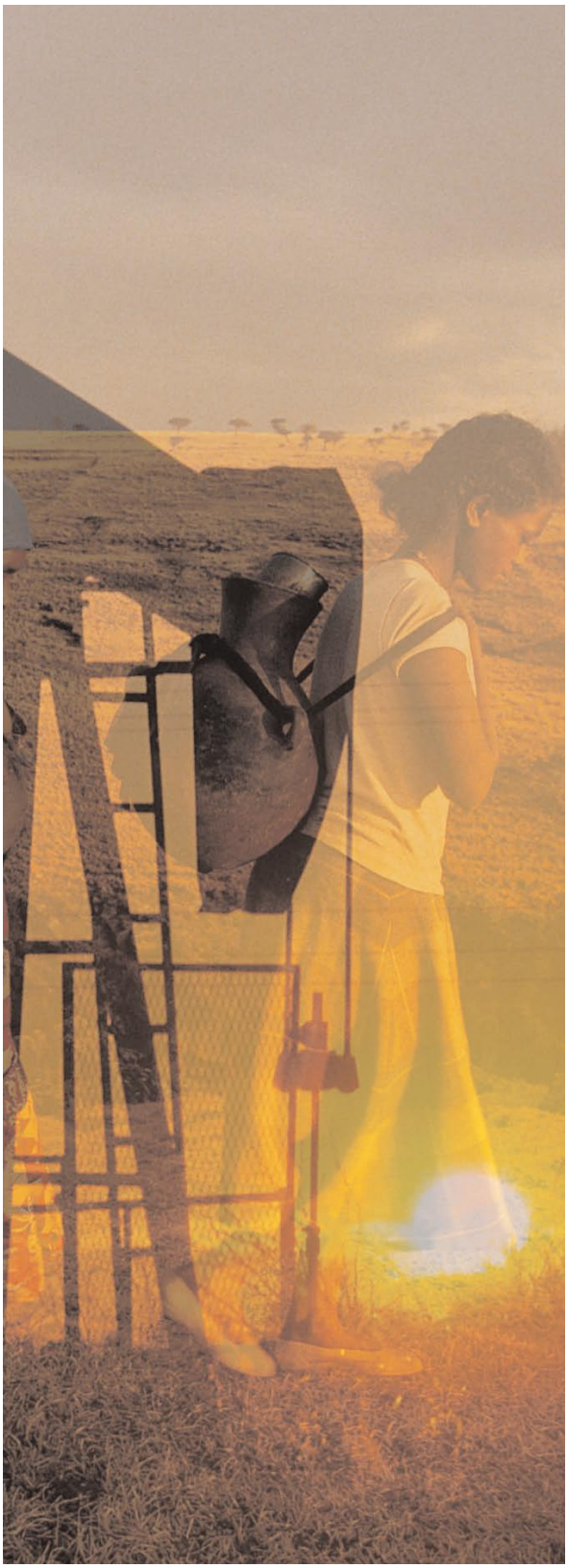

For Security's Sake: Can the United States help petroleum rich nations avoid the resource curse?

Consensus recommendations and report from a round table hosted by the Nicholas Institute held in Washington, DC, on Sept. 22, 2006

edited by
Lydia Olander
Erika Weinthal
Gordon Binder

March 2007

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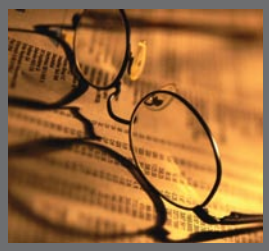

Acknowledgement
The Nicholas Institute for Environmental Policy Solutions is grateful to the Environmental Change and Security Program at the Woodrow Wilson International Center for Scholars for providing a venue and logistical support for this meeting.

For Security's Sake: Can the United States help petroleum-rich nations avoid the resource curse?

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Edited by Lydia Olander, Erika Weinthal and Gordon Binder

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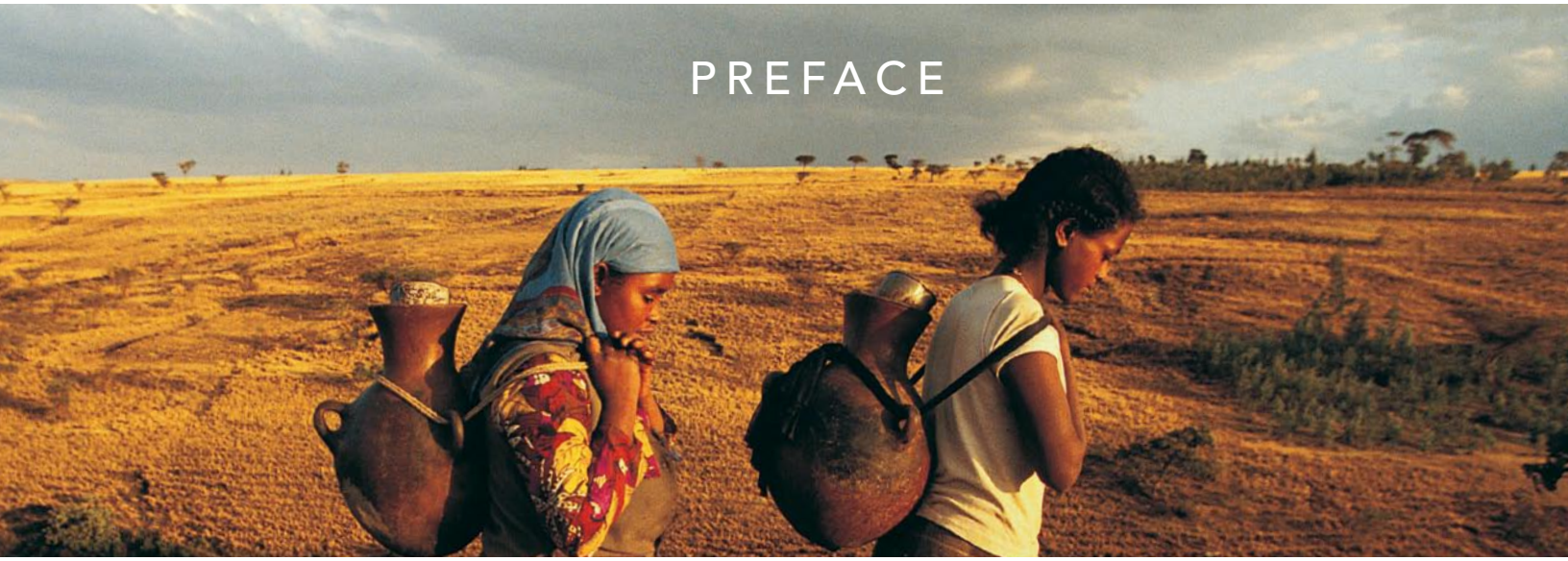
PREFACE



