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### plan

#### The United States federal government should substantially ease its impediments to oil technology sharing toward Cuba.

### Spills

#### Advantage 1 is spills.

#### Drilling is inevitable in Cuba --- multiple reasons:

#### Russia is going to drill

**Vostok 4/9**

(“US concerned about intensification of Russian oil activities near Cuban coast” Dmitry Vostok, The Voice of Russia, 9 April 2014, http://voiceofrussia.com/2014\_04\_09/US-concerned-about-intensification-of-Russian-oil-activities-near-Cuban-coast-9748/)

The US is fearing Russian oil companies near the Cuban coast. According to the Houston Chronicle, the West sanctions against Russia may prompt Russia to accelerate ongoing oil and gas exploration in Cuban waters not far from Florida. The current tension in Russia-US and US-Cuban relations will also complicate a timely response to a possible environmental disaster. The Voice of Russia talked to Malcolm Graham-Wood, Founding Partner at Hydrocarbon Capital Limited. According to the Houston Chronicle, drilling in Cuban waters may pose risk for the environmental safety of the American coastline from Texas to the Florida Keys. In 2010, the Deepwater Horizon disaster killed 11 workers and caused catastrophic environmental damage in the Gulf of Mexico. BP that owned Deepwater Horizon oil rig paid $40 billion in fines and compensations. When earlier this month, the US Environmental Protection Agency approved the resumption of BP’s activities in the area, this already raised public concerns. But while BP remains under strict supervision of the US, Russian oil companies are drilling offshore in Cuban waters with no US oversight. In case of an oil spill, Cuba has only 5% of technical resources needed to respond to the disaster. Considering the US-Cuba trade embargo it will be impossible for the US to supply the needed resources in time to avert disaster. In fast-moving Cuban waters it will take the spilled oil only 10 days to reach the American coast. Russia and the giant oil companies it controls are key players in offshore exploratory drilling in Cuban waters. In particular, Russia is carrying out enhanced oil recovery operations at the at the Cuban oil field of Boca de Jaruco as part of the 25 year agreement with Cuba. Also last year, Russia’s Rosneft company signed a memo on cooperation with Cuba’s Cupet company.

#### Even if Russia doesn’t come back – several other companies will drill.

**Reuters ’13** (Jeff Franks, “Cuban oil hopes sputter as Russians give up for now on well,” 5/29/13, http://www.reuters.com/article/2013/05/29/cuba-oil-idUSL2N0EA00W20130529)//CT

Repsol, which also drilled an unsuccessful well in deep water near Havana in 2004, pulled out of Cuba, but some of the other oil partners are still around.

Petronas is continuing to conduct seismic studies in the four blocks it leases with Russian partner Gazprom and is considering another well, as is Venezuela's PDVSA, which has four blocks at Cuba's western tip, industry and diplomatic sources said.

A unit of India's Oil and Natural Gas Corp, which had a share of the Repsol wells, has two offshore blocks of its own and has been looking for a partner to drill a well.

#### Additionally, there is accessible Cuban offshore oil --- multiple surveys prove

**Piñón and Benjamin-Alvarado, 10** – Associate Director of UT at Austin Jackson School of Geoscience’s Center for International Energy and Environmental Policy (CIEEP) AND Ph. D of Political Science, University of Nebraska (Jorge R. & Jonathan, Cuba's Energy Future Strategic Approaches to Cooperation, p. 31)

Cuba will probably have little choice but to develop an energy policy that relies heavily on clean-burning natural gas as its fuel of choice for electrical power generation. Drivers of this necessity are the inevitable rationalization of the oil-refining industry in Cuba (because of its outdated technology, which is unable to process heavy crude oil), and the country’s environmentally sensitive tourist industry. Cuba’s future natural gas needs could be filled by importing liquefied natural gas (LNG) from Trinidad and Tobago, which Puerto Rico and the Dominican Republic are currently doing, or by future Venezuelan production. A regasification facility to receive Venezuelan sourced liquid natural gas is currently being planned for the southern-coast port city of Cienfuegos by Venezuela’s PDVSA and Cupet. Two one-millionton regasification trains are planned for 2012, at a cost of over $400 million. The natural gas is destined as fuel for that city’s thermoelectric power plant, local industry, and future petrochemical plants. 20 Cuba’s Deep Water: The Exclusive Economic Zone The future of Cuba’s oil and gas exploration and production sector could very well be in the deep offshore Gulf of Mexico waters along the western approaches to the Florida Strait and the eastern extension of Mexico’s Yucatán Peninsula. Cuba’s Exclusive Economic Zone (EEZ) in the Gulf of Mexico is a 46,000-square-mile area that Cupet has divided into fifty-nine exploration blocks of approximately 772 square miles each. The average ocean depth is 6,500 feet, but some blocks are as deep as 13,000 feet. 21 Geography of Oil in the Gulf of Mexico The EEZ lies between Mexico, Cuba, and the United States, within demarcation boundaries agreed to in 1977. The northernmost of the blocks lies south of the Dry Tortugas, off Florida’s southwest coast. The northwesternmost blocks are situated next to the Gulf of Mexico’s eastern gap, a sizable portion of the eastern Gulf, west of the Florida EEZ and north of the Cuban EEZ, for which economic exclusivity rights have not been negotiated, and 100 kilometers from the southernmost limit of acreage, offered as lease 181 by the U.S. Mineral Management Services, on the outer continental shelf off Florida’s west coast. Although the maritime boundary agreement between Cuba and the United States has been submitted to the U.S. Senate, for political reasons— not because of any objection in the boundary itself— it has not been ratified by that body. Cuba and the United States have since agreed to provisional application of the agreement, pending ratification, by exchanging agreement notes every two years that extend the provisional application of the agreement. The demarcation of the Gulf of Mexico’s eastern gap itself, which will include Cuba, Mexico, and the United States, is still open for negotiation, and awaits improvements in the diplomatic relations between Washington and Havana. A February 2005 U.S. Geological Survey report, “Assessment of Undiscovered Oil and Gas Resources of the North Cuba Basin 2004,” estimates a mean of 4.6 billion barrels of undiscovered oil and a mean of 9.8 trillion cubic feet of undiscovered natural gas along Cuba’s North Belt Thrust. The high-end potential of the North Cuba Basin could be 9.3 billion barrels of undiscovered oil and of 21.8 trillion cubic feet of undiscovered natural gas, according to the report. 23 If these undiscovered reserves are certified as recoverable, they will rank Cuba among major Latin American oil producers and exporters such as Colombia and Ecuador. Industry experts have categorized Cuba’s EEZ as high risk from the technical geosciences standpoint— there might not be any oil or gas there— but some reports indicate that some hydrocarbon potential might exist. Meanwhile, Cuban government sources estimate the potential of the whole EEZ at an optimistic 20 billion barrels of undiscovered reserves. 24 This figure includes the 5 billion barrels that the U.S. Geological Survey estimates in the Cuba North Belt Thrust, and an additional 15 billion barrels of undiscovered reserves in the North Cuba Foreland Basin, the Florida and Campeche escarpments, on the shelf margin of the Florida Platform, and in the Gulf of Mexico Sigsbee Basin. Very little seismic work and exploratory drilling have been done outside of North Cuba’s Fold and Thrust Belt, the North Cuba Foreland Basin, and the U.S. Geological Survey’s Florida Platform Margin Carbonate assessments units (AUs). 25 This can be interpreted as meaning that there is a high likelihood of oil and gas in Cuba’s offshore reserves. Moreover, a basic analysis of the geological formations by Cuban analysts suggest that the potential for additional reserves is likely. In most experts’ opinion, a lot of exploratory work has yet to be done to substantiate the high-end estimates put forth by Cuban geologists, regardless of the technical soundness of the data presented in support of their estimate.

#### Likelihood of a devastating oil spill is high in the status quo -

#### First, prevention severely weakened because companies operating in Cuba cannot use the US capping equipment, which is key to prevent a spill -- US tech is the ONLY way to safely drill --- all countries rely on the tech and will default to second-tier parts absent the plan.

**Davenport 11** (Coral, National Journal, “Drill, Bebe, Drill,” 7/28, <http://www.nationaljournal.com/magazine/will-sloppy-drilling-off-the-coast-of-cuba-threaten-florida-gulf-beaches--20110728)//HA>

