

HINCKLEY JOURNAL OF POLITICS



HINCKLEY
INSTITUTE
OF POLITICS

AT THE UNIVERSITY OF UTAH

2010

Volume 11

HINCKLEY JOURNAL OF POLITICS

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A WORD FROM THE DIRECTOR

As the director of the Hinckley Institute of Politics, it is my pleasure to introduce the 2010 *Hinckley Journal of Politics*.

This year, the *Hinckley Journal* celebrates its eleventh edition, continuing the outstanding academic tradition of quality research on issues relevant to Utah, our nation, and the world. Topics include the French model of nuclear power, the development of international terrorism in Pakistan, the link between globalization and extinction rates, community-based research at the University of Utah, and malaria control in Africa. These articles come from bright and dedicated students seeking to expand their own knowledge and provide substantive research and analysis in their field.

In addition to student contributions to the *Hinckley Journal*, we are grateful for and enlightened by articles submitted by Senate Majority Leader Harry Reid and Congressman Jason Chaffetz, who address the major domestic issues facing the United States Congress from both sides of the aisle.

This fantastic compilation could not have come to fruition without the diligent work of its 2010 co-editors Rochelle McConkie and James Egan. Additionally, the tireless efforts of Managing Editor Courtney McBeth, our Faculty Editor Luke Garrott, Faculty Advisors Matthew Burbank and Ron Hrebenar, student board members, and Hinckley Institute staff were pivotal in making this year's *Journal* possible.

Through the various opportunities provided by the Hinckley Institute of Politics, University of Utah students are able to apply the theories and concepts they learn in the classroom to real world experiences. To date, the Hinckley Institute has placed and supported more than 5,000 interns in political offices throughout the State of Utah, in Washington, D.C., and in more than 35 countries on six continents. Interns are required to complete a research paper based on the issues pertinent to their internships and, therefore, reflect practical ideas and conclusions about some of today's most pressing issues. The *Journal* represents some of the best and most compelling of these papers.

This journal also features the Governor's Commission on Strengthening Democracy, which was established in 2009 by former Governor Jon Huntsman, Jr. to address low voter turnout in Utah elections, indicating a broader decline in all forms of political participation. The Commission recommended landmark reforms to Utah's campaign finance, lobbying, and election laws to bolster participation and create more transparency and accountability within Utah government.

The 2010 *Hinckley Journal of Politics* captures the most pressing issues facing the United States and the world, ranging from the economic crisis to international terrorism to energy reform. This journal presents the most thoughtful research by Utah's students and government leaders.

Sincerely,



Kirk L. Jowers
Hinckley Institute of Politics Director

EDITORS' NOTES

HINCKLEY JOURNAL OF POLITICS' MISSION STATEMENT

The *Hinckley Journal of Politics* strives to publish scholarly papers of exceptional caliber, promoting the intellectual talents and understanding of University of Utah undergraduate students in the fields of politics, government, international relations, and humanitarian aid. Contributing articles should address relevant issues by analyzing key problems and potential solutions. Papers should adhere to the highest standards of political research and analysis. The *Journal* covers local, national, and international issues, and embraces diverse political perspectives. With this publication the Hinckley Institute hopes to encourage reader involvement in the world of politics.

GENERAL COMMENTS AND ACKNOWLEDGEMENTS

It has been an honor and a pleasure to serve as editors for the 11th edition of the *Hinckley Journal of Politics*. First and foremost, we thank the student authors and the public officials who have contributed to this year's *Journal*. Without their contributions, the *Journal* would not be possible. The *Journal* is one of many wonderful opportunities the Hinckley Institute provides for undergraduate students, and we thank the countless supporters of the Hinckley Institute who make these opportunities possible. We are indeed appreciative of the generosity of the Hinckley family for their vision of the need for student involvement in practical politics and the principle of citizen involvement in government. We thank the Hinckley staff for their dedication to students. We thank our Managing Editor, Faculty Editor and Faculty Advisors, and the *Hinckley Journal of Politics* editorial board for their work in reviewing and editing the published student papers. Finally, we commend all students who are involved in the political process, whether as interns, campaign volunteers, or scholars. We hope you will find the articles within the *Journal* thought-provoking and timely.

GENERAL SUBMISSION GUIDELINES

The *Hinckley Journal of Politics* welcomes submissions from University of Utah students of all academic disciplines, as well as Utah's public officials. Any political science-related topic is acceptable. The scope can range from university issues to international issues. Papers should adhere to submission guidelines found on the *Hinckley Journal* Web site: www.hinckley.utah.edu/publications/journal.

REVIEW AND NOTIFICATION PROCEDURES:

Submissions will be reviewed by the *Journal* editors, members of the editorial board, and faculty advisors. Submission of a paper does not guarantee publication. Papers that do not adhere to submission and style guidelines will not be considered for publication. Acceptance to the *Journal* is competitive. The editors will notify potential authors when the decision has been made as to which papers have been selected for publication.

SUBMISSION GUIDELINES FOR PUBLIC OFFICIALS:

The *Journal* will consider essays written by national, state, and local public officials. Officials should contact the *Journal* editors for additional information.

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ABOUT THE HINCKLEY INSTITUTE OF POLITICS

The Hinckley Institute of Politics at the University of Utah is a bipartisan institute dedicated to engaging students in governmental, civic, and political processes; promoting a better understanding and appreciation of politics; and training ethical and visionary students for service in the American political system. Robert H. Hinckley founded the Hinckley Institute of Politics in 1965 with the vision to “teach students respect for practical politics and the principle of citizen involvement in government.” Since its founding, the Hinckley Institute has provided a wide range of programs for students, public school teachers, and the general public, including: internships, courses, forums, scholarships, and mentoring. The Hinckley Institute places emphasis on providing opportunities for practical experience in politics.

INTERNSHIP PROGRAM

A nationally recognized program and the heart of the Hinckley Institute, the Hinckley internship program places more than 300 students every year in political and government offices, non-profit organizations, campaigns, and think tanks. The Institute provides internship opportunities to students from all majors for academic credit in Washington, D.C., at the Utah State Legislature, in local offices and campaigns, and in more than 35 countries.

CAMPAIGN MANAGEMENT MINOR

The Hinckley Institute of Politics offers a minor in Campaign Management designed to provide undergraduate students the opportunity to learn the theory and practices that will allow them to be effective participants in election and advocacy campaigns. Students are required to complete a political internship and an interdisciplinary series of courses in areas such as campaign management; interest groups and lobbying; voting, elections and public opinion; media; and other practical politics.

PUBLIC FORUMS AND EVENTS

The Hinckley Institute hosts weekly Hinckley Forums where several political speakers address public audiences in the Hinckley Caucus Room. Hinckley Forums enable students, faculty, and community members to discuss a broad range of political concepts with local, national and international politicians, ambassadors, activists, and academics. Past guests include Presidents Bill Clinton and Gerald Ford; Senators Orrin Hatch, John McCain, and Harry Reid; Utah Governors Michael Leavitt and Jon Huntsman, Jr., and many other notable politicians and professionals. The speeches are broadcast on KUER 90.1 FM radio and KUED TV.

SCHOLARSHIPS AND LOANS

The Hinckley Institute provides more than \$730,000 in internship and academic scholarships to students through the Robert H. Hinckley, Abrelia Clarissa Hinckley, Anne and John Hinckley, Senator Pete Suazo, Robert F. Bennett, and Scott M. Matheson scholarship funds, and through donations from the Li Ka Shing Foundation. The Hinckley Institute is also the University of Utah representative for the Harry S. Truman Congressional Scholarship and the James Madison Fellowship—two of America’s most prestigious scholarships.



HINCKLEY INTERN JAMES EGAN IN INDIA



HINCKLEY INTERN ROCHELLE MCCONKIE WITH SENATOR REID



HINCKLEY INTERN STANLEY LLOYD IN CAMBODIA

HUNTSMAN SEMINAR FOR TEACHERS

The Huntsman Seminar in Constitutional Government for Teachers is a weeklong seminar sponsored by the Huntsman Corporation. The primary focus of the seminar is to improve the quality of civic education in Utah schools by bringing Utah educators together with political experts and visiting politicians to discuss current events in Utah and American politics. The Huntsman Seminar is truly a unique opportunity for teachers to gain an in-depth understanding of local and national political issues.

*The Hinckley Institute of Politics is located in 253 OSH
For Further Information call (801) 581-8501*

DEPARTMENT OF POLITICAL SCIENCE

The Department of Political Science values its relationship with the Hinckley Institute for the opportunities the Institute provides students to enrich their academic studies with experience in practical politics. The Institute's programs complement the academic offerings of the Political Science Department. Courses are available in five subfields of the discipline: American Politics, International Relations, Comparative Politics, Political Theory, and Public Administration. If you have questions about the Department and its programs, contact the office at 581-7031.

ROBERT H. HINCKLEY



A man of vision and foresight, a 20th-century pioneer, a philanthropist, an entrepreneur, and an untiring builder of education and of the American political system—all are apt descriptions of Robert H. Hinckley, a Utah native and tireless public servant. Robert H. Hinckley began his political career as a state legislator from Sanpete County and a mayor of Mount Pleasant. Hinckley then rose to serve as the Utah director for the New Deal program under President Franklin D. Roosevelt.

Hinckley went on to serve in various capacities in Washington, D.C., from 1938 to 1946 and again in 1948. During those years he established and directed the Civilian Pilot Training Program, served as Assistant Secretary of Commerce for Air, and directed the Office of Contract Settlement after WWII. In these positions Hinckley proved himself to be, as one of his colleagues stated, “One of the real heroes of the Second World War.” Also in 1946, Hinckley and Edward Noble jointly founded the American Broadcasting Company (ABC), and over the next two decades helped to build this company into the major television network it is today.

Spurred by the adverse political climate of the ‘40s, ‘50s, and ‘60s, Hinckley recognized the need to demonstrate that politics were “honorable, decent, and necessary,” and to encourage young people to get involved in the political process. After viewing programs at Harvard, Rutgers, and the University of Mississippi, Hinckley believed the time was right for an institute of politics at the University of Utah. So in 1965, through a major contribution of his own and a generous bequest from the Noble Foundation, Robert H. Hinckley established the Hinckley Institute of Politics to promote respect for practical politics and to teach the principle of citizen involvement in government.

Hinckley’s dream was to make “every student a politician.” The Hinckley Institute of Politics strives to fulfill that dream by sponsoring internships, scholarships, forums, mentoring, and a minor in Campaign Management. Today, 45 years later, Hinckley’s dream is a reality. More than 5,000 students have participated in programs he made possible through the Hinckley Institute of Politics. Many of these students have gone on to serve as legislators, members of Congress, government staffers, local officials, and judges. All participants have, in some measure, become informed, active citizens. Reflecting on all of his accomplishments, Robert H. Hinckley said, “The Hinckley Institute is one of the most important things I will have ever done.”

GOVERNOR'S COMMISSION ON STRENGTHENING DEMOCRACY



The Governor's Commission on Strengthening Democracy was established in January of 2009 by former Utah Governor Jon Huntsman, Jr. and subsequently endorsed by his successor, Governor Gary Herbert. The Commission was a response to a worrying trend. Utah has historically boasted robust voter turnout, but Utahns are now less likely to cast a ballot than citizens of 47 other states. The Commission was tasked with recommending revisions to Utah's campaign finance, lobbying, and election laws that would bolster political participation in the state.

The Commission, led by Hinckley Institute of Politics Director Kirk Jowers, comprised a diverse group of respected community and political leaders from across the political spectrum. The Commission actively sought public input and participation, and all Commission documents, meeting minutes, and research are available to the public on the Commission Web site (www.strengthendemocracy.org). The Commission held 12 meetings between February and December around the state. Hinckley Institute staff and interns played a vital role in the success of the Commission. Hinckley alumnus Matthew Sanderson served as Chief of Staff and General Counsel and Hinckley Institute Washington, D.C., Program Manager Taylor Morgan served as Senior Staff on the Commission.

The Commission recommended landmark reforms. One such recommendation would, if enacted, cap campaign contributions and impose "pay-to-play" restrictions for the first time in Utah's history, and provide for more robust public disclosure of political fundraising and spending in the state. To enforce these and other newly proposed requirements, the Commission also endorsed a new and independent Elections, Campaign Finance, and Lobbying Enforcement Commission headed by three retired judges.

In an effort to make voting more accessible to all Utahns, the Commission advised changes in state law to allow Utahns to register to vote when casting a ballot on Election Day, completing state government forms, and visiting government Web sites. This recommendation would also make voter registrations "portable," so that Utahns would not need to re-register after changing residences, as is now required. The Commission's other important recommendations included measures to improve Armed Service members' ability to vote, enhance transparency in government, and slow the legislator-to-lobbyist "revolving door."

Utahns demand and deserve a government that works for the benefit of all and inspires its citizens to serve their community, state, and country, Jowers commented. "Together we can create a stronger, more vibrant Utah, with greater participation by Utah's citizens and more transparency and accountability from Utah's elected officials," he said.

IN MEMORY OF DR. SAMUEL GROVER RICH



1918 - 2009

In 2005, Dr. Samuel Grover Rich established and generously funded the Hinckley Institute's Sam Rich Program in International Politics, which brings national and international elected officials and prominent academics to the University of Utah to speak on a broad variety of international topics. Towards the end of 2009, as one of his last wishes, Sam secured the future success of his program and his legacy for generations to come.

Dr. Rich dedicated much of his life to teaching at the University of Utah and was a loyal supporter of the University, where he graduated with a Bachelor of Arts degree in Political Science in 1941. He joined the University of Utah faculty in 1949, and was a beloved professor and colleague in the Political Science Department. Dr. Rich taught foreign policy and international relations for 31 years before retiring in 1980, and founded the International Relations major and certificate programs.

He established the Sam Rich Scholars in Global Affairs program at the University of Utah in 2004, and the Sam Rich Program in International Politics in collaboration with the Hinckley Institute of Politics and KUED broadcasting. Dr. Rich gave generously to the Hinckley Institute, and has donated to support international internships, and speakers with experience in foreign policy.

The Sam Rich Program has already featured several prominent speakers, including Hinckley Fellows Dr. Dan Jones, Lt. General Brent Scowcroft, Ambassador Zhou Wenzhong, Ambassador Welile Nhlapo, Ambassador Antonio de Aguiar Patriota, Consul General Hesham Elnakib, Lee Hamilton, and Thomas Friedman.

"The creation of the Sam Rich Program in International Politics is largely aimed at bringing cooperation, more understanding, and more knowledge regarding the issues the U.S. faces in the conduct of its foreign affairs," Dr. Rich said before he passed away in December 2009.

In addition to his establishment of this program, Dr. Rich's example of public service in Washington, D.C., Utah, and around the world will forever be an example of the potential impact one individual can make to better his or her surroundings.

French Nuclear Power: A Model for the World?

Casey Coombs

In today's scramble to secure renewable sources of energy that will both reduce greenhouse gas (GHG) emissions and sustain energy needs throughout the 21st century and beyond, developed and developing countries alike are pursuing a wide array of options. In this paper, I analyze the costs and benefits of nuclear energy by examining France's putatively successful nuclear industry, which many leaders in the U.S. have recently cited as an energy model to follow. Yet can the French model be realistically followed in other parts of the world, namely in the U.S.? In an effort to challenge the myth of nuclear energy as an energy panacea for the U.S.—which can be seen as a proxy for other countries considering nuclear energy—in the 21st century, I examine the unique cultural and political climate that fostered nuclear energy in France. An illustration of France's distinct political institutions, cultural inclinations, and minimal access to natural resources facilitates this process. These findings lead to the conclusion that the positive economic benefits accrued from the French government's unilateral adoption of nuclear power have overshadowed its negative aspects—specifically, the problem of waste disposal and the industry's vulnerability to water supply stability—and thus distorted its potential to help or hinder France and the world.

INTRODUCTION

In today's scramble to secure renewable sources of energy that will both reduce greenhouse gas (GHG) emissions and sustain energy needs throughout the 21st century and beyond, developed and developing countries alike are pursuing a wide array of options. France seems to have found its energy prescription in the form of nuclear power. Compared to coal, oil, or natural gas, nuclear energy production accomplishes the desired goal of reducing GHGs, producing virtually zero emissions. The U.S. Department of Energy's latest Performance Plan describes nuclear energy as "clean, non-carbon electricity...providing reliable and affordable baseload electricity without air pollution or emissions of greenhouse gases" (2010, 2). Furthermore, and in contrast to nonrenewable sources of energy, nuclear power appears to provide a stable source of energy for the foreseeable future. As a result of its transition to nuclear, France has been able to join a small group of energy-independent,¹ low GHG-emitting countries. Currently, it draws nearly 80% of its electricity from nuclear sources and gains over 3 billion euros per year as the world's largest net exporter of electricity (WNA, 2010).

These positive economic considerations, combined with the fact that lowering GHGs is currently a top priority for nations worldwide, make it clear that the nuclear industry has a prominent and established role in the welfare of France and the international community. In fact, nuclear energy has been so successful in France that some leaders in the U.S., which has not constructed a nuclear plant in nearly three

decades, have recently looked to it as a global model for the 21st century. Sen. John McCain, for example, stated in his last campaign for presidency: "The French are able to generate 80 percent of their electricity with nuclear power. There's no reason why America shouldn't" (Carey, 2008). Toward the end of his presidency, George W. Bush, too, praised the energy portfolio of France.² The most recent nuclear development from this side of the Atlantic came from President Obama's 2010 State of the Union address, in which he talked of a "new generation of safe, clean nuclear power plants in [the U.S.]," backing up these claims with more than \$50 billion in loan guarantees for construction of nuclear plants.³ Yet this sudden volte-face in American views regarding

¹France is energy independent in the sense that it is able to meet its citizens' demands of electricity independent of foreign sources of energy. It should be noted, however, that "if the term 'independence' is understood to be synonymous to domestic production of fuels only, then the official claim does not hold up, since France imports all of its uranium supply" (Makhijani, 2006, 34-35). Moreover, France still imports a considerable amount of petrol (gasoline) for automobiles.

²In his February 18, 2006, radio address, President Bush noted: "Nuclear power now produces only about 20% of America's electricity. It has the potential to play an even greater role. For example, over the past three decades, France has built 58 nuclear power plants and now gets more than 78% of its electricity from nuclear power. Yet here in America, we have not ordered a new nuclear power plant since the 1970s. So last summer, I signed energy legislation that offered incentives to encourage the building of new nuclear plants in America. Our goal is to start the construction of new nuclear power plants by the end of this decade" (Bush, 2006).

nuclear energy is misleading. It does not take into account all of the costs and benefits of adopting nuclear power as a significant source of energy production. A closer look at the history of France's acquisition of nuclear power and the negative byproducts that it produces reveals a more nuanced picture.

In an effort to challenge the myth of nuclear energy as an energy panacea for the 21st century, I will first examine the unique cultural and political climate that fostered nuclear energy in France. Then I will argue that the positive economic benefits accrued from the French government's unilateral adoption of nuclear power have overshadowed negative aspects of this technology and thus distorted its potential to help or hinder France and the world. A PBS Frontline article on French attitudes toward nuclear energy by John Palfreman, professor of broadcast journalism at the University of Oregon, will be the primary point of reference in my analysis. Interdisciplinary scholarly work and literature from the nuclear industry undergird the remainder of my findings.

THE UNIQUE POLITICAL AND CULTURAL CLIMATE THAT HAS CONTINUED TO FOSTER NUCLEAR POWER

France's decision to "go nuclear" dates back to the early 1960s when it began to explore options to wean itself from dependence on outside energy sources. The process was accelerated in 1973 when OPEC countries quadrupled oil prices and shocked France's oil-dependent energy infrastructure. As Palfreman's report on the French nuclear industry recounts, France "had and still has very few natural energy resources. It has no oil, no gas and her coal resources are very poor and virtually exhausted" (Palfreman, 2008).

The exigent circumstances facing France in the 1970s were largely overcome due to a unique combination of cultural and political factors. Politically speaking, France's autonomous, insulated institutional structure allowed the executive branch to efficiently spearhead the project without being seriously slowed down by objections from outside interest groups. As Delmas and Heiman note, "In France, despite substantial anti-nuclear interest groups,⁴ the impermeability of the institutional setup—no division of power, weak judiciary, and reliance on bureaucratic expertise⁵—effectively prevents activists from influencing policy outcome" (2001, 433). In terms of culture, France held not only a large pool of scientists and engineers capable of implementing such a techno-

logical feat, but a citizenry which was largely willing to cede decision-making to them.

Given this combination—an independent executive branch,⁶ a large number of trusted scientists and engineers, and a generally passive electorate—which discouraged a transparent debate from all stakeholders involved, the question arises as to whether France's nuclear industry is as superior as some contemporary U.S. politicians think. Palfreman's article provides insights to both sides of this question. On the one hand, it echoes the positive sentiment of many accounts concerning French nuclear power: it creates jobs, state revenue, energy independence, etc. On the other hand, it calls attention to an important, and often obscured, aspect of the enigmatic technology—what to do with its waste. In these ways, his article provides an appropriate starting point to the discussion. Similar to the commendations by Sen. John McCain and President George W. Bush, Palfreman's opening paragraph states:

In France, unlike in America, nuclear energy is accepted, even popular. Everybody I spoke to in Civaux loves the fact their region was chosen. The nuclear plant has brought jobs and prosperity to the area. Nobody I spoke to, nobody, expressed any fear. From the village school teacher, Rene Barc, to the patron of the Cafe de Sport bar, Valerie Turbeau, any traces of doubt they might have had have faded as they have come to know plant workers, visited the reactor site and thought about the benefits of being part of France's nuclear energy effort (2008).

⁵This institutional setup is in direct contrast to that of the United States. France's parliamentary system precludes the division of power inherent in the United States' constitutional system, the latter of which provides multiple stages of inquiry and input prior to the implementation of such a large-scale and potentially dangerous project. Delmas and Heiman summarize the situation as follows: "In France, reliance on bureaucratic expertise in technical issues [such as] nuclear power is substantial. In the United States, input from multiple politically motivated sources is considered before technical decisions are made" (Ibid, 435).

⁶Delmas and Heiman further elaborate the autonomous nature of the executive authority: "The President gives general directions, such as 'promote nuclear power aggressively,' and the Ministry sets and implements specific policy (the President and ministries are taken as a unitary actor owing to their same-party affiliations and the homogeneous backgrounds of members of both institutions). Parliament cooperatively passes legislation (often retroactive of policy implementation) that falls within the limits set by the Ministry; party discipline plays a key role in determining legislative behavior in France. Electoral rules in France are such that the high costs of getting elected or reelected are generally born by the party. Party discipline is usually strong across government branches and the Prime Minister may be considered as *de facto* working for the President. Strong party discipline in conjunction with the same parties in power in the executive and parliamentary branches suggests that conflict between the two branches is rare...If members disregard warning signals and persist in passing policy outside the acceptable set for the Ministry/President, then the party can punish members for defection by withholding political rents (e.g., appointments, funding). Since members know this and wish to avoid party-imposed costs, they almost always cooperate with the Ministry/President" (Ibid, 439).

³The White House Office of the Press Secretary announced on February 16, 2010 "that the Department of Energy has offered conditional commitments for a total of \$8.33 billion in loan guarantees for the construction and operation of two new [light-water] nuclear reactors at a plant in Burke, Georgia" (2010).

⁴The most prominent anti-nuclear protest in France was against construction of the FBR Super-Phenix at Creys-Malville in June of 1977. "In France, support for nuclear power fell from 74 percent in 1974 to 47 percent in 1978 (Carmoy, 1982). [Yet] despite protests at least as vehement as those in the United States and the existence of well-organized national interest groups, France continued to experience growth in its use of nuclear power" (Delmas and Heiman, 2001, 440).

These positive accounts of French attitudes toward nuclear power are quite peculiar when compared to American reactions to the issue.⁷ Yet the attitudes make sense when the economic benefits of nuclear power in the small country (relative to the U.S.) are put into context.

A brief synopsis of Civaux 1 and 2 (France's 57th and 58th nuclear reactors) in particular, and the French nuclear industry in general, gives an idea of the prominent roles they play in local, national, and international economic welfare, and thus why many Frenchmen support the industry. The Civaux plants were constructed from 1993 to 1999, at which time they were both connected to the electric grid and entered full production. In 2008, the plants produced 21.2 billion kWh, which constitutes nearly twice as much production as the average U.S. reactor in the same year (EIA, 2010). In terms of employment, France's electricity utility, Electricité de France (EdF), reports that "a nuclear power plant with 2 reactors directly employs between 600 and 700 persons whereas those with 4 reactors have around 1200 employees...[a] plant with 6 reactors has around 1500 employees" (EdF, 2010). In total, there are 58 reactors spread across 19 different sites (see Figure 1)⁸ which "currently provide several tens of thousands of jobs in France. For example, plant maintenance activities alone deploy 10,000 EDF employees and 20,000 contractor staff" (Ibid).

With this considerable amount of employment in mind (taking into account that France is about twice the size of Colorado), it is easier to see why many in France argued for, and still defend, nuclear energy. Yet several questions remain. In Palfreman's words, "How was France able to get its people to accept nuclear power? What is it about French culture and politics that allowed them to succeed where most other countries have failed?" (Palfreman, 2008). The answers to his questions lie in several unique aspects of French social and political norms, combined with the reality of France's sparse natural resource endowments.

In an interview with Palfreman, Claude Mandil, General Director for Energy and Raw Materials at the Ministry of Industry in France, cited two reasons for nuclear's supposed warm reception in his country. First, the available options at the time of quadrupling oil prices did not allow for room to maneuver. He stated, simply, "no oil, no gas, no coal, no choice" (Palfreman, 2008). Second, Mandil cited cultural

influences, namely that the French have become accustomed to leaving large, centrally-planned projects to revered technocrats in Paris.

Figure 1



Part of the phenomenon of leaving such large decisions to bureaucrats, according to Palfreman, stems from the fact that scientists and engineers in France are given much more respect than in the U.S. "Many high ranking civil servants

⁸It is important to note that each plant is located, out of necessity, next to a water supply. Whether oceans or rivers or lakes, a consistent source of water is required to cool the plants. In February of 1990, the American Nuclear Society's monthly periodical, *Nuclear News*, recounted the effects of adverse weather on France's nuclear industry in the preceding year: "A severe drought throughout the summer and fall — with precipitation at only 25% of normal — increased energy demand for irrigation, but reduced hydro production by 55%, and also hit several nuclear units that had to reduce power or shut down altogether due to lack of river cooling water. The overall effects of the drought are estimated to have cost the utility 2.3 billion FF (\$340 million)" (ANS). In 2003, as the United Nations Environment Programme notes, a heat wave created difficulties for France's nuclear reactors: "In some regions, river water levels dropped so low that cooling process became impossible and plants had to shut down, while elsewhere the water temperatures after the cooling process exceeded environmental safety levels. An exceptional exemption from the legal requirements, which puts a cap on the water temperature a plant can bring into its cooling system and a cap on the water temperature flowing back out into the source of water, was granted to six nuclear reactors and a number of conventional power stations: The nuclear power plants of Saint-Alban (Isère), Golfech (Tarn-et-Garonne), Cruas (Ardèche), Nogent-sur-Seine (Aube), Tricastin (Drôme) et Bugey (Ain) continued functioning, although the upper legal limits were exceeded. Moreover, demand for electricity soared as the population turned up air conditioning and refrigerators, but nuclear power stations, which generate around 75% of France's electricity, operated at a much reduced capacity. In order to conserve energy for the nation, France (Europe's main electricity exporter) cut its power exports by more than half" (UNEP, 2004, 3). These examples illustrate the vulnerabilities of nuclear power in regions susceptible to droughts and heatwaves. Proposed construction of a nuclear power plant along the Green River in Utah has met criticism for these reasons, in addition to the fact that it would divert an estimated range of 30,000 (Estep 2010, 1) to 50,000 acre-feet of water (Smart, 2010)—about 8 to 16 billion gallons per year, respectively—in a region of the U.S. that struggles with water on an annual basis. In a desert climate nuclear energy is impractical.

⁷In the U.S., the Three Mile Island incident of 1979, in which a partial reactor meltdown at the Three Mile Island nuclear power plant in Harrisburg, Pennsylvania, released radioactive gases into the atmosphere, accelerated the decline of the American nuclear industry. Delmas and Heiman ask, "What if an incident like TMI had happened in France? The model suggests," they conclude, "that the public would never have been informed; the strong bureaucracy and unified Executive/Legislative branches may have kept the public ignorant. What then, if a Chernobyl were to happen in France? As the media would play its role, asymmetry of information between government officials and public opinion would be much lower. The model suggests that the system would collapse completely and rapidly, instead of incrementally as in the United States (2001, 452).

and government officials trained as scientists and engineers (rather than lawyers, as in the United States), and, unlike in the U.S. where federal administrators are often looked down upon, these technocrats form a special elite" (Ibid). In Mandil's words, "We like our engineers and our scientists and we are confident in them" (Ibid).

When viewed separately, Mandil's two reasons for welcoming nuclear energy may not appear very convincing, especially in light of the industry's recent past, namely the Chernobyl⁹ and Three Mile Island incidents. Yet when viewed in tandem, they seem more rational. Psychologist Paul Slovic and colleagues at Decision Research in Eugene, Oregon, found through their surveys that a number of French people have fears of nuclear power similar to those in the U.S., but the combination of unique cultural views and a lack of choice in the matter have great bearing on the outcome of their behavior toward it. Palfreman found:

While French citizens cannot control nuclear technology any more than Americans, the fact that they trust the technocrats that do control it makes them feel more secure. Then there is need. Most French people know that life would be very difficult without nuclear energy. Because they need nuclear power more than us, they fear it less (2008).

These findings suggest that the lack of choice in the matter—both in terms of an absence of alternative natural resources and the institutional arrangement that undermines the agency of French citizens—combined with a cultural tendency to trust experts with such projects (perhaps this trust was also borne out of a lack of choice in the political process) has led the French population to accept their potentially dangerous energy source.

When asked specifically about past nuclear industry disasters, a local Civaux baker reasoned, with regard to Chernobyl, that the Russians were not "up to the task. But the French scientists and engineers are" (Ibid). Another Civaux resident said "I would be much more frightened living next to a dam [France has about 12% hydroelectric power]" (Ibid). These opinions—expressing a high degree of trust in scientists and engineers, and defending nuclear at the expense of the relatively marginal hydroelectric industry—reinforce the cultural and "no choice" explanations which put the industry in a positive light. It seems that many French citizens are making the best out of the nuclear situation with which they are stuck by highlighting the positives and downplaying the negatives.

AN OVERLOOKED BYPRODUCT OF THE NUCLEAR INDUSTRY: NUCLEAR WASTE

One thing that does frighten, or anger the French is the prospect of nuclear waste. Mandil recounted the prospect of

storing waste in France from the eyes of a Frenchman. "It's not the risk of a waste site, so much as the lack of any perceived benefit," he stated. "People in France can be proud of their nuclear plants, but nobody wants to be proud of having a nuclear dustbin under its feet" (Ibid). As a result of this stumbling block, in 1990, all further nuclear energy activity was halted and the issue was given to the French parliament, which appointed a politician, Christian Bataille, to explore the matter.