Few issues affect the United States' prosperity more than that of oil security — access to reliable, affordable supplies of oil. Our very mobility, and thus the health of the U.S. economy, depends on it. Indeed, virtually all modes of transportation in the United States depend on adequate supplies of petroleum. The Energy Information Administration reports that in 2005 the United States consumed just over 20 million barrels of oil a day, and by 2025 consumption is projected to rise to a little more than 26 million barrels each day. We import about 60 percent of the oil we use.

Attention to this issue heightened over the past year with the run-up of gasoline prices, turmoil in places that export oil to the United States — the Middle East, Nigeria and Venezuela, to name a few — and widening anxiety over the harmful consequences to the planet's climate from continued reliance on fossil fuels. President George W. Bush underscored the concern with his bold statement in the 2006 State of the Union address that Americans are addicted to oil.

And yet oil is here to stay — at least for the foreseeable future. No energy scenarios of which we are aware have concluded anything different. It will take significant time, continuing investment in alternative fuels and transportation technologies, and the right incentives and price signals, as well as leadership to reduce America's dependence on oil.

This critical topic, U.S. oil security, was the focus of a daylong round table, held in Washington, D.C., on Sept. 22, 2006, organized by Duke University's Nicholas Institute for Environmental Policy Solutions. Just over a year old, the Nicholas Institute is the first of its kind in the academic world, designed to bridge the gap between university research and policymaking. It has already hit its stride with timely and cogent analyses of a range of energy and climate change issues, even as the program broadens to include such issues as restoring the oceans' bounty and the urgent need to expand access to clean water and sanitation in developing countries.

What was different in this round table from most considerations of the topic is that we spent the better part of the day discussing an aspect that seldom gets sufficient attention: the political and economic conditions in the countries that supply the United States with oil. The majority of these countries are developing countries that suffer from what has been called, paradoxically, the "resource curse." Although these developing nations have

abundant sources of oil and natural gas, and revenues from exporting these fossil fuels are on the rise, they also are beset by poor governance, corruption and conflict, so that revenues do not widely benefit the countries' citizens who remain mired in poverty. Instability, lack of economic opportunity, lack of infrastructure, resentment and protest, waste, fraud and abuse — they all invariably limit citizens' chances.

Why look carefully at conditions in these poor oil-exporting countries? For one reason, U.S. national security may depend on what happens in some of these places, and it behooves policymakers to understand better the circumstances and forces there. Some exporters — Iran comes to mind — present a strategic challenge to U.S. interests, even as we recognize that our country's influence on their actions is severely constrained. Elsewhere, unstable political situations or antagonism toward the United States — in Nigeria and Venezuela, for example — could lead to price hikes or supply disruptions that would harm the U.S. economy. Instability, moreover, can spill over borders, unleashing turmoil across an entire region, as in the Middle East.

The general thrust of our round table's discussions was consistent with a recent report by the Council on Foreign Relations, *National Security Consequences of United States Oil Dependency*, produced by a task force on which William Reilly served. The task force recommends elevating priority for energy in U.S. foreign policy, engaging more thoroughly the Department of Energy and other domestic agencies that have something to contribute on energy policy, and, perhaps most important, taking domestic action to reduce oil consumption — improving the fuel efficiency of our transportation fleet, for one. Domestic action, it is widely agreed, constitutes an essential step if the United States is to bolster its *bona fides* as a means of regaining influence and leverage within the community of nations. Besides improving fuel efficiency, other steps include diversifying sources of supply and opening foreign markets more to U.S. energy investments.

As outlined in the pages that follow, the Nicholas Institute round table offered insights and approaches on conditions in oil-exporting countries in the developing world. Foremost among these is the need to find ways to help the countries improve their governance, in order to help them alleviate poverty and foster stability and economic opportunity for those who now enjoy little of either in their lives.

Poverty alleviation is the mission of the World Bank and other international financial institutions and a primary objective of U.S. development assistance. These donor agencies, including President Bush's signature development initiative, the Millennium Challenge Corporation, increasingly recognize that little of enduring value can be accomplished without attention to the governance agenda — transparency, political accountability, a free press, the rule of law and an independent judiciary, a regulatory framework adequately enforced, reduced hurdles to starting small- and medium-size enterprises and so on.

The World Bank's president, Paul Wolfowitz, recently unveiled a multipronged campaign against corruption, which is seen as a drag on economic growth and a waste of scarce development funds. The Nicholas Institute's round table zeroed in on this campaign as an initiative meriting serious support. Corruption, to be sure, is as old as civilization, but the World Bank has outlined a strategy that is worth a try. It just might help ensure, among other objectives, that oil-export revenues benefit poor citizens, not merely a society's powerful elite.

The World Bank President's elevation of corruption as an important negative criterion in lending has been criticized for possibly disadvantaging people and projects in poor countries due to their government's practices, conduct over which they have little or no control. We believe that corruption and poor governance has been too routinely excused, however, and scarce lending should be targeted at governments where it will be put to more productive uses. This would both reward transparency and good governance, and reassure publics in donor countries of the merits of foreign aid and lending. It is dispiriting to visit an oil-rich nation like Algeria, with its vast financial reserves in excess of $50 billion, and discover that water is available in the nation's cities for only a few hours each week.