Cuba is about to drill for offshore oil with “second-tier parts” because of the trade embargo. That’s not good news for U.S. beaches. Sometime over the next three months, if all goes according to plan, Cuban workers on a Chinese-built, Spanish-owned rig will start drilling for oil in the mile-deep waters just off the north coast of Cuba, 70 miles from the Florida Keys. If the drill hits a major oil deposit—and all geologic signs indicate it will—the discovery will unleash a cascade of developments with profound political, environmental, and economic consequences. From National Journal: Activists Call for a Fair Debt Deal DeMint Wants to Change Business as Usual Debt Showdown is Damaging the Economy GRAPHIC: GOPers on Hot-Button Issues The Cuban government has long wanted to extract the rich reserves of oil and natural gas believed to lie off its shores. Estimates for oil range from 5 billion to 20 billion barrels, while the estimate for natural gas is 8.6 billion cubic feet. Unlocking that oil could jump-start a nascent Cuban offshore-oil industry—and free the island nation from its energy and political dependence on Venezuela, from which it imports 60 percent of its oil today. A newfound independence from its socialist neighbor and its mercurial president, Hugo Chavez—coming at a time when the Cuban leadership is facing change with the eventual demise of Fidel Castro—is an appealing prospect to the United States. But the potential of a closer relationship with Cuba comes with a terrifying specter: An oil blowout in Cuban waters could reprise the nightmare that was last year’s Gulf of Mexico oil spill, and send crude spewing to the beaches of Florida, Georgia, and South Carolina. And the likelihood for such a disaster is very real, say oil industry experts, thanks in part to Washington’s 49-year-old embargo on Cuba. Because of the embargo, U.S. companies cannot drill in Cuba, supply equipment to Cuba, have any say over safety regulations in Cuba, or even take part in helping control a blowout and spill in Cuba. As the island prepares to begin offshore drilling, it has signed contracts with oil companies from Brazil, India, Italy, Russia, and Spain—and is in talks to lease major portions of its coastal water to Chinese companies (continuing China’s pattern of pursuing oil exploration in countries where U.S. drillers aren’t welcome). Under the embargo’s terms, the oil drilling and safety equipment used by those companies must be less than 10 percent U.S.-made. But all of the most technologically advanced equipment for drilling and preventing or stopping oil spills is made in the United States or by U.S. companies. “There are not international suppliers of this level of equipment. They will have to buy copycat or second-tier parts,” Lee Hunter, president of the Houston-based International Association of Drilling Contractors, told National Journal. Hunter and other experts say that, to date, it appears that the Cuban government, fearful of the devastation an oil spill could wreak on its economy, wants to use the lessons learned from the BP oil disaster to develop a rigorous safety and oversight program. But it will be nearly impossible for drillers in Cuba’s waters to legally use the safest equipment. “The Cubans want to use good technology; they want to drill safely,” Hunter said. “But … their ability to drill safely is extremely compromised.” Also deeply compromised is their ability to respond to a disaster should it occur. Even if oil from a Cuban spill laps at Florida’s shores, the U.S. agencies and oil companies that have all-too-hard-won expertise in wrestling a spill—the Coast Guard, the Federal Emergency Management Agency, and the Interior Department—would be banned from crossing into Cuban waters to help. And experts say that the Cuban oil industry and government don’t yet have a fraction of the resources and expertise they would need to deal with such an event on their own.

#### Second, current impediments to US-Cuban oil cooperation destroy spill response – two reasons:

#### a) Technology - Absent changes in US policy the Coast Guard and US Companies can’t use expertise and specially designed equipment --- existing licenses don’t solve

(booms, skimming equipment and vessels, and dispersants), well-capping stacks and submersibles

**Bert and Clayton** ’12 – Captain of the US Coast Guard/military fellow (U.S. Coast Guard) at the Council on Foreign Relations and a fellow for energy and national security at the Council on Foreign Relations (Captain Melissa and Blake, “Addressing the Risk of a Cuban Oil Spill,” Policy Innovation Memo 15, *Council on Foreign Relations*, http://www.cfr.org/cuba/addressing-risk-cuban-oil-spill/p27515)//CT

An oil well blowout in Cuban waters would almost certainly require a U.S. response. Without changes in current U.S. law, however, that response would undoubtedly come far more slowly than is desirable. The Coast Guard would be barred from deploying highly experienced manpower, specially designed booms, skimming equipment and vessels, and dispersants. U.S. offshore gas and oil companies would also be barred from using well-capping stacks, remotely operated submersibles, and other vital technologies. Although a handful of U.S. spill responders hold licenses to work with Repsol, their licenses do not extend to well capping or relief drilling. The result of a slow response to a Cuban oil spill would be greater, perhaps catastrophic, economic and environmental damage to Florida and the Southeast.

#### b) Transparency - Even if limited licenses already granted, lack of transparency thwarts fast response.

**Peterson, Whittle, and Rader, ’12** – Assoc. at California Environmental Associates, Environmental Defense Fund's Cuba program director, and (Emily A., Daniel J., and Douglas N., “Bridging the Gulf Finding Common Ground on Environmental and Safety Preparedness for Offshore Oil and Gas in Cuba,” Environmental Defense Fund, http://www.macfound.org/media/article\_pdfs/Bridging\_the\_Gulf.pdf)//HA/CT

Under current U.S. law, American companies must obtain licenses and approvals from the U.S. Treasury Department and the U.S. Commerce Department in order to provide assistance in Cuba with equipment or personnel during a spill in Cuban waters. How many companies are licensed is not a public record, but many observers believe that licensed capacity is not yet sufficient to independently respond to a major spill in Cuban waters. In the case of the Deepwater Horizon spill, for instance, 52 contractors were involved in incident response and 7,278 contract personnel provided services at the peak of the response effort. 56 In a Senate testimony in October 2011, Paul Schuler, president of Clean Caribbean and Americas—which is one of the contractors authorized by the Department of Treasury to supply pre-approved equipment for a spill in Cuba—stated that “loosening up” the licensing process could make more U.S. companies and resources available if needed for a significant spill in Cuba. 57 Without immediate access to a full range of U.S. resources and technology, international oil companies operating in Cuba might have to rely on supplies and expertise from Europe or Asia, which could cost precious time during an event in which time is of paramount urgency. 58 Thus, there is a real need to guarantee that sufficient resources are at the ready in order to ensure response is carried out in a timely and effective manner. Estimates indicate that the fastest timeframe in which response equipment could be mobilized from U.S. sources in the Gulf of Mexico is approximately 14 days. 59 A more efficient and proactive federal licensing process might help condense this timeframe and expedite response efforts. The Coast Guard notes that it holds general licenses from the Department of the Treasury and the Department of Commerce that would permit the agency to marshal private U.S. resources and personnel needed for mounting a full-scale response to an oil disaster that threatens the U.S. EEZ. 60 These licenses—which have not been made available for public review—apparently would allow the Coast Guard to take action in the Cuban EEZ if necessary and to bring non-licensed U.S. companies to operate under the agency’s direction in Cuban waters. While these licenses represent a positive step forward, the precise nature and scope of authority granted to the Coast Guard and to the private companies it chooses to deploy in the event of an emergency remain unclear.

It also bears emphasizing here that this general license notwithstanding, the U.S. Coast Guard and any private companies it recruits would not be authorized to enter into or operate in Cuban waters without permission from the Cuban government. Thus, as discussed below, an explicit agreement between the United States and Cuba is needed to provide this authority and to set forth the terms of any joint U.S.-Cuban oil spill response in Cuban waters. 61 Given their broad nature, the Coast Guard’s licenses would be applicable during a catastrophic spill—i.e. on the magnitude of the Deepwater Horizon incident—for which the limited list of pre-approved U.S. private contractors is insufficient to combat the spill and protect U.S. resources. The Coast Guard has used inter-agency tabletop exercises to coordinate broadly with contractors on general spill preparedness throughout the Western Caribbean. 62 Although the Coast Guard holds access to a database of resources that U.S. contractors could provide in the event of an international spill, it has not specifically collaborated with licensed and nonlicensed contractors to codify a communications and resource mobilization protocol for a potential spill in Cuban waters.

#### It will destroy key Cuban AND US ecosystems.

**Peterson, Whittle, and Rader, ’12** – Assoc. at California Environmental Associates, Environmental Defense Fund's Cuba program director, and (Emily A., Daniel J., and Douglas N., “Bridging the Gulf Finding Common Ground on Environmental and Safety Preparedness for Offshore Oil and Gas in Cuba,” Environmental Defense Fund, http://www.macfound.org/media/article\_pdfs/Bridging\_the\_Gulf.pdf

Shared environmental resources at risk If a spill were to occur in Cuban waters, marine and coastal resources of the United States, Cuba, and the Bahamas could be placed at significant risk. Fisheries, coastal tourism, recreation, and other natural resources-based enterprises and activities in the region could experience adverse impacts on the scale of weeks to years, or even decades. Multiple factors—including the type and amount of oil spilled, the environment in which the oil spilled, and prevailing weather and ocean current conditions—would play key factors in determining the extent and gravity of a spill’s impact.45 In Cuba, marine and coastal habitats could suffer substantial long-term harm which could degrade, in turn, entire populations and habitats downstream in the U.S. Gulf of Mexico. According to Dr. John W. Tunnell, Jr., associate director of the Harte Research Institute and an expert on the Gulf of Mexico marine environment, the primary three habitats at risk on Cuba’s North Coast near the area where exploration is occurring are coral reefs, seagrass beds, and lush mangrove forests.46 These habitats are found throughout the region, but in greatest abundance in the Archipelago Sabana-Camaguey and the Archipelago Los Colorados, where they provide breeding, nursery, and feeding habitats for commercial fish species, including grouper, snapper, and grunts. If chemical dispersants were used as part of the clean-up effort, they could reduce impacts on fauna for which oiling per se is the greatest threat (e.g. birds) but also add additional toxicity, as well as alter the transport and ecological fate of oil constituents moving through the water column and then into the air or back towards the bottom. Dispersed oil could have greater deleterious effect on Cuba’s coral reefs, which are fragile, slow-growing, and have low resilience to physical and chemical stresses.47 Like salt marshes, coastal mangrove swamps are also difficult to clean up in the aftermath of an oil spill, and mangroves can die within a week to several months as a result of oil exposure.48 Reduced from their formerly healthy, vibrant state, such important habitats could lose their ability to support the fisheries and marine life that depend on them. Oil toxicity and physical contamination can also have profound effects on individual organisms. The news media often draw attention to charismatic marine life, such as dolphins and sea turtles, which are closer to shore and can experience heavy oil coating during a spill. However, less visible organisms such as surface-floating larvae, mid-depth “scattering layer” organisms, and benthic organisms- including coral reefs, but also soft-sediment communities- are equally, if not more, vulnerable. A significant spill in Cuba’s waters could impact larval populations of lobster, grouper, snapper, and other reef fishes that traditionally mature in the waters of the U.S. Gulf of Mexico and south Atlantic, as well as those that have key spawning grounds in the Gulf itself (including Atlantic Bluefin tuna). The ecological linkages between Cuba and the United States are brought into clear focus when considering the environmental resources that would be at stake in those two countries in the event of a spill. In the same way that Cuban officials expressed serious concern about potential impacts to Cuban waters from the BP Deepwater Horizon spill, Floridians are deeply worried about potential damages to their communities and natural environment. Migratory species that normally travel freely between Cuban and U.S. territory — including bluefin tuna, whale sharks, and birds along the East Coast flyaway — could suffer from oil exposure during a significant spill incident. One problematic limitation in evaluating natural resources at risk in Cuba’s waters—and the subsequent risk to the U.S. environment—is the lack of sufficient baseline scientific knowledge. Detailed geological and environmental conditions are not fully understood in many parts of the Caribbean. 49 For example, petroleum-eating microbes exist in high concentrations in the U.S. Gulf of Mexico and may help mitigate environmental damages during spills and natural seepages, although the ecological cascades unleashed by altered biomass, dissolved oxygen, and acidification patterns remain unknown. It is not known if such oil-eating bacteria also exist in substantial numbers in Cuban waters and would possibly modulate damages to natural resources there.