After visiting the protesters, Bataille discovered that the technocrats had misinterpreted the psychology of their constituents and viewed the matter in purely technical terms.

To them, the cheapest and safest solution was to permanently bury the waste underground. But for the rural French, says Bataille, 'the idea of burying the waste awoke the most profound human myths. In France we bury the dead, we don't bury nuclear waste...there was an idea of profanation of the soil, desecration of the Earth' (Ibid).

In addition to polluting their soil and tainting their myths, a rural/urban divide was awakened. "Bataille discovered that the rural populations had an idea of 'Parisians, the consumers of electricity, coming to the countryside, going to the bottom of your garden with a spade, digging a hole and burying nuclear waste, permanently'" (Ibid).

What resulted from these realizations about local perception was a different state approach to burying waste. Instead of burying the waste permanently, Bataille proposed "stocking" the waste, which implied reversibility. In other words, the waste could potentially be removed in the future. This change, of course, apparently appealed to the psychology of the French masses because "stocking waste and watching it involves a commitment to the future. It implies that the waste will not be forgotten...[moreover], says Bataille, 'Today we stock containers of waste because currently scientists don't know how to reduce or eliminate the toxicity, but maybe in 100 years perhaps scientists will'" (Ibid).

Unfortunately, there is a big problem with Bataille's creative thinking (which may have been addressed had there been a public debate before the creation of France's nuclear industry). As Leonard Solon, former Director of the New York City Department of Health's Bureau for Radiation Control, aptly noted nearly 30 years ago, "One of the most persistent and refractory problems of the nuclear fuel cycle...is the ultimate disposition of long-term radioactive waste. 'Long-term' in this case dwarfs recorded human history. The half-life of plutonium-239, a significant and inevitable by-product of all light-water nuclear reactors [which are predominant in France], is 24,000 years" (Solon, 1982, 15). Yet its exceedingly long life-span is not the only worrisome aspect of nuclear waste. An overview of its other qualities is in order.

The United States' Nuclear Regulatory Commission divides nuclear waste into three broad categories: high-level radioactive waste, mill tailings and low-level radioactive waste. According to the NRC:

⁹On April 26, 1986, the Chernobyl nuclear reactor in the Ukrainian Socialist Soviet Republic exploded. Atmospheric radioactive debris from the accident extended throughout Eastern, Northern, and Western Europe.

High-level radioactive waste consists of “irradiated” or used nuclear reactor fuel (i.e., fuel that has been used in a reactor to produce electricity). The used reactor fuel is in a solid form consisting of small fuel pellets in long metal tubes. Mill tailings wastes are the residues remaining after the processing of natural ore to extract uranium and thorium. Commercial radioactive wastes that are not high-level wastes or uranium and thorium milling wastes are classified as low-level radioactive waste.¹⁰

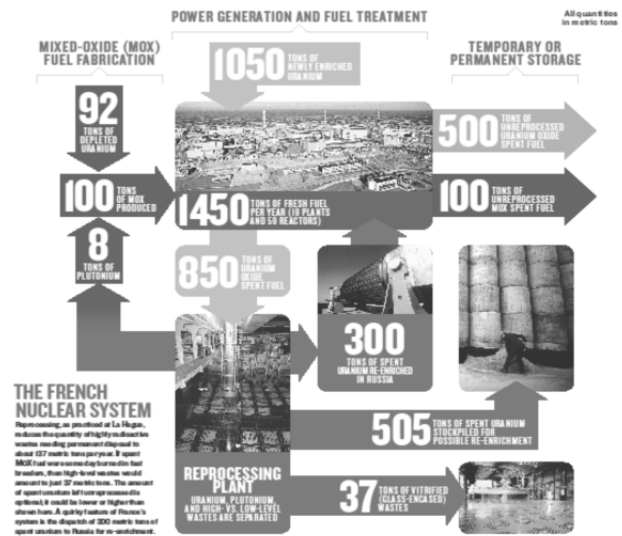
The low-level wastes can include radioactively contaminated protective clothing, tools, filters, rags, medical tubes, and many other items (NRC, 2002, 2-3).

Waste from nuclear reactors falls within the high-level waste category, for which neither the U.S. nor France has constructed a permanent disposal facility.¹¹ In the meantime, high-level waste (also referred to as spent fuel) goes through the following two step process: after spent fuel is removed from a reactor which has reached the end of its productive life, spent fuel is first stored in cooling pools of water for at least ten years. Then, the cooled spent fuel is transferred to dry storage in shielded concrete casks for about ten more years (Ansolabehere et al. 2003, 97).

Perhaps the most prominent element of France’s nuclear waste issue is located in La Hague, along the English Channel in northwest France. It is here that spent nuclear fuel is

“reprocessed,”¹² which is to say fuel from spent nuclear rods is salvaged in order to be used again in the future. This efficiency-enhancing step in the nuclear process is another seemingly positive attribute France’s nuclear energy industry. The reprocessing facility (See Figure 2) is especially appealing when it is taken into account that “La Hague...provide[s] about 11,000 jobs and 479 million (about \$624 million) for the local economy. Areva [owner of France’s reprocessing facility]...had revenues of 1.74 billion (about \$2.3 billion) in 2007” (Ling, 2010).

Figure 2 (Fairley, 2007)



¹⁰Currently, the largest low-level radioactive waste disposal site in the United States is located in Tooele, Utah, at EnergySolutions’ Clive facility. Here, only Class A waste (the least radioactive form in the low-level category) is authorized for disposal. A contentious debate has arisen in light of EnergySolutions’ attempts to dispose of depleted uranium (DU) (a byproduct of uranium enrichment to be used, inter alia, as fuel in light-water reactors), which starts out as Class A low-level waste but increases in toxicity (beyond Class B and C standards, which are banned in Utah) for about 1,000,000 years. EnergySolutions is also attempting to “downblend” Class B and C waste, the result of which is a waste product not suitable for Clive’s Class A disposal facilities. The debate surrounding the importation of DU and downblending of Class B and C waste is that 1) laws pertaining to these issues are interpreted differently depending on the interest group (for example, various community groups in Utah are raising public health concerns; EnergySolutions has fiduciary duty to maximize its shareholders’ returns); and 2) the Nuclear Regulatory Commission (NRC) has not yet completed studies determining the potential risks of these activities on public health.

¹¹On June 3, 2008, the U.S. Department of Energy (DOE) “submitted a license application to the U.S. Nuclear Regulatory Commission (NRC), seeking authorization to construct a high-level waste geologic repository at Yucca Mountain, Nevada” (NRC, 2010). Subsequently, in an interview with MIT’s Technology Review, current Department of Energy Secretary Steven Chu stated that “Yucca Mountain as a repository is off the table. What we’re going to be doing is saying, let’s step back. We realize that we know a lot more today than we did 25 or 30 years ago. The NRC is saying that the dry cask storage at current sites would be safe for many decades, so that gives us time to figure out what we should do for a long-term strategy. We will be assembling a blue-ribbon panel to look at the issue” (Bullis, 2010). A 2010 update to MIT’s 2003 study on the future of nuclear power concluded, pithily, that “the progress on high-level waste disposal has not been positive” (Deutch et al., 2010, 11).

Yet much of this revenue comes from reprocessing the waste of Japan, Germany, Switzerland, the Netherlands, Belgium and Italy. If, as Mandil noted, French citizens “cannot be proud of having a nuclear dustbin under its feet,” it seems unlikely that they would be proud of hosting the world’s nuclear waste for years at a time, before and after which requires transportation along French highways and through French ports. The likelihood of an accident only increases when countries start shipping their waste back and forth

¹²Reprocessing is a highly technical process that entails the following: “Old nuclear fuel assemblies — highly radioactive, elongated packages of metal rods that once energized some of France’s 58 nuclear power plants — are gripped by large mechanical arms. They are hoisted by cranes and placed on belts that move them along in the dim orange light. The machinery works to prepare the assemblies to be lowered into four giant pools. There they will sit, with about 13 feet of demineralized water above them, a bath to shield and cool them, for about three years. Then more machines will lift them out, chop them up and put the pieces to be dissolved in vats of nitric acid. The fissioning of the fuel in the power plant, or the splitting of uranium atoms to release energy, has created a large family of elements, called fission products. The goal of this process is to find and recycle the ones that still contain more energy — the plutonium and the uranium” (Ling, 2010).

across the globe on a regular basis. Nuclear proliferation concerns arise from the reprocessing cycle.¹³

Again, the French public seems to think that the economic benefits outweigh the health risks. A recent study by members of the Association pour le Contrôle de la Radioactivité dans l'Ouest (ACRO), an organization sent to Normandy (where La Hague is located) to monitor the environment for radioactive discharge levels and forward information to the locals found the following:

Tritium and iodine levels are cumulatively much higher than they naturally would be. ACRO said community members are concerned about the environmental and health impacts of La Hague, but they are more concerned about their jobs... 'There is doubt in their heads,' said ACRO's Pierre Barbey and André Guillemette through a translator. 'They keep this fear at bay because the economics is favorable for the area.' (Ling, 2010).

CONCLUSION

The undemocratic means by which France acquired nuclear energy—an executive-empowering institutional structure, a citizenry that has great trust in its technocrats, and a lack of alternative sources of energy—has given rise to the myth that France's energy restructuring should be a model for other countries seeking to lower GHGs while sustaining their energy demands throughout the 21st century and beyond. The reason this myth has been able to thrive is primarily due to the fact that enormous economic benefits have overshadowed the industry's negative byproducts, specifically, water-related issues and the many risks of nuclear waste. Other countries would do well to take into account not only the positives, but the negatives, in considering nuclear as a potential source of energy.

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¹³MIT's interdisciplinary panel argues against reprocessing spent fuel on safety grounds: "The current international safeguards regime is inadequate to meet the security challenges of the expanded nuclear deployment contemplated in the global growth scenario. The reprocessing system now used in Europe, Japan, and Russia that involves separation and recycling of plutonium presents unwarranted proliferation risks" (Ansolabehere et al. 2003, ix).

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A Mecca for Militants

An Examination of the Development of International Terrorism in Peshawar, Pakistan, 1970-2010

Ashley V. Edgette

This paper is an examination of the beginnings of global terrorism in Peshawar, Pakistan—a modern region of violence and militancy. This city has been a major proponent in one of the most problematic global issues of this era, international terrorism. Examining the environment in which this type of militancy began and what incurred is vital to understanding how to assuage the issue as it stands today and how to further the development of peaceful conditions in the future. The development of this center of violence is examined through analysis of the city's modern history. By delving into the social, political and economic issues that plagued the city from 1970 to the turn of the century, one may see what factors created this disparate area of corruption. Analysis of this time frame indicates that irresponsibility on behalf of international super powers such as the U.S., India, Russia, and Saudi Arabia is a central cause behind Peshawar's militant issues. Although local factors played a vital role in the extrapolation of militancy, this dissertation will focus on the global factors because by understanding these it is possible to avoid the further development of international violence. This is an argument that militancy does not develop solely because of inherent cultural tendencies but also because of the intrusion of international dilemmas and dogma, and should be addressed accordingly.

There are environments in which the violent aspects of human nature flourish, places where human empathy fails. These spots gain a reputation for their militancy, radicalism and corruption. They sport drug trade and support criminals. They are centers of violence that come to be known for their political unrest and low living standards. Certain dynamics will always play into the development of violence within cities. These incidents breach ethnic boundaries and political ideologies. These centers of violence worsen and grow through a convoluted mixture of neglect and evocation on the international scale. They are locations that attract the criminal degenerates of the modern world, corrupting the nation that hosts them and spreading their networks and influence throughout the global sphere.

Peshawar is not a singular player in the spread of violence within city centers but is an exemplary city to show this development. It has been the home to such international terror threats as Osama Bin Laden and the Taliban. It has spread its militant fundamentalism internationally. The factors that will be laid out momentarily will show what has caused such extreme violence in this city, and that what will be examined

here can be applied to any city of its kind. Any city on a frontier that is confronted by culturally dissimilar and competitive super powers, corrupt government, environmental instability or neighboring anarchy may be compared to Peshawar. It is an allegorical city that shows the extensive neglect and evocative circumstances that were developed by local and international communities.

Peshawar is not the only city in which international terrorists made their beginnings but it is a city in which it is so prevalent and so disconcerting that it may not be ignored. There are multitudinous layers in the city throughout which the inner workings of violence spread. It spread internally by way of Pakistan's corrupt government, education centers, and inadequate infrastructure development. It was enflamed internationally from the anarchy of Afghanistan and its previous communist fall as well as the infiltration of Western, Middle Eastern and South Asian ammunition, topped off by the antagonism from India in the bloodthirsty battle for Kashmir.

Militancy truly became an integrated political, cultural, and economic force within Peshawar during the 1970s. Therefore the examination will begin there. It will address the

internal factors such as population rates, political development, and education within Pakistan while following the international affairs such as the war against communism in Afghanistan, the Kashmiri jihad, American influence upon the area and the inevitable rise of the Taliban.

THE LAY OF THE LAND

Salmon rooftops and gritty sandstone walls creep up the dark green craggy hills surrounding Peshawar. Minarets pierce through the dry desert clouds. Crumbling gates, where the outer limits once were, now give stature to the rickety overflowing marketplaces of the city. Vivid reds and mustard yellows paste the walls of city slums, becoming diminutive as they contrast with the distinguished peaks towering behind them. The city sits precariously upon the foothills of these crags, clinging in futility to existence. Looking down upon the sprawl of rooftops and roads it could almost be Salt Lake. The city ekes out daily life just as American Westerners did in generations past, but this city is not in the American West. It is within the Northwestern Frontier of Pakistan. It is not pushed up against the Rocky Mountains but against the lofty mountains bordering Afghanistan.

Through Peshawar cuts the most trafficked roadway into Afghanistan, the Khyber Pass, otherwise known as the Grand Trunk Road (Ridder, 2001). Winding through some of the most treacherous terrain in South Asia, this road was once seen as a vital organ of the Silk Road Trade. Today it is less of a cultural avenue than a black-market trade of arms, drugs, and armaments.

The road makes its way through a winding mountainous region between the two nations leading directly to Kabul, the unstable capital of Afghanistan. To the east the Grand Trunk Road shoots towards Islamabad, the capital of Pakistan. It is the major artery connecting these two central hubs of government and commerce. Since Peshawar falls on the eastern slopes of the mountainous pass, anyone making the trip from Kabul to Islamabad has to take the Grand Trunk Road through Peshawar. In the past century Peshawar has felt the brunt of change rolling through the Khyber Pass from the north on its way down to the capital. The Grand Trunk Road provides a major connection for supplies, ideas, cultural influence, and political encroachment as well.¹

South of Peshawar is one of the most dangerous, unstable regions on the planet. The Federally Administered Tribal Area (FATA) is an unregulated region that is supposedly under Pakistani control, but local tribe leaders hold true power in the region. The tribes have encroached upon city

boundaries for centuries and no overarching state government has managed to overcome them. Today FATA is home to large numbers of the Taliban as well as prominent Al Qaeda figures, most notoriously Osama Bin Laden² (Ridder, 2001).

Kashmir looms over Peshawar's northern boundary. Kashmir cements the three-pronged front of cultural and political confrontation of which Peshawar is the center. Within this predicament Peshawar must deal increasingly with the turmoil of Afghanistan, the savagery of the FATA and the violence of Kashmir. This unique location between these three major contention areas (Afghanistan in the east, the FATA in the south, and the disputed Kashmiri area to the north) has caused external issues to exacerbate the internal challenges of poverty, overpopulation, and rising political unrest.³

THE RISE OF SHARI'A

Political contention rose throughout the 1970s in Peshawar paralleling a time of major government corruption and instability in Pakistan. By examining the lineage of Pakistani prime ministers from 1970 to present day, one gets a bird's eye view of how the Islamization of government within Pakistan affected Peshawar's internal issues, extrapolated the external factors, and instigated the rise of militancy within the city center.

This development of Islamic law began in August 1973 with Zulfikar Ali Bhutto, who had just been inaugurated as the Prime Minister of Pakistan (Hussain Z., 2007). Thinking that an extension of governmental power into domestic politics was needed to control the tumultuous country, he started expanding the power of Pakistan's Inter-service Intelligence (ISI). The problem is that the ISI is the lifeblood of Pakistan's military. They already enjoyed jurisdiction over a vast array of government programs including the nuclear armament program, international relations, and homeland security, so giving them power over the domestic arena was analogous to passing the crown from the sedated king to the overzealous general.

Having begun as a branch of intelligence service to promote stability during the upheaval of British rule and the birth of Pakistan in 1947, the ISI grew in force and power to become the underlying nervous system of Pakistani government (Chengappa, 2000, 1857-1878). During the end of the 1970's the already powerful ISI, under Bhutto's rule, became the Big Brother of Pakistan. They had a hand in almost every

¹The Northwestern Frontier in which Peshawar is located is dominantly of Pashto heritage, which gives the Pakistanis a major tie to the Afghani population across the boarder, who share the same ethnic bond. Peshawar was once revered as the center for Pashto music and arts, a cultural gathering place for the deeply rooted ethnicity of the region. These ethnic ties will later create a widely held acceptance of Afghan refugees, many viewing them as brothers by heritage (Ridder G. R., 2001, 151.)

²Bin Laden is speculatively within Southern Waziristan, which is a village within FATA (Ridder G.R., 2001).

³The city itself has become overpopulated in recent decades, doubling from 1.1 million occupants in 1981 to over 2 million by the turn of the century (Korson, J. H., 1993). contemporary problems in Pakistan. Boulder, Colorado, USA: Westview Press. The city sits atop the Iranian Plateau. It has had major growth without the ability to spread out causing urban regulatory degradation within the water system and road system.

aspect of foreign and domestic politics, including government-sponsored militancy in Kashmir as well as wiretapping and surveillance of citizens who might be categorized as opponents of the state (Byman, 2005). To complement the ISI's rule Bhutto tried to unite Pakistan under an Islamic nationalist ideology to give the nation a sense of identity, but instead of uniting the nation, it actually heightened sectarian divides and fueled radical religious movements. This paranoia and extensive military control was felt heavily in Peshawar where sects of Islamists tended violently to point out faith differentiations. Markets became filled with discontented, paranoid citizens walking with one eye over their shoulder looking out for ISI spies and fundamentalists with a glint in their gaze. Militancy, both sectarian and state sponsored, became a norm within Peshawar during this period (Markham, 1977). Citizens expected to be brutalized because of their faith. Whether they were a Sunni who fell into a Shi'a market or Shi'a child in a Sunni school, violence became the anticipated consequence.

Bhutto became increasingly more dependent on the powerful crutch of the ISI and was finally overthrown via a military coup in July 1977. By then the ISI truly controlled Pakistan and with their excessive power came excessive suppression. Unable to even retain a semblance of influence over the ISI, Bhutto fell under the force that he had given such free reign, letting the ISI's leading general, Zia ul-Haq, seize power becoming the unelected Prime Minister of Pakistan. Flushed with power he immediately imposed martial law. He shut down any remnants of a democratic system and strived for a full-throttle Islamic state. He finished what Bhutto had begun within the political arena, which was the development of Islamic law. The ISI gained control rapidly with Shari'a (Islamic law) imposed upon the legal system, media and military. Their iron grip put Pakistan on the fast track towards becoming an Islamic state (Gregory, 2007).

The implementation of Shari'a widened sectarian divides in Peshawar as the government began to form Islamic laws with unavoidable bias in favor of Sunnis. This was a logical political stratagem as Sunnis are the majority population of Pakistan but it proved detrimental to smaller demographic groups including the Shi'a populace (Moten, 2007). The law's implementation gave certain sects a sense of legal justification in their sectarian violence towards minorities. Organized sectarian militancy rose in Peshawar throughout the 1980s as sects took root trying to defend or rebel against the bias of the new Sunni Islamic government. A mass-sectarian consciousness permeated the city⁴ (Riikonen, 2007).

Bombings began within the city. Shi'a citizens were targeted like clay pigeons as they made their way through the city markets and overcrowded alleyways, being smashed to smithereens more and more frequently. Non-action became the most common "official" way of dealing with this sectarianism in Pakistan because it was the least biased form of

addressing the issue. The violence and lack of government intervention heightened tension and fear in major cities such as Peshawar where Muslims came from a range of Sunni and Shi'a sub-sects who tended to clash heatedly with one another. These sects were thrown into a continuous cycle of violence fueled by the growing hatred between holders of differing Islamic views.

The cycle of violence between sectarian subsets of Islam was proliferated by the Iranian Revolution of 1979. As the Shi'a minority in Peshawar feared for their lives, the massive force of Shi'as in Iran revolted and gained rule over their nation. This gave Pakistani Shi'a's courage (Lewis, 1979). Eager for political action, violent Shi'a organizations began forming in Peshawar in response to the stifling Sunni front. Militant groups like TNFJ (Movement for the Implementation of Shi'a Jurisprudence) and its Sunni counterpart SSP (Sipah-e-Sahaba Pakistan) created an Islamic proxy-war on the northwestern frontier, where jihadists could come and fight on their home front (Riikonen, 2007).

The escalation of crime and violence within the city caused a paradox for the citizens of Peshawar. They became increasingly dependant on the ISI to maintain control while fearing them more as an unlawful unchecked power source. The instability of the system was a major factor in the rise of citizen-formed coalitions responding to a lack of formal government. Many conditions that are characteristic of militancy can be seen in Peshawar during this period: the repressive attitude of the state, the intensity of the forms of Islam circulating the area, and a general attitude of political unrest without any outlet for action (Crenshaw, 1990).

A COMMUNIST TWIST

Across the Pakistani border, just northwest of Peshawar, Soviet forces invaded Afghanistan in December 1979 (Grau, 2007). They entered under the claims that they were protecting the Afghani Government from foreign forces.⁵ Leonid Brezhnev, the aged and infirm Soviet General Secretary, came to rescue Afghanistan from the "freedom Fighters" (mujahideens). These mujahideens were Afghani citizens battling against the oppression of communism.

The mujahideen insurgents had quickly become favorites of anti-communist powers in the global community, such as the United States. They were passionate citizens fighting for the right of self-rule, and what fight do Americans like better than a fight for freedom? America, who saw any fight against communism as an obligatory American fight for freedom, decided to help these militant jihadists battle this foreign power in the good fight against communism. They decided that they would supply these fundamentalist Islamists with

⁴This was helped by the orthodox Sunni public education system.

⁵The (*Democratic Republic of Afghanistan*) DRA's shaky control of the state had been reflecting poorly upon their communist counterparts in the North so the Soviets decided to stabilize the situation by strengthening the DRA and conducting missions against mujahideen insurgents who were trying to take control Afghanistan.

supplies, weapons, and money to stop the spread of the Iron Curtain regime.

“Insurgency Poses Growing Threat To Afghanistan’s Pro-Soviet Rulers” ran across newspaper headlines around the globe in 1979 (NY Times 1991). This small cry for freedom had become an international issue because what had been a losing battle for freedom in the far-flung land of Afghanistan between Islamists and Communists had turned into a proxy war between democracy and communism. The U.S. stuck itself directly in the middle of a situation of which they had very little cultural understanding. America helped the mujahideens fight the “good fight” against communism without understanding the implications of a jihad. Although freedom is grand, when it involves stepping upon the toes of a foreign culture it can become contentious and that is just what happened.

This relationship between the mujahideens and the U.S. began the biggest covert collaborative operation in modern history. The ISI and other Pakistani officials saw the fall of the communist regime in Afghanistan as beneficial because it could lead to better trade relations with Afghanistan. They were willing to do whatever they could to help boost their struggling economy, so they decided to help the U.S. get communism out of Afghanistan. They gave Peshawar over to the CIA and Afghan fighters as an outpost for training, supplying and recruiting fighters for the warfront in Afghanistan.

This was fundamentally irresponsible behavior on the part of the U.S. and Pakistan. The seed of militancy in Peshawar truly began with the CIA, led by Stansfield Turner, and the ISI as they helped Islamic jihadists in Afghanistan battle communism (CIA, 2002). The ISI trained, supplied and held contact with the mujahideens while the CIA supplied weapons and funding. The CIA and the ISI could not enter Afghanistan so they bunkered down in the closest proximate city, Peshawar. The Grand Trunk Road became the super-highway of counter insurgency supplies providing jihadist freedom fighters with stinger missiles, machine guns, ammunition, and an array of other weapons. Peshawar’s black market grew exponentially as the proxy war escalated and more arms, funds and supplies came through daily. CIA and Saudi funding for the ISI created a full-on parallel military government structure in Pakistan that controlled all aspects of government without even a semblance of civilian rule (Ridder, 2001).

This new relationship between the militant fighters in Afghanistan, the ISI, and the CIA formed a dialogue centered on the Islamic orientation of the mission. The ISI trained guerillas indoctrinating them with Islamic ideals. These guerillas came to see the fight against the Soviets as a jihad in the name of Allah against foreign ideologies. The USSR gave jihadists around the world a common goal. Islam had to take down communism. This new idea centered on the shift of their fight into the public sphere (Hussain Z., 2007). The jihad was no longer seen as a domestic struggle but rather as a fight of Muslims from all nations against oppressive

Western ideals, “a Jihad for the liberation of Afghanistan from infidel rule” (Shay, 2002 89). This dialogue began in Peshawar. Militants flocked to the volatile Islamic stronghold from around the globe to support this new form of jihadism.⁶

AN INFLUX OF ISSUES

This call to Jihad brought over 35,000 Muslim warriors to Peshawar from 1979 to 1989 (Hussain Z., 2007).⁷ With this influx came an abundance of domestic issues that permeate the city to this day. Criminal and sectarian violence rates rose, education became the site of militant training, Afghan refugees flocked across the border, and illegal trade exponentially grew.

Paranoia permeated Peshawar as militants and refugees flooded the city. The conflict that had begun earlier between Islamic sects became exacerbated by the culture of violence that was spawned from CIA and jihadist influence. Citizens were no longer safe to walk the cobbled streets of their own city. A once pulsating marketplace now supported more black market trade than fresh produce and congregations of foreign mujahideens were more likely to be seen perusing the merchandise than mothers with their children.

This instability stimulated the growth of anti-American sentiment within Peshawar. Out of frustration and a lack of personal safety Peshawar citizens began to form jihadist movements of their own based on the successes of the Afghan Mujahideens. Anti-Sunni, anti-Shi’a, anti-democratic, and anti-Indian militancy sprang up all over Peshawar. The goals of these nascent terrorist organizations ranged from the liberation of Kashmir to the installation of a Pashto government in Afghanistan. Lashkar-e-Toiba (LeT), Jaish-e-Mohammed (JeM), Haratiat-ul-Mujahideen (HuM), and Harkat-al-Jihad-al-Islami (HJI) were just some of the terrorist organizations born during this period, reaping the benefits of government-funded militancy and CIA based training⁸ (Hussain Z., 2007).

The education system within Peshawar had become radicalized by the militant upsurge in the city as well. Throughout the 1980s madrasas that promoted militancy and

⁶One of the supporters of this newly birthed international jihad was Osama Bin Laden. Bin Laden formed what would later become Al-Qaeda during the Soviet war as an international service office that recruited and dispatched Islamic volunteers for the holy war. This organization, based in Peshawar, spanned 50 nations in 1988 and even ran the Al Kafach Center in Brooklyn, New York. Over the course of the decade Al-Qaeda helped the USA, Pakistan, Saudi Arabia, and other supporting nations spread the worldwide call to jihad against the Soviet’s and their puppet regime in Afghanistan (Alexander, 2009).

⁷Over 30 Afghani mujahideen organizations were active within the city, gaining support and supplies before crossing the border for the holy cause. Most of these were extremist Sunni branches promoting full Islamic law (Shay, 2002).

⁸Also, over the past decade weapons allocated to the freedom fighters had begun to come into the hands of Pakistani criminals. By 1989 one fourth of Pakistani weaponry was of USA or Saudi origin (Korson, 1993).

the Islamic jihad sprung up all along the Afghan-Pakistan border. This was catastrophic for the northwestern frontier's youth who saw madrasas as the only escape from their economically disadvantaged situation within the poverty-stricken region. The system served two causes: it brought starving youth from all over the Afghani and Pakistani countryside to Peshawar for a chance to be fed, clothed, and housed for free, and it indoctrinated them with a militant mindset. Pakistan, Saudi Arabia, and the CIA promoted this mindset as well as other nations that were actively supporting state-sponsored militancy (CIA, 2002).

These madrasas became militant recruiting centers where children were taught the Quran alongside radical theories about Islamic Jihad. The extremism fostered there was a major cause of the fundamentalist attitudes that permeate Peshawar to this day. An entire generation of Pakistani Muslim youth was taught that death in the name of Allah against the infidels was the greatest good they could hope to achieve. Because of this indoctrination Peshawar became a mass producer of suicide bombers, mujahideens, Taliban, and Al Qaeda members for the next decade.⁹ The schools provided a haven for fundamentalist ideology as well as impoverished and displaced Afghani and Pakistani youth.

Students were not the only Afghans fleeing their homeland. Post Soviet invasion, two million refugees entered the Peshawar region swelling the population eight fold (Hussain S. A., 1993).¹⁰ The influx of refugees was hospitably received in the Northwestern frontier region where there was a large populace of Pakistanis with Pashto heritage. The UN High Commission of Refugees (UNHCR) created 350 camps of 10,000 inhabitants in the Peshawar region (Korson, 1993). These camps overcrowded city centers, spread into the unregulated FATA region, and caused innumerable infrastructural issues for the Pakistani and local Peshawar government. Peshawar citizens complained of inflated housing prices, a rise in the illegal trade of opium, and an overall degradation of law within the city (Korson, 1993). In Peshawar, the refugees' presence heightened the crime rate, the tension between sectarian groups, and enrollment in madrasas, militant involvement, and illegal trade.

⁹Darul Uloom Haqqania is a prime example of the militant-breeding ground in Peshawar. One of the largest institutions in all of Pakistan this madrasa is notoriously known as the "cradle of the Taliban." Darul Uloom is a fundamental Sunni school funded by Saudi oil money and USAID. USAID had the University of Nebraska-Omaha print textbooks to hand out in Afghanistan and Pakistan during the Soviet invasion. These texts promoted extreme jihadism. They taught the importance of the Jihad and math side-by-side. Students learned to count by numbering off dead Russians and Kalashnikov rifles (Ottaway, J. S., 2002). The school sits only 29 miles outside of Peshawar in the town of Akora Khattak. It is one of thousands of madrasas that ring the Peshawar area. Most of them are conveniently located next to the Afghani border and attract copious amounts of Afghani students fleeing from the war-torn nation. In 1985 sixty percent of Darul Uloom students were Afghans (Hussain, Z., 2007)

¹⁰This was 20% of the overall refugee insurgence into Pakistan during the 1980s (Korson, 1993).

By the end of the 1980s the heroin trade and addiction had vastly increased in Peshawar. There were over one million heroin addicts in Pakistan and labs had begun to spring up all over the city centers (NY Times, 1989). The bulk of rising production came from ramshackle labs strung across the contentious Afghan-Pakistan border region (Kaufman, 1989). Using the instability of the FATA region as a trade route and base camp, growers, traders, and smugglers worked within Peshawar in a rising grey market free of fear. This trade created an underground upsurge in the Peshawar economy in which conspicuous money, which could not enter the legitimate economy, began to expand and circulate within illegal markets. Crime lords and militants lived off the fat of illegal trade while decent citizens could not afford to feed their families as most legitimate trade left the city.