Other complementary strategies are necessary, of course. Where feasible, bilateral development assistance to promote good governance should be part of any strategy. An especially promising initiative comes from the Extractive Industries Transparency Initiative, a multi-stakeholder program that aims to shine light on how much oil revenue exporting governments collect. Equally welcome is the good work of nongovernmental groups, both international and in-country, as well as the work of universities, to promote with their in-country counterparts the ingredients of good governance. These contributions are especially important in the wake of recent

reports that some countries — Nigeria and the Philippines, for instance — are foregoing loans from international development institutions in favor of direct, bilateral investments by China and other countries negotiated without conditions aimed at lessening corruption and improving governance. This is not the only track to pursue. Encouraging China, which is not now a member of the Organization for Economic Cooperation and Development or the International Energy Agency, to join with other oil-consuming nations in tackling matters of energy supply and demand multilaterally could reduce the incentive for China to go it alone. Absent a successful effort to engage China, the United States and international institutions like the World Bank may continue to see the important goal of improving governance in resource-rich developing countries thwarted in the race to secure energy sources.

The resource curse is an irony for many developing countries: large sums of money from oil, but widespread poverty and unstable political and economic conditions. As the United States seeks to bolster oil security at home, it should be self-evident that our country's long-term interest demands of us a range of endeavors to improve stability and opportunity in those poor countries from which we import our oil.

William K. Reilly
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Consensus recommendations

For Security's Sake: Can the United States help petroleum-rich nations avoid the resource curse?

On Sept. 22, 2006, the Nicholas Institute for Environmental Policy Solutions brought together current and past U.S. government officials, members of nongovernmental organizations (NGOs), industry representatives and experts from think tanks and academia to discuss an important albeit difficult aspect of U.S. energy security — the economic and political instability of oil-exporting nations.

Although many recent discussions of energy security have taken a broad view, we focused more narrowly on how to address the damaging effects of oil wealth on supplier nations, acknowledging the clear links to U.S. and worldwide energy security.

In oil-exporting countries, oil revenue windfalls and the reliance on volatile global petroleum markets often perpetuate poor economic performance, poor governance, low levels of human development, and high levels of corruption and income inequality. This pattern is often termed the "resource curse." These problems are difficult for outside nations to address, because they typically have little authority or leverage for meddling in the internal workings of sovereign nations. However, it is important that the United States use what leverage it has both to improve political and economic conditions in those countries and also to improve global energy security.

Recommendations to the U.S. Government:

(1) Push U.S. and international financial institutions to leverage funding to motivate supplier nations to address corruption and improve governance — and do so in a transparent and consistent manner.

The U.S. Agency for International Development (USAID) or multilateral lending institutions such as the World Bank should prioritize aid — loans or grants — to countries that have taken steps and show a willingness to address corruption and improve governance. In those countries that are unwilling to take meaningful action to address corruption, aid should be provided instead to the nonresource sector or NGOs that work to expose corruption and pursue improvements in governance (e.g., improving transparency, oversight and government accountability). To be effective in leveraging aid, coordinated support from other countries and lending institutions will be needed.

(2) Make energy security a top priority domestically and abroad by reducing dependence on petroleum, maintaining diverse supplies and promoting strong and consistent diplomatic leadership among consumer nations toward supplier nations.

Our group clearly recognizes that focusing on the supplier nations alone is insufficient for dealing with both energy security and national security concerns. High prices and demand for oil only exacerbate political and economic tensions. The greatest leverage the United States has on energy security at home and abroad is through domestic actions to reduce its own dependence on petroleum and to help other major consumers of petroleum do the same. Reducing petroleum demand helps to weaken the resource curse. We recognize that it also is important to maintain a diversity of global petroleum suppliers and to show consistent diplomatic leadership on energy.

Financial Aid and the Resource Curse

Corruption is a fundamental symptom of the resource curse in supplier nations. It is tied to weak governance institutions, minimal transparency of government activity and spending, poor government interaction with civil society, minimal economic diversification and national ownership of the resource-based industry — in this case, oil. If a country is unwilling to take steps to address corruption and the concurrent governance problems, aid can reinforce the negative repercussions of the resource curse, exacerbating instability and security risks.

Previous attempts by the international community to address the resource curse have focused on promoting macroeconomic policies, economic diversification and natural resource trust funds. Yet many of these solutions have had limited success largely because of the absence of strong state institutions, including governance and fiscal institutions. One effort to work with those countries willing to address corruption is the Extractive Industries Transparency Initiative, a voluntary program which is a multi-stakeholder initiative sponsored by the British government and a number of international financial institutions. The program has shown some promise in clarifying how much oil revenue is going into government coffers. However, unless there is already indigenous political will to focus on more than revenue transparency, it does little to show how the money is spent and also little to tackle poor governance and the absence of viable state institutions, which are often more serious problems.

Acknowledging how difficult it is to influence governance in sovereign nations and the limited resources and funding available to address governance issues around the world, this group strongly recommends prioritizing aid for those governments that are inviting assistance in governance and transparency or have taken steps to address corruption. It is particularly important to recognize critical opportunities to render aid where a shift in government leadership has taken place, providing a new opening to bring about improvements in governance and transparency. Our group recognizes that some countries face much greater hurdles than others for addressing corruption and governance, and we do not want to add to these difficulties. Rather, if a country is willing to address corruption and governance, even if it has not taken any positive steps on its own, then we support providing financial and technical aid directed at helping that government take those first steps. Aid to support the growth or maintenance of the petroleum industry in particular can be tied to substantive technical and financial assistance on governance issues. Assistance focused on building administrative capacity, strengthening governance institutions and developing technical skills should ensure greater financial transparency, improve accountability and reduce corruption.

Continuing to send aid to countries rife with corruption not only reduces the aid's effectiveness but is likely to exacerbate problems, providing more money and some semblance of legitimacy for corrupt leaders. This situation makes the leaders even less responsive to their own civil society and to political pressure from abroad. In the case of corrupt governments, aid to NGOs, where feasible, may be a valuable tool. Funding could be directed to NGOs that play an essential role in exposing corruption, pressuring the government and nationalized oil industry to increase accountability and transparency, and working to strengthen civil society. Withdrawing financial aid to the government and coupling this with a consistent multilateral political message may yield positive results. Cooperation from other countries, international funding organizations and private banking are essential for success.