#### AND, dispersants must be used within 4 days to be effective – key to technical response.

**Bert and Clayton ’12** – Captain of the US Coast Guard/military fellow (U.S. Coast Guard) at the Council on Foreign Relations and a fellow for energy and national security at the Council on Foreign Relations (Captain Melissa and Blake, “Addressing the Risk of a Cuban Oil Spill,” Policy Innovation Memo 15, *Council on Foreign Relations*, http://www.cfr.org/cuba/addressing-risk-cuban-oil-spill/p27515)//CT

Deepwater drilling off the Cuban coast also poses a threat to the United States. The exploratory well is seventy miles off the Florida coast and lies at a depth of 5,800 feet. The failed Macondo well that triggered the calamitous Deepwater Horizon oil spill in April 2010 had broadly similar features, situated forty-eight miles from shore and approximately five thousand feet below sea level. A spill off Florida's coast could ravage the state's $57 billion per year tourism industry. Washington cannot count on the technical know-how of Cuba's unseasoned oil industry to address a spill on its own. Oil industry experts doubt that it has a strong understanding of how to prevent an offshore oil spill or stem a deep-water well blowout. Moreover, the site where the first wells will be drilled is a tough one for even seasoned response teams to operate in. Unlike the calm Gulf of Mexico, the surface currents in the area where Repsol will be drilling move at a brisk three to four knots, which would bring oil from Cuba's offshore wells to the Florida coast within six to ten days. Skimming or burning the oil may not be feasible in such fast-moving water. The most, and possibly only, effective method to respond to a spill would be surface and subsurface dispersants. If dispersants are not applied close to the source within four days after a spill, uncontained oil cannot be dispersed, burnt, or skimmed, which would render standard response technologies like containment booms ineffective.

#### Cuba is key to regional marine biodiversity – a collapse spills over

**Almeida ‘12**

Rob Almeida is Partner/CMO at gCaptain. He graduated from the US Naval Academy in 1999 with a B.S in Naval Architecture and spent 6.5 years on active duty as a Surface Warfare Officer. He worked for a year as a Roughneck/Rig Manager trainee on board the drillship Discoverer Americas. May 18th – http://gcaptain.com/drilling-cuba-embargo-badly/

In short however, Cuba’s access to containment systems, offshore technology, and spill response equipment is severely restricted by the US embargo, yet if a disaster occurs offshore, not only will Cuban ecosystems be severely impacted, but those of the Florida Keys, and US East Coast.¶ If disaster strikes offshore Cuba, US citizens will have nobody else to blame except the US Government because outdated policies are impacting the ability to prepare sufficiently for real-life environmental threats. Considering Cuba waters are home to the highest concentration of biodiversity in the region and is a spawning ground for fish populations that migrate north into US waters, a Cuban oil spill could inflict unprecedented environmental devastation if not planned for in advance.

#### Marine biodiversity hotspots key

**Mittermeier ‘11**

(et al, Dr. Russell Alan Mittermeier is a primatologist, herpetologist and biological anthropologist. He holds Ph.D. from Harvard in Biological Anthropology and serves as an Adjunct Professor at the State University of New York at Stony Brook. He has conducted fieldwork for over 30 years on three continents and in more than 20 countries in mainly tropical locations. He is the President of Conservation International and he is considered an expert on biological diversity. Mittermeier has formally discovered several monkey species. From Chapter One of the book Biodiversity Hotspots – F.E. Zachos and J.C. Habel (eds.), DOI 10.1007/978-3-642-20992-5\_1, # Springer-Verlag Berlin Heidelberg 2011. This evidence also internally references Norman Myers, a very famous British environmentalist specialising in biodiversity. available at: http://www.academia.edu/1536096/Global\_biodiversity\_conservation\_the\_critical\_role\_of\_hotspots)

Extinction is the gravest consequence of the biodiversity crisis, since it is¶ irreversible. Human activities have elevated the rate of species extinctions to a¶ thousand or more times the natural background rate (Pimm et al. 1995). What are the¶ consequences of this loss? Most obvious among them may be the lost opportunity¶ for future resource use. Scientists have discovered a mere fraction of Earth’s species¶ (perhaps fewer than 10%, or even 1%) and understood the biology of even fewer¶ (Novotny et al. 2002). As species vanish, so too does the health security of every¶ human. Earth’s species are a vast genetic storehouse that may harbor a cure for¶ cancer, malaria, or the next new pathogen – cures waiting to be discovered.¶ Compounds initially derived from wild species account for more than half of all¶ commercial medicines – even more in developing nations (Chivian and Bernstein¶ 2008). Natural forms, processes, and ecosystems provide blueprints and inspiration¶ for a growing array of new materials, energy sources, hi-tech devices, and¶ other innovations (Benyus 2009). The current loss of species has been compared¶ to burning down the world’s libraries without knowing the content of 90% or¶ more of the books. With loss of species, we lose the ultimate source of our crops¶ and the genes we use to improve agricultural resilience, the inspiration for¶ manufactured products, and the basis of the structure and function of the ecosystems¶ that support humans and all life on Earth (McNeely et al. 2009). Above and beyond¶ material welfare and livelihoods, biodiversity contributes to security, resiliency,¶ and freedom of choices and actions (Millennium Ecosystem Assessment 2005).¶ Less tangible, but no less important, are the cultural, spiritual, and moral costs¶ inflicted by species extinctions. All societies value species for their own sake,¶ and wild plants and animals are integral to the fabric of all the world’s cultures¶ (Wilson 1984). The road to extinction is made even more perilous to people by the loss of the broader ecosystems that underpin our livelihoods, communities, and economies(McNeely et al.2009). The loss of coastal wetlands and mangrove forests, for example, greatly exacerbates both human mortality and economic damage from tropical cyclones (Costanza et al.2008; Das and Vincent2009), while disease outbreaks such as the 2003 emergence of Severe Acute Respiratory Syndrome in East Asia have been directly connected to trade in wildlife for human consumption(Guan et al.2003). Other consequences of biodiversity loss, more subtle but equally damaging, include the deterioration of Earth’s natural capital. Loss of biodiversity on land in the past decade alone is estimated to be costing the global economy $500 billion annually (TEEB2009). Reduced diversity may also reduce resilience of ecosystems and the human communities that depend on them. For example, more diverse coral reef communities have been found to suffer less from the diseases that plague degraded reefs elsewhere (Raymundo et al.2009). As Earth’s climate changes, the roles of species and ecosystems will only increase in their importance to humanity (Turner et al.2009).¶ In many respects, conservation is local. People generally care more about the biodiversity in the place in which they live. They also depend upon these ecosystems the most – and, broadly speaking, it is these areas over which they have the most control. Furthermore, we believe that all biodiversity is important and that every nation, every region, and every community should do everything possible to conserve their living resources. So, what is the importance of setting global priorities? Extinction is a global phenomenon, with impacts far beyond nearby administrative borders. More practically, biodiversity, the threats to it, and the ability of countries to pay for its conservation vary around the world. The vast majority of the global conservation budget – perhaps 90% – originates in and is spent in economically wealthy countries (James et al.1999). It is thus critical that those globally ﬂexible funds available – in the hundreds of millions annually – be guided by systematic priorities if we are to move deliberately toward a global goal of reducing biodiversity loss.¶ The establishment of priorities for biodiversity conservation is complex, but can be framed as a single question. Given the choice, where should action toward reducing the loss of biodiversity be implemented ﬁrst? The ﬁeld of conservation planning addresses this question and revolves around a framework of vulnerability and irreplaceability (Margules and Pressey2000). Vulnerability measures the risk to the species present in a region – if the species and ecosystems that are highly threatened are not protected now, we will not get another chance in the future. Irreplaceability measures the extent to which spatial substitutes exist for securing biodiversity. The number of species alone is an inadequate indication of conserva-tion priority because several areas can share the same species. In contrast, areas with high levels of endemism are irreplaceable. We must conserve these places because the unique species they contain cannot be saved elsewhere. Put another way, biodiversity is not evenly distributed on our planet. It is heavily concentrated in certain areas, these areas have exceptionally high concentrations of endemic species found nowhere else, and many (but not all) of these areas are the areas at greatest risk of disappearing because of heavy human impact.¶ Myers’ seminal paper (Myers1988) was the ﬁrst application of the principles of irreplaceability and vulnerability to guide conservation planning on a global scale. Myers described ten tropical forest “hotspots” on the basis of extraordinary plant endemism and high levels of habitat loss, albeit without quantitative criteria for the designation of “hotspot” status. A subsequent analysis added eight additional hotspots, including four from Mediterranean-type ecosystems (Myers 1990).After adopting hotspots as an institutional blueprint in 1989, Conservation Interna-tional worked with Myers in a ﬁrst systematic update of the hotspots. It introduced two strict quantitative criteria: to qualify as a hotspot, a region had to contain at least 1,500 vascular plants as endemics (¶ >¶ 0.5% of the world’s total), and it had to have 30% or less of its original vegetation (extent of historical habitat cover)remaining. These efforts culminated in an extensive global review (Mittermeier et al.1999) and scientiﬁc publication (Myers et al.2000) that introduced seven new hotspots on the basis of both the better-deﬁned criteria and new data. A second systematic update (Mittermeier et al.2004) did not change the criteria, but revisited the set of hotspots based on new data on the distribution of species and threats, as well as genuine changes in the threat status of these regions. That update redeﬁned several hotspots, such as the Eastern Afromontane region, and added several others that were suspected hotspots but for which sufﬁcient data either did not exist or were not accessible to conservation scientists outside of those regions. Sadly, it uncovered another region – the East Melanesian Islands – which rapid habitat destruction had in a short period of time transformed from a biodiverse region that failed to meet the “less than 30% of original vegetation remaining” criterion to a genuine hotspot.