Peshawar had become known as a criminal super-center. If one had opium to trade, it could be done in Peshawar. If one was trying to find a militant Islamist cause to join, they could find it in Peshawar. The city was internationally notorious. It was where one stopped before a suicide bombing in Afghanistan. It is where one went to get a first-hand education on the inner workings of militancy. To get a CIA-approved stinger missile one went to Peshawar. The city was a beehive of activity because of the battle next door. It was so close to the anti-Soviet fight that when the Soviets fell they pulled the city down with them.

THE ANARCHICAL FALL

The Soviet Union fell two years after the Geneva Accord was signed.¹¹ The USSR dissolved on December 31, 1991, and with its disintegration came the death of the Democratic Republic of Afghanistan. Any semblance of security disappeared within Afghanistan. With the nation's disintegration rose coalitions of mujahideens struggling for a seat of power in the birth of the new Islamic state. Chaos reigned as freedom fighters from all over Afghanistan and Pakistan made their way to Kabul to gain control of the capital. Peshawar watched as hoards of militants left the city in hopes of gaining power across the border (NY Times, 1991).

The vacuum of power in Afghanistan paralleled the end of military law in Pakistan. Within Pakistan civil rule had been re-instated after General Zia was killed in a mysterious plane crash in 1988. The next Prime Minister was Benazir Bhutto.¹² The election of Bhutto created the first civilian government in over a decade. A civilian government should have

¹¹The Geneva Accord was the first sign that the DRA and the USSR were finished. The 1988 Geneva Accord was at its core an agreement affirming Afghanistan's right to self-determination, right to be free from foreign intervention, and the right of their refugees to return home safely. It was a bilateral pact between Pakistan and the DRA with the U.S. and the Soviet Union as guarantors. The agreement promised to end the CIA's support of mujahideens as well as Pakistan's ability to provide them sanctuary (Grau, 2007).

¹²She was the first female prime minister to be elected in the Muslim world.

meant that the ISI would have less control. It should have stopped the madrasas from teaching violence and it should have curbed the state supported militancy that thrived in Peshawar. It did not. Instead it created major tension between the ISI and the government (Hussain, 2007).

Bhutto fought to take control of the nation through the ISI but failed just as Zulfikar Ali Bhutto had before her. Faced with the new weak neo-democratic system the ISI gained immense power over Bhutto in order to push its agenda of militancy and Islamization. They took control of relations with the U.S., the nation's nuclear program as well as Pakistani-Afghani-India border policies (Hussain Z., 2007). This new period of ISI power helped state sponsored militancy rise as well. In Peshawar, madrasas continued to preach rather than teach, the black market blossomed, and militants no longer fighting the communists found a home.

The jihadists, who had just defeated the Soviet Union and had no desire for power, came in mass exodus back through Pakistan.¹³ Militants liked Peshawar because it provided access to a major black market and recruiting centers like Darul Uloom. It lacked coordinated governmental control and at times was almost as unregulated as the FATA tribes that lay south of the city. Militants came to the city because their jihad was over and they needed somewhere to regroup (Huntington, 1996). Peshawar hosted a continual influx of international jihadists because of this. For a passionate jihadist, in the post-Soviet Middle East, Peshawar wreaked of corruption opportunity and freedom.

Al Qaeda settled itself into Peshawar, post-Soviet fall, as well (Hussain Z., 2007). Displaced from their fight against the infidels these holy fighters found themselves congregating at the frontier city looking for a continuation of the jihad. While in Peshawar and the surrounding area Al Qaeda received support and funding from the ISI in return for help later on with their militancy plans in Kashmir¹⁴ (Hussain Z., 2007). Throughout the 1990s Al Qaeda and other militant organizations¹⁵ would grow vigorously in the northwestern frontier due to their support from Pakistani government sources (NY Times, 2002).

Kashmir became the opportune location from which to continue the fight against the infidels (Hussain Z., 2007), an outlet for the build up of militant energy overflowing from the Afghanistan border. "In Afghanistan in the 1980s, jihadist cadres came from the ranks of motivated Islamists across the world who were prepared to die for the cause, as well as kill communists. The Spirit saw its continuation in Kashmir, which became one of the world's hottest Islamic Jihad spots" (Shay, 2002, 122). By trying to take land back from Pakistan, India appeared to have instigated battle against Islam.¹⁶ India found itself on the black list of the jihadists. Those who were not seeking power in Afghanistan came from Kabul to Kashmir rolling across the Grand Trunk road through Peshawar on the trail of the infidels. In Peshawar they were fueled by ISI support and the remnants of anti-Soviet supplies. Al Qaeda jumped to action as well as hundreds of other militant organizations. The ISI's orthodox Islamist policy spread jihadist fever as jobs and opportunity ran low in the economically despondent northwestern frontier.¹⁷ Youth in Peshawar turned to the jihad because their religion, government and education all pointed firmly in that direction. With no opportunities at home they rushed across northern Pakistan to the cease-fire line of Pakistani-Kashmir (Ziring, 2009). Madrasas began to produce militants in hordes, fresh from their extremist studies itching for the jihad. Peshawar was lifted out of its jihad-less funk and the city felt the vigor of a new battle on the rise.

While relations between India and Pakistan grew increasingly hostile so did U.S.-Pakistan relations. In August of 1990 Benazir Bhutto lost the office of Prime Minister on claims of corruption. Her America-friendly politics and weak pseudo-democratic rule did not appeal to larger governmental powers in Pakistan. The Islamic Democratic Alliance (ISA) took control instead and put Nawaz Sharif in office as Prime Minister (NY Times, 1990). With more government backing, the ISI began strengthening its covert operation in Kashmir and embarked upon an illegal nuclear weapons program. This program frightened the U.S., causing it to put a stop to all American aid in Pakistan¹⁸ (Greenhouse, 1992).

Not only was aid withheld from the struggling nation but the CIA's support was suspended as well. It was the end of a decade-long bond between the ISI and the CIA. Pakistan accused the U.S. of abandoning them after the fall of the Soviets. Having supported the U.S.'s freedom fighters and the displaced Afghan refugees for so long, one would expect some sort of respite for Pakistan, but it was not so. Peshawar and the surrounding frontier began to suffer from the absence of fresh weapons, funding, and aid from the foreign superpower. The

¹³There was an influx of Uzbeks, Chechens, and Sudanese militants that settled within the FATA region finding the ambiguity of it quite appealing. More prominent militants fled to Peshawar (Shay, 2002).

¹⁴The ISI saw Al Qaeda as a valuable asset for its future militant plans. Other Pakistan-based militant groups, such as HuM, provided Al Qaeda with safe houses, false documentation, and sometimes manpower (Hussain, S. A., 1993).

¹⁵There were thousands of militants that were not aligned with an organization who found their way to the northwestern frontier. All of the displaced militants called themselves the Afghan Alumni. They were a global coalition of militants with no political ties to the now fragmented Afghanistan. They fought solely for Allah and would follow the holy war wherever it led. Thousands of these alumni congregated in Peshawar searching for the next jihad. They went to Peshawar to join prominent groups like Al Qaeda who were on their way to the next front of the battle (Shay, 2002).

¹⁶This disputed region between Pakistan and India is just northeast of Peshawar. In the early 1990s tensions rose between the two nations as they strove to gain control of the territory.

¹⁷Economic incentives to join the jihad included a salary of 3,000-6,000 rupees in return for state sponsored jihad service.

¹⁸The 1990 arms cutoff law prohibited all U.S. support to non-peaceful nuclear programs.

already-criminally ravaged economy plummeted, sending citizens to the streets to starve. Anti-American sentiment began to rise. These militants had conquered the USSR and were now returning from victories in Kashmir, full of hubris and the fever for war. Citizens of the city felt abandoned by the Western power, militants felt confident of their supremacy over the Western power, and a rising sense of injustice prevailed throughout the city.

A poignant fear of malnutrition permeated the refugee camps in Peshawar.¹⁹ Reduced food aid prompted thousands to flee and enter into bonded labor under the thumb of Pakistani traders (Kelsey, 1991). Even more refugees left the camps for the city forcing wages in Peshawar lower still (Frontier Post, 1991). The same year that 20,000 Afghan refugees were laid off work was the year that the AIG (Afghan Interim Government) ministries closed, creating an unbearable burden upon the city's already collapsing system. "Authorities became concerned that the local economy could not in the future support the disproportionately young, poor uneducated refugee population that would soon grow into a restless mass prone to crime and violence and unable to find jobs" (Korson, 1993 54)

In a state of such deprivation it is no surprise that violence, black market trade, and extremist attitudes flourished above the better sides of human nature. The inability of Pakistan and Afghanistan to stabilize after their support systems fell apart was like that of a sand castle inevitably crumbling under the rhythm of forces larger than itself. Its decay was reflected in the fear and chaos of Peshawar. There were power-hungry militants at one another's throat, terrorists lost without a jihad to follow, food scarcity, and an endless trail of refugees entering the city. But this era did not end. The early 1990s continued the trend of crime, hatred, and militancy in Peshawar.

THE RISE OF THE GOOD THE BAD AND THE TALIBAN

An untimely dismissal took place in April of 1993. Prime Minister Sharif was kicked out of office on the basis of corruption and mismanagement (Edward, 1993). World Bank Vice President Moeen Qureshi came to fill the vacancy until a national election could be held. Qureshi held the post for less than a year but instigated more proactive reform than any above mentioned Prime Minister. Most importantly, he

purged the ISI of all mujahideen supporters, leaving almost 11,000 members disbanded²⁰ (Gargan, 1993). He aimed to satisfy Washington by removing the ISI's involvement with mujahideen organizations in Kashmir and Afghanistan as well as restoring some discipline to the renegade military wing.

The dispatching of 11,000 militants from the government should have been a good deed but it took a rather ugly turn. These outcast militants logically made their way from the capital to Peshawar. They were looking for a way to continue the jihad, which they had begun within the government, on their own. They would ravage the city until an outlet for their energy could be found, letting their anti-government sentiment to simmer dangerously. Benazir Bhutto was reinstated as the militancy began to boil, but Bhutto let them be because she had learned her place. She left the ISI and the fundamentalists in peace, so as to maintain control of the rest of the nation. The ISI mentality went unchanged in part due to her lack of authority. The "reformed" agency would gain control of Pakistan once again with the help of an unforeseen ally, the Taliban (Shay, 2002).

The term Taliban stems from the Pashto word Talib, which means religious student or student of the madrasa. These militants, true to their name, rose from the schools lining the Afghanistan-Pakistan border (Shepherd, 2000). The Taliban had started as a student militia in Darul Uloom Haqqania, the "university of jihad," right outside of Peshawar (Hussain Z., 2007). Bred on Kalashnikov rifles and sectarian hatred some of these students were to be the fighters in Kashmir who shed the blood of thousands. Some of these students would be the tyrants of Afghanistan and some would eventually be the terror of the Western world. They were born and raised and trained to become terrorists right outside of Peshawar, next to the FATA tribes and the Afghani refugees. They were victims of all the violence and poverty and corruption of the Pakistani frontier. They had witnessed the end of U.S. aid and had felt hunger and deprivation because of it. Perhaps this is why they continue to haunt the region to this very day causing death and strife and pain for citizens across the globe in the battle against the Western world.

The Taliban seem to hold birthrights over Peshawar. They have more control over the city, to this day, than the Pakistani government would like to admit. After the rise of the Taliban, Peshawar became more analogous to Afghanistan than to any Pakistani city.²¹ Citizens followed the restrictions forbidding women from the public sphere and adhered the stifling religious laws. It was a welcome change from the unruly militant anarchy that had presided previously. Citizens were once again at home in their own city. It may

¹⁹The aid cutoff stifled the supply of \$700 million to Pakistan. The end of U.S. aid exacerbated Peshawar's domestic problems. With funds dwindling the frontier region became painfully aware of the help that had been extracted from them. PVOs (private volunteer organizations) began to shut down. Peshawar based ACBAR, which represented 58 foreign and Afghan non-governmental relief organizations, was forced to suspend all activities in 1991 after intense mujahidin fighting and looting occurred within their offices (Korson, 1993). Funding for relief supplies began diverting most of its support to other nations. The reconstruction and rehabilitation programs in Afghanistan and Pakistan were suspended indefinitely, the wheat supply was cut by 25% and relief centers were shutting down by the hundreds (Frontier Post, 1991).

²⁰He tried to help repair the disparate Pakistan by providing relief from the economic blight and ending state supported militancy. He made public all of the past officials pork barrel policies and partisan gift giving, listing all the real estate and tax exemptions from both Bhutto and Sharif's reign (Gargan, 1993).

not have been a humane rule but it created more semblance of stability than had been seen within Peshawar in decades. Peshawar was a fantastic support system for the Taliban but it was not the only Pakistani tie that the Taliban enjoyed, for they were also in close relation with the ISI. "The Taliban, a rebel band of fighters chiefly composed of inexperienced but courageous Islamic students, has achieved stunning battlefield successes in Afghanistan's conflict. Numerous interviews indicate that officers from Pakistan's mysterious intelligence agency are aiding the Taliban." (Dahlburg, 1995, 1)

The ISI had long supported the mujahideens in their crusade for an Islamic state but as the Taliban gained power the ISI began to see them as a political ally who could provide them with strategic and economic support²² (Hussain Z., 2007). Once again providing radical militants with arms and supplies, the ISI began a new friendship with the Taliban. Based in Peshawar these new ISI allies would gain information, supplies and tactical support before heading off to the Afghanistan battleground (Hussain Z., 2007).

Benazir Bhutto left office for a final time in October 1996 under the claims that her government was, "incompetent, corrupt and defiant of executive restraints on administrative power" (Burns, 1996, 2) Following her dismissal the Taliban seized the Afghanistan capital, Kabul, and strategically began to establish control throughout the rest of the nation.²³ With Pakistan in a yearlong power vacuum and the Taliban right across the border, the ISI became more extensively involved in supporting the new militants and Peshawar became their stronghold. As the ISI-Taliban tie strengthened, the road to Kabul became continuous caravan of arms, supplies, and jihadists. With great volition, the Pashto madrasa students, refugees, FATA tribes, and Sunni militants of Peshawar began supporting the Taliban, giving them strong northern frontier ties.

²¹In 1993 three-dozen members of the Taliban Islamic Movement began to raise their voice against the unjust rule of infighting mujahideens in Southwestern Afghanistan. Led by Mullah Mohammed Omar they took it upon themselves to cleanse the region of the corrupt mujahidin commanders (Hussain, Z. 2007). Leaving behind Peshawar, they raced across the border to take control of Afghanistan. They were seen as a passionate force of stability for the nation. They were a coalition with strong values and a firm hand who could control the unyielding nation with its tribes and tumultuous cities.

²²In 1995 Islamabad decided to support the rising Taliban, which led to the inevitable involvement of the ISI (BURNS, J. F. 1996).

²³In 1997 Madrasas in Peshawar closed for students to participate in the Taliban's holy war for Afghanistan. For months students helped the Taliban in the definitive battle at Mazar-i-Sharif. The battle cemented the Taliban's stronghold over the nation and soon there after they became the overarching rulers of all of Afghanistan. Citizens in Peshawar felt a special affinity for the Taliban, which is why they sent their students to help them in the crucial battle. The Taliban had been raised within the Peshawar region and were also Pashtos. These ties escalated Peshawar's involvement with the Taliban.

The new power began to spread across the Afghanistan boarder gaining control in the unruly FATA as well as Peshawar, inevitably trying to spread into the northwestern frontier (Schmidle, 2009). Peshawar's militant organizations like the Sunni sectarian group Lashkar-e-Jhangvi (LeJ) became closely associated with the Taliban through trade connections from Kabul to Peshawar. Discussions between the organizations began to revolve around the Talibanization of Pashto areas in Pakistan, like Peshawar, that were historically more culturally associated with Afghanistan. The Taliban began to gain strategic depth in Pakistan through ties with Pashto Pakistani regions. They used these ties to create a gateway for militants into Afghanistan who would help them cement their control over the region (Schmidle, 2009).

The voraciousness of the Taliban threatened neighboring Pakistan and Afghanistan. Old Soviet supporters were hung from lampposts in the middle of Kabul. Women became akin to property under the new Islamic regime. The Taliban maintained control with violence and a chilling sense of fear. This foreboding presence permeated Peshawar as Nawaz Sharif took office as Prime Minister for his final time in 1997. The tensions between the two nations could be felt vibrating throughout Peshawar as the government failed to control militancy and the increasing Talibanization within the city (NY Times, 1997).

Sharif heightened military control to try to stave off the Taliban's influence over Pakistan but with ISI support and funding from Al Qaeda, the Taliban flourished. Enrollment in madrasas alongside sectarian militancy rose in Peshawar. This paralleled the disintegration of women's rights and end of civilian rule within the city. The Taliban pushed their way into Peshawar by gaining control of the black market, the FATA region, and the local government with a mixture of help and ignorance from the ISI (Schmidle, 2009). The turn of the millennium found the city on the frontier at a breaking point. Peshawar was overburdened by violence, growth, poverty, land degradation, crime, and now a pressing foreign power that would bring this hub of jihadism into the international limelight.

CONCLUSION

Reasonably, anti-American sentiment flourished in Pakistan during the 1990s. The Western world's infiltrating ideology and invasive culture, paired with the cold shoulder they had given the poverty-stricken nation, proved to be strong stimuli for the next jihad. Militants deeply held these sentiments as the fight brewed against the unjust Western forces. All the hate and violence that had been accumulating in Peshawar throughout the 1980s would rise in retaliation against the West throughout the 1990s, when global terrorists came into existence.

Osama Bin Laden began to support the Taliban in 1996. The terrorist had finally been kicked out of Sudan under pressure from the U.S. and Saudi Arabia. He moved Al Qaeda

headquarters to the freshly conquered Afghanistan and by supporting the Taliban gained sanctuary in the Islamic state (Shay, 2002). With a newfound freedom Al Qaeda began to recruit extensively within Afghanistan and northwestern Pakistan. They called upon the madrasas and militant groups of Peshawar for support. Hordes of Peshawar's jihadists began to join Al Qaeda in the fight against the Western world.

Bin Laden spread the tentacles of Al Qaeda across the globe. While based in Afghanistan he recruited militants for his crusade against the infidels from Egypt, Bosnia, Kenya, Saudi Arabia, and even Britain (Shay, 2002). Peshawar lay in the background of this rising force. Throughout Al Qaeda's rise, Pakistan was still sending support from the ISI, still supporting the Taliban on the northwestern border, still recruiting children for the holy cause and housing the displaced Afghan citizens who dared not return home in Peshawar.

Al Qaeda developed beyond Peshawar and Pakistan into the global sphere within the span of a decade. The first attack by Al Qaeda was carried out in Aden, Yemen, killing two Australian tourists. They then bombed the World Trade Center in 1993. They were responsible for a car bomb outside Riyadh in 1995. They attacked U.S. embassies in Kenya and Tanzania in 1998. They made a strike against the USS Cole in Yemen during 2000, and on September 11, 2001, they murdered thousands of American citizens. Al Qaeda executed the most devastating attack against the United States in modern history. Killing nearly 3,000 civilians, September 11 was the final step for Al Qaeda in the transition from a guerilla force into international terrorists (Moyers, 2007). This acceleration of events shows the evolution of Al Qaeda from its origin as a guerilla force within Afghanistan and Pakistan to a rapidly spreading terrorist network to its present state as an ideological movement (Stern, 2003).

Peshawar has proven impressively resilient and a wonderful example to learn from. It illustrates the ability of human nature to persevere against the most horrendous conditions known to man and it indicates what must not be done in the future. The city was put under so much pressure from corrupt government, economic disparity, sectarian disputes, overpopulation, unstable education, and foreign military/cultural invasion that it is miraculous that it still stands today. The city was forced to reach its boiling point. The hate and crime that had plagued Peshawar for decades finally burst out. The poison in the city simmered to the surface and overflowed into the global sphere. One can learn from Peshawar that global terrorism is at least partly a product of the pressures caused by intense international conflict setting its footprint upon an unstable region.

Peshawar birthed the Taliban. Its citizens supported Al Qaeda from the beginning. Peshawar became the Mecca for militancy, but are its citizens at fault? Clearly, this city atop the Iranian Plateau is not inherently evil. Peshawar accumulated the perfect mixture of foreign and domestic corruption, heated religious beliefs, and economic calamity. It is a creation wrought not only by Pakistan government and extrem-

ists but from the hands foreign policy from the United States, the Soviet Union, Afghanistan, Saudi Arabia, and other nations as well.

By examining Peshawar one can see a rising trend in global cultural conflict. External cultural identities pressed in upon the region, necessitating retaliation. In their perception, the residents of Peshawar (Sunnis and Shi'as, refugees and students of madrasas alike) were pressured by Western culture, religion, and ideals causing them to react. Acknowledging the demanding complexities of their situation when considering foreign policy may help avoid great violence. Peshawar reacted against the stifling flow of violence and the clash of civilizations that beleaguered the city. If the Soviet Union had understood that not every state was made for communism, or if the U.S. would have fully grasped the implications of giving stinger missiles to hateful militants, or if Pakistan and India could hold a respectful conversation, then the globe might not be dealing with the nihilism of international terrorists. It is easy to see in hindsight where each nation took a misstep. Peshawar reflects these mistakes in its economic, social and governmental instability. The city is not singular in misfortune but rather a city among throngs of cities affected by this irresponsibility. In an age of global interaction, cultural conflict is becoming more prevalent and it can be seen in its true blood red nowhere more intensely than Peshawar. These new global dynamics of cultural intrusion must be acknowledged by foreign nations as they interact with one another or there may be a new precedent set in the bacterial evolution of global militancy.

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Linking Globalization and Extinction Rates: A Statistical Analysis of the Effects of Globalization on Biodiversity

Lauren Hansen

The negative effects of globalization upon the natural environment have come to the forefront of national discussion. Many people are concerned with global warming and the decline of species across the world. Increases in economic liberalism have failed to take into account the influences of unregulated free trade upon biodiversity. The focus has remained firmly on economic gains and profit. This seems to have dire consequences for biodiversity through habitat loss and the overconsumption of materials. In order to look at these effects, statistical links between globalization, CO₂ emissions as a measure of industrialization, and the amount of threatened animals in a country will be analyzed. Correlations can be drawn between globalization and economic factors that illustrate negative effects upon threatened animals in the models presented. Economic liberalism is revealed to be a source of many of the problems related to environmental degradation; however, institutional liberalism may be able to provide some solutions through international agreements and stronger preservation efforts.

“There are some who can live without wild things and some who cannot....Like winds and sunsets, wild things were taken for granted until progress began to do away with them. Now we face the question whether a still higher ‘standard of living’ is worth its cost in things natural, wild, and free.”

—Aldo Leopold, *A Sand County Almanac*, 1949

For the past 50 years, free-trade and economic growth have overridden any claims that have been made for the preservation of the natural environment, all in the name of progress. However, this abuse of the natural environment has been brought to the forefront as of late with claims of global warming and species disappearing daily, never to return. As Jan Aart Scholte points out in his book *Globalization*, annual species extinctions have increased exponentially from six in 1950 to 10,000 in 1990 (Scholte, 2005). This rise in globalization and extinction rates is not coincidental, with some such as Richard Leakey and Roger Lewin calling this the “sixth extinction,” comparable with the extinction of dinosaurs and other species at the end of the Cretaceous period (Leakey & Lewin, 1996). In this case though, species are being annihilated by the economic growth and over-consumption by man rather than natural disasters such as volcanoes and meteors.

There has been an accelerated decrease of species diversity, as well as cultural diversity, as modernization and global-

ization become more prominent goals for countries. In his article concerning conservation, David Orr states that “the causes of species decline include human population growth, economic expansion, pollution, climate change, mining, logging, urban sprawl, over harvest, and displacement of indigenous peoples” (Orr, 2003, 948). Globalization is a force that can’t be stopped, and the natural environment is suffering greatly. If there is a better understanding of what pushes species towards extinction in certain parts of the world, though, perhaps steps can be taken to prevent future declines.

Economic liberalism and globalization certainly seem to be the catalysts for increases in the extinction of species across the globe. Despite the fact that this is such a prominent issue, statistical correlations between ecosystems experiencing extinction and economic areas affected by growth and globalization have not been drawn. It can be seen that extinction rates are increasing every year. Whether or not this increase is due to globalization has yet really to be seen. The case for unregulated trade and economic expansion has been made well by those who are opposed to these ideals, showing that environmental standards are often thrown to the side for profits. However, before the full impact of the loss of biodiversity due to globalization can be realized, one must have a greater understanding of biodiversity and its impact upon the globe.

BIODIVERSITY

Currently, there are a little over 1 million known animal species on our planet. However, many species are still unknown, and some estimates state that there are as many as 30 million species (many of these being microorganisms). Approximately 15,000 new species are discovered by science every year, often including completely new orders of life that are being found in remote areas such as deep-sea thermal vents (Glavin, 2006). This leaves room for a wide variety of diversity to exist, from single cell organisms to the blue whale, the largest known mammal.

Biologists classify diversity into three different types. These are alpha diversity, beta diversity, and gamma diversity. Alpha diversity refers to the number of species that exist within an ecological community. Beta diversity compares species within neighboring communities that differ in physical characteristics. The changes between mountain environments and the surrounding areas, and the species that exist in these areas, would be an example of this. The last measure, gamma diversity, includes ecological communities over a broader geographical range and can include areas that have similar habitats but are separated by many miles (Leakey & Lewin, 1996). While there is a large range of diversity that exists, these communities and biota all still interact with each other, having an effect on all that is around.

The Gaia hypothesis, proposed by James Lovelock in the 1979, looks at the interconnectedness of biota and the systems in which they live. This hypothesis proposes that all ecosystems on the planet are interdependent and work together as a whole. Some toss this theory to the side due to the fact that there are those who take it too far, treating all of Earth's biota as though they are one single organism. However, this is not the essence of the Gaia hypothesis. Rather, it is to point out that individual ecosystems are maintained through the species contained within them, and therefore the health of the overall environment comes from the interaction of its ecosystems (Ibid). This creates a different perspective concerning the importance of biodiversity. An entire system needs to be appreciated holistically rather than as just a part, as one component cannot thrive without the preservation of another. The ecosystem needs to continue to operate as a whole to be truly viable.

We live in a period of biodiversity that has been unmatched since the Cambrian explosion, which was a time of unprecedented evolutionary experimentation that became the basis for the rest of the history of life (Ibid). Nurturing environments exist across the world, allowing for the further diversification of species. Prosperous environments such as rainforests allow for species to specialize in certain characteristics and traits more than in other areas. This in turn eventually leads to the further creation of new species, adding to biological diversity even further.

One theory that analyzes this distinction between greater diversity in more nurturing environments is the latitudinal

species diversity gradient. Diversity has an unequal distribution, with species diversity being highest around the equator. Species diversity then diminishes as it moves towards higher latitudes. There is a stark contrast between the amounts of species in the United States as compared to the rainforests of Brazil, where a stunning amount of variation exists. Indeed, rainforests are so rich in biodiversity that they are home to more than half of the world's land surface species. However, this is not to say that other ecosystems should be discounted. Dry habitats have low diversity, but they contain species that are more prone to adaptation and can survive through harsher conditions than those in species rich environments (Ibid). Recent research has found that this latitudinal gradient can also be applied to marine environments, which were once thought to be relatively static. Life thrives in the ocean at different latitudes, bringing new concerns over mining and waste disposal operations to light. More in-depth analyses of the impact of actions that may harm the environment, such as mining, would be beneficial in marine areas that have higher species diversity closer to the equator. Too much disruption within any biological community can lead to dramatic consequences, including extinction.

Extinction is by no means new to the fossil record. Species have been evolving and going extinct for millions of years, with the average longevity of a species being 4 million years (Ibid). Typically, species are able to adapt to changing conditions and climates. Modification in a physical environment can even be a powerful tool in evolutionary change. However, if a species does not adapt to changes in the environment, extinction occurs. Additions to the fossil record over the years have made it easier to trace these patterns of evolution and extinction. This in turn allows for a general idea of what the natural, or background rate of extinction for a species should be. Recently, the background, extinction rate has been calculated at being an average of one species every four years (Ibid).

Life is a chaotic cycle, but a cycle nonetheless, and drastic changes to the system can lead to catastrophic losses and increases in extinction. Moderate extinctions have occurred in spasmodic convulsions and cycles for millions of years, sometimes leading to the extinction of 15 to 40% of species. However, there are a few rare events that are much larger. These extinctions, referred to as the Big Five, make up 65% of species going extinct in a relatively brief instant. The most drastic, that of the Late Permian, saw an estimated extinction of 95% of marine animal species. The first mass extinction occurred at the end of the Ordovician period (roughly 440 million years ago), followed by the Late Devonian (365 million years ago), the end-Permian (225 million years ago), the end-Triassic (210 million years ago) and ends with the most well-known extinction at the end of the Cretaceous period (65 million years ago) that saw the extinction of the dinosaurs (Ibid).

THE RISE OF MAN AND THE SIXTH EXTINCTION

The rise of humanity has led to drastic changes in the way that evolutionary ecology functions. As stated before, it has been found that the background extinction rate throughout the fossil record is an average of one species every four years. However, since the emergence of humans, this rate has risen dramatically. There are estimates for the amount of species going extinct every year that are currently as high as 30,000 species. Extinction at this rate then would be 120,000 times higher than that of background (Ibid). This qualifies the current extinctions as being comparable with those of the Big Five extinctions that have happened in the past. However, this extinction is not due to drastic changes in global temperature, natural disasters, or meteor impacts. It is instead being caused by one of Earth's species itself: *Homo sapiens*.

The impact of humans could first be seen with the disappearance on megafauna from the North American continent during the Pleistocene. Large mammal species first began to disappear 13,000 years ago, and by 9,000 years ago species such as the mammoth and the saber-toothed tiger disappeared. Originally, these extinctions were thought to be due to drastic climate changes. However, recent research shows that the impact of humans due to over-hunting led to the demise of these creatures. Rapid ecosystem change was set into motion when a few large animals were exterminated by humans. Similarly, humans brought new species that led to further extinction as the addition of foreign species led to increased competition for habitat and resources (Glavin, 2006).

As humans spread throughout the world, extinction followed. This was seen most clearly when island environments, such as Australia, New Zealand, and the Polynesian islands, were inhabited. Australia saw the loss of most of its species weighing over 150 kilograms, including a flightless bird that stood almost as tall as a man. New Zealand saw the extinction of dozens of bird species as humans, and the rats that they brought with them, arrived 1,000 years ago. It is believed that as many as 2,000 species of birds went extinct as humans moved throughout the Polynesian islands, bringing with them chickens, small pigs, dogs, and of course, the rat. The destruction of natural habitat for taro fields and hunting further destroyed bird species (Ibid).

European colonization across the globe starting in the 17th Century left a new trail of destruction concerning the environment. Mans' view of nature had evolved (or devolved as some might say) from that of living in harmony to the belief that the natural environment was there to serve human purposes. This new focus upon exploiting the environment for economic gain led to unprecedented prosperity, but also unprecedented extinction rates. This increase in extinction rates has led many to say that we are currently in the next great mass extinction, or the Sixth Extinction, with this extinction being driven by economic growth and over-consumption (Leakey & Lewin, 1996).