Countries clearly vary along the different corruption indices (e.g., Transparency International's Corruption Perception Index) and governance indices (e.g., World Bank Governance Research Indicators). But rather than setting particular criteria or categories to separate who does and does not get aid, the critical parameter for success would seem to be a willingness by the government to address corruption, governance reform and financial transparency. In countries that support activities that are counter to U.S. interests but there is willingness for reform, aid can be directed specifically at governance and transparency where it could have widespread positive impacts, while aid to other activities is stopped or reduced. The more difficult case is when countries have positions that coincide with important U.S. interests but are unwilling to address their resource curse. In these circumstances, it is important that the conflicts with U.S. goals be understood and trade-offs carefully considered up front. If other interests take precedent, which should be a rare exception in our view, the United States should leverage its relationship with this nation to seek some progress in governance reform. If this type of exception is anything but rare, consistency of message will be lost and leverage with cooperating nations and institutions will be at risk.

Smaller-scale aid that is not accessible to the government is likely to have less political impact, yet it may be more important for poverty relief and economic development. Thus, financial aid that supports the growth of the non-petroleum economy through investment in microcredit lending and small- and medium-size enterprises should continue even where a corrupt government is cut off from major aid. Because microlending often does not go through the government, but rather through small-scale entrepreneurs and private investment, it may help build civil society and diversify the economy, both of which help mitigate the resource curse, corruption and poverty.

Domestic Actions to Confront the Resource Curse

Recognizing that political pressure and targeting financial aid address only one aspect of the resource curse, our group strongly recommends that the United States aggressively reduce domestic consumption of petroleum through fuel efficiency, alternative fuels, and growth patterns and seek to persuade other nations to follow this example. Leading by example with demand-side actions will benefit both U.S. foreign policy and the economy. In diplomacy, we would see increased maneuvering ability in how the United States relates to other supplier and consumer nations. In economics, we would see a reduced balance of payments, reduced likelihood of disruptive fluctuations in petroleum prices and growing markets for new fuels and vehicles.

Prioritizing energy in our national and foreign policy in a consistent manner is also important. Energy must be elevated in domestic priorities and foreign policy in all areas and agencies — for example, Commerce, Treasury, State, USAID and the Environmental Protection Agency. The voice of the United States — and, if possible, of other importing nations — must be consistent in acknowledging and supporting good actions (e.g., joining financial transparency efforts) and condemning negative ones (e.g., corruption in use of oil funds).

To be effective in stopping multilateral aid to corrupt governments, in developing a multilateral consistency of message and action toward supplier nations, and in assisting other consumer nations to reduce petroleum consumption, continuing strong diplomacy will be needed. Targeting specific opportunities that link energy and foreign policy can be effective. The United States and China have a common interest in stable oil production in Africa, Latin America and the Middle East. The U.S. and Chinese governments could engage in a strategic dialogue to find common ground in the need for political stability in these supplier nations to foster energy security. Insofar as instability in Sudan will impair China's investment there, adopting a common approach to fostering peace in Sudan could pay dividends for both countries. Also, continued fostering of multilateral relationships through existing institutions, including the Group of Eight (G8), the Asia Pacific Partnership and the International Energy Agency, will be important. The G8 statement of July 16, 2006, known as the St. Petersburg Plan of Action on Global Energy Security, is a positive step. Finally, where the U.S. government's voice has minimal influence, we can try through our universities, nongovernmental organizations, local governments, private companies and other sectors to help build communication and cooperation.

Our group's recommendations, although more narrowly focused, are generally consistent with those of the recent report by the Council of Foreign Relations titled *National Security Consequences of United States Oil Dependency*.

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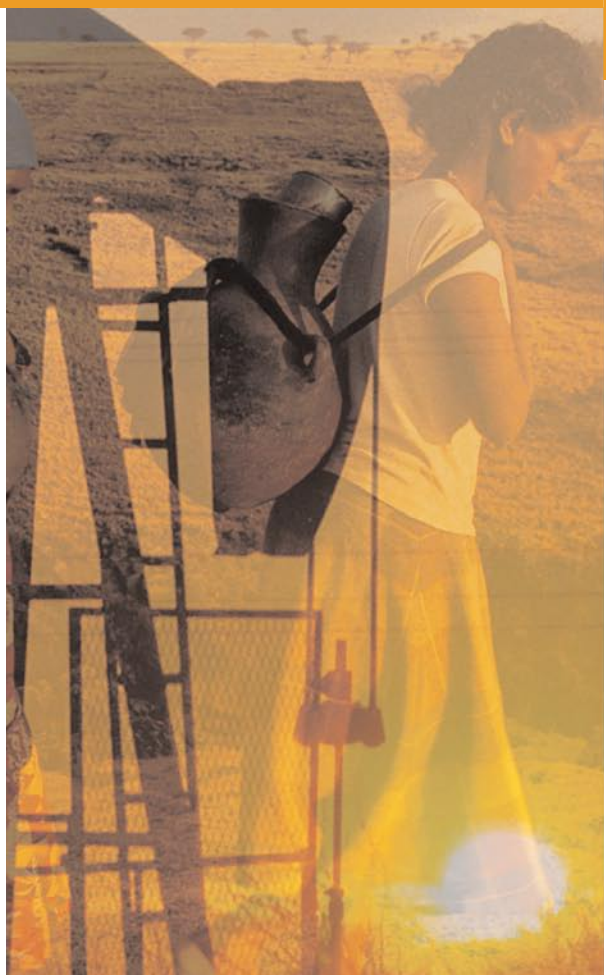
* **Not all participants were in a position to endorse the recommendations of the workshop. Those who endorsed the recommendations are noted with an asterisk.**

For Security's Sake: Insights from around the World



Disclaimer

The following case studies were requested by the Nicholas Institute to provide context for the recommendations offered in this report. The opinions of the authors do not represent the consensus of the round table participants nor the views of the Institute. They are presented as examples that explore the implications of the resource curse and the relevance of the recommendations to specific situations.