#### Biodiversity loss causes extinction

**Coyne and Hoekstra, 07 -** \*professor in the Department of Ecology and Evolution at the University of Chicago AND \*\* Associate Professor in the Department of Organismic and Evolutionary Biology at Harvard University (Jerry and Hopi, The New Republic, “The Greatest Dying,” 9/24, http://www.truthout.org/article/jerry-coyne-and-hopi-e-hoekstra-the-greatest-dying)

Aside from the Great Dying, there have been four other mass extinctions, all of which severely pruned life's diversity. Scientists agree that we're now in the midst of a sixth such episode. This new one, however, is different - and, in many ways, much worse. For, unlike earlier extinctions, this one results from the work of a single species, Homo sapiens.We are relentlessly taking over the planet, laying it to waste and eliminating most of our fellow species. Moreover, we're doing it much faster than the mass extinctions that came before. Every year, up to 30,000 species disappear due to human activity alone. At this rate, we could lose half of Earth's species in this century. And, unlike with previous extinctions, there's no hope that biodiversity will ever recover, since the cause of the decimation - us - is here to stay.     To scientists, this is an unparalleled calamity, far more severe than global warming, which is, after all, only one of many threats to biodiversity. Yet global warming gets far more press. Why? One reason is that, while the increase in temperature is easy to document, the decrease of species is not. Biologists don't know, for example, exactly how many species exist on Earth. Estimates range widely, from three million to more than 50 million, and that doesn't count microbes, critical (albeit invisible) components of ecosystems. We're not certain about the rate of extinction, either; how could we be, since the vast majority of species have yet to be described? We're even less sure how the loss of some species will affect the ecosystems in which they're embedded, since the intricate connection between organisms means that the loss of a single species can ramify unpredictably.     But we do know some things. Tropical rainforests are disappearing at a rate of 2 percent per year. Populations of most large fish are down to only 10 percent of what they were in 1950. Many primates and all the great apes - our closest relatives - are nearly gone from the wild.     And we know that extinction and global warming act synergistically. Extinction exacerbates global warming: By burning rainforests, we're not only polluting the atmosphere with carbon dioxide (a major greenhouse gas) but destroying the very plants that can remove this gas from the air. Conversely, global warming increases extinction, both directly (killing corals) and indirectly (destroying the habitats of Arctic and Antarctic animals). As extinction increases, then, so does global warming, which in turn causes more extinction - and so on, into a downward spiral of destruction.     Why, exactly, should we care? Let's start with the most celebrated case: the rainforests. Their loss will worsen global warming - raising temperatures, melting icecaps, and flooding coastal cities. And, as the forest habitat shrinks, so begins the inevitable contact between organisms that have not evolved together, a scenario played out many times, and one that is never good. Dreadful diseases have successfully jumped species boundaries, with humans as prime recipients. We have gotten aids from apes, sars from civets, and Ebola from fruit bats. Additional worldwide plagues from unknown microbes are a very real possibility.     But it isn't just the destruction of the rainforests that should trouble us. Healthy ecosystems the world over provide hidden services like waste disposal, nutrient cycling, soil formation, water purification, and oxygen production. Such services are best rendered by ecosystems that are diverse. Yet, through both intention and accident, humans have introduced exotic species that turn biodiversity into monoculture. Fast-growing zebra mussels, for example, have outcompeted more than 15 species of native mussels in North America's Great Lakes and have damaged harbors and water-treatment plants. Native prairies are becoming dominated by single species (often genetically homogenous) of corn or wheat. Thanks to these developments, soils will erode and become unproductive - which, along with temperature change, will diminish agricultural yields. Meanwhile,with increased pollution and runoff, as well as reduced forest cover, ecosystems will no longer be able to purify water; and a shortage of clean water spells disaster.     In many ways, oceans are the most vulnerable areas of all. As overfishing eliminates major predators, while polluted and warming waters kill off phytoplankton, the intricate aquatic food web could collapse from both sides. Fish, on which so many humans depend, will be a fond memory. As phytoplankton vanish, so does the ability of the oceans to absorb carbon dioxide and produce oxygen. (Half of the oxygen we breathe is made by phytoplankton, with the rest coming from land plants.) Species extinction is also imperiling coral reefs - a major problem since these reefs have far more than recreational value: They provide tremendous amounts of food for human populations and buffer coastlines against erosion.     In fact, the global value of "hidden" services provided by ecosystems - those services, like waste disposal, that aren't bought and sold in the marketplace - has been estimated to be as much as $50 trillion per year, roughly equal to the gross domestic product of all countries combined. And that doesn't include tangible goods like fish and timber. Life as we know it would be impossible if ecosystems collapsed. Yet that is where we're heading if species extinction continues at its current pace.     Extinction also has a huge impact on medicine. Who really cares if, say, a worm in the remote swamps of French Guiana goes extinct? Well, those who suffer from cardiovascular disease. The recent discovery of a rare South American leech has led to the isolation of a powerful enzyme that, unlike other anticoagulants, not only prevents blood from clotting but also dissolves existing clots. And it's not just this one species of worm: Its wriggly relatives have evolved other biomedically valuable proteins, including antistatin (a potential anticancer agent), decorsin and ornatin (platelet aggregation inhibitors), and hirudin (another anticoagulant).     Plants, too, are pharmaceutical gold mines. The bark of trees, for example, has given us quinine (the first cure for malaria), taxol (a drug highly effective against ovarian and breast cancer), and aspirin. More than a quarter of the medicines on our pharmacy shelves were originally derived from plants. The sap of the Madagascar periwinkle contains more than 70 useful alkaloids, including vincristine, a powerful anticancer drug that saved the life of one of our friends.     Of the roughly 250,000 plant species on Earth, fewer than 5 percent have been screened for pharmaceutical properties. Who knows what life-saving drugs remain to be discovered? Given current extinction rates, it's estimated that we're losing one valuable drug every two years.     Our arguments so far have tacitly assumed that species are worth saving only in proportion to their economic value and their effects on our quality of life, an attitude that is strongly ingrained, especially in Americans. That is why conservationists always base their case on an economic calculus. But we biologists know in our hearts that there are deeper and equally compelling reasons to worry about the loss of biodiversity: namely, simple morality and intellectual values that transcend pecuniary interests. What, for example, gives us the right to destroy other creatures? And what could be more thrilling than looking around us, seeing that we are surrounded by our evolutionary cousins, and realizing that we all got here by the same simple process of natural selection? To biologists, and potentially everyone else, apprehending the genetic kinship and common origin of all species is a spiritual experience - not necessarily religious, but spiritual nonetheless, for it stirs the soul.     But, whether or not one is moved by such concerns, it is certain that our future is bleak if we do nothing to stem this sixth extinction. We are creating a world in which exotic diseases flourish but natural medicinal cures are lost; a world in which carbon waste accumulates while food sources dwindle; a world of sweltering heat, failing crops, and impure water. In the end, we must accept the possibility that we ourselves are not immune to extinction. Or, if we survive, perhaps only a few of us will remain, scratching out a grubby existence on a devastated planet. Global warming will seem like a secondary problem when humanity finally faces the consequences of what we have done to nature: not just another Great Dying, but perhaps the greatest dying of them all.