Humans have adapted over the years just as other species. Nonetheless, much of our primitive, hunter-gatherer instincts have remained. The use of technology has given the appearance that our motivations and instincts have changed. However, this movement to a modern technological world has allowed us to lose sight of what is vital to our survival. Many are no longer directly involved with the production of the food that they consume, the clothes they wear, or the buildings that provide shelter. This change makes it difficult for natural and wild things to be valued. People have no connection to the resources themselves, just to the finished product that they get in the end.

ECONOMIC LIBERALISM AND ITS DISCONTENTS

Habitat loss is considered to be one of the major factors of the current increase in the extinction of species. African nations have seen an average loss of 68%; Asian and Latin American nations have similar numbers (Whole Systems Foundation, 2004). Forest privatization in Brazil has led to rapid deforestation as owners try to make the most profits before future restrictions are imposed on cutting (Stiglitz, 2006). Macaws are numbering less than 300 in the forests of Brazil. Other species meeting similar fates across the world. Numbers are dropping due to the spread of timber operations and other economic practices that abuse the land, rather than using those that are more sustainable (Glavin, 2006).

There is little consideration of environmental impact. Instead the focus remains firmly on economic profits and short-term gains. Many environmental groups are opposed to unrestricted and unregulated free trade, which they see as undermining environmental laws in industrialized countries, which then promotes harmful practices worldwide. Institutions such as the World Trade Organization (WTO) have forced countries such as the United States to go against environmental regulations put in place concerning the protection of sea turtles. Several countries did not have these same protections as the United States, and the U.S. in turn blocked shrimp imports from these states. However, these countries filed complaints with the WTO, stating that the United States policies were discriminating against them and the U.S. lost the case. Similarly, in 1996, Brazil and Venezuela took the United States to the WTO and forced a change in policies concerning imported gas, saying that regulations under the Clean Air Act funded non-tariff barriers (Goldstein & Pevehouse, 2008).

Multinational corporations (MNCs) promoted by economic liberal ideals have also had negative impacts upon environmental regulations. Companies will often outsource to countries that have less strict environmental controls than those of their home countries. This brings profit into the host country though, and gives them less incentive to move towards polices that are more beneficial towards the environment. Corruption is a factor that cannot be overlooked in the case of MNCs, and the environment continues to suffer for

the economic gains of a relative few (Ibid). The impact of trade and investment liberalization on environmental regulation is especially apparent within the North American Free Trade Agreement (NAFTA). A more free flow of goods and capital results in subpar environmental laws and regulations, with governments weakening their environmental policies, inadequately enforcing current regulations, or refraining from introducing more stringent regulations in order to gain a profit (Blair, 2008).

Many international organizations such as the United Nations have started to realize the problem of these species disappearing, with the Food and Agricultural Organization of the United Nations stating that 20% of domestic animal breeds are at risk for extinction. This then leads to a decrease in what are called “genetic resources” that allow for a wider diversity of multipurpose animals. Globalization and economic liberalism have led to an increase in the specialization of specific agricultural animals, which in turn leads to a narrow genetic base that could be lacking in beneficial genetic factors (FAO, 2006). It has also been estimated that three-quarters of crop varieties have been lost over the past 20 years (Ibid).

Over-consumption has also led to an increase in acid rain through an increase in the emission of sulphur dioxide from energy production. Increases in acid rain have a dire effect on surrounding ecosystems. The depletion of rainforests for both timber and land use has reduced a major concentration of biomass, which is crucial for the creation of new species. Fresh water consumption has more than doubled to meet the demands of a growing population, while the availability of fresh water per capita greatly declined. Similarly, at least a quarter of the earth’s land surface is threatened by some degree of desertification due to the lack of water and the drive to use the land for maximum economic value (Scholte, 2006).

Demand can lead to dramatic decline in a species population when there are no regulations or controls. Fisheries in international waters, for example, are not owned by any state, making cooperation difficult. If states and MNCs refuse to cooperate, fish populations are diminished and all actors lose. Fisheries take the perspective that once one species is depleted they can move on to another variety. As of 2007 though, a third of the species had already been depleted due to over-fishing. Depletion occurs because boats and the MNCs that own them gain from larger catches. Therefore it is more profitable in the short run to have larger catches, even if it does lead to depleted stocks and eventual extinction. Problems such as this have been referred to as the Tragedy of the Commons, citing back to Britain’s problems with overgrazing (Hardin, 1968; Goldstein, Pevehouse, 2008).

In our world everything can be assigned a monetary value, and these values have transferred over to the environment and the maintenance of ecological zones. Economists and politicians demand to know what the value of land and

diversity may be, having the perspective that if it does not outweigh other economic gains that may come from development then it is not worth preserving. This has led to the development of the preservation of goods that are deemed to be profitable—crops that make the most money, animals that bring in the most revenue, and trees that bring in the largest gains being preserved. However, this may end up being a double edged sword. Species being preserved are those that are currently deemed the most economically viable. Economics shows the fickleness of human thought as demand constantly changes. What is economically viable now may not be so in a few years, and in that amount of time those species that would have met new demand may have been lost. The value of all species that exist cannot possibly be known, especially when new species are being discovered daily. Diversity needs to be valued for what it is and the potential that it may have, rather than for what it can produce right now.

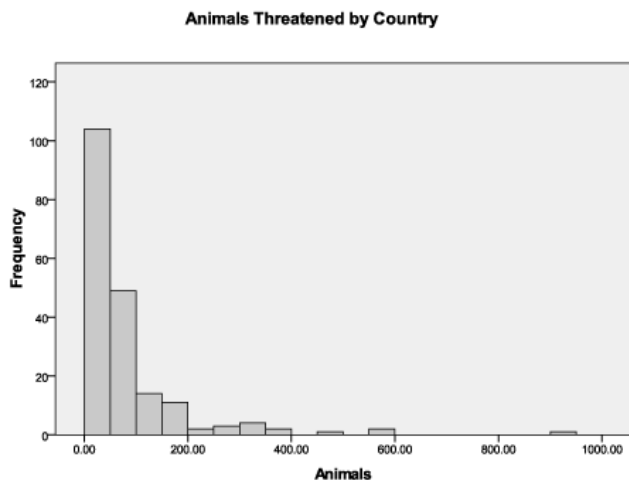
Recently in Indonesia this tendency to turn species into commodities has reached perverse degrees. Indonesia has proposed a program that would rent out some of its few remaining Sumatran tigers for around \$107,000 a year for a pair. Currently, there are less than 500 Sumatran tigers left in Indonesia, with most of the species’ natural habitat being destroyed by development and deforestation, even as the tigers continue to be hunted for traditional medicines. While there would be strict regulations concerning the living conditions of the animals enforced by the Indonesian government, several non-governmental organizations (NGOs) feel as though this avoids the true issues of habitat destruction and hunting (MSNBC, 2010).

Globalization has allowed for the world to be economically and politically connected in ways as never before. We have moved more towards a state of superterritoriality, with connections reaching across borders without the need of nation states to directly mediate these interactions (Scholte, 2005). However, this economic interaction has promoted the destruction of the environment for short-term profits and gains. This in turn has led to an increase in the amount of species going extinct, as has been previously discussed. While there has been a great amount of discussion concerning the disappearance of animal species, it is difficult to find data that provides a connection between globalization and extinction. Increases in the amount of species that go extinct each year can be found, but there is little statistical evidence that is connected back to what may be truly causing this extinction. Is it natural extinction or is it extinction occurring due to the destructive influence of humans?

CORRELATING GLOBALIZATION AND EXTINCTION

Large species of animals have already gone extinct due to human impact and the destruction of habitat. Demand for goods from consumers has led to over-hunting, over-fishing, and the introduction of non-native species throughout the world. Habitat loss is by far the greatest impact that man

has had upon the environment, destroying the relationships that exist between species (Goldstein & Pevehouse, 2008). It is difficult and perhaps impossible to predict what will happen when a species is removed from an ecosystem. However, it is important to keep in mind that there will be



an impact, whether it is minute or drastic.

Statistical analysis can be used to prove that globalization impacts animal extinctions. Two variables were selected: a globalization index and the amount of animals species threatened in a country. Threatened animal species are defined as those who are likely to become endangered in the future across part or all portions of its significant range. Threatened species data include “species that are categorized as either ‘critically endangered’, ‘endangered’, or ‘vulnerable’. Data include unconfirmed species occurrences and regionally extinct species, but exclude sub-species and introduced species” (EarthTrends, 2007). Classifications are set by the World Conservation Union (IUCN). Data was taken from the World Bank’s World Development Index and applies to 193 countries. The number of animal species threatened ranges from six to 937, with a range of 931 animal species. The average number of animal species threatened was around 82, although most countries have fewer than this.

Comparisons between the amount of animals threatened in a country and the degree of globalization in a country is done using the KOF Index of Globalization. This index was introduced in 2002 and covers the economic, social, and political dimensions of globalization. It defines globalization as “the process of creating networks of connections among actors at multi-continental distances, mediated through a variety of flows including people, information and ideas, capital and goods” (KOF Index of Globalization, 2009). It is conceptualized as a process that reaches across state borders and boundaries, bringing together economies, cultures, technologies, and governance that move all states towards interdependence (Ibid).

While there are three dimensions to this index, political globalization will be the main focus of this paper. This is char-

acterized by government policies and is measured by the number of embassies and high commissions in a country, the number of international organizations to which the country is a member, the number of United Nations peace missions in which the country has been active, and the number of treaties signed since 1945 (Ibid). The index itself is constructed by transforming each variable to an index on a scale from one to 100, with 100 being the maximum. The higher the value, the more politically globalized the country (Ibid). However, globalization is just one part of the equation. Industrialized countries as well as developing ones still have a large impact upon the environment by the amount of emissions that are produced every year. More globalized, industrial nations should in turn have higher emissions and, consequently, more threatened animal species.

Total CO₂ emissions including land use change can be defined as “the mass of carbon dioxide (CO₂), a potent greenhouse gas, produced during the combustion of solid, liquid, and gaseous fuels, the manufacture of cement (CO₂ is produced as a byproduct as cement is calcined to produce calcium oxide), gas flaring, and land use change” (EarthTrends, 2007). Emissions from land use change take into account human-caused land-use changes such as deforestation and agricultural changes. The majority of CO₂ emissions come from burning fossil fuels; however, about a quarter of these emissions come from land-use change (Ibid). These emissions date back to the beginnings of industrialization in the middle of the 18th Century, but accelerated levels of emissions have been recorded during the latter half of the 20th Century (Scholte, 2005). Deforestation and other disruption of habitat included in these emissions have also seen a dramatic rise and are seen as being one of the leading causes of extinction in species across the globe, making the analysis of these emissions crucial to understanding the impact of man upon biodiversity.

Other variables must be taken into account in order to prove the relationship between globalization and the amount of animal species threatened in a country, as well as the relationship between CO₂ emissions as a measure of industrialization and the amount of species threatened. These variables will act as alternative explanations for changes in the number of species threatened. For the purposes of this paper, three control variables have been selected. These are the latitude of a country, whether or not a country was a former colony of a European nation, and GDP growth as an annual percentage. These variables take into account geological, historical, and economic factors that could be influencing a rise in the amount of animals being threatened across the globe.

Latitude was selected on the basis on the assumption that the latitudinal species diversity gradient holds true, and the further away from the equator a country is, the less diversity it will have. While initial analysis shows that there are countries such as Singapore and Colombia that have higher amounts of threatened animal species than others at higher latitudes, most do not experience this trend. There are many

countries at lower latitudes with low amounts of threatened species. Similarly, the United States, which is at higher latitudes, has the largest amount of threatened species with 937. Australia and China also fit into similar trends as the United States.

The variable of whether not a country was a former colony of a European nation looks at the historical, political, and economic conditions of a country. Some argue that industrialized countries of the North take advantage of the natural resources of the global South and outsource to these countries due to less stringent environmental regulations. Former colonies have struggled with developing into industrialized nations, often fighting what is referred to as “the resource curse” (Stiglitz, 2006). This struggle for development and deprivation of natural resources often then translates into land being decimated for economic growth, which causes the destruction of the habitats of thousands of species every year.

The last control variable selected, GDP growth as an annual percentage, takes into account further economic factors of a country. Countries with stronger economies, which can be represented by growth, tend to be more industrialized. Industrialization would in turn translate to further destruction of land and habitat. This would allow for higher amounts of threatened species in a country. However, it can be seen that countries such as Armenia and Equatorial Guinea have very high growth rates and low amounts of threatened species. Inversely, Uruguay and Guinea-Bissau have negative GDP growth rates and high amounts of threatened species. Similarly, the United States has a relatively low growth rate as a percentage of GDP, but has the highest amount of threatened species.

In order to test the dependent variable, independent

variable, and alternate hypotheses, a multi-variable linear regression analysis was performed. This regression shows the relative influence of several independent variables and can be applied to large bodies of information gathered by various means. Measurements of all variables have previously been described. The dependent variable is the number of species threatened in a country and the independent variables being a country’s index using KOF and the amount of CO₂ emissions that a country produces. Latitude, former European colony status, and GDP growth (as a percentage) were also used to strengthen the model and reduce error.

The above results show that there is a statistical correlation between the KOF political globalization index and the amount of threatened species in a country. This model has a low R² value, meaning that it has a weak relationship. The KOF political globalization index has a strong effect upon the amount of threatened species in a country, and fits within a 95% confidence interval for this model. Looking at the standardized betas further strengthens this relationship. The KOF political globalization index has a standardized beta of .476, meaning that it is the strongest coefficient in the model, and in turn has the strongest correlation to the dependent variable. Latitude has a standardized beta of -.308, making it the next strongest relationship. The other variables of whether or not a country was a former European colony and GDP growth have been shown to be statistically insignificant. High significance levels fall well outside of the 95% confidence interval and low standardized betas. This further strengthens this model’s relationship between globalization and the amount of animal species threatened, showing that the more politically

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.464 ^a	.215	.188	118.74038

a. Predictors: (Constant), gdp_grow, Latitude, KOF_political, Former_colony

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	449119.273	4	112279.818	7.964	.000 ^a
	Residual	1635516.265	116	14099.278		
	Total	2084635.537	120			

a. Predictors: (Constant), gdp_grow, Latitude, KOF_political, Former_colony
 b. Dependent Variable: Animals threatened

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-6.155	48.688		-.126	.900
	KOF_political	2.485	.485	.476	5.121	.000
	Latitude	-2.261	.839	-.308	-2.696	.008
	Former_colony	40.118	31.401	.142	1.278	.204
	gdp_grow	-.349	3.003	-.010	-.116	.908

a. Dependent Variable: Animals threatened

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.748 ^a	.560	.546	84.48794

a. Predictors: (Constant), gdp_grow, Latitude, CO₂_emissions, Former_colony

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1196963.177	4	299240.794	41.921	.000 ^a
	Residual	942244.006	132	7138.212		
	Total	2139207.182	136			

a. Predictors: (Constant), gdp_grow, Latitude, CO₂_emissions, Former_colony
 b. Dependent Variable: Animals

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	85.972	27.194		3.161	.002
	CO ₂ _emissions	.000	.000	.736	12.668	.000
	Latitude	-1.086	.541	-.149	-2.006	.047
	Former_colony	23.534	20.451	.086	1.151	.252
	gdp_grow	-2.151	1.934	-.065	-1.112	.268

a. Dependent Variable: Animals

globalized a country is, the more threatened species it will have. However, the relationship between the industrialization of a country as measured through CO₂ emissions and animal species threatened must still be analyzed.

Accordingly, there is a strong statistical correlation between CO₂ emissions including land use change and the amount of threatened species that there are in a country. This model has an R² value of .560, indicating that it has moderately strong relationship. CO₂ emissions including land use change has a strong effect upon the amount of threatened species in a country, with a significance of less than .005, making it beyond the 95% confidence interval that is needed for statistical significance. Looking at the standardized betas further strengthens this relationship. CO₂ emissions has a standardized beta of .736, meaning that it is the strongest coefficient in the model, with the strongest correlation to the number of animals threatened in a country. Latitude, whether or not a country was a former European colony, and GDP growth have been shown to be statistically insignificant, with high significance levels that fall well outside of the 95% confidence interval and low standardized betas. This model for CO₂ emissions has been shown to have a more statistically significant effect upon the amount of animal species threatened, and is a stronger model than that correlation globalization and the amount of animal species threatened.

INSTITUTIONAL LIBERALISM AND ITS SOLUTIONS

We have begun to move towards a state of superterritoriality, with connections reaching across borders, and it has now been shown that globalization does have a part in the decrease of biodiversity. Environmental developments such as climate change, ozone depletion, and the loss of biodiversity also expand across borders and happen on a global scale. However, globalization in turn has increased our awareness of the bonds between humanity and the earth as a whole. Climate change, the loss of biodiversity, and ozone depletion affect us all. No nation is exempt to these changes (Scholte, 2005). Our perspective towards unregulated economic growth must change from that of short-term to long-term benefits.

While it seems as though the liberal economic ideals of free trade may have brought about the ecological disparities that we are faced with today, institutional liberal ideals of cooperation also seem to provide the best possibility of a solution, with countries working together for sustainability through different intergovernmental organizations. Environmental problems have encouraged international cooperation in recent years to combat problems such as acid rain, ozone depletion, whaling, global warming, and biodiversity loss (Jackson, Sorensen, 2007). Environmental effects are long term and are easily spread, creating a collective goods problem that must then have a collective solution. International cooperation is essential to preserving diversity, and intergovernmental organizations, intergovernmental

agreements, and non-governmental organizations provide forums for discussion to solve environmental issues.

The United Nations is one such IGO that provides grounds for discussion. The UN Environmental Program (UNEP) became more prominent in the 1990s as environmental issues raged throughout the world. The UNEP grapples with global environmental problems and provides technical assistance to member states, monitors environmental conditions, develops standards, and offers alternative energy resources (Goldstein, Pevehouse, 2008). The World Bank also has a growing interest in environmental protection, recently becoming involved with programs calling for reforms for the better protection of endangered animals such as the tiger, which is on the brink of extinction due to under-funded management programs (The World Bank, 2008).

International agreements have also played a large role in battling pollution and fighting for the preservation of biodiversity. Some 900 multilateral agreements have come about, dealing with climate change and biodiversity (Scholte, 2005). The Montreal Protocol, which was first signed by 22 countries in 1987 aimed to reduce chlorofluorocarbon emissions (CFCs) by 50% by 1998. This agreement saw expanded growth throughout the 1990s, as the evidence of ozone depletion due to CFCs mounted. By 1995, major industrial states had begun to phase out CFCs. Signatories also agreed to supply funds to Third World countries to pay for alternative refrigeration not based on CFCs to prevent the proliferation of free riders. This Protocol has been revised and strengthened multiple times over the years and is one of the most important successes of international cooperation to preserve the global environment (Goldstein, Pevehouse, 2008). The Convention on International Trade in Endangered Species (CITES) of Wild Fauna or Flora is another international agreement that has seen success. Established in the 1960s, CITES ensures that international trade in specimens of wild animals and plants does not threaten their survival. More than 5,000 species of animals and 28,000 species of plants are protected against over-exploitation through international trade by restricting what animals are available for imports and exports according to their status (CITES, 2009). Agreements such as this and the Montreal Protocol are critical in working towards an institutional liberal solution to the problem at hand and will play a large role in conservation in the years to come.

Incentive structures are also a key part in making institutional liberalism work for the economy as well as the environment. Unregulated growth has its appeals to those who are in search of short-term gains. However, the reigning perspective must become long-term. Everyone must recognize that we are all connected to the environment that is being destroyed for short-term gain. Some, such as Stiglitz, have proposed new global reserve systems that would go towards financing collective goods problems such as loss of habitat and biodiversity. This would encourage countries to move

more towards sustainable development, rather than quick, industrial development that is harmful to the environment (Stiglitz, 2006). Recently, developing countries such as the Group of 77 have also been asking for aid from more developed nations to aid in greener industrialization processes that would help to reduce CO₂ emissions across the world.

Many have also proposed solutions from strictly an economic perspective. The commodification of species places its value on its economic worth (e.g. plants for new medicines). It is more beneficial to have greater biodiversity of rainforest species in terms of medicines. Plant products account for 25% of pharmaceuticals that are currently used in Western medicine, and more are being discovered everyday. Alkaloid-rich plant species from Madagascar have proven to be cures for some types of leukemia and Hodgkin's disease. These plants save thousands of lives every year and net close to \$200 million in sales every year. Plants are proving themselves to be beneficial time and again, through both health benefits and economic gains. The U.S. pharmaceutical industry spends more than \$4 billion on the research and design of drugs a year. However, during this same time, the sale of drugs derived from natural plants made \$8 billion (Leakey, Lewin, 1996). This allows a dollar value to be attached to the value of a species, and gives economists and others in favor of exploitation a figure they can understand and grasp.

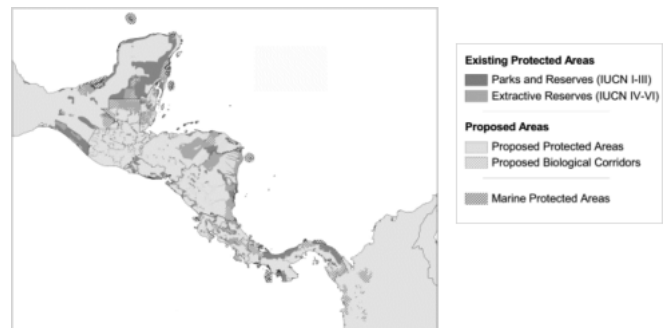
Commodification has its downside though. A dollar value represents only the exchange value of species diversity, rather than its place in an ecosystem. Similarly, protection for a species will only last as long as there is a demand for the product that it is producing. Species that could contain cures for AIDS and other diseases could become extinct before their value is discovered simply because they are not seen as being relevant at the time. The full cost of species can never truly be known. In 1970, for example, the Grassy Stunt devastated rice crops in Indonesia and India. Famine was only avoided by the development of a resistant strain, which was found in only one out the 6,273 varieties tested (Whole Systems Foundation, 2004). Commodification also tends to lead to a loss in genetic variance as aforementioned (FAO, 2006).

A new way of preserving a habitat, while still maintaining a profit, has been introduced in the form of ecotourism. Ecotourism is defined as "responsible travel to natural areas that conserves the environment and improves the well-being of local people" (TIES, 2009). Countries such as Mexico have set up areas where people can pay to enjoy nature in its undeveloped state through hiking, snorkeling, scuba diving, and other such activities. Costa Rica has become world-renowned through its rainforest eco-tourism, and various countries in Southeast Asia are now emerging as top ecotourism destinations. People are now able to profit by preserving the land, rather than destroying it.

Growing populations and rapid development have led to an unprecedented amount of human land use across the United States. The pressure to subdivide privately owned

land for residential development adds to the strain on habitat and takes away agricultural lands, stretches water resources, and affects biological diversity. The further development of lands close to those already preserved also adds management issues concerning invasive species and other resources (Wallace et al, 2008). However, there has also been a large increase in conservation easements over the past few decades, which has resulted in the preservation of millions of acres. Conservation easements are a critical to land trusts, and allow for private owners to still use their land while surrendering development rights. The donation of land or rights can also include significant tax benefits on income, estate, and property taxes, offering another economic solution to land preservation in the U.S. and elsewhere (Wilson, Johnston, 2009).

Biological corridors have also been introduced that look at protecting biodiversity further. These corridors link protected areas with green strips of vegetation running through neighboring rural lands, and can help provide species with the amount of space and movement they need to thrive.



The above map shows the proposed elements of the Mesoamerican Biological Corridor. This corridor was conceptualized in 1997 and was agreed upon by Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. The corridor includes rain and cloud forests, mangroves, and mountain ranges, and encompasses 40% of the territories combined. This is just a small portion of land relative to the world's surface, but it accounts for 7% of the world's biodiversity. Mexico has recently signed on to the partnership, adding to the legitimacy of the program and creating a unique system of regional environmental governance. The goals of this partnership are to preserve the habitat and unique biodiversity that exist in the region while increasing the quality of life of its inhabitants (EarthTrends, 2007).

History shows that the larger the habitat a species has, the more likely it is to prosper. However, current preservation programs confine animals to small areas, making them more prone to extinction. One example of this came with the heath hen in the early 20th Century. Heath hens were on the border of extinction due to habitat loss in 1908. Conservation efforts were put into effect and showed early signs of success. However, natural disaster struck a few years later completely decimating the population because they were

restricted to one location. The entire population was then extinct by 1932 (Leakey, Lewin, 1996). Diversification of habitat as well as a diversity of species is needed in order for an ecological environment to truly thrive. Some success with this has been found in the United States with the Endangered Species Act. Since enacted in 1973, it has been successful in providing habitat preservation for species on the verge of extinction such as the whooping crane, Kirtland's warbler, and bald eagles. These species have now begun to recover, with numbers increasing every year (Bean, 2005). The success of the program eventually leads to the delisting of endangered species, as was the case with the bald eagle and gray wolf.

As stated before, non-governmental organizations play a key role in cooperation for the preservation of a species. The World Wildlife Fund (WWF) plays an instrumental part in the preservation of species as well as their habitats. Recently, a strategy for action has been proposed for the preservation of tigers in the wild. This initiative for conservation focuses on geographical areas that will allow for the preservation of tigers which also benefits humans. Tigers have been pushed to the verge of extinction due to habitat loss, as well as being targeted for traditional medicines and their pelts. However, tigers are considered to be a keystone species for survival, a species that is essential to keeping a biotic system in balance. The WWF has set up several protected ecological zones that take into account the preservation of tigers as well as their prey. These zones help to provide economic incentives and jobs that make it profitable to keep the species alive and preserve its habitat. While the aim is for a long term conservation landscape, there is still a great amount of work to be done. Initial results show, however, that programs such as this are effective for the preservation and continuation of such a magnificent creature (WWF, 2002). In Thailand, the 2,500-square-mile Huai Kha Kheang and Thung Yai Wildlife Sanctuaries on the Myanmar border also show a rare success in the struggle to save the world's declining tiger population. This effort, funded by the Wildlife Conservation Society, has increased patrols that ward off poachers and has stabilized the tiger population in the region (Casey, 2010).

CONCLUSION

"The worst thing that can happen—will happen—is not energy depletion, economic collapse, limited nuclear war, or conquest by a totalitarian government. As terrible as these catastrophes will be for us, they can be repaired within a few generations. The one process ongoing...that will take millions of years to correct, is the loss of genetic and species diversity by the destruction of natural habitats. This is the folly our descendants are least likely to forgive us."

-E.O. Wilson, Harvard Magazine, 1980

Species extinctions have been rising at an unprecedented rate with the increase of globalization. Economic gains are undermining the simple beauty and value of biodiversity, placing an

emphasis on short-term profits instead. Millions of years of evolution have been disregarded for the simple notion that earth exists for material profit. Models have been used to statistically shown that globalization and CO₂ emissions have an impact on the animal species around them. This is only part of the process. Changes must take place in the system that allow for progress to be made in areas of environmental protection. Some have tried to do this by placing an economic value upon species and habitat. However, commodification can only be part of the solution, and will prove to be very costly if employed alone. Value also needs to be placed upon a species' worth to an ecological system seen as an organic whole.

While economic liberalism has created many of the environmental problems that exist today through unregulated fair trade, institutional liberalism offers some of the solutions through IGOs, NGOs, and other international agreements. Some success (as well as failures) have been found in these areas, especially in the cases of CITES and the Montreal Protocol. However, continued cooperation will be needed for us to prevent further degradation of the environment. No nation is exempt from CO₂ emissions and other environmental concerns that reach across borders. Nations need to work together for the reduction of pollution as well as the preservation of habitat that is so essential for biodiversity, and international institutions provide essential forums for cooperation.

Once species and diversity are lost, they can never be recovered. Our world consists of "endless forms most beautiful and most wonderful" (Leakey & Lewin, 1996), with each species having distinct characteristics and genetics that can be found nowhere else. We are intrinsically linked to the environment around us, and this is becoming more apparent as humanity becomes more connected to each other through globalization. It is the responsibility for all to realize that changes must happen before it is too late and those species that are such an essential part of our existence are gone.

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The Iran Threat: Public Perception vs. Reality

Aaron Hildreth

According to nationwide survey, a majority of Americans feel that Iran is the chief threat to the interests of the United States and world stability. Rhetoric from both Iran and the United States reinforce this fear and have led to major foreign policy adjustments. Experts in missile technology and foreign policy, however, paint a less alarming view of an Iranian threat. The findings in this article demonstrate the stark differences between what weapons and foreign policy experts believe about an Iran threat, compared to what the public and political leaders think in the United States. This suggests that our foreign policy leaders may be misrepresenting the actual threat that Iran poses to the public.

According to Gallup polls, a full 61% of Americans believe that Iran's nuclear program is either a "serious" or "somewhat serious" threat to the United States (Gallup, 2009). When asked an open-ended question to name a single country they believed to constitute the greatest threat to stability in the world, the majority of Americans said Iran, with 35% of the country claiming so (Carroll, 2007). Other Gallup surveys show that 80% of Americans have an unfavorable view of Iran and distrust the government in Tehran (Ibid). An even more recent survey by NBC News and the Wall Street Journal shows that 52% of those surveyed would favor military action by the United States in the event that Iran develops a nuclear weapon (Hart & McInturff, 2009). These nationwide surveys confirm a public attitude toward Iran that is highly negative, distrustful, and aggressive. But is this perception of an Iran threat justified? There are many experts in missile defense, intelligence agencies, and foreign policy who claim the opposite—that the Iranian threat is not as serious as many would believe. Another important question that polls and government officials never appear to explain is that of Iranian intent. What would a nuclear Iran gain by using a nuclear weapon belligerently and potentially killing hundreds of thousands of fellow Muslims? This piece will show the history of the Iranian threat, demonstrate the differences between public perception and that of experts, and clarify how the Iranian threat is exaggerated.

HISTORY OF IRAN/UNITED STATES RELATIONS

Americans have had a highly unfavorable view of Iran since at least 1990 (Gallup, 2009) and the origins of Iranian distrust can be traced to the Iranian Revolution in 1979. It was at the end of President Jimmy Carter's administration that turmoil struck the Middle Eastern country and the pro-Western

monarchy was overthrown. It was also during this time that 66 Americans were taken hostage in the embassy in Tehran (Encyclopædia Britannica, 2009). This event would ultimately prove to be President Carter's undoing, being unable to secure the release of these hostages before the 1980 election. Twenty minutes after President Ronald Reagan's inauguration the hostages were freed. After barely registering in the minds of American public consciousness through most of the 20th Century, the Iranian Revolution of 1979 and the hostage crisis left the American public with a highly unfavorable view of the new regime in Tehran (Wolf, 2000).

