its adjacent section of the continental shelf, taken to be a band extending 200 miles

- from the shore. Source Publication: Glossary of Environment Statistics, Studies in Methods, Series F, No. 67, United Nations, New York, 1997. <http://stats.oecd.org/glossary/detail.asp?ID=884>
10. "Geological Assessment of Undiscovered Oil and Gas Resources of the North Cuba Basin, Cuba." Christopher J. Schenk, U.S. Department of the Interior, U.S. Geological Survey. 2010. <http://pubs.usgs.gov/of/2010/1029/pdf/OF10-1029.pdf>
11. "Oil exploration in Cuba expected to go ahead." Marc Frank, *The Financial Times*. August 29, 2010. <http://www.ft.com/cms/s/0/63317958-b3af-11df-81aa-00144feabdc0.html#ixzz1DggxuCm6>
12. "Oil Prospects in Cuba Have Some Rethinking U.S. Trade Embargo." Raisa Camargo, *Latin America Trade Dispatch*. August 19, 2010. <http://latindispatch.com/2010/08/19/oil-prospects-in-cuba-have-some-rethinking-u-s-trade-embargo/>
13. Ron Soligo, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
14. Law 77 (Cuba) available at CubaIndustria: [http://www.cubaindustria.com/english/law\\_77.htm](http://www.cubaindustria.com/english/law_77.htm)
15. "Cuban Box Terminal Will Become Transshipment Hub." Peter T. Leach, *The Journal of Commerce Online*. February 15, 2011. <http://www.joc.com/maritime/cuban-box-terminal-will-become-transshipment-hub>
16. "Key political risks to watch in Cuba." Jeff Franks, *Reuters*. January 3, 2011. <http://af.reuters.com/article/energyOilNews/idAFRISKCU20110103>
17. Cuba's use of a Chinese service company in this capacity is likely to have sparked the rumors which periodically concern U.S. policy makers that "the Chinese" are drilling for oil offshore. As Senator Mel Martinez from Florida (ret.) said, it is "akin to an urban legend. ... The GOP claim about Chinese oil drilling off Cuba is untrue." Source Publication: Erika Bolstad and Kevin G. Hall, *McClatchy Newspapers*. June 11, 2008. <http://www.mcclatchydc.com/2008/06/11/40776/gop-claim-about-chinese-oil-drilling.html#ixzz1DggLcpUZ>
18. "Cuba readies to dive into offshore exploration." Jeff Franks, *Reuters*. July 31, 2010. <http://www.reuters.com/article/2010/07/31/cuba-oil-idUSN3019123020100731?pageNumber=1>
19. "RPT-Cuba plans 7 Gulf of Mexico oil test wells-US group." *Reuters*. August 17, 2010. <http://www.forexpros.com/news/general-news/rpt-cuba-plans-7-gulf-of-mexico-oil-test-wells-us-group-154869>
20. The concession encompasses Blocks N25, N26, N27, N28, N29, and N36, a combined area of some 10,200 sq. km along the island's northwest coast.
21. "Repsol readying for Cuba deepwater drilling." *Oil and Gas International*. May 6, 2010. [http://www.oilandgasinternational.com/departments/exploration\\_discoveries/may10\\_cuba.aspx](http://www.oilandgasinternational.com/departments/exploration_discoveries/may10_cuba.aspx)