#### Independently, biodiversity collapse causes disease spread.

**Matt and Gebser 11** – Florian and Ronny, citing Keesing et al. 2010, “Biodiversity decline can increase the spread of infectious diseases like Hantavirus,” <http://www.eea.europa.eu/atlas/teeb/biodiversity-decline-can-increase-the/view>)//a-berg

What is the problem? Intuitively one might expect that higher overall biodiversity leads to greater diversity and abundance of pathogens and thus more incidences of the transmission of diseases. Therefore, species-rich environments might be seen to exhibit a higher infection risk than anthropogenic disturbed environments with a low biodiversity. However, research results show the opposite. Several studies suggest that with the loss of biodiversity the transmission of diseases increases (Keesing et al. 2010). Thus biodiversity loss causes the loss of an important ecosystem service: buffering the spreading of infectious diseases to humans, animals and plants (Pongsiri et al. 2009). The decline of biodiversity might lead to a faster rate of emergence and re-emergence of infectious diseases, such as the Hantavirus, and therefore the infection of a greater proportion of the human population (Keesing et al. 2010, Pongsiri et al. 2009, Suzan et al. 2008, Peixoto and Abramson 2006). Regionally different genotypes of Hantaviruses cause hemorrhagic fever with renal syndrome (HFRS) in Asia and Europe and the Hantavirus pulmonary syndrom (HPS) in the Americas (Pongsiri et al. 2009). Which ecosystem services were examined? And how? The examination of circumstances of recent Hantavirus outbreaks, transmitted from host animals to humans, so called zoonoses, showed that all outbreaks occurred in anthropogenic highly disturbed habitats with reduced biodiversity (Pongsiri et al. 2009, Suzan et al. 2008). Host species of Hantaviruses are rodents and the viruses are transmitted to humans by aerosolized rodent excreta or by direct contact with the animals. Among rodents, the virus spreads through physical contacts (aggressive encounters). In general, each Hantavirus genotype is associated with a certain rodent (host) species. Therefore, the probability that a certain Hantavirus genotype infects other rodent species successfully is very low. A study in Utah, USA, found a negative correlation between small-mammal diversity and Sin Nombre Hantavirus (SNV) infection prevalence in deer mice (Clay et al. 2009). High mammalian species diversity reduced the infection prevalence mainly by reducing the intraspecific encounters rather than by reducing host density. A result also supported by experiments. Deer mouse population density was not statistically associated with SNV infection prevalence. This suggests that high diversity reduced intraspecific encounters rather than host abundance (Clay et al. 2009). There seems to be evidence that in recent outbreaks the rodent species transmitting the virus was a generalist species (Suzan et al. 2008). Generalist species have a high adaptability to a wide range of habitats and can subsist on a variety of food sources. Keesing et al. (2010) speculate that species usually amplifying pathogens tend to invest less energy into immune defence and are more vulnerable to pathogens. In contrast, specialist species are highly adapted to a narrowly defined habitat and require one or a few specific food resources and may invest more into immune defence and hence buffering pathogens (Keesing et al. 2010). Anthropogenic disturbance to natural ecosystems frequently results in extensive simplification of the environment. Often, many specialist species become locally extinct whereas the population density of certain opportunistic species rises dramatically due to their better adaptability to a changing environment and the decrease of competitive pressure. Reduced diversity of rodent species subsequently means that the virus spreads most efficiently as there are fewer encounters with other species. Thus, it can be expected that Hantaviruses are transmitted and spread most efficiently within host communities of low diversity. Furthermore, the population of a generalist species tends to increase when species biodiversity decreases in highly disturbed regions, resulting in a higher risk of disease transmission to humans (Suzan et al. 2008). Hence, if biodiversity decreases, transmission events rise due to an increase in encounter rates among infected and between infected and susceptible hosts. Assuming that a rodent has a certain amount of aggressive encounters during its life, it transmits the virus in more cases if the small-mammal diversity is low, since aggressive encounters happen more often within the same species. A recent experimental field study conducted on wild rodent populations of different species in southwestern Panama backs this view. It showed that the relative abundance of Hantavirus hosts increases with a decrease in small-mammal species diversity (See figure below from Keesing et al. 2010). This in turn increases human infection risk (Pongsiri et al. 2009, Suzan et al. 2008). As a consequence of these findings Montira et al. (2009) suggest supporting policies that maintain or enhance biodiversity rather than trying to support or eliminate a certain species. Focusing on one species can have unexpected implications such as enhancing further biodiversity loss when eliminating a rodent species that might serve as food for others or as a buffer for diseases. Keesing et al. (2010) discuss that for certain diseases it can be considered to add a species (i.e. natural enemy or competitor) in order to control the host of the disease. It is also essential to reduce antibiotic overuse in order to avoid adaptation and resistance of pathogens. Further, it is important to identify potential emergence hotspots. The conservation of natural habitats can provide protection against emerging pathogens as it does not only foster biodiversity but also helps to reduce human-wildlife contact. It is also suggested to reduce contact between domestic animals and wildlife. However, the elimination of disease hotspots has the risk to “backfire” by resulting in pathogen transmission (Keesing et al. 2010).

#### Extinction

**Yu ‘9** [Victoria, “Human Extinction: The Uncertainty of Our Fate,” Dartmouth Journal of Undergraduate Science, May 22, http://dujs.dartmouth.edu/spring-2009/human-extinction-the-uncertainty-of-our-fate]

In the past, humans have indeed fallen victim to viruses. Perhaps the best-known case was the bubonic plague that killed up to one third of the European population in the mid-14th century (7). While vaccines have been developed for the plague and some other infectious diseases, new viral strains are constantly emerging — a process that maintains the possibility of a pandemic-facilitated human extinction**.** Some surveyed students mentioned AIDS as a potential pandemic-causing virus.  It is true that scientists have been unable thus far to find a sustainable cure for AIDS, mainly due to HIV’s rapid and constant evolution. Specifically, two factors account for the virus’s abnormally high mutation rate: 1. HIV’s use of reverse transcriptase, which does not have a proof-reading mechanism, and 2. the lack of an error-correction mechanism in HIV DNA polymerase (8). Luckily, though, there are certain characteristics of HIV that make it a poor candidate for a large-scale global infection: HIV can lie dormant in the human body for years without manifesting itself, and AIDS itself does not kill directly, but rather through the weakening of the immune system.  However, for more easily transmitted viruses such as influenza, the evolution of new strains could prove far more consequential. The simultaneous occurrence of antigenic drift (point mutations that lead to new strains) and antigenic shift (the inter-species transfer of disease) in the influenza virus could produce a new version of influenza for which scientists may not immediately find a cure. Since influenza can spread quickly, this lag time could potentially lead to a “global influenza pandemic,” according to the Centers for Disease Control and Prevention (9). The most recent scare of this variety came in 1918 when bird flu managed to kill over 50 million people around the world in what is sometimes referred to as the Spanish flu pandemic. Perhaps even more frightening is the fact that only 25 mutations were required to convert the original viral strain — which could only infect birds — into a human-viable strain (10).

### Relations

#### The plan is key to US-Cuban energy cooperation --- solves overall relations and stabilizes Cuba

Benjamin-Alvadaro 10 – Jonathan Benjamin-Alvadaro, Report for the Cuban Research Institute, Florida International University, PhD, Professor of Political Science at University of Nebraska at Omaha, Director of the Intelligence Community Centers of Academic Excellence Program at UNO, Treasurer of the American Political Science Association, 2010, Brookings Institution book, “Cuba’s Energy Future: Strategic Approaches to Cooperation”

Conclusion and Recommendations

Oil exploration is an inherently risky enterprise; there are always trade-offs between negatives and positives relating to energy security, environmental integrity, and geostrategic considerations. The consensus arising from the studies and the analyses in this book is that the creation of mutually beneficial trade and investment opportunities between the United States and Cuba is long overdue. Throughout most of the twentieth century, Cuban infrastructure and economic development were direct beneficiaries of commercial relations with the United States. This relationship was instrumental in providing Cuba with access to advanced technologies and the signs of modernity that were unparalleled in Latin America and far beyond.¶ Once again, the United States is presented with an opportunity that might serve as the basis of a new relationship between the United States and Cuba. It holds out the possibility of enhancing the stability and development of a region that is wrestling with questions of how and when it too might benefit from engagement with a global economic development model. The question is whether the United States chooses to be at the center, or to leave Cuba to seek some alternate path toward its goals.¶ Ironically, Cuban officials have invited American oil companies to participate in developing their offshore oil and natural gas reserves. American oil, oil equipment, and service companies possess the capital, technology, and operational know-how to explore, produce, and refine these resources in a safe and responsible manner. Yet they remain on the sidelines because of our almost five-decades-old unilateral political and economic embargo. The United States can end this impasse by licensing American oil companies to participate in the development of Cuba’s energy resources. By seizing the initiative on Cuba policy, the United States will be strategically positioned to play an important role in the future of the island, thereby giving Cubans a better chance for a stable, prosperous, and democratic future. The creation of stable and transparent commercial relations in the energy sector will bolster state capacity in Cuba while enhancing U.S. geostrategic interests, and can help Cuba’s future leaders avoid illicit business practices, minimize the influence of narcotrafficking enterprises, and stanch the outflow of illegal immigrants to the United States.¶ If U.S. companies are allowed to contribute to the development of Cuba’s hydrocarbon reserves, as well as the development of alternative and renewable energy (solar, wind, and biofuels), it will give the United States the opportunity to engage Cuba’s future leaders to carry out long-overdueeconomic reforms and development that will perhaps pave the way to a more open and representative society while helping to promote Cuba as a stable partner and leader in the region and beyond.¶ Under no circumstances is this meant to suggest that the United States should come to dominate energy development policy in Cuba. The United States certainly has a role to play, but unlike its past relationship with Cuba, its interaction and cooperation will be predicated on its ability to accept, at a minimum, that Cuba will be the dominant partner in potential commercial ventures, and an equal partner in future diplomatic and interstate relations. Without a doubt Cuban government actors are wary of the possibility of being dominated by the “colossus of the North,” but as Cuba’s energy policymakers face the daunting reality of their nation’s energy future, it is abundantly clear that they possess the willingness and the capacity to assiduously pursue sound policy objectives and initiatives that begin to address the island’s immediate and long-term challenges. In the end, this course of action will have direct and tangible benefits for the people of Cuba, it neighbors, and beyond.