Since the Revolution, the United States has had no official relations with Tehran. Further stressing the relationship between the United States and Iran, Iran has never officially recognized Israel, and some of Iran's leaders have publicly called for its destruction (Yoong, 2006). Israel, of course, is a very close ally of the United States. Outside of the United States and Israel, though, Iran has diplomatic relations and trade agreements with many countries around the world (Kuppusamy, 2007) including China, who holds veto power in the United Nations Security Council (Wright, 2004). Shortly after the attacks on September 11, 2001, President George W. Bush named Iran as one of the key sponsors of terrorism and a part of the "Axis of Evil" along with North Korea and Iraq in his 2002 State of the Union address. Today, the CIA currently classifies Iran as a "State Sponsor of Terrorism" even though Iran's leaders publicly condemned the September 11 attacks shortly after the incident (Muir, 2001). This icy history between Iran and the United States has cemented an adversarial American foreign policy towards Iranian leadership.

SOURCES THAT SUPPORT THE IDEA OF A MAJOR IRANIAN THREAT

Most recently and visibly, the Bush White House supported the view that Iran is a major threat. As part of the “Axis of Evil,” Iran was charged by President George W. Bush with pursuing a nuclear weapons program and supporting terrorist groups such as Hezbollah who share a border close to Israel (Calabresi, 2003). These statements certainly did not eliminate any fears in the mind of the American public of an Iranian threat and even implied that a nuclear device could reach the hands of terror groups. Deepening America’s perception of threat is Iran’s President Ahmadinejad himself, continuing openly to call for the destruction of the Israeli state while actively pursuing a nuclear program—which they claim is civilian in nature (Time, 2009). Funding terrorist groups, pursuing a nuclear program, and calling for the destruction of a close ally in the region understandably validates many fears. Iran’s rhetoric, coupled with the statements made by the White House, would appear to justify the theory that Iran is a major threat to U.S. interests.

Even before the Bush White House, reports were published concluding that Iran posed threats to United States’ interests. Sarah Kreps, a former research fellow for the International Security Program, researched the impact and differences of National Intelligence Estimates produced by the National Intelligence Council. A National Intelligence Estimate (NIE) on Intercontinental Ballistic Missile (ICBM) developments in 1995 had upset many members of Congress with charges of politicization and downplaying major international threats (Kreps, 2008). The 1995 NIE concluded that “in the next 15 years no country other than the major declared nuclear powers will develop a ballistic missile that could threaten the continuous 48 states or Canada” (Kreps, 2008, 614). According to Kreps, this estimate was the justification for President Bill Clinton vetoing the 1996 defense authorization bill that provided funding for missile defense. This prompted former Secretary of Defense Donald Rumsfeld to launch the Rumsfeld Commission to reexamine the 1995 NIE. Here, the Rumsfeld Commission concluded that “ballistic missiles armed with WMD payloads pose a strategic threat to the United States” and that Iran would likely present these ICBM threats to the United States within five to 10 years (Kreps, 2008 617). A week after the release of the Rumsfeld Commission’s report in 1998, North Korea launched a Taepo-Dong I missile over Japan with a range of 1,000 miles (Ibid). This in effect confirmed the results of the Rumsfeld Commission report and pressured President Bill Clinton to increase the national missile defense budget by \$6.6 billion in 1999 (Ibid).

Another NIE in 2005 concluded that “left to its own devices, Iran is determined to build nuclear weapons” (Kreps, 609). This NIE was a source of justification for the hard-line stance toward Iran and persuaded many members of the United Nations to endorse sanctions against Iran (Ibid). The results of the NIE also validated fears of a major Iranian threat

in the eyes of the public. It is important to remember that NIEs are based on incomplete information, and threat is measured by qualifying and probabilistic language (Analyst, 2009). NIE reports use words such as “highly likely” or “very unlikely” to describe the odds of a particular set of events occurring, and it is impossible to predict the future (Ibid). Former director of the Office of National Estimates (ONE) Shaman Kent once said “estimating is what you do when you do not know” (Kreps, 2009, 610). There are often major policy implications of an NIE, despite an impossibility to predict the future. As Kreps demonstrated, these estimates have influenced vetoes, budget authorizations, and public perception (2009).

In 2008, the International Atomic Energy Agency reported that Iran had begun processing small quantities of uranium and this act was “not consistent with any application other than the development of a nuclear weapon” (American Society of International Law, 2008, 665). This was a key justification in the strengthening of sanctions against Iran that same year (Ibid). The United Nations Security Council adopted Resolution 1803 which called out Iranian financial institutions that were supporting the nuclear program and instructed member nations to avoid conducting business with supporters of a nuclear Iran. In addition, the resolution called for member states to inspect all cargo originating from an Iranian source in any international seaport or airport, as well as restricting travel of individuals who are known supporters of the Iranian nuclear program (American Society of International Law, 2008). These intelligence estimates and agency reports often have a profound impact on public perceptions of the Iran threat as well as shaping policy according to these reports. Political leaders use NIEs and other intelligence estimates to justify their rhetoric. According to some, “war-mongering” rhetoric has a profound impact on public perception (Analyst, 2009). Frequently though, NIEs, government experts, and specialists opinions contradict the idea of an Iranian threat. These expert assessments dispute the rhetoric of political leaders and policy makers, showing another reality to the situation.

SOURCES THAT CHALLENGE THE IDEA OF A MAJOR IRANIAN THREAT

Just two years after the 2005 NIE that justified much of the Bush White House foreign policy toward Iran, the 2007 NIE was released. The 2007 NIE was essentially dismissive of the Iranian threat and set off a political storm similar to that of the 1990s. The 2007 NIE declared with “high confidence that in Fall 2003, Tehran halted its nuclear weapons program ... and with moderate confidence that Tehran had not restarted its nuclear weapons program as of mid 2007” (Kreps, 2008, 618). The impact of this NIE was just as powerful as the 2005 NIE the Bush White House had used as justification for its foreign policy. Similar to the 1995 NIE, there were charges of politicization and erroneous results. Hillary Clinton and other defenders of the 2007 NIE refer to its conclusion as evi-

dence that the Bush White House had “exaggerated the Iranian threat” and used the prior estimate to pursue “ideological ends” (Ibid, 620). Like Donald Rumsfeld in the 1990s, U.S. Ambassador to the United Nations John Bolton asserted that the intelligence community was engaging in “policy formulation” rather than intelligence analysis (Ibid). This estimate caused the Bush White House to lose some support in Congress and abroad, but did not justify changing the hard-line stance toward Iran.

Christopher de Bellaigue, the Tehran correspondent for *The Economist* and long-time Middle Eastern journalist, rejects the foreign policy attitude of the Bush White House and opposes the idea that Iran is a major threat to the United States. Bellaigue says that even if Iran had nuclear weapons, they would have no reason for using them aggressively (Bellaigue, 2005). He claims that belligerence with nuclear weapons would be “catastrophic” for Iran. Iran’s clerical regime is based primarily on an unsound economy of oil exports and its apprehensive trade agreements with the nearby European Union and Arab states. Any aggressive use of nuclear weapons would almost immediately collapse the economy of the nation and sever its ties to the outside world. Bellaigue urges an understanding of intent in his arguments and offers ulterior explanations for the actions of the Iranian government that downplay the notion of Iran being a major threat to the United States. The pursuit of nuclear weapons, he claims, is a calculated and reactionary response to the vulnerability Tehran feels by the United States and Israel (Ibid). Iran hid the fact that it was pursuing nuclear weapons because it was of a military nature and was cautious of international scrutiny. The goal of the program is to be able to “go nuclear the moment it feels a U.S. or Israeli attack is imminent” (Ibid 19). This argument would support the idea that an Iranian nuclear program is more for deterrence and not antagonism, which would not represent a threat to the United States. Despite their nuclear intentions, a nuclear-armed Iran does not appear likely to use them aggressively.

Bellaigue attacks other perceptions of Iran as well. One of the views circulating about Iran is that they have no need for nuclear power so their program must be a weapons pursuit. However, Iranian energy needs are rising faster than the government is able to meet them. Some 40% of the energy consumed in Iran is produced locally, and if this number continues to rise, oil revenues would fall and injure the economy. The main goal of Iranian foreign policy, in his view, is to “counter U.S. efforts to isolate it” (Ibid, 19). This mindset explains why Iran has made major trade deals with China, a permanent member of the UN Security Council. In addition, Iran continues to export energy to allies of the United States despite U.S. government disapproval. These details support the idea that an aggressive nuclear Iran is simply not an option because of its international trade agreements and dependence.

The idea that threat of force or military action is the only way to stop an Iranian nuclear program is also unwarranted,

Bellaigue claims. Iran has responded to threats and negotiations in the past, as evidenced by the halting of its nuclear program in 2003 under international pressure. This shows that Iran is not an unstable and monolithic dictatorship that many perceive, but rather a rational nation-state like most countries. The argument for military action and threat of force may actually backfire and cause Iran to drop out of the Nuclear Non-Proliferation Treaty (NPT), the opposite result of U.S. intentions. If Bellaigue’s arguments are true, then U.S. foreign policy is not only exaggerating an Iran threat, it may also be the cause of the hostility.

There is also evidence that domestic shifts in Iran may lead to a more pro-Western stance if United States foreign policy remains fairly benign. According to both Bellaigue and others, there is much internal disagreement over the state’s nuclear program (Bellaigue, 2009; Time 2009). President Ahmadinejad is facing harsh criticism from opponents at home (Time, 2009). In response to a recent deal in Vienna that would allow Iran to pursue enriched uranium outside of Iran, Iranian Judiciary Chief Sadeq Larijani denounced the idea of nuclear cooperation as not being in the interest of the state (Ibid). Speaker of the Iranian Parliament, Ali Larijani, has criticized the nuclear program as “neither logical nor legal” (Ibid). In addition to this criticism within Iran’s government, Bellaigue argues that even ordinary Iranians do not support their country’s nuclear ambition (Bellaigue, 2008). Citizens of Iran say they do not want the political isolation that would come with a nuclear program and the youth of Iran is exceedingly pro-Western, despite the hard-line stances of its own government (Ibid). Confirming Bellaigue’s personal interactions in Iran, a recent World Public Opinion poll found that 58% of Iranians believe producing nuclear weapons is “contrary to Islam” (World Public Opinion, 2008). The same poll shows Iranians largely supporting the Nuclear Nonproliferation Treaty, with 59% of the population agreeing. These domestic agendas also downplay the idea of an Iranian threat by showing an Iranian regime that responds to political pressure and not the unpredictable rogue state many believe exists. Bellaigue believes Iranian youth and new generations will open Iran to the West. Once again, it appears U.S. foreign policy could be inflaming the situation, rather than lowering any possible threat from Iran.

There are even reports and estimates within the United States government that are far less alarming than the rhetoric of political leaders and the perception of the population. A Congressional Research Service (CRS) report on Iranian ballistic missile capabilities recently stated that they had been exaggerated (Hildreth, 2009). Iran had released images of an alleged missile test and on closer examination were found to have been digitally altered. As a result, the ‘missile test’ photos were subsequently removed from media sources (Ibid). The Bush White House stated that although Iran did not test any new technologies or capabilities, the launches were evidence of the need for a missile defense system in Europe (Ibid). This report states that Iran could test an ICBM in the

next 15 years only if certain, and quite difficult, criteria were to occur first. First, Iran would “have to rely on access to foreign technology” such as Russia or North Korea, technology that is not easily obtained or given up by technologically advanced nations (Ibid, 2). The CRS report says Iranian ICBM’s are a worst-case analysis of the potential threat from Iran and that “with rare exception this level of threat has rarely turned out to be historical reality” (Ibid, 2). CRS reports are written and fact-checked by many experts in their respective fields and are highly respected for their bipartisan analysis (Analyst, 2009). This report helps puts in perspective just how unlikely the scenario of an aggressive, nuclear or ICBM-armed Iran is. The report details a very unlikely scenario and illustrates the threat Iran poses is not as great as the public perceives.

Another example of a government agency realistically assessing the Iranian threat is the stance of the Director of National Intelligence, Dennis Blair. In February of 2009, the Senate Select Committee on Intelligence held hearings which focused entirely on security threats to the United States (U.S. Senate, 2009). According to the record of the hearings, Chairwoman Dianne Feinstein gave 15 minutes to Director Blair to sum up, the major threats that faced the United States. Blair opened his remarks by saying that the global economic recession was the number one threat that faces the United States. Blair spent roughly a third of this time discussing the problems with loss of productivity in allied countries and the potential for weak governments to become destabilized as a result of poverty. After the global economy, the second most significant threat to U.S. interests abroad was terrorism. There were few sentences actually dedicated to Iran and those statements focused mainly on its support for Hezbollah and Hamas (U.S. Senate, 2009). When given 15 minutes to publicly address the United States Senate about the most important threats facing the United States, the Director of National Intelligence spent little of this valuable time discussing Iran. Director Blair’s unspoken words have significant impact on the assessment of an Iranian threat. The fact that ICBM or nuclear weapons belligerence did not appear in his remarks or elsewhere to the Senate (Ibid) encourages the conclusion that Iran is either no longer, or never was, a significant threat to U.S. interests.

INTERVIEWING A FOREIGN POLICY EXPERT

Lastly, an interview with a Senior Analyst at the Congressional Research Service (CRS) offers a rare insight into the threat assessment of Iran. As a member of the CRS, an analyst’s job is to remain bipartisan and objective in his or her analysis. The analyst interviewed asked to remain unidentified and stressed that the opinions given were not that of the United States government nor the CRS. This analyst has more than three decades of experience in foreign affairs, is a specialist in missile defense, and knowledgeable about missile capabilities. The analyst first discussed the objectivity of government reports and their accuracy, such as

the NIEs mentioned earlier. The analyst responded by stating that it would be very difficult for these reports to be politically charged or politically motivated by staff. This is because those in the intelligence community rely on their reputations and are in their positions longer than most politicians; partisanship is counter-productive to their self-preservation. Appearances of politically-motivated analysis usually surface when a sentence or two in a report is misquoted, despite the wording being meticulously selected.

Much like the CRS report and NIEs mentioned earlier, intelligence estimates are quantified by possibilities and many contingencies that must occur in order for a threat to actually manifest. For example, if Iran wanted to test ICBM technology, it would have to rely on foreign assistance and many other financial, risky, and time-consuming commitments. These reports are also inherently flawed, the analyst claims, for two reasons. First, they lack historical perspective (Analyst, 2009). The analyst explained that estimates often overlook the tremendous amount of work that it took for the five countries that currently have ICBM technology to develop it, and the massive technological challenges that aspiring countries face. Second, they focus mainly on capabilities while ignoring intentions or purpose (Ibid). According to the analyst these reports also lack the value of calculating deterrent forces from the opposing side—the U.S. or Israel in this case—such as economic sanctions, conventional military force, and nuclear deterrence.

In discussing the threat from Iran, the analyst immediately identified North Korea as a far more genuine danger. North Korea, the analyst argues, is not predictable and does not care about its population, which makes the North Koreans incredibly difficult to deter or influence. Even so, the analyst doubts North Korea has the near- or mid-term capability to develop and deploy nuclear-armed ICBMs. In regards to Iran, the analyst says the people of Iran are very pro-Western and have strong cultural and economic ties to the United States and Europe. The problem arises with the theocratic ideologies of the Iranian leadership and their destructive stance towards Israel. The analyst believes that Iran is dedicated to producing a deterrent to Israel, and Tehran understands that a first strike against Israel would be devastating to itself. The analyst also believes that Iran has more technical knowledge than North Korea but also points out that they collaborate with each other. Without the assistance of Russian or Chinese technology, there is little chance of Iran developing long-range ballistic missiles in the near to mid-term future. The analyst was offered to rank the Iranian threat and said they would not put Iran “in the top five or even ten” threats to United States security (Ibid).

The analyst believes the major source of public perception on Iran to be from policy makers and administrators. The analyst believes that “fear-and-crisis mongering” are effective political tools (Ibid). The source of public perception may come from policy makers but if the threat is real, would the U.S. military be effective in stopping an Iranian

nuclear program? The analyst said, “No one seriously believes that military intervention would stop Iran; all it would do would push off the issue another day” (Ibid). The analyst proposes diplomatic and economic measures with Iran, which has “proven historically to be more effective than military means” (Ibid). The analyst realizes the diplomatic process is incredibly difficult, risky, and time consuming, but “is far more effective” (Ibid). The analyst also believes a missile defense shield would be effective in countering an Iranian missile threat if it were to appear. The Obama administration is “discussing the use of Patriot, THAAD and Aegis ballistic missile defense systems to counter any short and medium ranged Iranian missiles” (Ibid). The analyst acknowledged, though, if Iran were nuclear-armed, one missile would be enough to destroy a small country like Israel. This event, however, would be “very unlikely” to actually occur.

On the subject of nuclear terrorism originating from Iran, the analyst was confident that this scenario was also very improbable. First, the analyst says, “no state has ever sold a nuclear device to a non-state actor” (Analyst, 2009). According to the analyst, when a state sells a nuclear device to a non-state actor, they lose control of that device. This is a very bad thing because nuclear forensics can “eventually trace the origin of a nuclear weapon to its source” (Ibid). If it were found that Iran sold a nuclear device to a terror group, it would mean disaster for the regime in Tehran. Indeed, the International Atomic Energy Agency has reported on the success of nuclear forensics and the ability to trace sources (IAEA, 2002). It was noted earlier that Iran is a state sponsor of terror in supporting Hezbollah and Hamas, but these factions do not operate near the United States. Director Blair listed Al Qaeda as the one major terror threat to the United States (U.S. Senate, 2009) but the Iranian regime and Al Qaeda “absolutely hate each other” (Analyst, 2009). In the highly unlikely scenario that Iran would ever sell a nuclear device to Hamas or Hezbollah though, their target would most likely be Israel. While the rhetoric might match, these groups would not risk killing thousands of fellow Muslims in the region or the world’s wrath (Ibid). This interview confirms much of the earlier findings on the realistic threat assessment of Iran. These experts would most likely agree with the conclusions of Bellaigue, Kreps, and Director Blair.

THEORIES OF RATIONAL DETERRENCE

The idea of a ‘rational deterrence’ is not new and has been debated extensively since the Cold War. The basic thoughts behind rational deterrence rest on the idea that countries are led by rational people who balance international interests with domestic security concerns. These leaders will weigh risks and rewards to calculate foreign policy decisions. Higher risk scenarios tend to prevent aggressive actions, thus deterring a would-be attacker (Downs, 1989). More specifically, Christopher Achen defines rational deterrence as being “unified by a number of working assumptions about human behav-

ior” that set up an explanatory framework of behavior (Achen & Snidal, 150). These main assumptions about human behavior believe rational actors, when given an array of options, seek to optimize their own preferences before others (Ibid). Unique outcomes in international scenarios can be explained by differences in each actor’s preferences, norms, or culture (Ibid). In essence, while risk may differ from actor to actor across the world, leaders will tend to act when risk is low and payoff is high.

Rational deterrence helps explain many of Iran’s actions in regards to nuclear advancement and support of terrorist groups. Bellaigue believes that Iran is fearful of its nuclear armed neighbor, Israel. If possible to see through the eyes of Iranian leadership this is a logical conclusion. The label ‘Axis of Evil’ from the United States, possessing the most powerful armed forces in world history, would put any nation on the defensive—especially after its neighbor was deposed by the said country in 2003. A rational leader in this situation would most likely try to prevent its own country from achieving the same fate as former Iraqi leader Saddam Hussein. When looking at foreign policy through the eyes of Iran, the rational conclusion would be that the United States and its very close, and nuclear-armed ally, Israel pose a major security threat to itself. No rational leader would succumb to its fate without a fight, so Iran’s best option was to pursue nuclear technology as a deterrent. The same logic applies to Iran’s funding to Hamas and Hezbollah, whose aims are to overthrow Israel—a major security concern for Iran. By funding these groups, Iran can continue its own rhetoric of calling for the destruction of Israel while simultaneously denying direct involvement with the actions of these terror groups.

The framework of rational deterrence is not without its critics. The major point of disagreement will come from the very definition of the word rational. Lebow and Stein argue that some leaders are not rational at all and will take enormous amounts of risk for little apparent gain (Lebow & Stein, 1989). Leaders such as Adolf Hitler, Josef Stalin, and Nikita Khrushchev each had different ideas of calculating risk, they claim. These critics will argue in favor of other possible explanations for behaviors, such as risk-prone loss minimizers, risk-averse gain maximizers, and risk-averse gain maximizers (Ibid). These different behaviors by leaders do not show a rational aspect to leaders and decisions, but rather irrational behaviors in spite of all evidence given to them. Examples included are Adolf Hitler launching a war against the world at all odds, Josef Stalin sending millions to their deaths in defense of Russia, and so forth (Ibid). In addition to the criticism on the theory, political leaders in the United States continue to imply through rhetoric that Iran is an irrational, rogue state (Kreps, 2008). Of course, if Iran was an irrational and aggressive state, the rational deterrence framework would not apply in this situation. Once more, the evidence and expert analysis opinion reach a different conclusion.

Foreign policy leaders and others continue to denounce

Iran as an irrational and monolithic rogue state. This however does not appear to be the reality of the situation. Critics of rational deterrence might classify Iran as a 'risk-prone loss minimizer,' citing Iran's heated rhetoric on Israel and its funding of terror groups. But this action in itself shows a certain rational logic to Iran's behavior. By funding terror groups, Iran is diverting its own risk away from the state while actual terror groups carry out their own actions. If Iran was truly irrational and aggressive, Iranian leaders would have no problem being directly involved in the planning and execution of terror strikes. The rhetoric might be loud, but actions always speak louder than words. In Iran's case, the leadership is downplaying their involvement as much as possible to avoid further repercussions from the world at large. More evidence showing Iran as a rational actor is the fact that Iran responded to international pressure and halted its nuclear program for fear of losing trade deals (Bellaigue, 2005). The analyst at the CRS points out that a nuclear device, let alone any weapon of mass destruction, would almost inevitably lead to the deaths of hundreds of thousands of Palestinians in Gaza (Analyst, 2009). The analyst immediately pointed to North Korea as being a far more legitimate threat because of the differences in the rationality of leaders between North Korea and Iran. If Iran were truly irrational and aggressive, the state would simply not care about the consequences and could have easily launched devastating attacks on Israel. The fact that Iran has not taken direct aggressive action against Israel or the United States, in spite of President Ahmajinedad's rhetoric, demonstrates that Iran is carefully calculating its foreign policy decisions and is acting rationally.

CONCLUSION

The rift between public perception and reality of the Iranian threat is apparent. Public perception of Iran appears to originate from policy makers, administration officials, and political leaders. Polling data matches these trends as leaders continue to stress that Iran is a major threat to the United States and a supporter of terrorism. While Iran may support groups like Hezbollah and Hamas, it is highly unlikely and historically unprecedented that a state would sell WMDs to terror groups. Connecting the words "supporter of terrorism" and "nuclear-armed Iran" no doubt cause a quick panic, but rational and expert analysis paint a very different picture.

Many weapons and foreign policy experts reject or diminish the threat Iran poses to the United States. The idea that a nuclear Iran would act aggressively toward Israel or the United States is counterintuitive and lacking historical awareness. There is simply no empirical evidence to suggest that Iran would behave belligerently if it acquires nuclear weapons and there is no historical precedence of such a suicidal move by a regime. It appears many NIE estimates are leaving out two important aspects in their intelligence: intentions and the capabilities of other nations. Iran simply has

nothing to gain by acting belligerently in the region. A WMD strike on Israel would most likely kill thousands of fellow Muslims in the Gaza Strip and West Bank. Not only would a strike on Israel potentially kill many Islamic supporters, Iran would incur the world's wrath. Reports that Iran could even acquire the weapons technology necessary for this in the near future is doubted by government officials and foreign policy experts alike. Iran has even doctored photos of a missile launch in an apparent attempt to look stronger. This is not the sign of a significant threat. In the highly unlikely event that Iran could obtain these weapons there is simply no logical motivation for Iran to launch a first strike. Iran understands the risks of a move like this and that the ensuing economic collapse would be the end of the regime. As mentioned by the NIE reports, the future is impossible to predict. But when assessing threats around the world it is important to keep these assessments realistic to guide foreign policy in the right direction and not to mislead the public.

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Medical Tourism in India: Healing the World but Hurting a Nation?

James Egan

Medical tourism is a booming industry in India, and experts predict that by 2012 medical tourists will pump \$2.2 billion into the Indian economy (MacReady, 2007, 1,850). But what does this mean for Indians? This paper addresses the following questions: Is the industry's tremendous growth a positive development for the masses of Indians that do not directly benefit from it? When thousands of Indians die every year from illnesses that modern medicine has made easily preventable, should the Indian government create policies and use public funds to assist private hospitals that respond predominantly to the demands of the rich and foreign? Is medical tourism healing the world but hurting a nation? After briefly describing the present situation of medical tourism in India and establishing the ethical dilemmas resulting from it, I will argue that a concept of cosmopolitan nationalism must guide solutions to these dilemmas. Medical tourism in India will become an ethical success only by becoming a national success—a success that unites Indians by representing not only what they have to offer the world, but also what they have to offer each other.

ESTABLISHING THE PROBLEM

In 1916 the renowned Indian philosopher Rabindranath Tagore remarked, “The whole world is becoming one country through scientific facility” (2008, 119). Now, almost a century later, our globalized world has become more inextricably linked than Tagore could have imagined, and not only by computer and information technology. Advances in the medical sciences and the growth of sophisticated medical facilities in the developing world have caused the sick of all nations to board planes and cross borders for treatment. This phenomenon—commonly called “medical tourism”—is yet another way in which scientific facility is bringing people of all nations together. Although the current number of these medical tourists is modest, many studies estimate that it will increase exponentially in the next decade. In a recent study, McKinsey and Company estimate that the current world market is merely 60,000 to 85,000 inpatients a year. They added, however, that the number of American outbound-patients alone would probably range from 500,000 to 700,000 if payers covered medical travel (Ehrbeck, 2). In another recent study, the Deloitte firm projects that “outbound medical tourism [patients living in the US] could reach upwards of 1.6 million patients by 2012, with sustainable annual growth of 35 percent” (Deloitte, 3).

There are many reasons for this fascinating development in modern health care.

The majority of people in this growing number of medical tourists seek “the world’s most advanced technology, bet-

ter quality, or quicker access to medical care,” not lower prices, and most travel to the United States (Ehrbeck, 2). Nevertheless, entrepreneurs in the developing world are confident that the trend is changing, and they are preparing for big profits. Narsinha Reddy, manager of marketing for Bombay Hospital, has predicted that “medical tourism will do for India’s economic growth in the 2000s ten to twenty times what information technology did for it in the 1990s” (Bookman, 2007, 3). And though his prediction has not proved entirely accurate, Reddy’s excitement at the potential for growth is not completely misguided. Some experts predict that by 2012 medical tourists will pump \$2.2 billion into the Indian economy (MacReady, 2007, 1,850).

What is more, it is not only India’s businessmen that are excited about medical tourism. The Indian government is planning for profits as well. In its National Health Policy issued in 2002, the Indian government encouraged the growth of the industry:

To capitalise on the comparative cost advantage enjoyed by domestic health facilities in the secondary and tertiary sector, the policy will encourage the supply of services to patients of foreign origin on payment. The rendering of such services on payment in foreign exchange will be treated as ‘deemed exports’ and will be made eligible for all fiscal incentives extended to export earnings (Vijay, 2007, 1).

The government has many reasons to encourage the growth of the industry. India’s whole economy will benefit from an increase in the number of medical tourists that visit Indian hospitals. Medical tourists bring foreign currencies and create

good jobs at hospitals. The existence of sophisticated hospitals, moreover, improves the overall health-care infrastructure of the country. These hospitals (and the wealthier patients that visit them) also keep first-rate Indian doctors from leaving India to practice overseas and encourage those that have already left to return to India and practice at home (Knox, 2007).

Despite all of these apparent benefits, not everyone in India is happy with their government's encouragement of the industry. These critics argue that the Indian government should think twice about capitalizing on the medical tourism boom at a time when the medical system is failing its own people. Dr. Samiran Nundy, a gastrointestinal surgeon in New Delhi, and Amit Sengupta, from the India's People's Health Movement, expressed their criticisms in a recent article in *The British Medical Journal*. "It is time," they argue, "for the government to pay more attention to improving the health of Indians rather than to enticing foreigners from affluent countries with offers of low-cost operations and convalescent visits to the Taj Mahal" (Gentleman, 2005). One particularly vehement critic of medical tourism asks, "How could a country like India dare to promote medical tourism when even the basic health care needs of the majority of its citizens have not been met?" (Vijay, 2007, p. 2). To be sure, his question is more of a rhetorical moral indictment than a genuine inquiry.

These concerns are certainly hard to dismiss, and the Indian government is not ignorant of them. Last year, to point out one instance, an Indian Tourism Ministry official reported that the Health Ministry was reluctant to publicize its findings concerning inequality of access to health care at a recent conference in New Delhi on medical tourism (Gentleman, 2005). Of course, the health care inequalities in India can be seen in statistics other than those of the Health Ministry's recent findings. The World Health Organization reports that thousands of Indians die every year from illnesses that modern medicine has made easily preventable. Tuberculosis kills half a million Indians every year, and readily treatable diarrheal diseases kill 600,000 (www.who.com). Additionally, India's public health funds are few. In 2008 India spent 5.2% of its GDP on healthcare, but only 0.9% of this came from public funds (Nagaraj, 2009). The *Economist* reports that "nearly four-fifths of all health services are supplied by private firms and charities—a higher share than in any other big country" (2009). India ranks among the top 10 countries for communicable disease and leads the world in chronic diseases like diabetes hypertension and coronary artery disease (Nagaraj, 2009, 1). The United Nations Children's Fund reports: "One in every three malnourished children in the world lives in India [and] about 50 percent of all childhood deaths are attributed to malnutrition" (www.unicef.com). In the face of these massive public health problems, should the Indian government create policies and use public funds to assist private hospitals that respond predominantly to the demands of the rich and foreign? It should, but not without an important guiding principle—cosmopolitan nationalism.

LOCAL OBLIGATIONS VERSUS GLOBAL CONCERNS

What do I mean by cosmopolitan nationalism? India's history is rich with ideas about both nationalism and cosmopolitanism. The ideas of Jawaharlal Nehru, India's first president, and Rabindranath Tagore, the famous Indian philosopher with whom I began, are particularly relevant to the ethical dilemmas of medical tourism in India. By exploring their ideas about the relationship between the individual and the nation, we will be able to more fully comprehend the ethical dilemmas of medical tourism.

In his book on nationalism *Imagined Communities*, Benedict Anderson (2006) reminds us that nations have no native characteristics—no native habits, no native habitats, nor "preordained immutable frontiers" (123). National communities are, therefore, always imagined. Their unity is a matter of work. It is not simply or, even more precisely, naturally given to them. India's first prime minister, Jawaharlal Nehru understood this. His administration recognized the need for an idea to unify the nation. "Unity in diversity" was the motto it pressed upon the newly born nation. The struggle to establish this unity was certainly a part of Nehru's nascent India. The trouble, as Srirupa Roy explains in *Beyond Belief: India and the Politics of Postcolonial Nationalism* (2007), was "preserving a center while accommodating diversity." India continually faced (and still faces) the "threat of 'excess' subnational identity" (4). To deal with this dilemma, Nehru's administration, in various ways but most notably through hundreds of state-created short-films, broadcast the idea that India's "real culture" was always and "inevitably located elsewhere" (44). This meant that the nation of India was to be sought after and built. Work was to be done, and individuals were instructed that they had obligations to their fellow nationals, even to those who spoke, ate, and lived differently. Being completely Indian within this paradigm was virtually impossible because no one Indian had complete comprehension of or claim to all of Indian culture. Being Indian, then, was becoming Indian. "True" Indians adopted an intranational outlook and depended on others for their identity. Moreover, individuals developed a belief that they obligations to the imagined community.