22. "Cuba readies to dive into offshore exploration." Jeff Franks, *Reuters*. July 31, 2010. <http://www.reuters.com/article/2010/07/31/cuba-oil-idUSN3019123020100731?pageNumber=1>
23. "Gazprom takes stake in Petronas's Cuba project." *Reuters*. November 16, 2010. <http://af.reuters.com/article/energyOilNews/idAFLDE6AF1BY20101116>
24. Lisa Margonelli, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
25. Ministry of Basic Industry (MINBAS) representative, meeting with CDA delegation, Havana, Cuba, July 10, 2010.
26. "New fears over Cuban plans to drill for oil in 2011." Craig Pittman, *St. Petersburg Times*. October 1, 2010. <http://www.tampabay.com/news/environment/water/new-fears-over-cuban-plans-to-drill-for-oil-in-2011/1125244>
27. "RPT-Cuba offshore oil rig delayed til mid-summer-sources." Jeff Franks, *Reuters*. January 8, 2011. <http://af.reuters.com/article/energyOilNews/idAFN0723371820110108?sp=true>
28. Lee Hunt, International Association of Drilling Contractors, personal interview, October 26, 2010.
29. Ministry of Basic Industry (MINBAS) representative, meeting with CDA delegation, Havana, Cuba, July 9, 2010.
30. Ron Soligo, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
31. "Cash-strapped Cuba says trade surplus doubled." Marc Frank, *Reuters*. January 7, 2011. <http://af.reuters.com/article/energyOilNews/idAFN0721538620110107>
32. Foreign diplomat, meeting with CDA delegation, Havana, Cuba, July 10, 2010.
33. "Hearing of the Subcommittee on National Security and Foreign Affairs of the House Oversight and Government Reform Committee – National Security Implications of U.S. Policy Towards Cuba." Washington, DC. April 29, 2009. [https://www.votesmart.org/speech\\_detail.php?sc\\_id=459434&keyword=&phrase=&contain=](https://www.votesmart.org/speech_detail.php?sc_id=459434&keyword=&phrase=&contain=)
34. Lisa Margonelli, the New America Foundation, personal interview, July 10, 2010.
35. Lee Hunt, International Association of Drilling Contractors, personal interview, October 26, 2010.
36. "One Gulf: Oil slicks don't respect political boundaries. Neither should cleanups." *Houston Chronicle*. September 17, 2010. <http://www.chron.com/disp/story.mpl/editorial/7206500.html>
37. "Drilling Plans Off Cuba Stir Fears of Impact on Gulf." Clifford Krauss, *New York Times*. September 29, 2010. <http://www.nytimes.com/2010/09/30/world/americas/30cuba.html>

38. Law 81 of the Environment. Available at International Wildlife Law Project, <http://www.internationalwildlifelaw.org/CubaWildlife.html>
39. Dr. David Guggenheim, Senior Fellow at the Ocean Foundation, personal interview, February 9, 2011.
40. Ibid.
41. "Putting Preparedness Above Politics: U.S.-Cuba Cooperation Against the Threat of Hurricanes." Elizabeth Newhouse, The Center for International Policy. January 2010. [http://www.ciponline.org/cuba/ipr/1001\\_CubaIPR.pdf](http://www.ciponline.org/cuba/ipr/1001_CubaIPR.pdf)
42. "Safety Case Approach." National Offshore Petroleum Safety Authority. <http://www.nopsa.gov.au/safety.asp>
43. Lee Hunt, International Association of Drilling Contractors, personal interview, October 26, 2010.
44. Ministry of Basic Industry (MINBAS) representative, meeting with CDA delegation, Puerto Escondido, Cuba, July 9, 2010.
45. Dan Whittle, Cuba Program Director for the Environmental Defense Fund, personal interview, January 28, 2011.
46. Jorge Piñon, visiting research fellow at Florida International University, email correspondence, July 14, 2010.
47. Lee Hunt, International Association of Drilling Contractors, personal interview, October 26, 2010.
48. Ministry of Exterior Commerce (MINCEX) representative, meeting with CDA delegation, Havana, Cuba, July 8, 2010.
49. The Cuban Asset Control Regulations are codified at 31 C.F.R. Part 515.
50. H.R. 5620: Caribbean Coral Reef Protection Act of 2010, 111th Congress, 2009–2010. <http://www.govtrack.us/congress/bill.xpd?bill=h111-5620>
51. Cuban Liberty and Democratic Solidarity (Libertad) Act of 1996. Available at: <http://www.cfr.org/cuba/cuban-liberty-democratic-solidarity-libertad-act-1996-helms-burton-act-publ-104-114/p15587>
52. "NOAA's Oil Spill Response: Hurricanes and the Oil Spill." National Oceanic and Atmospheric Administration, U.S. Department of Commerce. May 27, 2010. [http://www.nhc.noaa.gov/pdf/hurricanes\\_oil\\_factsheet.pdf](http://www.nhc.noaa.gov/pdf/hurricanes_oil_factsheet.pdf)
53. Rear Admiral Mary E. Landry's biography available at: <http://www.uscg.mil/flag/d8.asp>
54. Lee Hunt, International Association of Drilling Contractors, personal interview, October 26, 2010.