The "Energy of Geopolitics" in the 21st Century

By Joseph A. Stanislaw

Independent Senior Adviser to Deloitte and Touche, founder of The JAStanislawGroup LLC, member of the Board of Advisors of the Nicholas Institute for Environmental Policy Solutions and Adjunct Professor at the Nicholas School of the Environment and Earth Sciences at Duke University

As the 21st century unfolds, energy is front and center not only in domestic politics but on the international stage as well. The unprecedented role energy will play in world politics represents the new paradigm of the "energy of geopolitics." It also presents the United States with two critical opportunities: to reverse the perception that America is behind in the race toward sustainability; and to take a non-threatening leadership position by committing to leverage the new energy dynamic to improve lifestyles, pollute less, promote growth and employment, and encourage a technology revolution.

If these were America's only goals, our policy challenges — while of a historic magnitude —would be straightforward enough. But the chessboard is greatly complicated by the shift in the landscape of energy supply and demand; by the emergence of China, Russia and India as players in the game; and by the stated ambition to spread democracy around the globe. In fact, America's overriding domestic goal — ensuring that energy supplies remain abundant at reasonable cost — will remain in severe tension with its aims abroad. As China and India pursue energy resources in near-complete indifference to the internal politics of their suppliers, Washington will be hard-pressed to maintain its prodemocracy bias. And with Russia determined to maintain control over its near-abroad, especially in the energy-critical Caspian neighborhood, the task is ever more daunting.

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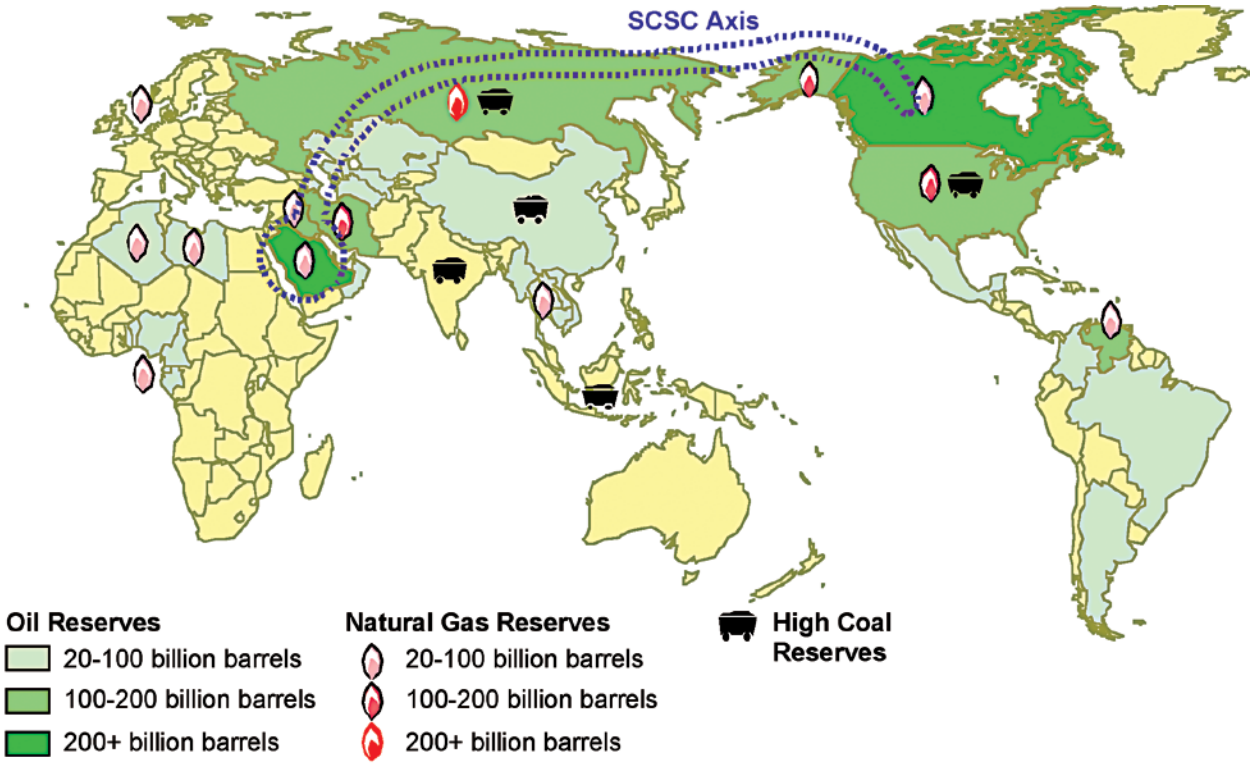
The global energy landscape in the 20th century was in a simple way dominated by two facts: supplies were concentrated in the Middle East, and demand was dominated by North America and Western Europe. Over the past decade, a quiet but critical shift has been taking place. On the supply side, the center of gravity has shifted north, with the revitalization of Russia's oil industry and the intense development of the Caspian Sea's energy resources. On the demand side, China and India are the major new stories along with the United States; the booming populations and economies of China and India will have a tremendous impact on the global energy picture, as well as international relations, in the 21st century.

Over the past 15 years, the crude oil supply hub has expanded from more or less a single point — Saudi Arabia, at the heart of the Gulf OPEC region — to the Caspian Sea, across Russia to Siberia, and on to Canada. This forms the Saudi Caspian Siberian Canadian Corridor of supply — or SCSC Corridor — that will yield the major new supplies of oil and gas in the 21st century. In fact, Canada may hold the world's largest oil reserves, in the form of heavy oilsands estimated to total 1.7 trillion to 2.5 trillion barrels (although it cannot be extracted at the same high recovery rates as conventional crude oil). If all of Canada's oilsands could be recovered and refined, they would satisfy North American oil demand for several generations. Other areas also will continue to be strong sources of oil supply — among them Iran, Iraq, West Africa, Brazil, Venezuela, Mexico and Argentina. But it is the SCSC Corridor that will drive energy geopolitics in the 21st century.