Popular allegiance to this idea was crucial to the development of a unified India, but, taken too far, the idea could be dangerous. No one was more outspoken about this than Rabindranath Tagore. He warned of dangerous styles of nationalism that tempted the early Indian nationalists. The most dangerous idea of all, for Tagore, was the doctrine that all things are to be sacrificed for the glory of one's nation. In one of his many lectures on nationalism, Tagore declared:

Even though from childhood I had been taught that the idolatry of the Nation is almost better than reverence for God and humanity, I believe I have outgrown that teaching, and it is my conviction that my countrymen will gain truly their India by fighting against that education which teaches them that a country is greater than the ideals of humanity. (2008, 127)

In place of a narrow-minded, selfish nationalism, Tagore argued for the adoption of a global outlook, a concern for people of other nations—in short, a compassionate cosmopolitanism. We have obligations to our nation, Tagore maintains, but none of them, he is careful and adamant to add, remove our basic obligations to humanity.

This sentiment is not foreign to the modern world. Thanks to people like Tagore, this idea has increased its force throughout the world. The improvement of Indian public health in recent years, for example, has come by way of the cosmopolitan spirit. In July of 2009, Bill Gates was awarded the Indira Gandhi Prize for Peace by India's President, Pratibha Patil, for the millions of dollars his foundation donates to India every year for health-related projects. His remarks on the occasion were cosmopolitan. He told the audience: "A poorest child in the poorest country is just as precious as your children or ours" (The Economic Times, 2009). Were it not for wealthy cosmopolitans like Gates, millions of people in India would lack desperately needed aid.

As with nationalism, however, a helpful concept of cosmopolitanism must be clearly defined. If we speak of our moral obligations only in relation to the massive abstraction called humanity, we run the risk of forgetting those that we are often in the best position to help—our neighbors. Thus, an important question for cosmopolitans becomes: Can one have special concern for one's own nation, even value it more than others, and still be a cosmopolitan? If, along with Bill Gates, one is to believe that a child in one's own country is "just as precious as" any other child anywhere in the world, then how is one's commitment to his nation to remain? In *Cosmopolitanism: Ethics in a World of Strangers* (2007), Anthony Appiah argues quite eloquently that local commitments can and should remain. In response to those who presuppose that "cosmopolitan moral judgment requires us to feel about everyone in the world what we feel about our literal neighbors," he writes, "To say that we have obligations to strangers is not to demand that they have the same grip on our sympathies as our nearest and dearest. We'd better start with the recognition that they don't" (158).

A healthy cosmopolitanism, then, does not require us to try in vain to think about and feel for every person what we feel for our nearest and dearest. What it requires, instead, is that we resist the thought that "our neighbor is not our neighbor but our neighbor's neighbor" (Nietzsche, 2003, 104). The cosmopolitan sees the recognition of one's duty to one's local neighbor as a necessary step towards the recognition of one's obligation to foreign strangers. Edmund Burke, the great champion of the local, wrote, "To love the little platoon we belong to in society, is the first principle (the germ as it were) of public affections. It is the first link in the series by which we proceed towards a love to our country and to mankind" (Appiah, 2007, 152). Cosmopolitans must value the practical power that local associations can generate. For their position to be effectual, they must recognize the importance of the unique and particular, even the patriotic.

How is all of this relevant to the ethical dilemmas of medical tourism? A cosmopolitanism void of respect for national obligations combined with a nationalism that ignores the universal worth of individuals is leaving many without medical help that they could be receiving. Sophisticated Indian hospitals are healing wealthy foreigners. There is certainly a bit of the cosmopolitan spirit in this work. But there is also a lack of concern for the local. In addition, the Indian government is intent on improving the health of the national economy by maximizing the profits of the medical tourism industry. In this, it exhibits concern for the condition of the nation. And yet this concern for country appears to be crowding out a concern for the individual in a way that would disappoint Tagore.

Although the pressures of globalization encourage leaders to focus on the national economy (so as not to fall behind), they do not mandate ignoring the needy. Policies that focus only on markets are unwise. "Putting the market before the society," Donald Blinken, a former U.S. ambassador to Hungary, remarked, "is an invitation to trouble and disappointment" (Friedman, 2000, 162). In one of his lectures on nationalism that I mentioned earlier, Tagore speaks of the same issue as if he were speaking today to those among medical tourism's supporters who focus strictly on profit margins:

But when, instead of being numerous separate machines, [the people of a nation] become riveted into one organized gregariousness of gluttony, commercial and political, what remotest chance of hope will remain for those others, who have lived and suffered, have loved and worshipped, have thought deeply and worked with meekness, but whose only crime has been that they have not organized. But, you say, 'That does not matter, the unfit must go to the wall—they shall die, and this is science. . . . I assert that man's world is a moral world, not because we blindly agree to believe it, but because it is so in truth which would be dangerous for us to ignore.' (2008, 45)

A concern for the "moral world," as he calls it, is essential to Tagore's cosmopolitan nationalism. Using a physiological metaphor that is appropriate for this discussion of health care, Tagore adds, "Our nerves are more delicate than our muscles" (2008, 152). Indeed, a people's well-being does not result from muscular (economic) strength alone. The nerves (morals) of a people are equally important.

Unfortunately, the "moral world" is being ignored by parts of the medical tourism industry in India. The situation at Indraprastha Apollo Hospital in New Delhi is a striking example of this. The hospital was built in 1996 on 15 acres donated by the Delhi government. This land was worth an estimated \$2.5 million. The government invested \$3.4 million in the construction of the hospital and contributed \$5.22 million as equity capital. It also provided tax and duty waivers on import of equipment. All of this assistance was offered with the agreement that the hospital would reserve one-third of its beds for the treatment of poor patients at no cost. Sadly, "only 2% of indoor cases in 1999-2000 in Apollo Hospital

were treated free and most of these were relatives of staff, bureaucrats and politicians” (Vijay, 2007, p. 1).

The problem, moreover, is not just empty beds. The focus of funds and doctors is a concern as well. In *Medical Tourism in Developing Countries*, Milica and Karla Bookman (2007) point out the contrast between the money and excitement associated with treating the rich and the “dismal picture of public health.” According to the Bookmans, “regular deworming in remote villages is considerably less flashy” than more lucrative, sophisticated procedures (2007, 175). Global health statistics affirm that the health needs of the rich attract much more attention than those of the poor. Less than 10% of global health expenditure every year is “directed towards diseases that affect 90% of the population” (169). Most of India’s poor need help with diarrhea, childbirth, and nutrition. They do not need CAT scans and laser-guided surgeries.

HEALTH CARE: THE PROBLEM AND THE SOLUTION

Luckily, experts like the Bookmans still have hope. They claim, paradoxically, that “health care is at once both the problem and the solution” for countries in the developing world (7). They argue that medical tourism has the potential to produce general economic gains that will improve the health of a nation and to provide revenues for struggling public health systems through macroeconomic redistribution of tax revenues. Medical tourism can begin a “self-reinforcing cycle” that catalyzes both economic growth and improved public health, two outcomes that mutually improve each other (175).

The Bookmans claim that “macroeconomic redistribution policy” is “by far the most important way in which medical tourism can enhance public health” (179). In India, tax revenue from medical tourism should be increased and redirected to programs that focus on the most common public health problems. Tax revenues could be used to encourage doctors to work in less-desirable rural areas through augmented salaries. They could also be used to provide much-needed equipment such as dialysis-machines, a lack of which prevents fewer than 5% of Indians with kidney failure from receiving life-saving dialysis (Knox, 2007, 1). Funds could also be used to more properly finance already existing programs such as the Public Health Foundation of India in New Delhi. The foundation was created by the Health Ministry in 2006 to “build training capacity through five new public health schools, establish standards in public health education, and serve as a think tank for the government and the private sector” (BMJ 2006). But public funding was not enough to get the foundation started. Public funds are expected to make up a small part of the \$110 million the foundation will need over the next five years. Private donors, including the Bill & Melinda Gates Foundation, will provide the rest (BMJ, 2006). This paradigm of “private funding for a public mandate” has been the model for many of India’s public health initiatives (BMJ, 2006). Tax revenues from medical tourism could be an important part of reforming this model.

But redistribution of tax revenues cannot be the only way in which the benefits of India’s growing medical industry can be used to solve its many public health problems. Private entrepreneurs can play a major role as well, and some already are. A number of private-health providers are expanding to meet the needs (and money) of India’s growing middle class and even its poor. Vishal Bali, CEO of Wockhardt Hospitals, “plans to take advantage of tax breaks to build hospitals in small and medium-sized cities,” which can be home to as many as 3 million people in India. Prathap Reddy, Apollo’s founder, plans to do the same (The Economist, 2009). Rick Evans, owner of a hospital chain called Columbia Asia, “says his investors left America to escape over-regulation and the political power of the medical lobby.” The Columbia Asia business model involves building simple hospitals (as opposed to the Sheraton-Hilton style) and offering “modestly priced services to those earning \$10,000-20,000 a year within wealthy cities.” It appears that health care in general, not just medical tourism, in India is predicted to become much more *lucrative in the near future*. *The Economist reports that* “Technopak Healthcare, a consulting firm, expects spending on health care in India to grow from \$40 billion in 2008 to \$323 billion in 2023” (The Economist, 2009). Hospitals like these are part of the reason for the recent boom in health insurance in India. This development is good news for these hospitals, of course; more insured Indians means more revenue for hospitals.

What is more, these health care business innovations are attracting attention and encouraging the kind of cosmopolitan cooperation that will undoubtedly benefit India in the long run. Apollo now sells its expertise to American hospitals. Aravind, the world’s largest eye-hospital chain, has developed ideas that will be helpful elsewhere. Instead of looking to the government for handouts, Aravind’s founders “use a tiered pricing structure that charges wealthier patients more (for example, for fancy meals or air-conditioned rooms), letting the firm cross-subsidise free care for the poorest.” This helps them treat hundreds of the 12 million blind in India whose cases mostly arise from preventable causes like cataracts. What is more, the hospital staff rotates so that they treat both paying and non-paying patients,” a practice that tries to ensure that there is no difference in treatment quality (The Economist, 2009). Wockhardt hospitals, to add another example of the valuable, marketable knowledge being developed in Indian health centers, pioneered a special type of heart surgery that “causes little pain and does not require general anaesthesia or blood thinners” and that puts patients “back on their feet much faster than usual” (The Economist, 2009). Not only do some of these ideas bring medical tourists to Indian soil, but they bring entrepreneurs and scientists as well. They come to learn and to witness startling new innovations.

HEALING AT HOME

These developments are also attracting the attention of expatriate Indians who have left their mother country for a chance to earn a better living for their families. Many are returning to India to practice in a rapidly developing and increasingly sophisticated health sector in an environment they love. This is perhaps the best example of how national affections are combining with the cosmopolitan spirit in India in ways that will benefit the country's public health situation. What has in the past been a "brain drain" problem may turn out to be a great boon for Indian public health.

Indian doctors are not hard to find in the elite circles of medicine around the world. No other country has exported as many physicians as India. More than 40,000 Indian physicians practice in the United States, making up one of every 20 U.S. doctors (Knox, 2007), and "one out of five doctors in the world is Indian" (Bookman, 2007, 6). For most of the recent past, thousands of Indians have been trained in medical schools outside of India and less than half of them have returned (Bookman, 2007, 6). Furthermore, many of those who have been trained in India, particularly in its most prestigious medical schools (public schools included), have emigrated to practice abroad. One study in particular conducted by Manas Kaushik of the Harvard School of Public Health reveals the unfortunate "brain drain" India has experienced in recent decades. In 2007 the National Public Radio reported:

[Dr. Kaushik] tracked hundreds of graduates from the All-India Institute of Medical Sciences, India's equivalent of Harvard Medical School. He looked at alumni dating back to the 1950s. 'Over this period, we roughly had 450 physicians who graduated from the All-India Institute of Medical Sciences,' Kaushik says. 'And almost 50 percent of them emigrated to the U.S.' In 50 years, Kaushik says, only one of those doctor-emigrants went back to India — and he returned to America a year later. (Knox, 2007)

Fortunately, this trend is slowly reversing. Although the "brain drain" has certainly not ceased, the opportunity to practice Western-style medicine in their native India is becoming ever more attractive for Indian doctors in the West. The pay is not comparable (moving home involves a considerable—as much as 50%—pay cut), but well-trained doctors make a very good living in India. The opportunity to work in their native country provides them with non-monetary, valuable benefits; they return because of national affection (Lagace, 2008). Indeed, nations can, as Benedict Anderson writes, "inspire love, and often profoundly self-sacrificing love" (2006, 141).

CONCLUSION

To finish, I return to the Tagore quote with which I began: "The whole world is becoming one country through scientific facility." He was certainly right then, but maybe even more so now. Yet it should be said that Tagore did not write his

essays on nationalism simply to make prescient observations like this one. He wished to enlighten his neighbors, both at home and abroad. He aimed to remind them that "goodness is the end and purpose of man" (2008, 23). Therefore, in addition to his observation concerning the interconnectedness of the modern world, he added the much more important idea: "And the moment is arriving when you also must find a basis of unity which is not political" (2008, 119). Such a basis might be impossible, it may be a naïvely conceived ideal, but Tagore did not fear an idealism that brought people together. While it is impossible to completely escape the pressures and realities of political association, the adoption of a cosmopolitan nationalism will prove to heal more than physical bodies in India. It will make medical tourism both a national and an ethical success—a success that unites Indians by representing not only what they have to offer the world, but also what they have to offer each other.

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Collaborating for Change: Community-Based Research and Political Advocacy

Honors Think Tank on Social Change

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This article explores the history, methods, use, and impact of existing community-based research in the University of Utah and Salt Lake City communities in order to identify weaknesses that might be best addressed by structural changes within the University or communities. This kind of research is used in informing policy, political activism, and advocacy. In addressing these issues, the authors discuss their findings from their research project: a community dialogue event that brought together community members, representatives of organizations working in both community and University of Utah settings, faculty, students, and staff from the University of Utah, and policymakers to discuss strategies and benefits of institutionalizing support for community-based research at the University of Utah to benefit the community and University students and faculty alike. Members of the Think Tank on Social Change developed and facilitated this dialogue to address the gap between theory and application of community-based research; namely, that the research findings are not being disseminated in a way to effectively inform advocacy and activism for policy change relevant to the research. Emerging themes from the community dialogue are addressed, and recommendations for improvement in the use of community-based research identified.

Each fall, thousands of geese fly south for the winter in precise V formations. This strategic formation allows the geese to increase their flying range by a full 70% compared to a goose flying solo – each goose benefits by the uplift created by the goose ahead of it (Shea, 2010). The V formation represents a complex system of support among the geese, which continually rotate in the position of head of the ‘V’ so that no single goose labors too long, and every goose acts as a leader. Fellow geese honk at one another to encourage others to keep going and keep speed. If a goose falls out of formation from weakness or injury, two geese companions accompany it to lend help and protection. The fallen goose is watched over until it is able to join the formation or until it dies. The geese then fly out and often join another group to catch up with their own formation (Muna & Mansour, 2005).

Researchers can learn a lot from these geese. Those characteristics central to the V formation provide an excellent framework to consider how humans can work together to accomplish positive social change through community-based research. Community-based research (CBR) represents a shift

from more traditional research toward a methodology emphasizing collaboration between communities and academia. Like the V formation, CBR aims to “get somewhere” by including a focus on bringing about action as inherent to the research process. Just as geese take turns leading the V formation, in CBR “leadership shifts during a project as a result of the varied expertise that community members and academics bring” (Stoecker, 2004). Alongside academic researchers, community members play vital roles in the research process as “inside experts” in their communities, lives, and experiences. The CBR model values the community voice and academic voice collectively.

As with any flock of geese, there is a lot of ‘honking’ in CBR because of its focus on social change and social justice. Advocacy is central to the goals of CBR, and results of research must be shared with the appropriate community stakeholders with the purpose of policy change. Perhaps the strongest link we see with the V formation is that CBR is about “partnering with those who have been wounded – who lack decent housing, decent jobs, decent rights and freedoms – to move the entire flock” (Stoecker, 2004). In keeping with

this idea, CBR refers to a distinct methodology which contains, at its core, an emphasis on action. CBR is not just a research method; it is an approach and commitment to translating research into tangible positive change in the community in the form of advocacy and activism directed towards policy change.

COMMUNITY-BASED RESEARCH

The models of community-based participatory research (CBPR), collaborative research, community-directed research, and participatory action research (PAR) are interrelated to (and sometimes referred to as) community-based research. At their core, these models strive to create a research process that is mutually beneficial for communities and academia. In CBR, researchers are better able to understand problems that community members face by acknowledging them as experts in their own lives and experiences, and then utilize that knowledge in all stages of research. By collaborating in the design, collection, analysis, and dissemination of data, academic researchers and the community members both benefit from data that may not only be more relevant than traditional research methods, but more accurate as well.

Research generated by this kind of methodology has great potential to affect many levels of policy by building on the knowledge and tools that exist in order to make community voices heard. The University of Utah’s University Neighborhood Partners (UNP) – which focuses specifically on the west side of Salt Lake City and supports University professors, students, and community members and organizations in creating mutually beneficial partnerships between academia and communities – explains that CBR “starts from the assumption that valuable expertise exists in the community, and that this expertise can and should contribute to the production of new knowledge by being incorporated into the research process” (Brown et al., 2007, 4). Essentially, CBR bridges the gap between those traditionally “doing the research” and those “being researched.” Rather than an expert-recipient relationship, CBR creates and supports a dual, collaborative sharing of knowledge across all stages of research. Ideally, CBR promotes not only a more meaningful research process, but meaningful results: “[CBR] presupposes that working with community members as co-researchers renders results more accessible, accountable, and relevant to people’s lives” (Flicker, 71). By rejecting academia and community researchers as sole holders of knowledge, both become partners in creating relevant processes, findings, and resulting actions.

Although developed relatively recently as a formalized methodology, CBR builds upon historic legacies of community-based organizing, social work, and social movements. Today, it is a burgeoning field and has an established body of academic literature¹. Wallerstein and Duran’s (2006) discussion on the roots of community-based participatory research

Figure 1: Traditional Research Schema

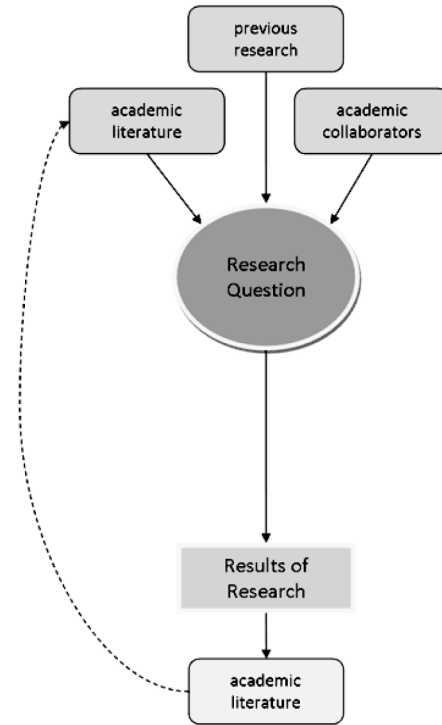


Figure conceived and created by Dr. Colleen Reid and Dr. Elana Brief

Figure 2: Community Based Research Schema

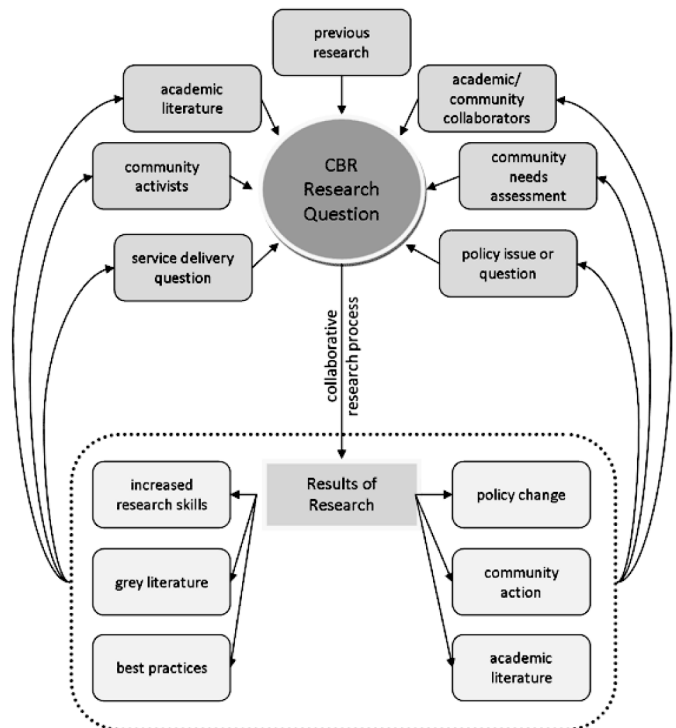


Figure conceived and created by Dr. Colleen Reid and Dr. Elana Brief

states: “Good CBPR practice...demands a recognition of historic or current oppression and assurance that all parties will materially benefit from the knowledge produced” (215). Furthermore, “all the historic evidence indicates that significant community development takes place only when local community people are committed to investing themselves and their resources in the effort” (Kretzmann, 1993). Practitioners have explored who benefits from a CBR approach, and by examining a CBR initiative designed to “improve the conditions of Canadian young people living with HIV,” Flicker (2008) breaks down benefits into two categories: stakeholders and the research itself. Stakeholders are identified as HIV-positive youth, academics (researcher-clinicians), and service providers. All stakeholders “felt that ‘the research itself’ benefited from its participatory approach” by creating better questions, recruitment, data collection, analysis, communication of results, and action (Flicker, 75).

Often, traditional forms of research focus on benefiting research and researchers at the expense of the community it claims to benefit. An example of this is the now-infamous Tuskegee Syphilis Study conducted from 1932 to 1972 by the U.S. Public Health Service on nearly 400 African-American sharecroppers. Although penicillin was established as a cure for syphilis in 1940, researchers deliberately withheld treatment from the participants in the study until a whistleblower’s report halted it in 1972 (U.S. Public Health, 2009).

Understandably, traditional forms of research can evoke feelings of distrust among communities toward outside researchers based on a sense of being “used for research” rather than benefiting from it. In a report to University Neighborhood Partners the Community Research Collaborative stated, “These efforts may have limited impact and leave communities feeling exploited as ‘research subjects’ who never benefit from the potential good inherent in research” (Brown et al., 2007). Gaining sufficient community goodwill to proceed with CBR can be a long and delicate process, but it is necessary in order to have true community participation. Only through community participation can community members have the sense of ownership needed to fully stand behind the results of the CBR and use those results to the fullest extent possible to accomplish the change they see as necessary. “After all, the real measure of the success of a community-based research project is whether the resulting product is actually studied, used, and disseminated to further the social action or social change intended” (Backman, 2006).

RESEARCH INFORMING POLICY

There are currently a number of ongoing CBR projects in Salt Lake City. Think Tank member and student researcher

Annika Jones is currently engaged in a CBR project at University Neighborhood Partners Hartland Partnership Center (UNP/Hartland). University Neighborhood Partners, a University of Utah organization, supports partnerships between the University and community. Hartland is one of UNP’s partnerships located in an apartment complex in Salt Lake City. Hartland residents represent a unique and diverse population; many families have refugee or immigrant backgrounds, and come from all around the world – from Mexico to Somalia, Tanzania to Armenia. With her co-researchers, two 13-year old Hartland residents, Jones is conducting a youth participatory evaluation of the UNP/Hartland Youth Center and youth programming. Together, the research team has developed and defined research questions, including, “Do [the youth] feel like they belong at the Youth Center?”; designed research methods such as focus groups with youth; and analyzed data. The team is preparing to disseminate the data to all stakeholders, including Hartland residents, UNP/Hartland staff, and the youth themselves, in order to look at a youth perspective on the programs designed for them.

Many of the emerging themes from the research specifically address youth program policies. For example, one of the questions the team asked, which the youth co-researchers thought was important to include, was “Do you think you have a say in how the Youth Center is run and what kinds of activities there are for youth in this community?” The responses from youth have been instrumental in helping evaluate the Youth Center and make changes that will better serve the youth involved. For example, one youth said: “I think there should be, like, different times for big kids and little kids. Maybe like the little kids first and then later the older kids... If it was like that, you would have a lot more older kids come to the youth center. I don’t like hanging out with the younger kids ‘cause they’re just...too childish.” In response to the process and results of the research process, Jones commented, “It was exciting for us to see the youth so excited about this question – they had some really interesting and good ideas, and it seems like they had just been waiting for someone to ask them what they think” (Jones, 2010).

The research team agrees CBR is ensuring the research findings lend themselves to positive changes in policies and community empowerment, specifically with the community of youth at Hartland. Community and academic researchers engaged in CBR are empowered first by the participatory process, then by the application of research results. Unlike traditional research, in which results often appear only in academic literature and settings, the results of CBR produce development in multiple arenas (see figures 1 and 2), including policy change and community action.

While policy change can happen at many levels, we see the use of CBR in informing public policy as especially important: “Collaborating with social scientists can provide marginalized groups with...resources and, as a result, add a critically needed perspective missing in discussions of social prob-

¹Support from academic literature, of course, represents only half of the puzzle: it would be erroneous for us to examine the legitimacy of CBR without considering community perspectives. We hope these perspectives are sufficiently explored throughout the paper.

lems conducted in the academy and the halls of government” (Stahl, 1613). CBR has the potential to change policy because communities who feel that their experiences and opinions aren’t being validated by existing political structures can feel a sense of empowerment. As CBR methodology challenges the traditional power structure of research, its process can successfully challenge traditional power structures of policymaking by encouraging the community to participate fully in the political process.

Although traditional research methods are inherently designed to benefit academics, CBR has a more complex system of benefits and reciprocal learning: “It seeks to empower participants by enabling them to identify issues of relevance and possible solutions to the problems they perceive” (Doyle and Timonen, 2009, 246). A root value of CBR is its effort to “balance research and action” (Minkler, 115). CBR must not only incorporate both research and action but have each inform the other. Research can be misdirected, but is often best done investigating a need that the community or a community member has already noted, because that provides initial direction to a real issue of concern to the community. This research must inform the action taken; but if the action results in a change in situation, a continuing CBR project on that issue must examine the previous research, the action, and the results in its action when determining how best to proceed. Accomplishment of this method requires a careful balance between research and action, making sure that both occur, that one is not superseded by the other, and both are informed by each other.

When articulating how CBR and advocacy interrelate, it is important to consider advocacy as an integral element of CBR rather than a post-use. A CBR initiative in Chicago, for example, brought together academic and community partners to study what the community saw as flaws in long-term care systems, then develop and carry out strategic political action addressing their concerns – these researchers attempted to “balance research and action.” Through various research methods (including qualitative interviews, life narratives, focus groups, and town hall meetings), the collaborative research team explored the issues and developed action plans, “including the community’s next steps in working to affect policy change” (Minkler, 117).

CBR theory emphasizes that no one knows better what is necessary for success within a community than the individuals that make up the community themselves – accordingly, no perspectives are more appropriate to influence public policy than those of populations affected by those policies. As Jones’s youth participatory evaluation at UNP/Hartland illustrates, youth at UNP/Hartland have the potential to improve youth programming policies in their community and the application of CBR toward policy advocacy and activism has great potential to improve the quality and relevancy of public policy. CBR findings, then, are capable of informing and shaping policy decisions in meaningful ways in order to ultimately reflect the people that legislation tries to represent and

serve. Amplifying the voice of the “critically needed perspective” of marginalized or silenced communities in policy-making arenas speaks to a basic tenet of responsive government. A collaborative research team in Chicago who examined the Rehabilitation Act determined that “...the process [of CBR] offers great promise for bringing the public back into policy making, and we believe results of this and similar inquiries have equal promise for rendering disability [and other] policy conducive to the public good. Shared stakeholding can lead to sounder policy” (Cantrell, 42). In its many forms, CBR is invested in accessing strengths of a community to identify and address its needs and assets to affect positive change: when we examine this concept with a political context in mind, there is great potential to better inform policy and its effect on communities.

COMMUNITY-BASED RESEARCH IN UTAH

Numerous academic and community partners in Utah are working together to conduct exciting community-based research. Increasingly, university curriculum, organizations, and professor and student research reflect CBR values and methodology. Utah Campus Compact (UCC), an umbrella organization serving as the central organization for a “coalition of Utah’s college and university presidents and their campuses,” encourages Utah’s universities to strengthen their foci of service-learning, CBR, and other forms of civic engagement in the academic process by providing them with resources and support (Utah Campus Compact).

At the University of Utah, a striking example of coordination supporting community-campus collaborations through is the previously mentioned University Neighborhood Partners (UNP). UNP’s Web site describes the scope of their work:

An average of about 200 University of Utah students, faculty, and staff contribute at least 6,500 hours of community-based research a semester to UNP’s 13 existing partnerships. Over 150 students and about three dozen faculty help to build these reciprocal relationships between the University and west Salt Lake neighborhoods, creating pathways to higher education for west Salt Lake families. Almost every department (academic and non) on campus is involved in UNP partnership work. (“Facilitating Mutually-Beneficial Community-Based Research”, 2007)

Certain areas of academia have been more responsive than others to the dual benefits of CBR. Utah’s law schools, for example, have used CBR in recognizing and utilizing their unique academic position as it relates to communities and legal access. Linda F. Smith, a law professor at the University of Utah who has been involved in significant amounts of CBR with her students, considers: “Might student seminar papers be read not only by the professor, but by a community agency needing the research and analysis for its own work?” (Smith, 2004). Much of the CBR undertaken by law students and professors focuses on increasing access to the court system by examining and addressing obstacles to legal services. A

course at Brigham Young University's J. Reuben Clark Law School led by Professor James Backman requires students to interact directly with community members in creating "concrete products" which benefit their communities. The syllabus for the class states: "The community will be involved in shaping the desired research, in collaborating with you in producing the research, and in using the results of the research" (Backman, 2006). Examples of past "products" developed by students include lesson plans on alternative dispute resolution for elementary schools, immigration reference tools, and an improved electronic version of The Utah Domestic Relations Manual. Legal CBR has the ability to support a community to arm itself with the legal knowledge and backing it needs to advocate for itself in the policymaking arena.

The foundations of CBR, which recognize specific strengths offered by community input into the research process as inherent to their specific knowledge of the subject, parallel another crucial element of CBR on the University front: accessing the unique knowledge and strengths of academic programs and groups toward CBR with that focus. Hundreds of professors, student and faculty groups, and organizations across the state are now using CBR methods to examine issues from health care and education to poverty and homelessness on both a local, state, national, and global level.

The Office of Global Health, located in the Department of Family and Preventative Medicine at the University of Utah's School of Medicine, is changing the way that global health is approached. This office is utilizing community-based participatory research as a foundation to "engage in community partnerships that focus on collaboration and sustainable outcomes, regardless of culture, political boundaries, or geographic location" (University of Utah School of Medicine, 2009). One of its 'flagship' programs is the Barekuma Collaborative Community Development Program (BCCDP). The BCCDP is a collaborative effort between Ghanaian institutions such as the Koufo Anokye Teaching Hospital (KATH), the city of Kumasi, the Kaname Nkrumah University of Sciences and Technology (KNUST), and the University of Utah's School of Medicine. The purpose of the BCCDP is to expand community outreach in addressing health issues with early interventions and preventative practices.