55. U.S. Department of Treasury's Office of Foreign Assets Control (OFAC): <http://www.treasury.gov/about/organizational-structure/offices/Pages/Office-of-Foreign-Assets-Control.aspx>
56. "New oil threat beyond reach of U.S. ban." Clifford Krauss, *International Herald Tribune*. October 1, 2010. <http://www.thejakartapost.com/news/2010/10/01/new-oil-threat-beyond-reach-us-ban.html>
57. Sarah Stephens, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
58. "Oil for U.S. and Cuba's troubled waters." Ken Stier, *Fortune*. May 26, 2010. [http://money.cnn.com/2010/05/25/news/economy/oil\\_cuba.fortune/index.htm](http://money.cnn.com/2010/05/25/news/economy/oil_cuba.fortune/index.htm)
59. "Cuba readies to dive into offshore exploration." Jeff Franks, *Reuters*. July 31, 2010. <http://www.reuters.com/article/2010/07/31/cuba-oil-idUSN3019123020100731?pageNumber=1>
60. "Repsol readying for Cuba deepwater drilling." *Oil and Gas International*. May 6, 2010. [http://www.oilandgasinternational.com/departments/exploration\\_discoveries/may10\\_cuba.aspx](http://www.oilandgasinternational.com/departments/exploration_discoveries/may10_cuba.aspx)
61. "Cuba ready to drill for oil deeper than BP." Lesley Clark and Sara Kennedy, *The Miami Herald*. September 30, 2010. <http://www.miamiherald.com/2010/09/29/1849526/cuba-ready-to-drill-deeper-than.html>
62. U.S. Interests Section representative, meeting with CDA delegation, Havana, Cuba, July 12, 2010.
63. "U.S. wary of Cuba's drilling plans." Lesley Clark, *The Miami Herald*. October 10, 2010. <http://www.miamiherald.com/2010/10/01/1851431/us-wary-of-cubas-drilling-plans.html>
64. "Fourth Trinational (Cuba-Mexico-USA) Workshop Convenes in Florida." Trinational Initiative for Marine Science and Conservation in the Gulf of Mexico and Western Caribbean. September 17, 2010. <http://trinationalinitiative.org/en/fourth-trinational-cuba-mexico-usa-workshop-convenes-in-florid>
65. "Cuba drilling poses spill issue." Monica Hatcher, *The Houston Chronicle*. September 4, 2010. <http://www.chron.com/dispatch/story.mpl/business/7186410.html>
66. "Cuba: Oil Exploration." Philip Crowley. U.S. Department of State. Question Taken at the July 16, 2010 Daily Press Briefing. <http://www.state.gov/r/pa/prs/ps/2010/07/144838.htm>
67. "Drilling Plans Off Cuba Stir Fears of Impact on Gulf." Clifford Krauss, *New York Times*. September 29, 2010. <http://www.nytimes.com/2010/09/30/world/americas/30cuba.html>