Source: The JAStanislaw Group LLC
Historical data - *Oil and Gas Journal*, and *BP Statistical Review*.

Demand Is in the Driver's Seat … for Now

Perhaps the single most influential factor shaping energy markets in the 21st century will be the extraordinary demand by China and India. Thirty years ago, China consumed a small amount of oil for military purposes and hardly any notable quantities for civilian use. In 2004, China used nearly 7 million barrels of oil per day, racing past Japan as the second largest consumer in the world, after the United States. And yet, per-capita oil consumption in the United States is 14 times that of China. Projected annual growth rates for China's oil demand range from 7.5 percent to a remarkable 10 percent or 15 percent. Furthermore, China accounted for one-third to one-half of incremental demand for most commodities and raw materials in 2004. This astonishing situation will only intensify as the first decade of this new century comes to a close and the second begins.

Today's race for reserves and supply is fueled by this skyrocketing demand. Beijing and New Delhi are scrambling to lock up supplies from Kazakhstan, Azerbaijan, Russia, the Middle East, Sudan, West Africa and Latin America. In December 2004, Chinese Premier Wen Jiabao and Venezuelan President Hugo Chavez signed a deal by which Venezuela will supply fuel oil to China while allowing Beijing to operate oil fields and invest in refineries in Venezuela. Beijing also has clinched agreements to develop fields in Iran and has held numerous talks with Canadian companies regarding oilsands. Indian companies are equally active, and New Delhi and Beijing have signed a protocol to search together for oil and natural gas resources.

While new demand is burgeoning, the old demand centers have not gone away. Japan relies on imports for 90 percent to 95 percent of its oil and gas needs. Demand is also growing in South Korea, Brazil and the United States. In fact, demand could turn out to be the biggest supply surprise of the 21st century.

The Russia Factor

The steady rise of Russian oil output is another critical shift of the past decade; Russia even briefly regained its position as the world's largest producer and continues to steadily compete with Saudi Arabia for that distinction. The global energy industry already is preoccupied with Russia, and this preoccupation will only grow as Moscow's market and political power increase in coming years.

Oil and gas are Russia's principal tools for developing its power on the global economic and political stages. In the 21st century, state dominance of the oil and, particularly, the natural gas industries simply means that Russia can be both an arbitreur and an arbitrageur of energy resources. Russia has truly become an energy superpower. It is currently the world's second largest oil exporter, supplying Europe with more than a quarter of its natural gas and more than 40 percent of its gas imports. This massive nation, 11 time zones wide, will eventually be able to export oil and gas from Western Siberia across the pole to the East Coast of North America (a more direct, cheaper route than transporting Middle Eastern oil to the United States), as well as from Eastern Siberia to Japan, South Korea and China on the western side of the Pacific and to the West Coast of the United States on the eastern side. That is an astonishing possibility, and it will soon become a reality.

Since the late 1990s, Russia has pursued an "East-West axis strategy." It has worked to improve relations with Europe — particularly Berlin and Paris — while strengthening ties with Beijing, Tokyo and Seoul. Moscow recently signed oil and gas protocols with South Korea, China and India. Meanwhile, a Russia-U.S. energy dialogue encouraged energy cooperation between the two countries, but these talks have stalled. Even when active and strong, the dialogue did not distract Moscow from its East-West axis strategy or from pursuing its trade relations with bordering countries. The United States views Russia's East-West strategy with some wariness and has pushed Moscow to envision two triangles of cooperation: one involving Russia, China, and Japan, and the second involving Russia, Europe and the United States. The questions, going forward, lie in how these two triangles will evolve and whether competition, cooperation or conflict will drive initiatives.

The geography of the Saudi Caspian Siberian Canadian Corridor makes it clear that Russia's immediate neighbors, both to the east and west, lack energy resources. These nations are the nearest export markets, and there are strong and well-aligned economic interests on both sides of these borders. The degree to which Russia is willing to exert its market power became obvious in 2006, notably in a standoff with Ukraine over the price of gas exports and a series of interruptions in Russian gas supplies to selected Eastern European countries. Then in early 2007, an oil tax dispute with Belarus caused Russia to stop the oil flow to that region, affecting numerous Eastern European countries.

Russia has a well-thought-out natural gas strategy. Moscow will expand its network of pipelines to China and Asia — a recent (though still unrealized) agreement with Beijing to build a pipeline from East Siberia underscores this strategy — while also extending its traditional westward routes, including the new trans-Baltic North European Gas Pipeline and other smaller projects under consideration. These actions are all part of the snowballing Russian energy drive and the shifting dynamics of the energy of geopolitics resulting from it.

It should not be surprising that a country as newly empowered as the Russian Federation is exerting greater control over its oil and gas resources in an effort to influence relations with its neighbors. This might not be what most of the international community — focused as it is on building democracy, embracing globalization and opening markets — prefers. But it is inevitable that resource-rich Russia will use its assets as a vehicle for global influence.

Russia has been especially shrewd in taking advantage of the globalization process by entering new markets and thereby expanding its political influence. It will need to tread carefully, however. Heavy-handed intervention could lead foreign companies to pull back from investing in, or importing energy from, Russia — thereby hampering its ability to reach full potential in oil and gas production. Already, a growing wariness on both sides is causing Russia and the West to develop opposing strategies. Defusing the tension demands a policy of engagement, in which both parties come to the table as equals rather than merely making demands on one another. The goal should be to build together, not make reciprocal threats. Otherwise, there is a risk of reviving the old Cold War notion of "mutual deterrence" in a new form — through energy fear.

The Challenge of Creeping Nationalism

Nationalistic tendencies have emerged elsewhere as well. U.S. politics has changed the course of two major transnational deals: the sale of Unocal to the Chinese oil company CNOOC and the Dubai Ports World's acquisition of the British firm P&O (which would have given an Arab company control of six U.S. ports). Venezuela has revoked petroleum licenses held by Italy's Eni and France's TOTAL because the companies did not agree to newly imposed terms that gave Venezuela a bigger share of the oil revenues. Similar signs of possible energy nationalization are emerging in Bolivia, Peru, Ecuador and elsewhere.