**Russia is seeking to increase military ties with Cuba --- they will place cruise missiles and boost electronic spying capability**

**Gertz 13**

(Bill Gertz - national security columnist for The Washington Times and senior editor at The Washington Free Beacon, The Washington Times, “Inside the Ring: Russia boosts Cuba ties” Wednesday, July 31, 2013, http://www.washingtontimes.com/news/2013/jul/31/inside-the-ring-russia-boosts-cuba-ties/?page=all)//HA

The Russian military recently dispatched a guided-missile warship to Cuba as part of what U.S. officials say are growing military, intelligence and economic ties between Moscow and Havana. The missile cruiser is the Moskva, the flagship of the Russian Black Sea fleet, according to state-run Russian news reports. “The cruiser Moskva and the large seagoing tanker Ivan Bubnov set off for Havana on the fourth week of their long-distance deployment,” a fleet spokesman told Interfax-AVN on Friday. On the way, the ship conducted a test launch of a cruise missile, he said. After Havana, the warship will visit Caracas, Venezuela; Managua, Nicaragua; and Praia Port in the Cape Verde Islands off eastern Africa. The visit to Cuba is part of what the U.S. officials said is a push by Moscow to boost relations with Cuba in the military, energy and transportation sectors. The effort was kicked off in February when Russian Prime Minister Dmitry Medvedev announced that Moscow is canceling most of Cuba’s Soviet-era debt, estimated at close to $30 billion, while he denounced the U.S. embargo against the communist island nation. The closer ties also appear related to Russian efforts to maintain influence in the region after the death of leftist Venezuelan leader Hugo Chavez and the expected retirement of Cuban President Raul Castro in the coming months. Russian military ties with Cuba were bolstered during a visit to Havana in April by Russian Chief of Staff Gen. Valeri Gerasimov. U.S. officials said Gen. Gerasimov’s visit included stops at Cuban military and intelligence sites and was viewed as an indication that Moscow wants to step up both its military and intelligence presence in Cuba. During the Soviet period, the Russians operated a large electronic spying facility at Lourdes, near Havana, that was capable of intercepting most U.S. communications in the southeastern United States. It was less than 100 miles off the coast of Key West. Now there are signs that the Russians want to return to Lourdes for more electronic spying. The Russians also are assisting the Cubans economically with offshore oil prospecting, plans for a new international airport near Havana and deliveries of Russian passenger jets. The warship visit follows Panama’s recent seizure of a North Korean freighter covertly ferrying Soviet-made missiles and aircraft from Cuba to North Korea, in apparent violation of U.N. sanctions on Pyongyang over its missile and nuclear tests.

#### That causes war --- a lack of communication between the two power houses allows escalation --- relations determine influence

Inter-American Dialogue 12 (U.S. based think tank for policy analysis, exchange, and communication on issues in Western Hemisphere affairs, “Are External Tensions Entangling Latin American Countries?” http://www.cepr.net/documents/CEPR\_News/LAA120810.pdf)

A Stephen Johnson, senior fellow and director of the Americas Program at the Center for Strategic and International Studies: "It may or may not be true that Russia's government is seeking to build resupply bases for its navy in Cuba, Vietnam and the Seychelles islands. While Russian navy officials say 'da,' the foreign ministry says 'nyet.' Similar talk of establishing bases elsewhere, such as Venezuela, has not materialized. In any case, it would not present a direct threat unless such a facility became an entry point for hostile arms similar to the nuclear-tipped missiles that provoked the 1962 crisis. Like any other state, Russia can strike diplomatic agreements to base military units in other countries. On the other hand, it would be a challenge. First, it would rekindle a military relationship that ended when Russia transferred its signals intelligence facility at Lourdes to the Cuban government in 2002. A new base might be a shot in the arm to the Cuban economy, helping the Castro brothers hang on to aspects of their old command economy without going cold turkey for market reforms. A base could also serve as a hub for military weapons sales to other Latin American nations when the region needs help in fighting transnational crime. The Soviet Union fell more than 20 years ago, but Russia still has large military industries and needs to sell arms more than washing machines. Its prime customers would, like Cuba, be in the Bolivarian alliance. Second, a Russian navy station in Cuba might complicate U.S. politics, specifically any plans a U.S. administration might have to hand back Guantanamo Naval Base in the near future, for which Cuba's current government refuses to cash our rent checks. At a time when U.S. Northern and Southern Commands are gearing more toward military support for civilian law enforcement missions, it would reintroduce a strategic deterrence component into joint exercises and training. That might not be a bad thing, but it would argue for more U.S. defense spending on the Western Hemisphere. All of which seems to argue that recent threat trends in the Americas are not very predictive and that certain old alliances won't go easily into the sunset."¶ A Stephen Wilkinson, chairman of the International Institute for the Study of Cuba: "Russia is in military talks with Cuba for three reasons. One is economic, related to Russian investment in Cuban nickel and oil and the need to guarantee protection of these investments. Another factor is geostrategic. Recent events in Syria have confirmed Russian fears of the long-term strategic aims of the United States. The Russians are very aware that the United States and Western Europe have been supporting the rebels in Syria and they see this as an indirect attack upon their interests as Assad provides them with a naval base at Tartus, on the Mediterranean. The third reason is possibly rather more personal, Vladimir Putin has turned his face against Washington since his recent re-election because he perceived a U.S. hand in organizing the protests against him. From Cuba's point of view, having a Russian military base would be a guarantee of security since it would mean that U.S. military action against it would be less likely. If Washington would not wish for Havana to have such an ally, it ought to reconsider its own policy toward the island. At present, the embargo, and especially the Helms Burton Law, makes it sensible for the Cuban government to seek alliances with as many powers as possible in order to protect itself. U.S. military presence in Latin America has grown in recent years. There are now 24 bases including two new ones in Chile and Argentina. Seven bases in Colombia are being expanded. The justification for this expansion is the war on drugs and for humanitarian intervention purposes. However, it should come as no surprise that this is not the way that Cuba or its closest allies such as Hugo Chávez or Evo Morales view them. They see the bases as potential threats to their independence and sovereignty and a sign that Washington's hegemonic designs on the region are very much alive."¶ A Wayne S. Smith, senior fellow and director of the Cuba Project at the Center for International Policy: "Given the history of the 1962 U.S.-Soviet missile crisis, for the Russians now to propose exploring with the Cubans the setting up of naval bases on the island would seem a rather maladroit idea. The United States made it clear in 1962 that the positioning of offensive nuclear missiles on the island was unacceptable and demanded that they be withdrawn. The world has never been so close to an allout nuclear war. Fortunately, both Kennedy and Khrushchev showed themselves to be sensible men. They reached an understanding under which Khrushchev agreed to withdraw the missiles and Kennedy gave assurances that the United States would not invade Cuba. Subsequently, without informing the United States, the Soviets began building a submarine base on the island, but when it was made clear to them that the United States would consider this a violation of the Kennedy-Khrushchev understanding of 1962, work on the base was quietly halted and never resumed. The United States should of course oppose the positioning of Russian bases in Cuba today, as should the other countries of the hemisphere. They would serve no reasonable purpose and could only unnecessarily add to tensions. The United States has not increased its military presence in Latin America. There is no reason for the Russians to do so."

#### AND, the plan is critical to reverse Russian influence indefinitely.

**Bloomberg, 12/11/13**(Leonid Bershidsky, an editor and novelist, is a Bloomberg View contributor, “Obama’s Handshake Trumps Putin’s Money in Cuba,” 12/11/13, http://www.bloomberg.com/news/2013-12-11/obama-s-handshake-trumps-putin-s-money-in-cuba.html)//CT