68. "U.S. wary of Cuba's drilling plans." Lesley Clark, *The Miami Herald*. October 1, 2010. <http://www.miamiherald.com/2010/10/01/1851431/us-wary-of-cubas-drilling-plans.html>
69. "Mexus Plan: Mexico/United States Bilateral Response Plan." Daniel Whiting, Lieutenant Commander, U.S. Coast Guard. 1997 International Oil Spill Conference, New Orleans, Louisiana. <http://www.iosc.org/papers/01240.pdf>
70. Daniel Whittle, Cuba Program Director for the Environmental Defense Fund, personal interview, January 28, 2011.
71. "Final Report." National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. January 11, 2011. <http://www.oilspillcommission.gov/final-report>
72. "Cuba, U.S. need to talk about oil drilling, says co-chair of the BP oil spill task force." Lesley Clark, Cuban Colada, *The Miami Herald*. January 11, 2011. [http://miamiherald.typepad.com/cuban\\_colada/2011/01/cuba-us-need-to-talk-about-oil-drilling-says-co-chair-of-the-bp-oil-spill-task-force.html#ixzz1AkzYWNvh](http://miamiherald.typepad.com/cuban_colada/2011/01/cuba-us-need-to-talk-about-oil-drilling-says-co-chair-of-the-bp-oil-spill-task-force.html#ixzz1AkzYWNvh)
73. "Deal needed to protect our seas." Jorge R. Piñon, *The Miami Herald*. October 10, 2010. <http://www.miamiherald.com/2010/10/05/1857743/deal-needed-to-protect-our-seas.html>
74. "The Economic Impact of Saltwater Fishing in Florida." Florida Fish and Wildlife Conservation Commission. [http://myfwc.com/conservation/Conservation\\_ValueofConservation\\_EconSaltwaterImpact.htm](http://myfwc.com/conservation/Conservation_ValueofConservation_EconSaltwaterImpact.htm)
75. "The Economic Value of Florida's Ocean Resources." Natural Resources Defense Council. May 11, 2010. [http://docs.nrdc.org/water/files/wat\\_10052001a.pdf](http://docs.nrdc.org/water/files/wat_10052001a.pdf)
76. Dr. David Guggenheim, Senior Fellow at the Ocean Foundation, personal interview, February 9, 2011.
77. Lee Hunt, International Association of Drilling Contractors, personal interview, October 26, 2010.
78. H.R. 5620: Caribbean Coral Reef Protection Act, 111th Congress, 2009–2010. <http://www.govtrack.us/congress/bill.xpd?bill=h111-5620>
79. H.R. 372: To amend the Outer Continental Shelf Lands Act to authorize the Secretary of the Interior to deny leases and permits to persons who engage in activities with the government of any foreign country that is subject to any sanction or an embargo established by the Government of the United States. 112th Congress, 2011–2012. <http://www.govtrack.us/congress/bill.xpd?bill=h112-372>
80. Dan Whittle, Cuba Program Director for the Environmental Defense Fund, personal interview, January 28, 2011.
81. Foreign diplomat, meeting with CDA delegation, Havana, Cuba, July 10, 2010.



82. Steven Clemons, the New America Foundation, personal interview, February 11, 2011
83. "Coping with the Next Oil Spill: Why U.S.-Cuba Environmental Cooperation is Critical. Robert Muse and Jorge R. Piñon, The Brookings Institution. May 18, 2010. [http://www.brookings.edu/papers/2010/0518\\_oil\\_spill\\_cuba\\_pinon.aspx](http://www.brookings.edu/papers/2010/0518_oil_spill_cuba_pinon.aspx)
84. Ministry of Science, Technology and Environment (CITMA) representatives, meeting with CDA delegation, Havana, Cuba, July 10, 2010.
85. Lisa Margonelli, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
86. Dr. David Guggenheim, Senior Fellow at the Ocean Foundation, personal interview, February 9, 2011.
87. "Cuba drilling poses spill issue." Monica Hatcher, *The Houston Chronicle*. September 4, 2010. <http://www.chron.com/dispatch/story.mpl/business/7186410.html>
88. "Final Report." National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling. January 11, 2011. <http://www.oilspillcommission.gov/final-report>
89. H.R. 1918: Western Hemisphere Energy Security Act of 2009, 111th Congress, 2009–2010. <http://www.govtrack.us/congress/bill.xpd?bill=h111-1918>
90. S.1517: Domestic Energy Security Act of 2009. 111th Congress, 1st Session. July 24th, 2009. <http://thomas.loc.gov/cgi-bin/query/z?c111:S.1517.IS>
91. Dr. Philip Brenner, Professor at American University, personal interview, February 11, 2011.
92. Lisa Margonelli, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
93. Ron Soligo, press briefing, National Foreign Trade Council, Washington, DC, August 17, 2010.
94. Center for Democracy in the Americas: <http://www.democracyinamericas.org>
95. "9 Ways for US to talk to Cuba and for Cuba to talk to US." Center for Democracy in the Americas. 2009. [http://democracyinamericas.org/pdfs/9\\_Ways\\_Book\\_PDF.pdf](http://democracyinamericas.org/pdfs/9_Ways_Book_PDF.pdf)



Center *for* Democracy  
— IN THE —  
AMERICAS



P.O. Box 53106  
Washington, DC 20009  
[www.democracyinamericas.org](http://www.democracyinamericas.org)

---

Devoted to changing U.S. policy toward the countries of the Americas by basing our relations on mutual respect, fostering dialogue with those governments and movements with which U.S. policy is at odds, and recognizing positive trends in democracy and governance.