Central to the BCCDP is the principle that the voices of community members and organizations of the Kumasi village must be heard, respected, and incorporated in order to create positive social change. An example of the successful community ownership the BCCDP supports is the recent development of a toilet facility. Kumasi citizens voiced concerns about inadequate water sanitation in their community; academic researchers were able to find evidence that bacteria were being transmitted into the water through human waste. Collaboratively, the implementation of a toilet facility in the village was proposed and agreed upon. However, this plan of action was not without complications. Dr. Stephen C. Alder,

associate director of the Public Health Program at the University of Utah and a partner in the BCCDP, poses the question: "How do you put a toilet system in a rural community without electricity when practice has always been to use a bush?" (Alder, 2010) It may have been easy for the "outside" academic researchers to fund and build a toilet system but "we [as stakeholders] weren't really interested," he said. Instead, the BCCDP chose to focus on "developing capacity for local partners to take on the project themselves."

Today in the Kumasi village, the toilet facility project is under construction and is scheduled to be finished in 2011. During the course of the project "over time, the American team started to be replaced by more Ghanaians and local engineers began to take on the work" (Alder, 2010). The development of the BCCDP project illustrates the complexities inherent to CBR engagement – relationships must be built and supported, roles defined and redefined, and diverse perspectives considered holistically.

The BCCDP project also speaks to the relationship of CBR to public policy. Dr. Alder believes a stumbling block to sound policy is that it too often is made with no grounding in practical reality. Several policies in Ghana, he explains, are ineffective due to a lack of resources to support them. For example, national policy in Ghana requires communities to maintain "adequate" sanitation systems; without resources or support, these policies are impractical and ignored. To address this concern, the BCCDP holds "demonstration programs" with the Ghanaian national government to provide a realistic picture of what appropriate policies accomplish. With community members, academic researchers, and political leaders working as equals in a process to form realistic policy solutions, Ghanaian policy will be better prepared to address issues in its communities. The University of Utah's School of Medicine and Office of Global Health, with the BCCDP, are extremely committed to community-based research as a means to empower communities and address both social and health issues.

On a local scale, non-profit organizations and advocacy groups across the state are involved in important community research and engagement. Voices for Utah Children, the only nonpartisan multi-issue child advocacy group in Utah, serves as an excellent model of an organization using research to help influence policy at both the Utah State Capitol and in Washington, DC. For 25 years, Voices for Utah Children has advocated on the behalf of children and their families using demographic information, personal accounts, observational data, and statistics gathered from the community. The Utah Health Policy Project, the state's leading nonprofit devoted to comprehensive health reform and health equity for all Utah residents, gathers stories from people throughout Utah about the uninsured, under-insured, Medicaid, and health disparities. According to UHPP Executive Director Judi Hilman, "story banking really provides an excuse to get out and meet people who are directly impacted by the issues

at hand. We're glad to have the story to help illustrate the need for specific policy changes, but that is only the first step toward full engagement in advocacy. What we really want is for the story sharer to find his or her own voice in the policy arena" (Hilman).

Other non-profit and advocacy organizations in Utah are recognizing the potential of CBR to contribute to their goals and objectives toward social justice. Equality Utah, Utah's largest lesbian, gay, bisexual, transgender advocacy organization, fights for LGBT civil rights at the state and local policy-making levels. Among its goals and objectives, the organization aims to "empower...individuals and other organizations to engage in the legislative process." Brandie Balken, executive director of Equality Utah, explains:

Equality Utah sees the importance of CBR and utilizes this important tool to inform its' policy choices. Historically, we have been most engaged in public meetings and one on one story banking. However...I realized that there are several other opportunities we have to use CBR. There are many opportunities to engage students interested in CBR through the Bennion Center, UNP and UROP [Undergraduate Research Opportunities Program]. This not only increases the capacity of non-profits, like Equality Utah, to engage in meaningful CBR. It also provides an opportunity for students to do research that is meaningful and can have a direct impact on their own communities. (Balken)

We acknowledge that there is excellent momentum at the University of Utah toward engaging communities through academic means, especially in the area of service-learning, as service-learning education is closely related to CBR in academics. The Lowell Bennion Community Service Center at the University of Utah coordinates volunteer and service-learning opportunities for students, staff, faculty and alumni, connecting them with community and non-profit organizations statewide. Renowned as an exemplary model of promoting service-learning across campus, the Bennion Center staff provides training, support, and curriculum development for professors incorporating service-learning into their courses. Backman praised the Bennion Center as an "invaluable resource in developing connections with community organizations" (Backman, 2004). Although not all Bennion Center projects involve CBR, many have the potential to do so. Faculty members in many colleges and departments are developing CBR projects aimed at developing relationships with the community and providing meaningful exploration of community issues. Additionally, UNP engages communities in many ways, including CBR, and has had incredible success in supporting collaborative, meaningful relationships between the University of Utah and west side communities. The relationships that UNP and the Bennion Center already have with community members and organizations in many of the communities surrounding the university are an invaluable resource for students and faculty looking to do CBR, especially as many students must accomplish their work in a relatively short time span and may not have time to build relation-

ships with communities from scratch. Since the service-learning projects at the Bennion Center were all created to address a legitimate community need, these projects are good candidates for CBR.

WORLD CAFÉ GROUP DIALOGUE EVENT

As members of the Honors College Think Tank on Social Change, we are invested in understanding how individuals and groups use their experiences and passion toward creating transformative and sustainable changes in their communities. By studying historic and contemporary examples of this kind of work and combing them for common themes and strategies, we look for ways we can promote social justice in our own communities. Our combined experiences and understanding maintain that valid collaborative research happening in local communities is already playing an important role in greater community-university engagement. However, in order for CBR to be effective, it must serve as a catalyst for action and change; CBR is about "getting somewhere" beyond academic journals and bookshelves. By informing political activism and empowering communities to advocate for themselves, CBR generates research that "goes" toward social change.

In order to explore the gap between CBR and political activism, we needed the input of community members, community organizations, university faculty, staff and students. In maintaining values of CBR, we sought the collaboration of many perspectives to consider how university and community partners could better utilize CBR for social change. On April 9, 2010, we hosted a World Café event themed "Bridging the Gap between Community Based Research and Activism: A Dialogue on Social Justice Work." Nearly 70 people from many different communities and campus, and policymaking organizations attended.² In round table discussions, high school students, legislators, college students, community organizations, activists, and advocates generated ideas on how CBR can act as a method of creating positive policy changes.

The World Café model is a unique way to bring together many stakeholders to collaborate and generate ideas. Participants are invited to sit at tables with other people with dynamic backgrounds and experiences to share ideas about a topic. Questions are asked to encourage dialogue about the topic being explored. Each table has a host, who facilitates discussion and ensures that all voices at the table are heard. The dialogue is recorded by a scribe, in writing and in visual representation, and each table reports back to the larger group about their findings. After each session, participants are encouraged to move to a new table and sit with new people in order to facilitate greater collaboration.

²We are grateful to all of those who participated in this day of research. Each participant took a valuable place in shaping the ideas of the day and transforming ideas to commit CBR beyond research and into action.

We explored the following three questions in roundtable discussions:

1. In what ways can CBR inform activism and advocacy in our community?
2. What are barriers that prevent CBR from informing activism and advocacy?
3. How can we overcome these barriers and create an environment that benefits the community and university partners, and informs policy?

These framing questions were developed after examining feedback from conversations with community and University partners regarding their perspectives on successful ways to generate meaningful collaboration toward this purpose. These questions were not meant to be comprehensive nor lead to a particular response. In keeping with both the CBR and World Café model, our goal was to allow the dialogue to flow with the interests of the participants and to generate many perspectives and ideas.

Out of the many exciting ideas, perspectives, proposals, and comments heard at the event, several important themes emerged. The themes generated by questions asked at the World Café can be organized into two categories: obstacles and recommendations. Following are specific comments from participants in quotations, along with summarized ideas gathered from discussion.

CBR SHOULD SUPPORT SUSTAINABLE COMMUNITY EMPOWERMENT.

AS ONE PARTICIPANT SAID, “[ACADEMIC] RESEARCHERS NEED TO KNOW WHEN IT’S TIME TO STEP BACK AND STEP DOWN, AND BE WILLING TO DO IT.”

OBSTACLES

Legitimacy of Community-Based Research

Among community members, academic institutions, and policymaking bodies, CBR is often not viewed as legitimate. Administrators and policymakers, university partners explained, often view CBR as “soft” research, and inferior to more “discipline-defined” research. Faculty and professors engaging in CBR are seen as being distracted from their “real research.” Many academic researchers worry they will lose their credibility as researchers if they engage in CBR, especially when that CBR leads to political advocacy or action. One World Café participant wondered, “Can I be an objective researcher and also an effective advocate?” Correspondingly, both community and academic researchers shared how their CBR findings were viewed as “anecdotal” by state legislators.

Communities often do not view CBR as a legitimate means for social change either. Community members’ hesitancy to engage in CBR might speak to a real or perceived lack of the research to be relevant in the community. As a University of Utah student noted, “Even if an academic

researcher has good intentions going into a community, they should also keep in mind that they could unintentionally cause more harm than good. Will it lead to positive change, no change, or negative change?”

Relevancy of Community-Based Research

Effective CBR includes a clear plan for action. World Café participants asked, “Will more community-based research lead to more advocacy? Even if collaborators plan to include advocacy as part of their research, will that advocacy lead to change?” One participant remarked, “I might be a broke Latino and a researcher will do research explaining why Latino/a communities are in the low economic level... but that doesn’t do anything for me... I’m still broke.” This comment illustrates a common perception of research done on communities and underscores the necessity of incorporating into the structure of CBR a plan for how the research results will be used to help the community. While many different forms of research could potentially help marginalized communities, they often succeed only in speculating on, defining, or theorizing community issues. CBR, on the other hand, can perhaps explain why a particular population or community tends to be of lower economic status, but also develops strategies for creating social and/or policy changes which directly address the concern. Furthermore, a CBR project must outline a plan for sharing the results of this CBR with the community members and organizations appropriate to accomplish these solutions in order to maintain relevancy in the community.

Communicating Research Effectively

Most of academic research is traditionally published in academic journals or presented in formal research symposiums. Research might include recommendations for policy change, but is rarely presented to those who make policy. In order for CBR to achieve social change, projects should be better communicated to all stakeholders. Academic journals and research symposiums might work to communicate with others in academia, but when it comes to presenting findings and recommendations to community members and policymakers, alternate methods should be considered. One participant at the World Café suggested, “What about making sure that all these different stages of research – including planning and disseminating it – are available in public spaces?” All research must connect with its target audience; CBR’s target audience includes academic, community, and (often) policymaking stakeholders. Navigating these systems is a complex process for partners in CBR, and World Café participants expressed their concern that researchers are unwilling or unable to go “outside their box” to effectively communicate CBR. In order to engage communities, could university-community partnerships present their research on the radio, on television, in newspapers, or at coffee houses? Correspondingly, can collaborators find ways to present CBR to policymakers in a way that supports its legitimacy and relevancy?

Limited Resources

Limited resources prevent both CBR from taking place and its application to promote policy changes. Relationships are central to the success of CBR projects, and several participants recalled experiences when they were unable to spend the time they needed to develop important collaborative relationships. For academic researchers, this lack of time might come from a pressure to publish “results,” or to focus on more traditional forms of research. Community researchers, especially those in marginalized communities, might face other constraints preventing them from spending time on CBR, including jobs, limited day care, or familial obligations.

One professor at the World Café shared his struggle to maintain an ongoing CBR initiative due to limited economic resources; if he and his academic partners spend significant time writing grants and fundraising, they find themselves under pressure from academic administrators to create “publishable” works. If they focus on publishing, the CBR initiative suffers from lack of funding and attention. One graduate student explained, “many students go on to be professors thinking they can create research that will help communities, but then they get pushed into the game of tenure, and that game doesn’t favor this type of research.” For many tenured professors who are involved or want to be involved in CBR, the time they can devote to it is small and for many has to be put off until they are finished with their tenure track. While securing sufficient resources is a challenge with many forms of research, World Café participants felt that this struggle was especially relevant when considering CBR, because it reflects the deeper values central to CBR – namely, the legitimacy of CBR in academia and the flexibility of CBR to its community collaborators.

RECOMMENDATIONS*Develop a Support System for CBR*

It was exciting to hear of the many organizations, communities, and professors already engaged in CBR; there was a strong consensus from the World Café that there is a need for a strong support system for these and other researchers. While UNP, the Bennion Center, and Utah Campus Compact provide valuable support, participants identified other potential sources of support for CBR collaborators. We support the idea of a resource center accessible to community members, community organizations, and academic partners devoted exclusively to promoting and supporting CBR as an effective means to create social change. If guided by an advisory board consisting of stakeholders across community and university groups, the resource center could represent a neutral and safe space to develop and maintain meaningful partnerships moving toward advocacy and activism.

A major concern voiced at the World Café was that many academic and community researchers do not know how to use CBR in informing legislators about current or potential legislation. A CBR resource center would serve as a space to educate both researchers and policymakers about effective

ways to access CBR as valuable community input. Ideally, a resource center would act as a safe and legitimate place for those engaged in CBR, build upon support systems already in place, and educate stakeholders about the value of CBR in informing public policy.

Formalize Standards of CBR

CBR is a relatively newly developing form of research, and World Café participants made it clear that not everyone is “on the same page about what the rules are for best practice in CBR.” Formalizing standards of CBR, and including in that model a mandatory “plan for action” would both support CBR as legitimate among academia and communities, but also assure CBR projects are appropriate, relevant, and promote positive social change – this would be helpful in increasing community trust and acceptance of CBR as a research method that includes and values community expertise. One World Café table developed the following guideline:

“CBR is a method of research in which researchers from the University of Utah collaborate with community members or organizations as researchers on a specific community issue that the community members or organizations feel is appropriate. The primary aims of CBR are to empower the community by acknowledging that they are experts in their lives, identify the underlying history and causes of all relevant aspects of the issue at hand, examine these in the context of current community reality, discuss possible strategies and tactics to bring about appropriate changes, determine an action plan for making those changes, and share the results with the community members necessarily involved in or affected by this action so that they have the research data they need to be effective in bringing about change.”

While this statement is by no means comprehensive or conclusive, it can serve as a guideline for developing a formal CBR model to apply across *all* colleges and departments in universities.

CONCLUSION

The tangible excitement and enthusiasm of the World Café participants speaks to the passion community and university partners utilize in creating social change through CBR – this flock of geese has real momentum. Participants, like geese in a V formation, recognized that CBR collaborators must be strategic in achieving collective goals. Each member of the flock must recognize and utilize the strengths that the other members bring to the table, and just like the noisy geese, collaborators in CBR must be willing to continue honking to create awareness surrounding social justice and social change. Locally, important and meaningful CBR is paving the way for positive social change through political advocacy and activism – yet there is much more work to be done. By extending the reach of research, CBR accesses the invaluable knowledge in our communities and creates collaboration for change.

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Recommendations for Malaria Control Policy in Sub-Saharan Africa

Jacob Lindsay

Billions of dollars each year are dedicated to malaria control policy at great cost to the donating agencies and countries. This paper outlines the primary sources of that funding and the methods by which it is used. The Web sites for these funding agencies: The Global Fund, The President's Malaria Initiative and Malaria No More provide much of the data for this study. Information from the United States Center for Disease Control, the World Health Organization, and several books on the history of the malaria parasite provide this investigation's epidemiological foundation. This paper offers alternatives to the current funding practices, such as moving production of malaria control supplies to Africa and increasing collaboration between funding agencies. These suggestions will reduce the number of malaria cases while stimulating the economies of the affected Sub-Saharan nations.

INTRODUCTION

By the time you finish reading this sentence a child in Africa will have died of malaria. As disheartening as this may be, the true tragedy of this death is that malaria is a treatable disease. Anti-malarial pills cost only \$1 USD per treatment. Cheap secondary combatant methods such as mosquito spraying and use of bed nets have also significantly lowered infection rates. The only step left in defeating this "ancient killer" is locating the funding to make these treatments universal.

For many years foreign powers have occupied and exploited the land and its people. The list of atrocities is so long now that it is difficult to definitively trace the blame. Rather than assume responsibility for this state of affairs, many countries have decided to push off the costs of rebuilding on others. What is needed is a dynamic institution that can attract many nations to the project, organize their resources, monitor their activities, and deliver sustainable results. The President's Malaria Initiative is the best candidate for this task.

In this time of economic recession, funding for global health should be maintained. While celebrity-based aid agencies, private corporations, and The Global Fund have made commendable efforts to fight malaria, the United States President's Malaria Initiative must lead out in bringing an end to this terrible disease. By doing so, millions of lives will be saved around the world, spillover from failed states affected by malaria will be reduced, and the marred reputation of the United States will be mended in the world community.

WHAT IS THE HISTORY OF MALARIA TREATMENT?

The campaign against malaria began in 1638 with the mysterious cure of the Spanish princess Doña Francisca Henríquez de Ribera (Honigsbaum, 2002, p. 2). While visiting Peru she contracted what appears to have been malaria. A Jesuit priest that was passing through the area heard of her illness and treated the disease with an infusion of bark from the local cinchona tree. She quickly recovered from the disease and returned to Europe to spread the news. The quinine extracts from the bark effectively lowered the princess's temperature enough to prevent the reproduction of the malaria parasite in her body, breaking the cycle of fevers.

Unfortunately, the species of tree from which this powerful drug was derived was only found in Peru and Bolivia along the Andean fault line. Depending on the location of the infected victim, accessibility to this treatment outside of South America was either impossible or extremely expensive. Only a few British scientists recognized the value of transporting the seeds of the cinchona tree to Europe where they could be mass produced. Among them were Richard Spruce (1817-1893), Charles Ledger (1818-1905), and Sir Clements Markham (1830-1916). Several attempts were made by each to acquire the seeds. Most of these excursions were foiled by the South American winters, sickness, and the governments of Peru and Bolivia, which carefully protected their rare crop of trees.

Ledger's Cinchona Ledgeriana seeds switched hands a few times before ending up in the possession of the Dutch. By the early 1870s, the Dutch had established a plantation of trees in Java. These trees had approximately 10% quinine content, which was enough for commercial production (Slater, 2009). By the early 1900s the Dutch plantation in

Java was producing nearly 66% of the world's supply of quinine and reaping significant returns on its investment (Honigsbaum, 2002). As the number of cinchona trees increased, more people were able to receive treatment for malaria at a significantly lower price.

During this same time, medical researchers were able to determine the mechanics of the disease. In 1880, Charles Louis Alphonse Laveran, a French army surgeon, noticed that the blood of individuals suffering from symptoms of malaria contained parasites. It wasn't until 1897 that the British officer Ronald Ross discovered that the parasite was spread by mosquitoes (United States Centers for Disease Control, 2004). Both were awarded the Nobel Prize in Medicine for their achievements.

Only female mosquitoes take blood from humans. They do so in order to produce eggs. When a female mosquito bites an infected human being, the parasite is transferred to the mosquito's salivary glands. The mosquito transfers the parasite to subsequent victims of its bite. The parasite matures first in the human host's liver and then moves outward to infect and destroy the host's red blood cells. The destruction of the red blood cells releases daughter parasites called merozoites which then infect other red blood cells. Once the parasite has moved out of the liver, it can be picked up by other mosquitoes and spread to other victims. The symptoms of malaria include fever, chills, sweating, headaches, and muscle pains. If left untreated they can escalate to anemia, permanent brain damage, kidney failure, and death (United States Centers for Disease Control, 2004).

THE WEIGHT OF MALARIA

Analysts from the United States President's Malaria Initiative estimate that approximately 1 million people each year die of the disease. Another half billion individuals are infected (President's Malaria Initiative, 2009). Pregnant women and young children are particularly susceptible to contracting the disease. Their weakened immune systems increase the severity of the symptoms. If left untreated, the disease can develop into cerebral malaria in children, leading to long-term brain damage or death. The President's Malaria Initiative has developed programs that focus specifically on protecting pregnant women and children from the disease.

While there is no vaccine for malaria, symptoms become milder after multiple infections. Adults that have had the disease many times experience only a mild fever or dehydration. Death becomes less and less likely. The symptoms of the disease however still produce a significant drain on national economies, the families, and individuals. Once a person is infected, the parasite can come out of remission at any time. An attack may come once in a year or every few weeks. During each attack the man or woman is unable to go to work. Days missed at work cause job loss or at the very least lost wages.

Purchasing the drugs to treat the disease is also a drain on family finances. If drugs are not available for free from a

donating agency, many families choose to forgo spending money for the drugs and suffer until the disease goes into remission. Others do not take the full round of prescribed doses, hoping to save some money by keeping the extra pills for the next attack. Symptoms may be reduced by taking a half dose of the pills, but the malaria parasite will not be completely eradicated. It is likely that the parasite will return much sooner than if the full treatment was taken.

Economists at the Roll Back Malaria partnership have estimated that malaria is responsible for a yearly drain of 0.25-1.3% on the GDP of several African countries (Malaney, Spielman, & Sachs, 2004). In the year 2000, the United Nations was preparing to establish its Millennium Development Goals. One of these was "Combat HIV/AIDS, Malaria and Other Diseases" (United Nations, 2009). At that time the World Health Organization released a report estimating that the hypothetical elimination of malaria in 1965 would have increased the total GDP of Sub-Saharan Africa in 2000 by 32%. In other words, this would mean an additional \$100 billion USD to the year 2000 GDP total of approximately \$300 billion (World Health Organization, 2000). Another estimate issued during this time when the campaign against malaria was just beginning showed that "40% of public health expenditures, 30-50% of inpatient admissions, and up to 50% of outpatient admissions" were malaria related (Roll Back Malaria, 1999). Had the United States chosen to ramp up its funding of anti-malaria aid programs even 10 years earlier, Sub-Saharan African would likely not be in the same plight of poverty that it is currently facing.

WHAT ARE THE CURRENT METHODS FOR COMBATING MALARIA?

ARTEMISININ-BASED COMBINATION THERAPIES (ACTs)

The most lethal strain of malaria *Plasmodium Falciparum* began to show signs of resistance to quinine around the turn of the century. Over the past nine years this level of resistance has increased steadily. As a result, pharmaceutical companies have been forced to seek other treatments to combat the disease. Artemisinin, derived from the wormwood plant, is at the top of the list. While Chinese natural healers have been using the drug for over a thousand years, it has only recently been mass produced to treat malaria. This new drug has been shown to clear the parasite faster than any other drug yet discovered. It is about 90% effective in curing uncomplicated malaria (Rehwagen, 2006). Other drugs such as chloroquinie, doxycycline, mefloquine and malarone are employed to cover the remaining 10%. While these drugs may kill the parasites currently in the body, the host can become infected again soon after treatment by another infected mosquito.

The use of combination therapies has become much more common. This is the practice of using multiple drugs in tandem to combat malaria. The benefits of this strategy are that the parasite is killed more rapidly and the development

of resistance is slower. Artemisinin-based combination therapies (ACTs) involve the combination of Artemisin with sulfadoxine/pyrimethamine or lumefantrine, depending on the condition of the patient. The use of Artemisinin or its derivatives Artemether and Artesunate as a monotherapy are strictly outlawed by the World Health Organization for fear that resistance will render the compound ineffective. Signs of early resistance have already been seen in South Asia, as pharmaceutical companies continue to seek new treatments. While there have been some attempts to develop a vaccine to the disease, none have been successful. The cost of one three-day treatment of ACT was about \$2.50 before 2007. The price tag has since been reduced to approximately \$1 with new manufacturing procedures implemented by pharmaceutical companies and subsidies from global donors (Kaiser Network, 2007).

BED NETS

The quality of bed nets varies widely. The most expensive bed nets are those with insecticide woven into the fibers. Mosquitoes are killed as soon as they land on these nets. The insecticide can remain active for four to five years and more than 20 washes. Each net costs approximately \$10 USD (Sachs, 2009). Less expensive models are treated with insecticide after the net has been produced. The potency of the net is greatly reduced and it needs to be sprayed again after being washed. There are also simple nets that are not treated with insecticide.

Between 2006 and 2008 the percentage of households owning a bed nets nearly doubled from 13% to 31%. In some high malaria occurrence areas in Africa, ownership reached more than 50% (World Health Organization, 2010). The greatest challenge for making this prevention method effective is convincing locals to use bed nets. A large proportion of the bed nets distributed are never used or only used sporadically. Each bed net can protect one or two people. Conventional policy recommends that those with weakened immune systems should receive first priority for bed nets.

MOSQUITO SPRAYING

Another common component of malaria control is the spraying of home interiors with insecticide. The type of insecticide varies from country to country. The effects of the insecticide can last anywhere from six to eight months. Supplies are typically shipped from overseas to Africa. Sprayers are usually locals of the country. Prior to spraying a home, members from the spray team instruct locals on the purpose and practice of the spraying.

BEHAVIORAL CHANGE EDUCATION

Simple changes in behavior can help to significantly reduce the number of mosquitoes in a given area. Most malaria prevention programs include an educational component in which experts train local workers on how to prevent infec-

tion. Education is perhaps the most cost effective method of reducing infection rates.

Mosquitoes breed in standing water and almost always bite humans within one to two kilometers from their hatch site (Benavente & Torres, 2004). Filling in or covering ditches, troughs, wells, etc. can help to reduce the number of adult mosquitoes in the vicinity.

While some mosquito bites can occur during the day or night, bite rates are highest at dusk. Staying indoors during these times can help to reduce the possibility of being infected with malaria. It is recommended that infants and pregnant mothers who have weaker immune systems should stay inside during these hours. The 2009 World Malaria Report indicates that as funding for malaria control programs focusing on these solutions has increased from \$0.3 billion to \$1.7 billion between 2003 and 2009, more than one-third of the 108 malarious countries (including nine African countries) have shown a reduction in malaria rates of over 50% (World Health Organization, 2009).

WHERE DOES MALARIA FUNDING CURRENTLY ORIGINATE? CELEBRITY DONATIONS

Malaria No More is the non-profit organization most skilled in partnering with public figures to generate funds for combating malaria. Just in the past year they have attracted such mainstream media names as Fox Television, Jack Bauer (Keifer Sutherland), American Idol, Sean Diddy Combs, Acura, and even Nickelodeon to raise money (Malaria No More, 2009). These media idols are clearly powerful tools for mobilizing capital and influencing public opinion. Note that all of these events have taken place during the current economic recession.

Hollywood has great sway over the American consumer. Any legitimate cause championed by one of the names in the list above gets a lot of attention. These consequent donations have the power to potentially change the lives of millions. These names do more than garner funds; they motivate common citizens to participate on the ground.

Nevertheless, not all celebrity aid is effective. In her book *Dead Aid* Zabmisa Moyo condemns aid generated by celebrity efforts. Her argument is that figures like Bono campaigning for Africa tend to perpetuate the public opinion that Africa is a mess and can only be helped by benevolent acts from the West. This decreases investor confidence in African Foreign Direct Investment and convinces Africans that they really are helpless (Moyo, 2009). While she may be correct to a certain point, it is still difficult to believe that bed nets, medicine, and spray equipment provided by celebrity foundations is not having a positive effect in the short-term. Every pill distributed potentially saves a life. What is needed is a commitment to smart aid that simultaneously stimulates the economy while reducing malaria cases. This goal of smart aid will be discussed later in this paper.

PRIVATE CORPORATIONS

Some of the funding for malaria is supplied by private corporations. These organizations have various reasons for supporting such programs. These motives may be altruistic, ulterior, or imposed by government as punishment for past misdeeds. Marathon Oil's operations in Equatorial Guinea fall into this last category.

Despite Equatorial Guinea's endemic rates of infection (Benavente & Torres, 2004), the United States government did not include the nation in its President's Malaria Initiative. This choice was likely the result of two factors. First, the U.S. government has been wary of making ties with the corrupt ruling party led by Teodoro Obiang Nguema (1979–present) and wished to avoid further criticism for making corrupt deals to obtain oil reserves. Second, Equatorial Guinea didn't make the cut because news of success would be a small blip on the global news wire. Turning the tide in larger countries such as Angola or Kenya would produce more significant positive news for the United States government (Roberts, 2006).

In the late 1990s oil reserves were discovered in the region. Marathon Oil gained the rights from Equatorial Guinea to drill in the area by offering lavish bribes to the nation's President Obiang. In 2003, Obiang deposited over half a billion dollars in a private bank account in Washington, DC, (Roberts, 2006). During one of the post-9/11 investigations geared toward finding the source of foreign holdings in domestic banks, these funds were discovered. Riggs Bank was fined \$25 million for turning "a blind eye to evidence suggesting the bank was handling the proceeds of foreign corruption" (Silverstein, 2006). In addition to the fine, Marathon Oil was obligated by the Senate committee to initiate a humanitarian program in Equatorial Guinea.

In 2004, Marathon Oil contracted with a non-profit agency based in Washington, DC, to begin a malaria control project (Carter-Gau, 2009). While there has been some success in reducing malaria rates on the island portion of the nation, progress has been slow. Marathon Oil continues to fund the project, but it is naturally not their first concern; the program began as a punishment.

THE GLOBAL FUND

The origin of The Global Fund was a January 2001 article published by economist Jeffrey Sachs. He called for a dramatic increase in funding for HIV/AIDS, malaria, and tuberculosis programs in order to meet the G8 Millennium Development Goals. The fund was formally organized at the G8 Summit meeting later that year in Genoa, Italy. The World Health Organization provided much of the administrative services in the early stages of the project so that the fund could begin distributing funds within a year of its creation. As of January 1, 2009, this tie with the WHO was severed, making it an independent organization (The Global Fund, 2008). Even though its headquarters are located in Geneva, it is no longer part of the United Nations. The

Global Fund currently employs approximately 250 permanent staff members in Geneva.

According to its Web site, to date The Global Fund has committed a total \$15.6 billion in 140 countries to combat HIV/AIDS, malaria and tuberculosis. The Global Fund currently provides 25% of all worldwide funding for HIV/AIDS, 66% for tuberculosis, and 75% for malaria (The Global Fund, 2009).

The United States government is the leading donor to The Global Fund. As of the end of 2008 it had donated \$3.5 billion, and the amount donated each year has increased steadily. Between 2001 and 2004 the US donated just over \$1 billion. By 2009 it donated the same total in a single year. The committed amount for the 2010 fiscal year has been reduced slightly to \$900 million, probably due to the current economic recession. The largest non-country donor is the Bill and Melinda Gates Foundation, which to date has committed \$550 million (The Global Fund, 2009).

Competition for funding is extremely fierce because of the large number of applicants around the world. Implementing organizations are expected to be the foremost experts not only in their area of expertise (bed nets, ACTs, spraying, behavioral change, etc.), but also in the region/countries where the resources are to be used. The methods of combating malaria are quite accessible, but knowledge of culture and resources in a particular country in the end is much more difficult to obtain, making applications which include this knowledge more competitive for funding. Funds are allocated for a working period of anywhere from two to five years. Each year, fund recipients are required to submit progress reports. If it is determined that funds are being used ineffectively, The Global Fund withdraws its support (The Global Fund, 2010).