Are the 1950s coming back? The U.S. and Russia appear to be vying for influence on Cuba again, one with a handshake and the other with money. The White House says Barack Obama's handshake with Cuban counterpart Raul Castro at Nelson Mandela's funeral was not planned and carried no political meaning. Be that as it may, analysts speculated about its implications, and Senator John McCain went so far as to compare it to World War II-era British Prime Minister Neville Chamberlain shaking hands with Hitler. Bearing out the theory that the leader of the free world greeting a dictator is great publicity for the latter, Granma, the Cuban Communist Party's newspaper, ran a photo of the handshake and pointed out that it was a historic first. Accidents like this don't just happen. Many remembered Obama's remarks at a Florida fundraiser in November, where he suggested revising the 53-year-old U.S. embargo against Cuba. For many Cubans, Obama's attitude, and the handshake, spells hope that the two countries will cease hostilities, ease travel restrictions and start trading. By contrast, Granma had nothing to say about another momentous event: the debt deal Cuba clinched with Russia less than a week before the famous handshake. It was, on paper, the biggest debt write-off in Russian history. President Vladimir Putin's government agreed to reduce Cuba's debt to $3.2 billion from $32 billion, payable in equal installments over the next 10 years. Only $1 billion of Cuba's debt to Russia was actually denominated in dollars. The rest was in two dead currencies: 10.3 billion Soviet rubles and 10.3 billion so-called transfer rubles, a payment vehicle used by the Communist bloc before it fell apart in the late 1980s. Putting a value on these amounts is difficult: By the arbitrary benchmarks used in Soviet times, Cuba's debt would amount to almost half a trillion dollars. Such absurd numbers give an idea of how deeply the Soviet Union was involved in maintaining Communist Cuba's livelihood in the face of a hostile U.S. Until 1988, 85 percent of Cuba's two-way trade was with the Soviet Union. Soviet dissidents used to decry the exchange of Russian oil for Cuban cane sugar and the green, flavorless oranges that filled Soviet groceries. With the Soviet Union's collapse, Cuba's economy took a huge hit. Trade with Russia went from $9 billion in 1990 to $506 million in 1994. Cuba has been struggling to restructure its foreign debt, to Russia and other countries, ever since. The $32 billion valuation of what Castro's regime owed Russia is just as meaningless as $500 billion would be. Cuba borrowed in a different world, and the Soviet Union never really expected to get the money back. Still, the debt relief is a major breakthrough. The mountain of Soviet-era debt is gone, and Russia is promising help with restructuring Cuba's $6 billion in obligations to the Paris club of creditor nations. For a country that earns hard-currency revenue of only about $18 billion a year, much of it from tourism, this is a big deal. Putin's interest in maintaining relations with Cuba illustrates the island nation's outsized place in the Russian psyche. "It is a matter of geopolitical reputation," explained Mikhail Belyat, a Latin America expert at Moscow State University of the Humanities, in an interview with TV Rain. "We used to be there when the Soviet Union still existed, we were the second pole, a counterbalance."Putin believes in geopolitics, and pictures of Obama's handshake with Castro will convince him that the debt write-off was a timely move. Russia has to "come back" to Cuba before the U.S. does or risk forever losing its tenuous foothold in the tropics. The write-off will not mean much, however, if the U.S. lifts the embargo. Its proximity and huge trade potential will outweigh any benefits of rebuilding the old friendship with Russia. Putin's Soviet dreams of Cuba can be shattered with just a handshake. That may explain the Granma editors' news judgment.

#### Our argument is not that Russia wants to attack, rather that US policymakers will perceive a threat, and miscalculate accordingly

Richter 08 (Paul, Staff Writer for New York Times, “Moscow-Havana ties worry U.S.” http://articles.latimes.com/2008/sep/01/world/fg-usrussia1)

But at a time when Russia has intervened forcefully in Georgia and is extending the global reach of its rebuilt military, some senior officials fear it may not be only bluster.¶ Russia "has strategic ties to Cuba again, or at least, that's where they're going," a senior U.S. official said recently, speaking, like others, on condition of anonymity because of the sensitive implications of the assessments.¶ The officials said they doubted the Russians would risk stationing nuclear bombers on Cuba. But some believe that Moscow might seek to restore its once-energetic intelligence cooperation with Havana, and to resume limited military cooperation, possibly including refueling stops for aircraft and warships.¶ In the current environment, such contacts would make U.S. officials uneasy, serving as a reminder of a military relationship between Havana and Moscow that stretched from the Cuban Revolution in 1959 until a weakened, post-Soviet Russia finally closed a massive electronic intelligence complex in Lourdes near Havana in 2001.¶ One senior military officer said a return of Russian ships or planes could force additional U.S. deployments in the region. But the Bush administration and Pentagon declined to comment publicly on the implications.¶ "It is very Cold War retro," said a government official. "The topic could be reminiscent of the Cuban missile crisis, and that is a chapter that people don't want to revisit."¶ The Russian Defense Ministry dismissed a report in the newspaper Izvestia in July that quoted an unidentified Russian official as saying the government intended to begin basing Tupolev Tu-160 Blackjack and Tupolev Tu-95 Bear nuclear bombers in Cuba.¶ However, the report was taken seriously enough in Washington that Gen. Norton A. Schwartz, the new Air Force chief of staff, said during his Senate confirmation hearing at the time that sending the bombers would cross a "red line in the sand."

#### US-Russia nuclear miscalc over external crises is likely—risks extinction

**Barrett et al. 13** (Anthony M. Barrett- Global Catastrophic Risk Institute, Seth D. Baum- Center for Research on Environmental Decisions, Columbia University, Kelly R. Hostetler- Department of Geography, Pennsylvania State University, 2013, “Analyzing and Reducing the Risks of Inadvertent Nuclear War Between the United States and Russia”, http://sethbaum.com/ac/fc\_NuclearWar.pdf)

War involving significant fractions of the U.S. and Russian nuclear arsenals, which are by far the largest of any nations, could have globally catastrophic effects such as severely reducing food production for years, 1,2,3,4,5,6 potentially leading to collapse of modern civilization worldwide and even the extinction of humanity. 7,8,9,10 Nuclear war between the US and Russia could occur by various routes, including accidental or unauthorized launch; deliberate first attack by one nation; and inadvertent attack. In an accidental or unauthorized launch or detonation, system safeguards or procedures to maintain control over nuclear weapons fail in such a way that a nuclear weapon or missile launches or explodes without direction from leaders. In a deliberate first attack, the attacking nation decides to attack based on accurate information about the state of affairs. In an inadvertent attack, the attacking nation mistakenly concludes that it is under attack and launches nuclear weapons in what it believes is a counterattack. 11,12 (Brinkmanship strategies incorporate elements of all of the above, in that they involve deliberate manipulation of the risk of otherwise unauthorized or inadvertent attack as part of coercive threats that “leave something to chance,” i.e., “taking steps that raise the risk that the crisis will go out of control and end in a general nuclear exchange.” 13,14 ) Over the years, nuclear strategy was aimed primarily at minimizing risks of intentional attack through development of deterrence capabilities, though numerous measures were also taken to reduce probabilities of accidents, unauthorized attack, and inadvertent war. 15,16,17 For purposes of deterrence, both U.S. and Soviet/Russian forces have maintained significant capabilities to have some forces survive a first attack by the other side and to launch a subsequent counter-attack. However, concerns about the extreme disruptions that a first attack would cause in the other side’s forces and command-and-control capabilities led to both sides’development of capabilities to detect a first attack and launch a counter-attack before suffering damage from the first attack. 18,19,20 Many people believe that with the end of the Cold War and with improved relations between the United States and Russia, the risk of East-West nuclear war was significantly reduced. 21,22 However, it has also been argued that inadvertent nuclear war between the United States and Russia has continued to present a substantial risk. 23,24,25,26,27,28,29,30,31,32,33 While the United States and Russia are not actively threatening each other with war, they have remained ready to launch nuclear missiles in response to indications of attack. 34,35,36,37,38 False indicators of nuclear attack could be caused in several ways. First, a wide range of events have already been mistakenly interpreted as indicators of attack, including weather phenomena, a faulty computer chip, wild animal activity, and control-room training tapes loaded at the wrong time. 39 Second, terrorist groups or other actors might cause attacks on either the United States or Russia that resemble some kind of nuclear attack by the other nation by actions such as exploding a stolen or improvised nuclear bomb, 40,41,42 especially if such an event occurs during a crisis between the United States and Russia. 43 A variety of nuclear terrorism scenarios are possible. 44 Al Qaeda has sought to obtain or construct nuclear weapons and to use them against the United States. 45,46,47 Other methods could involve attempts to circumvent nuclear weapon launch control safeguards or exploit holes in their security. 48,49 It has long been argued that the probability of inadvertent nuclear war is significantly higher during U.S.-Russian crisis conditions, 50,51,52,53 with the Cuban Missile Crisis being a prime historical example of such a crisis. 54,55,56,57,58 It is possible that U.S.-Russian relations will significantly deteriorate in the future, increasing nuclear tensions. 59 There are a variety of ways for a third party to raise tensions between the United States and Russia, making one or both nations more likely to misinterpret events as attacks. 60,61,62,63

## 2ac

### **Spills**

#### Disease securitization mobilizes political action to solve disease

Dr. Christian Enemark 5, is a Visiting Fellow of the John Curtin School of Medical Research at ANU where he serves as Deputy Director of the National Centre for Biosecurity.'INFECTIOUS DISEASES AND INTERNATIONAL SECURITY', The Nonproliferation Review, 12:1, 107 â€“ 125. March 1st â€“ via Taylor & Francis, which is usually obtainable through google scholar

In pursuing international cooperation, a threshold issue is how to win political acceptance for the idea that some infectious diseases pose a threat to security as well as to health. To securitize infectious diseases is to seek some of the overriding political interest and superior financial resources associated with more traditional (military) concepts of security. Labeling something a security issue lends it a sense of urgency, attracts greater public attention, and implicitly demands resources.1 There is a strong humanitarian imperative to mitigate the huge potential and actual loss of life resulting from infectious disease, but humanitarian motivations alone are not sufficient to address this problem. In appealing to national governments\*/still the principal players in the international arena\*/infectious diseases need to be portrayed in such a way as to stimulate concerns about national interests. Historically, governments have shown greater enthusiasm toward their own security than they have toward humanitarian causes.A good introduction to the way in which infectious diseases impact security is to examine their relevance to military operations throughout history. The historian Livy described an outbreak of plague in the Carthaginian and Roman armies during the siege of Syracuse in 212 BC. The Carthaginians, less accustomed than the Romans to the city's moist climate, suffered greater casualties from the disease and were defeated shortly afterward.2 In the thirteenth century, the Mongol invasions helped spread various epidemics of plague between East Asia and Eastern Europe. The sixteenth century demise of the Aztec empire came about mostly because the Spanish conquerors brought smallpox and measles with them to the New World. During World War I, an outbreak of typhus in Serbia in 1915 was so severe that the fighting on both sides stopped for six months.And disease was relevant in April 2003 when Canada's health minister suggested that medical staff from the Canadian Forces could help relieve pressure on Toronto hospital staff treating patients with SARS. The military replied that it was already critically short of physicians to look after its troops. At the time, Canada was preparing for a major deployment to Afghanistan. Had the SARS outbreak in Toronto become so bad as to require medical personnel from Canadian military units to assist, those units would not have been able to deploy overseas.3