These events and trends highlight a major change in global energy marketplace. The demand boom in China and India is shifting the balance of power from consumers to producers. This swing could be creating a new playing field in which state-dominated or state-owned energy companies of major producing and consuming countries exert their power more forcefully in energy deals. This "state-to-state" dominance was seen in the oil industry in the 1950s, but it could have even greater impact now than in the past.

What is different today is that globalization has enabled a spate of cross-border deals and acquisitions. In this environment, governments wield significant political influence in supporting the cross-border deals of their national companies. Although difficult to quantify, this leverage is a force that global energy industry players are keenly aware of. The enormous buying power of these state-dominated firms further fortifies their position in the market. This is a new form of might and market.

The Democracy Drive and Energy Realities — A Testing Point

The shifting axis of resources, together with the increasing calls for environmentally and socially sustainable economic development, is enough to signal a sea change in the global energy arena. But the picture is further complicated by the "Iraq effect" and the global democracy drive, symbolized by the "multicolored" democratic movements in Ukraine, Iraq, Lebanon and Kyrgyzstan. Alongside this trend is the relentless push for globalization and market liberalization.

But there are opposing forces as well, such as the continuing insurgency in Iraq, Iran's defiant nuclear stance and Venezuelan President Hugo Chavez's threats regarding his country's economic and energy engagement with the United States. And in countries such as Nigeria and Ecuador, indigenous groups are rebelling against globalization. At the same time, countries such as China and India have exhibited increased aggressiveness in their quest to secure energy resources. These events are part of the new international dynamic that is creating tensions within and among nations — tensions that may well grow as competition for conventional energy supplies increases.

It is important to remember that the word "democracy," although largely thought of in the political sense, has larger connotations. It encompasses not only political power but issues of equality, self-determination and independence. Even technology can have a place in democratization, if it creates a system that provides the basic services people want and need. Consider, for example, the case of centralized vs. decentralized energy systems. In many areas struggling for democracy, large populations depend on the state for centralized energy supplies. New distributed energy technologies — such as niche technologies of solar, wind, biomass and others — can reduce the government's control of nationalized and centralized power generators and place the services people depend on directly in their own hands. The more energy systems move in this "smart" direction over time, the more likely democracy is to flourish, or at least be less at risk.

It is easy to see democracy's spread as an entirely positive force, but it brings challenges as well. Meanwhile, antidemocracy forces are also at work around the world. In the wake of Sept. 11, 2001, and the U.S.-led war in Iraq, a new reality has emerged in the Middle East. There are individuals, groups and governments that oppose the spread of democracy, the liberalization of markets and the imposition by the West of governments in their own image. In Latin America, countries that have had democratic elections, such as Venezuela, Peru, Ecuador and Bolivia, are shifting away from market forces toward the state and "populist leaders." And Western multinational companies, once unchallenged, are now facing competition from the companies of China, India and other Asian countries; the mix of players driving global markets is coming to a turning point.

Both in Asia and elsewhere, perhaps the most salient question now is: how far will the push toward democracy, free trade and globalization progress given the aggressive competition for energy supplies that lies ahead? Will countries such as China and India, whose major energy companies are predominantly government-owned, heed these rising forces as they seek to acquire resources to meet their burgeoning demand? Or will the backlash from opposing forces create a regression — temporary or permanent — as has happened in some countries?

The democracy movement is especially lively in the countries around the Caspian, south of Russia and west of China. Their location places them in a bridge position between the major producers and major consumers of energy. As a result, these nations are playing an increasing, almost pivotal, role in regional and global stability. They employ authoritarian forms of government but face dual internal pressures — from those who prefer greater democracy as well as from those who favor politicizing Islam and oppose liberalization. For this reason, democracy ultimately could be a destabilizing force in these areas. Currently, the competition for energy supply is economic in nature, but as populations and appetites grow, the strains that result might become political.

The shifting energy center of gravity brings with it a number of questions regarding the drive toward democracy, including:

> Given their need for resources, how will the consuming countries of the East and West respond to governments that are less keen on democracy, and how will they counter the tendency of producer countries to retain greater control of their resources? (Azerbaijan and Kazakhstan serve as cases in point.)

> How will the consuming nations of the West respond to producers that may move in a more democratic direction but still elect governments that are less responsive and accommodating to the West? (Bolivia and Venezuela serve as litmus tests for this question.)

> If the less democratic producers remain so, how will democratic governments react? One clue can be found in the starkly different reaction by the West to the unfair elections in Belarus, which prompted sanctions, and the unfair elections in oil-rich Azerbaijan, which generated only tepid rebukes. An equally revealing question is, why did fair elections in Palestine prompt the West to cease aid to Hamas while undemocratic regimes in some Caspian countries suffer no such consequences?

In a time of $60-a-barrel oil — and in the face of a changing energy landscape roiled by the emergence of China and India — the West will be hard-pressed to continue insisting on a prodemocracy agenda. The conundrum, however, might very well be that certainty of supply depends on stable, democratic governments. How to get from here to there will keep the United States and its allies preoccupied well into this century.

U.S. – China Strategic Relations, Energy Supply and Conservation Policy:
Untapped Opportunities for Cooperation Among Local Government, Industry and Academia

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The United States and the People's Republic of China seem to be natural opponents in current U.S. efforts to help petroleum-rich nations avoid the resource curse.

The Chinese government faces little pressure to address corruption and improve governance in its own foreign aid loans or grants to supplier nations, or to work with the United States and such multilateral lending institutions as the World Bank to leverage aid to clean up these problems. Corruption is the source of many popular protests in China today, with anticorruption campaigns at all levels of government that have even lead to imprisonment of Politburo and other top-level leaders. The state-controlled media, however, have presented only the positive aspects of China's extensive foreign aid, most recently at the Beijing forum of Chinese and African leaders in November 2006. Moreover, even as it grants aid to other developing nations, China is itself one of the largest recipients of World Bank loans. It is unlikely to initiate or support pushing multilateral lending institutions to adopt new measures to address corruption in foreign aid projects if these interfere with its own ability to attract such aid.