THE PRESIDENT'S MALARIA INITIATIVE

On June 30, 2005, President George W. Bush announced a new program that expanded the funds dedicated to fighting malaria in Sub-Saharan Africa. This program was called the President's Malaria Initiative (PMI) and operated under the umbrella of the United States Agency for International Development (USAID). The initial total of committed funds was \$1.2 billion, spread out over five years, or approximately \$240 million per year. While commendable, this total is still far from the estimate of \$5 billion per year that is required to begin to control the disease (World Health Organization, 2009). Nevertheless this increase in funding far surpassed the \$10.9 million allocated to malaria by USAID in 1997 (USAID, 2009). The general goal of the PMI is to reduce current levels of malaria deaths by 50% in 15 Sub-Saharan countries.

The 15 participating PMI countries are Angola, Benin, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Rwanda, Senegal, Tanzania, Uganda, and Zambia (President's Malaria Initiative, 2009). The PMI Web

site indicates that these countries were chosen from out of the 53 countries in Africa for the following characteristics: high malaria burden, malaria control policies that meet internationally accepted standards, capacity for implementation, willingness to partner with United States resources, and the presence of other international donors. The focus of the United States on countries with a high possibility of success indicates that government leaders are hoping that sharp malaria reductions will inspire additional donors to participate in the project.

This last condition again shows that the United States is attempting to act cooperatively. Some of the organizations on the list of partners are the World Health Organization, The World Bank, UNICEF, The Global Fund, American Red Cross, and Roll Back Malaria. Not only can more work be done by more hands, but the presence of other international specialists brings together combined expertise for fighting malaria.

WHAT IS THE UNITED STATES GLOBAL HEALTH BUDGET FOR 2010?

On May 9, 2009, President Barack Obama announced his budget allocations for global health initiatives for the 2010 fiscal year. The total global health budget for 2010 is \$8.6 billion. This is an increase of approximately a half a billion from 2009. The President's Emergency Plan for Aids Relief (PEPFAR) program will receive approximately \$6.6 billion. This is an increase of about \$.165 billion, 3% over the 2009 budget. Funding for the PMI will be increased by \$200 million in 2010 to a total of approximately \$762 million. This is an increase of 36% over the 2009 budget (Obama, 2009).

The primary reason President Obama cites for the budget increase is that global health cannot be separated from American health. With the increase of international travel and porous borders, the possibility of transferring diseases between countries and continents continues to rise. He references the recent H1N1 outbreak as evidence. As of the end of September 2009, the World Health Organization estimated the number of cases for H1N1 totaled 296,471 in more than 50 countries. Nearly 3,486 deaths have been attributed to the new strain of influenza (World Health Organization, 2009). This is astonishing considering the first cases appear to have been diagnosed in September 2008.

Of the \$8.6 billion to be allocated to global health, all but \$1.2 billion will go to PEPFAR and the PMI. If President Obama is just concerned about protecting the American citizen, why is all of the funding going to malaria and AIDS? An outbreak of either seems unlikely. HIV/AIDS was placed on the United States Centers for Disease Control watch list in the early 1980s. Since then the rise in new diagnoses has leveled off. From 2002 to 2006, the number of new cases per year decreased from 38,132 to 36,828 (United States Centers for Disease Control, 2009). Because of the way AIDS is transmitted and general levels of awareness, it seems unlikely that an outbreak could occur in the United States.

The CDC also carefully monitors malaria cases. While the disease was eliminated by the early 1940s from America soil, it is still prevalent in many developing countries. Many tourists traveling abroad return home with the infection each year. The CDC estimates that there were approximately 1,337 cases of malaria in the United States in 2002 (United States Centers for Disease Control, 2007). All but five of these individuals contracted the disease in a malaria-endemic country and only eight patients died. In 2006 the CDC estimated 1,564 cases (Campagna & Patnaik, 2009). This is a slight increase, but the numbers are still negligible when compared to other diseases on the CDC watch list. In 2009 an estimated 562,340 people will die of cancer approximately 1,500 per day (Gardner, 2009). This is roughly the same as the number of malaria cases per year.

What, then, is the real motive for spending the majority of the funds on diseases that are not great concerns for the American public? Why is only \$1.2 billion going to the other category into which the H1N1 virus falls, and not the PEPFAR and malaria \$7.4 billion? The answer appears to lie in the supplementary information at the end of the press release, where we learn that rather than prevent the spread of H1N1, the White House is attempting to demonstrate continued support of the United Nations Development Goals.

WHY SHOULD CURRENT PMI FUNDING INCREASES BE MAINTAINED?

REGAIN SUPPORT IN THE GLOBAL COMMUNITY

In addition to protecting the average U.S. citizen from global diseases such as H1N1, the U.S. government also wants to comply with the eight Millennium Development Goals set by the G8 back in September 2000. More than 192 countries of the United Nations and 23 other international organizations committed to participating in the program. The target date for these eight goals is 2015 (Millennium Project, 2006). Goal number six is to "combat HIV/AIDS, malaria, and other diseases." So far some progress has been made, but it is unlikely that these goals will be achieved (United Nations, 2009).

In recent years the United States has lost a great deal of respect in the international community for its unilateral actions in Iraq and Afghanistan. The current economic recession stemming from high-risk lending practices appears to have compounded the global animosity. If President Obama wishes to recover the benefits of global leadership, he must heal those wounds. Sinking money into the Millennium Development Goals is a very cost-effective way to reestablish good will with these other countries.

The United States currently donates money to the war on malaria in two ways. The first of these is through The Global Fund, which is associated with the United Nations. The second is through its USAID program. The United States continues to be the largest individual donor to the Global Fund while simultaneously operating its own PMI program through USAID. The government does this to maintain a private line of resources that it can control more close-

ly. The funds can be distributed according to United States ideals rather than global values.

The downside of maintaining two funding streams is that additional administrative costs are incurred. This means that money that might have bought ACTs or bed nets goes instead to paying salaries of employees working in the United States or the European Union. Nevertheless, the United States should consider this an acceptable cost of maintaining an appearance of global cooperation.

In the past, the United States has fought wars to defend the rights of oppressed human beings in other countries, such as Vietnam, South Korea and Iraq. The problem of engaging in such battles is that there is always someone on the other side. That enemy often has allies that might be more powerful and therefore a serious threat to security of the United States. During the first two wars mentioned above, the United States was always fearful of backlash from the Soviet Union. Such concerns are unnecessary when fighting wars against a disease. Everyone is an ally in the war against malaria. A fight against that stronghold will not prompt a counterattack from cancer, HIV, or tuberculosis.

REDUCE SPILLOVER FROM FAILED STATES

The current global recession has aggravated the condition of failed or failing states, the majority of which are located in Sub-Saharan Africa. The World Bank predicted in April 2009 “that 50 million people would be pushed into poverty in the coming months” (Kharas, 2009). Commodity prices dropped drastically during the third quarter of 2008. Many people in developing nations and failed states have been unable to find buyers for their products. Many blame countries like the United States as the cause for their suffering, and will lash out to get even.

Other consequences of failed states include the spread of illegal drugs and disease. The lack of a functioning police force and high levels of unemployment force men and women to turn to illegal ways to generate income. The production of illegal drugs increases. Because few people within the state have money to purchase them, the drugs are exported to developed nations. Without a police force, the rate of rape also increases, spreading sexually transmitted diseases such as HIV/AIDS. Without operational health services centers, diagnosis and treatment of these diseases are unavailable, and these diseases can jump national borders to surrounding countries (Collier, 2007, 31).

Continued global health contributions can help to soothe some of this anger and prevent the spread of illegal drugs and disease. The use of bed nets and ACTs will prevent the occurrence of many malaria cases and facilitate the rapid recovery of infected persons, meaning that men and women will spend more time in the workplace and less time sick at home. This will lead to a rise in the GDP of these countries. As their economies stabilize and expand, tension with their neighboring countries will relax (Collier, 2007).

PREVENT ECONOMIC DRAIN AND CREATE POSSIBILITIES FOR POST RECOVERY

Developed nations should not be content to let failed states suffer. The cost of a failed state from meltdown to recovery is approximately \$100 billion (Collier, 2007). Costs are allocated not only to the country itself, but also its neighbors and the global marketplace. Preventing a state from falling apart or helping it to recover more quickly can reduce these costs. By assisting these countries in their time of need the United States can garner both political support and economic gains in these emerging markets in the future.

Aid has meant an average increase in GDP of 1% per year. This has offset the estimated average decrease in GDP of failed states of -1%. Even though global aid has not completely solved the problems in Africa, it has “been the difference between stagnation and severe cumulative decline” (Collier, 2007, 100). Also, on a more personal level, aid has meant the difference between life and death to millions of suffering people.

HOW CAN PMI USE ITS RESOURCES MORE EFFICIENTLY?

As indicated earlier in this paper, the United States government is the largest donor to The Global Fund and should continue to be so to maintain the appearance of global cooperation. Being the most generous donor however doesn’t mean that the United States has control over the organization’s operating policies—far from it. Choices made during the Bush administration have weakened the ability of the United States to influence policy changes in The Global Fund.

The organizational changes discussed below might therefore be difficult to push through The Global Fund bureaucracy. These changes can only be instituted today through the President’s Malaria Initiative channels in Sub-Saharan Africa. The President’s Malaria Initiative must set the standard for using malaria funding more effectively. As performance goals for the countries affected are met more often and at a lower overall cost, other funding agencies will be inclined to adopt these changes. By putting these changes into place the organization will be able to do the \$5 billion of work required to eradicate the disease (World Health Organization, 2009) for a significantly lower cost.

INCREASE COOPERATION BETWEEN NON-PROFIT ORGANIZATIONS

Organizations are also chosen for their previous experience in a given region. Malaria prevention and treatment methods in the general sense are not a secret. Information of this nature can be procured easily from a variety of sources. But obtaining local expertise for a country is more difficult. The quirks of any culture may prevent the implementation of a certain strategy. For instance, it is a common misconception in Equatorial Guinea that mosquito sprays make men sterile (Carter-Gau, 2009). Organizations are reticent to share this information with others because it gives them an edge for the

renewal of their grants.

In the end, this competition causes a decline in quality of services as organizations hoard information from others. A change in organizational structure is necessary. Renewal of an organization's grant should not be determined by individual performance. Rather, all organizations operating in a particular region should be reviewed together. Performance goals should be set for the group of organizations at the beginning of the round. If the group as a whole meets its goals, all of the contracts should be renewed. This will provide the incentive necessary for the groups to share their life-saving information, improving the overall quality of care for the native population.

REDUCE BUREAUCRATIC COSTS

The administrative pyramid of the President's Malaria Initiative is extremely complicated. Several layers of bureaucracy separate the source of funding and the United States Centers for Disease Control from the African child receiving his or her first dose of Artemisinin. The reduction of administrative levels and the addition of monthly correlation meetings between funded non-profit organizations could greatly improve the efficient use of PMI's resources.

The current pyramid is necessary because each organization in Africa is operating independently. Government administration is required to manage the needs of each. Changing the structure from individual renewal of grants to group renewals can help to reduce bureaucracy. As group members realize that their success depends on the efforts of others, they will begin to self-regulate. Policy decisions will begin to be made by these groups who are closest to the issue of combating malaria rather than by the occasionally misinformed leaders in the United States. Costs of conducting research and transmitting that information up the chain of command will also be reduced.

Lowering the barriers between non-profit organizations operating in the same area can also greatly improve efficiency. As groups coordinate their activities in monthly meetings, redundancy costs from research and development can be decreased significantly (Whitehurst, 2009).

DECREASE MISUSE OF FUNDS BY FOREIGN GOVERNMENTS

Leaders of autocratic regimes in Africa have become accustomed to receiving large lump sums of cash from foreign governments. Because they are not expected to pay back the donors, they feel no need to use the money wisely. Much of it is simply funneled out of the country into the corrupt leader's foreign bank account. Zaire's President Mobutu is purported to have taken nearly U.S. \$5 billion (Moyo, 2009). The rest of it is squandered in ineffective government programs. Very little of it is ever seen by the citizens of the country for which the money was intended. The prospect of overthrowing the corrupt leader to take control of the aid channels causes frequent civil wars. The atmosphere created by

the corrupt politicians makes foreign and domestic investment unattractive. Without these investments the country descends deeper into dependency on foreign aid (Moyo, 2009).

Using civil service workers and their associated government channels should therefore be avoided whenever possible. Their close ties to corrupt leaders in countries such as Equatorial Guinea and Zaire compromises their ability to support relief efforts. These civil servants are not the ones living in poverty. When seeking local workers, non-profit organizations should seek out persons living in poverty—those who are living with the effects of malaria every day. This familiarity with the malaria parasite and its drain on a family's finances will provide such men and women with the motivation necessary to work hard and meet the performance goals of the non-profit groups working in country. Providing work and educational opportunities for the lowest classes will help to stimulate the economy from the bottom up.

FOCUS ON SMART AID

When giving aid to Africa, foreign governments have a tendency to give finished products directly to the people. This puts many local producers out of a job. Manufacturing plants producing bed nets in America can easily undercut start up groups in Africa (Moyo, 2009). PMI administrators and leaders of associated non-profit organizations must remember that the funds combating malaria should not be used just to heal bodies. These resources should be used to also heal national economies.

When considering the destination of the funding for combating malaria, American organizers should give resources first to local producers. This includes the production of medication, bed nets, spraying equipment, chemicals, and education to promote behavioral change. A conscious decision to stimulate local production will spark additional development of African infrastructure.

CONCLUSION

The malaria parasite has plagued the human race for thousands of years. Only in the past few hundred years have humans been able to fight back against this terrible disease. The development of anti-malaria medication, bed nets, chemical spraying, and behavioral change programs continues to save thousands of lives per day around the globe. Unfortunately though, more funding is needed to bring this disease under control.

During this time of economic recession there is the tendency to turn inward and forget about the suffering of others in distant countries. The Obama administration should be commended for its continued support of global health. Everyone from party leaders down to the average citizen should ensure that this support does not slacken. Support of global health is an excellent way to regain the respect of the

international community, while simultaneously reducing the costs resulting from failed states and creating possibilities for their recovery.

Celebrity-based aid agencies, private corporations, and The Global Fund have made admirable contributions to the campaign against malaria over the past decade, but continued policy revisions are still necessary. The President's Malaria Initiative should be the front-runner in the effort to increase cooperation between non-profit organizations, reduce bureaucratic costs, decrease misuse of funds by foreign governments, and focus on giving smart aid rather than lumped sums of cash. By doing so, the world might someday see the eradication of malaria.

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Strengthening the Economy and Creating Jobs is Priority One for the Senate

By Senate Majority Leader Harry Reid (D-NV)

THE CHALLENGES WE FACED

This time last year, America was in the midst of a period of unprecedented challenges because of eight years of misguided economic policies. Our country was losing about 700,000 jobs every month, experiencing a record number of home foreclosures, dealing with skyrocketing health care costs, and facing unease in the marketplace. The American dream that so many of our citizens work for every day was slipping away.

I'm proud that Senate Democrats have led the way with bold, decisive action to bring our economy back from the brink of disaster. And while we have been encouraged by the steady progress that has been made, we know there is much more to do in order to restore peace of mind to the American people.

I hear every day from Nevadans who struggle to find work, face bankruptcy because of rising health care costs, and worry about how they are going to keep their homes. They don't care about political scorekeeping in Washington; they want action. And I know that all members on both sides of the aisle hear the same from their constituents.

STARTING THE ROAD TO RECOVERY

That is why Senate Democrats are committed to do everything we can to strengthen our economy. We're focused on putting Americans back to work, reforming Wall Street, strengthening small businesses, and lowering skyrocketing health care costs through reform.

As a result of the work of Congressional Democrats with President Barack Obama, last year was a good start to our long process of completing America's full economic recovery.

In February 2010 we recognized the one year anniversary of the American Recovery and Reinvestment Act becoming law. This legislation was the subject of much criticism but its passage was essential to putting America on the right track.

The Recovery Act provided much-needed tax relief for working families, critical assistance for small businesses, vital funding for transportation projects, and new investments in clean energy. It allowed us to provide an important jolt to our economy, while rebuilding our country and setting us on a path to a clean energy future.

In Nevada alone, the Recovery Act has created or saved more than 20,000 jobs since President Obama signed it into law and it continues to lay a foundation for Nevada's growing clean energy industry.

This story can be told all over the nation. Schools have remained open. Businesses have avoided closing. Infrastructure has been upgraded and repaired. Jobs have been saved and hundreds of thousands more have been created.

We have cut taxes for the middle class, cracked down on abusive credit card companies, reined in predatory mortgage lenders, and helped families keep their homes.

PRIORITY ONE FOR 2010 IS CREATING JOBS AND STRENGTHENING THE ECONOMY

2009 was an important year to lay the foundation for our long-term economic recovery. 2010 will be our year to build on that foundation and move with swift, decisive action to create jobs, help businesses grow again, restore fiscal discipline to our federal budget, and support out-of-work Americans as our economy recovers.

Senate Democrats are serious about putting America back to work, which is why we announced a jobs agenda in February 2010: a series of short- and long-term ideas to spur job creation. This jobs agenda is a commitment to come back to job creation efforts again and again over the course of the year because of the seriousness of this challenge.

Already this year, the Senate has taken steps that have the potential to create and save more than a million new jobs. Just recently, we passed the two significant job creation measures from that jobs agenda that have the potential to create and save more than one million jobs.

The HIRE Act and the Travel Promotion Act both passed with strong bipartisan support in the Senate. The HIRE Act focused on four key job creation provisions to spur immediate job growth, including tax incentives for businesses to hire more workers and targeted investments to rebuild our nation's infrastructure.

Within the same week, Congress passed the Travel Promotion Act with even greater bipartisan support. The domestic travel industry has been one of the hardest hit sectors of America's economy. This legislation will provide a

much-needed boost to the tourism in Nevada and around the nation. The nonpartisan Congressional Budget Office has said that this bill has the potential to create 40,000 jobs in the first year and will reduce the deficit by more than \$400 million. This bill is a win-win-win: job creation, boosting local sales tax revenues, and decreasing the U.S. budget deficit.

No one who understands the challenges of job creation believes there is one silver bullet to cure all that ails us. But with a steady drumbeat of targeted, focused legislation, I am confident that the Senate can take important steps to put America back on a path to prosperity—particularly for middle class families who are the engine for our country.

LOOKING FOR MORE OPPORTUNITIES TO MOVE AMERICA FORWARD

There are several other steps that the Senate will take throughout this year to strengthen our economy and create jobs. We'll embrace these challenges and, in the process, create new opportunities for growth and progress.

We plan to make investments in public services with more policeman, firefighters, and other civil servants in an effort to create jobs and invest in our communities at the same time. We also plan to pass clean energy legislation that will help create clean energy jobs that are dependable and help build a sustainable future for our country. In addition, through financial regulatory reform, we can level the playing field between Wall Street and Main Street. We can put an end to the era of irresponsibility in the financial services sector by curbing risks that jeopardize the futures of middle-class Americans.

In recent months, we worked tirelessly to pass meaningful health insurance reform. In addition to ensuring that all Americans have access to affordable, stable, and quality health insurance, our health reform legislation will help strengthen our economy in both the short and long term by reducing costs, creating jobs, and shrinking our deficit.

Senate Democrats are committed to making sure that we address the issues confronting our nation. We face many challenges, but we will not stop working to strengthen our economy and put the American people back to work. We will also put measures in place to ensure that we do not face these same challenges in the future. We will work for American families and the middle class, and call on our Republican colleagues to work with us to ensure that the American Dream remains attainable.

Changing the Way We Do Business Addressing the Earmark Dilemma – Now

By Congressman Jason Chaffetz (R-UT)

“All big things in this world are done by people who are naive and have an idea that is obviously impossible.”

- Frank Richards (1876-1961)

Faced with a choice between doing the right thing and doing the easy thing, voters want Congress to do what is right. Unfortunately, too many lawmakers believe cutting federal spending, particularly within their own districts, is an impossible task. The dilemma for Members of Congress is the false choice between shortchanging constituents and shortchanging America.

Running for office in 2008, I told the people of Utah I would seek to change the way we do business in Washington, D.C. Nowhere has that promise ruffled more feathers than in the fight over federal earmarking. On this crucial issue, most lawmakers have taken an all-or-nothing approach to the problem.

Earmarks—lawmaker-requested spending provisions that bypass the merit-based funding process—are a beloved institution in the United States Congress. They enable lawmakers to bring home federal dollars, take credit for generating jobs in their districts, pick winners and losers, and elicit campaign contributions. Local elected officials also love earmarks. Mayors and county commissioners get the credit for bringing a new project to their community without the responsibility of having to pay for it.

Despite a record \$12-trillion debt, Taxpayers for Common Sense reports that total spending on earmarks remained unchanged in 2010 (Alarkon, 2010). Renovations of historic buildings, theaters, and music halls will run taxpayers millions of dollars this year—even as the unemployment rate hovers around 10%. Although we are projected to soon be spending more than \$1 billion a day in interest on our debt, Congress still found \$250,000 for a farmers market in Monroe County, Kentucky. They found \$750,000 for the World Food Prize in Des Moines, Iowa (FY10 Earmarks Database, 2010). These are just two of the more than 10,000 earmarks that I voted against in the 2010 federal budget.

Lawmakers who wish to reform the process have traditionally been left with two untenable choices: shortchange America by participating in a corrupt system, or shortchange constituents by refusing to bring back any of the dollars paid

by taxpayers. This dilemma makes earmark reform seem impossible.

That's why I opted to chart an alternative path. The House is charged with a constitutional duty, role, and responsibility to appropriate funds. But how we do it is paramount because people have lost confidence in Congress. Not every earmark is abusive. For example, nearly 70% of my state's lands are under federal ownership. There are legitimate reasons to seek federal dollars to handle costs associated with those lands. Yet the people of Utah didn't send me here to fire up the favor factory. I promised voters I would not ask for an earmark until there was greater openness, transparency, and reform. I promised not to ask for an appropriations earmark in 2009 or 2010. I am doing the same for the FY 2011 budget. I promised I would work to raise the bar and forge a new path.

In August 2009, after months of public input and discussions, I introduced guidelines (Chaffetz, 2009) that seek to distinguish between the legitimate federal projects the Constitution empowers us to support and those projects which fall outside of our scope. With little political will in Congress to address earmark abuses in a meaningful way, I felt the best way forward was to start with a single office—mine.

Four simple changes to the earmark process would eliminate billions of dollars in potentially wasteful spending without compromising the Constitutional obligation of Congress to authorize legitimate federal projects. First, we must eliminate earmarks awarded to for-profit companies. Second, we should require a federal nexus be shown before projects can be funded. Third, we must commit to provide greater transparency. Finally, in the 112th Congress, I have called for a policy that would exclude those serving on the Appropriations Committee from requesting earmarks.

While some argue that earmarks represent a small fraction of the federal budget, this fraction is perhaps the easiest 1% to address. When Congress is finally brave enough to deal with entitlement reform, the American people will want to know that Congress cut its own entitlements before we sought to cut theirs.

PICKING WINNERS & LOSERS: FOR-PROFIT COMPANIES SEEK A COMPETITIVE ADVANTAGE

Since 1990, American troops have been equipped with decontaminant powder to protect them from exposure to nerve agents. But in 2003, the Pentagon learned that tests showed a decontaminant lotion was seven times more effective than the powder. Although the Pentagon told Congress in 2005 of its plans to switch to the lotion, lawmakers who represent the powder producer used earmarks to force the Department of Defense to keep buying the less effective powder (Willimsen & Heath, 2008). That year, after a powder company spent \$830,000 on lobbyists, the Department of Defense stockpiled enough powder to last until 2012.

Daniel Kohn, President of a New York company involved in the powder production, told *The Seattle Times*, “In self defense, we’ve gone to our representative in Congress and we’ve said, ‘You know, let’s lay our cards on the table. We’re in business to provide a living and jobs in your district.’” Despite the large stockpiles already purchased, New York Senators Charles Schumer and Hillary Clinton added a \$2-million earmark for more powder in the 2007 defense bill. In 2008, another \$5.6 million was added. The military now has 2.2 million powder kits in stock. Meanwhile, the manufacturer of the lotion did some defensive lobbying of its own, hiring lobbyists who got a \$3.2-million earmark for the lotion in the 2009 defense bill.

Unfortunately, companies are increasingly turning to home state representatives to tilt the playing field in their favor. In the 2010 Department of Defense appropriations bill, 532 of the 1,083 House earmarks were requested on behalf of private companies within the requesting Member’s home district (Utt R. D., 2010). Even worse, earmark beneficiaries and their lobbyists donate heavily to the campaigns of those who request the earmarks (Open Secrets Center for Responsive Politics, 2010).

A *BusinessWeek* investigation in 2007 determined that companies can expect to generate roughly \$28 in earmark revenue for every dollar they spend lobbying Congress, although in some cases, that return is much higher. In 1998, only 1,447 entities had a lobbyist helping with appropriation issues, according to Taxpayers for Common Sense. By 2006, there were 4,516 such entities (Javers, 2007).

The federal government should not be in the business of picking winners and losers. Competitive bidding would both save the government money and end the perverse incentives for lawmakers to practice corporate favoritism. One Heritage Foundation study showed that Department of Defense savings averaged between 25 and 35% of total project cost when competitive bidding was used (Utt R. D., 2001). If accurate, this savings would yield a \$1.3-billion benefit to taxpayers from the 2010 DOD bill alone (Utt R. D., 2010).

Taxpayers for Common Sense Spokesman Steve Ellis said, “This Congress is picking the winner that happens to be in the lawmakers’ district, rather than unleashing America’s promise and saying, ‘Here’s the problem, here’s what we are

trying to fund, and let companies across America see if they can actually meet the need” (Herzenhorn & Nixon, 2009).

Reigning in abuses of corporate for-profit earmarks is an important first step. However, we can’t stop there.

FEDERAL NEXUS: IDENTIFYING THE PROPER ROLE OF THE FEDERAL GOVERNMENT

Limiting projects for which the federal government has no Constitutional responsibility could save billions of dollars. The United States Constitution establishes a separation of powers that is both horizontal and vertical. Within the federal government, power is divided into separate branches with various horizontal checks and balances across branches. The Tenth Amendment references a vertical separation of powers. It reserves the powers not delegated to the United States by the Constitution to the States. State and local governments have a stewardship that is separate and apart from that of the federal government.

Nowhere in the Constitution is power granted to the federal government to manage local projects such as parks, cultural arts facilities, parking areas, or water infrastructure. No doubt local officials would vigorously defend their right to manage and control such projects, but few object to asking the federal government to fund those projects.

It’s time to redraw the line between federal and local government. Only requests for projects for which there is an established federal nexus should be considered. For example, the Constitution empowers Congress to regulate interstate commerce, but the federal government has no business funding a local farmers market. Interstate freeways may qualify, but a local parking garage would not. Other projects within the federal scope might include military applications, public infrastructure projects, activities on federal lands, disaster mitigation, or aid for compliance with federal mandates.

With the proliferation of earmarks for purely local projects, expectations have grown. Each time one community gets federal funding for a local priority, other communities perceive that they are not getting their “fair share” of federal dollars. This problem hit a climax last winter when it seemed nearly every city in America sent their lobbyist to Capitol Hill with a wish list of “shovel-ready” local projects they hoped would qualify for stimulus money.

We cannot afford to meet the expectations of every community in America. Stoking these expectations by continuing to fund local projects in politically-connected districts is a mistake. There is no better time to put an end to this practice than now.

TRANSPARENCY: TAKING RESPONSIBILITY

Since new transparency rules went into effect in 2007, the public’s ability to scrutinize the budget process has improved dramatically. We can now see for ourselves the disproportionate distribution of federal funds. Unfortunately, instead of cutting back on abusive earmarks, some Members of Congress have simply found other ways to hide them.

The practice of “air dropping” earmarks allows lawmakers to insert their spending requests during the conference process, after both bodies have debated and passed the bill. These earmarks are seldom scrutinized by committees. The 2009 Omnibus spending bill contained 9,000 earmarks, many of them air dropped.

I have proposed improving transparency by making four steps mandatory before a request will be made. First, requests for Congressionally-directed spending must be submitted to the Appropriations Committee prior to the committee deadline. No requests will be airdropped after that deadline has passed.

Second, the appropriate Executive Branch agency must be given a reasonable period in which to review the project. This process ensures the project is eligible to receive funds and meet the goals established in law and official policies.

Third, each request must receive proper vetting and debate by the appropriate committee.

Finally, the committee will compare the request with others and fund only the highest priority items. This process would ensure that each request receives careful review. If widely adopted, it will eliminate last minute undisclosed appropriations or the use of nebulous project descriptions to obscure the real purpose of a funding request.

REIGNING IN APPROPRIATORS: POWERFUL LAWMAKERS HOARD CASH WHILE EVERYONE ELSE FIGHTS FOR TABLE SCRAPS

Earmark defenders often argue that lawmakers can best judge the needs of their individual districts, thus the earmarking process is a necessary one. Unfortunately, year after year the same districts seem to be cashing in while others go without.

Members of the House Appropriations Committee comprise 13% of the body. But for fiscal 2008, that 13% received 45% of the \$4.2 billion of earmarks for which individual lawmakers took credit (Riedl, 2009). In addition to Appropriators, other House leaders also receive favorable treatment when it comes to earmarking. House leadership, committee chairmen, and ranking members in the minority party all do very well in the race for federal funds. Those groups, in addition to vulnerable members combine to receive three quarters of the money spent on individual member-sponsored projects.

If we are serious about addressing the abuses in the earmarking processes, we must crack down on the political favoritism that drives many funding decisions. By excluding Appropriators from asking for earmarks, we can take some of the politics out of the process. Those slicing the pie should not take a piece. It concerns me that many lawmakers would rather waste tax dollars in their own districts than spend those dollars on legitimate projects in someone else’s district.

The benefits of excluding Appropriators from requesting earmarks extend beyond simply cutting wasteful spending. We also end the powerful incentive for lawmakers to trade

earmarks for campaign contributions. Although lawmakers swear their contributions are not tied to their funding requests, the numbers tell a different story. A 2008 *Washington Post* analysis found that 60% of the members of the House Armed Services Committee who arranged earmarks also received campaign contributions from the companies that received the funding. Almost all the members of the committee received campaign contributions from companies that got earmarks this year (O’Harrow, 2008).

“Powerful lawmakers are hoarding cash for their districts while the rest of the Congress fights for table scraps,” explained Taxpayers for Common Sense President Ryan Alexander (Alarkon, 2010).

CONCLUSION

If we are to restore the trust of the American people in their government, we must address the corrupting influences in the United States Congress that work to undermine that trust. Until we can demonstrate that we are willing to cut waste and abuse within our own ranks, we cannot begin the arduous process of reigning in the unsustainable entitlement programs upon which many Americans have come to rely. By adopting a four-step process to approving earmarks, we can better utilize our limited federal resources and demonstrate competence to American voters.

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FINAL WORD

“We either advance or we decline. Power comes from looking forward with faith and courage – of expecting and demanding better things. We can’t go forward by looking backward.”

- Robert H. Hinckley