In one sense, infectious diseases are already an ''established'' security threat in the form of biological warfare. Weapons for deliberately disseminating pathogenic microÂ­organisms potentially pose direct security threats to many countries. BW is not a new threat like emerging and re-emerging infectious diseases, and it fits more easily within traditional conceptions of security. For these reasons, attempts to link disease and security via the problem of BW tend to resonate more strongly with the public and policymakers**.** But biological weapons are just one part of a spectrum of risks associated with the biological sciences. The spectrum encompasses natural disease outbreaks, accidents arising from otherwise benign activities such as medical research with pathogens, and the use of disease as a weapon of war or terror.5Transparency, Cooperation, and Security

Global networks assisted in the defeat of SARS by providing for the free exchange of information on surveillance, diagnosis, and treatment. Openness and transparency are also vital for maintaining confidence in cooperative efforts to confront disease-based security threats through formal institutions like the WHO and the BWC. The last section of this article discusses how excessive secrecy on the part of individual governments can undermine collective attempts to address infectious disease threats, whether of natural or deliberate origin. The experience of SARS in early 2003 demonstrated well the importance of government transparency in fostering cooperation against a common microbial threat. It was therefore unfortunate that the re-emergence of H5N1 avian influenza in 2004 was possibly the subject of attempted cover-ups by certain governments in Southeast Asia**.** In the short term, the disease known as ''bird flu'' is a security issue for countries in that region in the way it has brought economic devastation to the poultry industry, thus threatening the livelihoods of millions of people. However, the recent damage is negligible in comparison to that which might occur if H5N1 is not brought under control. The virus already meets two of the three criteria for causing a global pandemic of catastrophic proportions: the ability to replicate in humans and the absence of viral antibodies in the human population. The third criterion is that the virus be able to spread rapidly among people.4 7 If H5N1 were to adapt itself to spread from person to person as easily as regular human flu, its ability to kill would far exceed that of SARS.

### 2ac --- Life

#### Theoretical criticism doesn’t disprove our specific claims --- factual statements require technical expertise to disprove

**Yudkowsky 6** (Eliezer, Research Fellow and Director – Singularity Institute for Artificial Intelligence, “Cognitive Biases Potentially Affecting Judgment of Global Risks”, Forthcoming in Global Catastrophic Risks, ed. Bostrum, 8-31, http://www.singinst.org/ourresearch/publications/cognitive-biases.pdf)

Every true idea which discomforts you will seem to match the pattern of at least one psychological error. Robert Pirsig said: "The world's biggest fool can say the sun is shining, but that doesn't make it dark out." If you believe someone is guilty of a psychological error, then demonstrate your competence by first demolishing their consequential factual errors. If there are no factual errors, then what matters the psychology? The temptation of psychology is that, knowing a little psychology, we can meddle in arguments where we have no technical expertise - instead sagely analyzing the psychology of the disputants. If someone wrote a novel about an asteroid strike destroying modern civilization, then someone might criticize that novel as extreme, dystopian, apocalyptic; symptomatic of the author's naive inability to deal with a complex technological society. We should recognize this as a literary criticism, not a scientific one; it is about good or bad novels, not good or bad hypotheses. To quantify the annual probability of an asteroid strike in real life, one must study astronomy and the historical record: no amount of literary criticism can put a number on it. Garreau (2005) seems to hold that a scenario of a mind slowly increasing in capability, is more mature and sophisticated than a scenario of extremely rapid intelligence increase. But that's a technical question, not a matter of taste; no amount of psychologizing can tell you the exact slope of that curve. It's harder to abuse heuristics and biases than psychoanalysis. Accusing someone of conjunction fallacy leads naturally into listing the specific details that you think are burdensome and drive down the joint probability. Even so, do not lose track of the real-world facts of primary interest; do not let the argument become about psychology. Despite all dangers and temptations, it is better to know about psychological biases than to not know. Otherwise we will walk directly into the whirling helicopter blades of life. But be very careful not to have too much fun accusing others of biases. That is the road that leads to becoming a sophisticated arguer - someone who, faced with any discomforting argument, finds at once a bias in it. The one whom you must watch above all is yourself. Jerry Cleaver said: "What does you in is not failure to apply some high-level, intricate, complicated technique. It's overlooking the basics. Not keeping your eye on the ball." Analyses should finally center on testable real-world assertions. Do not take your eye off the ball.

### at: passivity

#### Projecting desire into the future propels activity in the present

Rosi Braidotti 6, contemporary philosopher and feminist theoretician, Transpositions: On Nomadic Ethics, 273

Prophetic or visionary minds are thinkers of the future- The future as an active object of desire propels us forth and we can draw from it the strength and motivation to be active in the here and now of a present that hangs on in-between the 'no longer' and the 'not yet' of advanced postmodernity- The present is always the future present: it will have made a positive difference in the world. Only the yearning for sustainable futures can construct a liveable present.The sheer thinkability of the future is the necessary precondition for inhabiting creatively the present.

The anticipation of endurance, of making it to a possible 'tomorrow', transposes energies from the future back into the present. This is how sustainability enacts modes of creative becoming. This is a non-entropic model of energy-flow and hence of transferral of desire. Drawing energy from the thinkabilitv of the future means that our desires are sustainable to the extent that they engender the conditions of possibility for the future. In order to get there, a nomadic subject position of flow and multilayeredness is a major facilitator. This is not a leap of faith, but an active transposition, a transformation at the in-depth level, a change of culture akin to genetic mutations, but registered also at the ethical level.

#### Death is bad

**Paterson, 03** - Department of Philosophy, Providence College, Rhode Island (Craig, “A Life Not Worth Living?”, Studies in Christian Ethics, <http://sce.sagepub.com>)

Contrary to those accounts, I would argue that it is death per se that is really the objective evil for us, not because it deprives us of a prospective future of overall good judged better than the alternative of non-being. It cannot be about harm to a former person who has ceased to exist, for no person actually suffers from the sub-sequent non-participation. Rather, death in itself is an evil to us because it ontologically destroys the current existent subject — it is the ultimate in etaphysical lightening strikes. 80 The evil of death is truly an ontological evil borne by the person who already exists, independently of calculations about better or worse possible lives. Such an evil need not be consciously experienced in order to be an evil for the kind of being a human person is. Death is an evil because of the change in kind it brings about, a change that is destructive of the type of entity that we essentially are. Anything, whether caused naturally or caused by human intervention (intentional or unintentional) that drastically interferes in the process of maintaining the person in existence is an objective evil for the person. What is crucially at stake here, and is dialectically supportive of the self-evidency of the basic good of human life, is that death is a radical interference with the current life process of the kind of being that we are. In consequence, death itself can be credibly thought of as a ‘primitive evil’ for all persons, regardless of the extent to which they are currently or prospectively capable of participating in a full array of the goods of life. 81 In conclusion, concerning willed human actions, it is justifiable to state that any intentional rejection of human life itself cannot therefore be warranted since it is an expression of an ultimate disvalue for the subject, namely, the destruction of the present person; a radical ontological good that we cannot begin to weigh objectively against the travails of life in a rational manner. To deal with the sources of disvalue (pain, suffering, etc.) we should not seek to irrationally destroy the person, the very source and condition of all human possibility.

## 1ar

#### **This card answers their stuff about students not being able to solve anything.**

Crist 4 (Eileen, Professor at Virginia Tech in the Department of Science and Technology, “Against the social construction of nature and wilderness”, Environmental Ethics 26;1, p 13-6, http://www.sts.vt.edu/faculty/crist/againstsocialconstruction.pdf)

Yet, constructivist analyses of "nature" favor remaining in the comfort zone of zestless agnosticism and noncommittal meta-discourse. As David Kidner suggests, this intellectual stance may function as a mechanism against facing the devastation of the biosphere—an undertaking long underway but gathering momentum with the imminent bottlenecking of a triumphant global consumerism and unprecedented population levels. Human-driven extinction—in the ballpark of Wilson's estimated 27,000 species per year—is so unthinkable a fact that choosing to ignore it may well be the psychologically risk-free option.¶ Nevertheless, this is the opportune historical moment for intellectuals in the humanities and social sciences to join forces with conservation scientists in order to help create the consciousness shift and policy changes to stop this irreversible destruction. Given this outlook, how students in the human sciences are trained to regard scientific knowledge, and what kind of messages percolate to the public from the academy about the nature of scientific findings, matter immensely. The "agnostic stance" of constructivism toward "scientific claims" about the environment—a stance supposedly mandatory for discerning how scientific knowledge is "socially assembled"[32]—is, to borrow a legendary one-liner, striving to interpret the world at an hour that is pressingly calling us to change it.