China and the United States also may seem to be opponents in efforts to obtain stable, low-cost and diverse supplies of petroleum. China is a permanent member of the United Nations Security Council, the largest developing economy in the World Trade Organization and a participant in many multilateral economic, environmental and health organizations. Yet, because it is not a member of the Organization of Economic Cooperation and Development or its International Energy Agency (IEA), China has few multilateral means to work with other major oil consuming nations to maintain stable, low-cost and diverse supplies for the global economy. Thus far, China has pursued a mixed strategy of adopting some of the mechanisms used by IEA members — gradually building up a strategic petroleum reserve, for example, or participating in temporary coordinated responses to OPEC with other East Asian oil consumers — and directly assisting its national oil companies in bilateral negotiations with major supplier nations in general (Russia and Kazakhstan) and in particular supplier nations positioned as opponents of broader American interests (Venezuela, Sudan, Burma, Libya and Iran). Until China is brought into the international energy security regime, it is likely to continue to pursue this mixed strategy, with continued potential for conflict with the United States and other major consuming nations over energy supply policies.

In the short term, the United States and China may not feel a sense of urgency to resolve these problems. The United States has a much more diverse supply of foreign fuels than does China, and it also has the technology, capital and developed consumer market to support increased production of petroleum and the use of alternative fuels. Beijing may be competing with Washington for bilateral ties to develop foreign sources of petroleum, but thus far it still depends on the U.S. Navy to maintain a free flow of oil in sea lanes in the Middle East and

Southeast Asia. The relatively small amounts of oil produced overseas by China's national oil companies —as in Sudan — have gone to the world market. Moreover, if the Chinese companies — CNPC, Sinopec and CNOOC — continue to privatize through foreign listings and to become new international oil companies, the American consumer could benefit from an increased level of competition among oil providers.

In the long term, however, conflict with the United States over foreign energy supplies could increase if Beijing is not brought into such international energy security regimes and organizations as the International Energy Agency, and if China does not continue to marketize and internationalize its energy industry.

Consider China's thirst for oil. China has 18.3 billion barrels of proven oil reserves as of January 2006. The U.S. Energy Information Administration (EIA) estimates that China's domestic crude production will rise slightly in 2006, to approximately 3.8 million barrels a day (b/d), and that China will consume 7.4 million b/d, a half million b/d increase over 2005. The EIA forecasts that China's increase in oil demand in 2006 will represent 38 percent of the world total increase in demand. As a net oil importer since 1993, China's petroleum industry is focused on meeting domestic demand, which is expected to rise rapidly in the coming decades. China in 2005 became the second largest oil consumer behind the United States, and it is the world's third largest oil importer after the United States and Japan. The International Energy Agency has reported that between 2000 and 2005, China accounted for 27 percent of the growth in world oil demand. In 2005, China consumed 6.6 million b/d of oil, about one-third of the U.S. consumption of 20.8 million b/d, and imported 3 million b/d, about one-quarter of the U.S. level of 13.5 million b/d, according to the agency. Energy experts have estimated that China's oil demand will range from 10 million to 13.6 million b/d by 2020, while Chinese domestic oil production will range from 2.7 million to 4 million b/d. In 2020, the country's oil imports could range between 6 million and 11 million b/d, accounting for 60 percent to 80 percent of China's total domestic consumption.

Now consider that China's thirst for oil is driven largely by the same factor that drives the American thirst for oil: automobiles. According to the World Bank, China is adding more than 7 million new cars each year, and in 2020 it will have some 170 million vehicles on its roads. China's thirst for oil will continue to grow rapidly if local governments and industry invest more in automobiles, highways and airports, and less in transportation using alternative fuels and in more fuel-efficient forms of automobiles.

Unfortunately, China's path to entering the global economy suggests that the key actors driving its energy and economic development policies — local governments and industry — will continue to be pushed by decentralization and privatization to support these forms of transportation in order to develop their dynamic local economies.

Under the ongoing process of acceding to the World Trade Organization, China's economy is becoming more and more marketized, with the privatization of agriculture, service and light manufacturing nearly complete. With the liberalization of national trade and investment policies, foreign joint ventures have come to dominate many economic sectors in China's coastal cities and provinces, and Chinese entrepreneurs and even state-owned enterprises are seeking new markets overseas, particularly in the developing world. At the same time, the Chinese government and Communist Party have restructured themselves, decentralizing most economic planning, fiscal authority and government functions to local Party leaders, with energy supply and conservation policies driven by investments made by local governments. China has no Energy Ministry or equivalent of the U.S. Department of Energy, and most ownership and regulatory authority is held by state enterprises and local governments. Under the current national Five Year Plan for economic development — the 11th such plan — the central government will invest in a few strategic projects, but will largely play a coordinating role in energy policy, using fiscal and investment policy to steer localities toward industrial reorganization and investments to increase energy efficiency and reduce the dependence on foreign sources of fuels.

The Chinese central government is currently trying to centralize control over key energy sectors and their enterprises — the three competing national oil and gas companies of CNPC, Sinopec and CNOOC have been the most autonomous of the central-owned enterprises, backed up by combined profits representing nearly 25 percent of the profits of all central-owned state enterprises — and at the same time use diplomatic policy to support their efforts to compete with multinational oil companies and bring home foreign sources of oil. China's national oil companies are investing in overseas equity oil, shipping, pipelines with neighbors, strategic reserves, exploration technologies, and wholesale and retail distribution networks.

These plans and actions of China's governments and enterprises pose significant challenges for the United States and other oil-consuming nations, but they also present important opportunities for cooperation, particularly in demand-reduction and conservation policies. Even as the United States and other major oil-consuming nations negotiate with the Chinese government to bring it into such multilateral energy security regimes as the IEA in order to stabilize global energy markets, they should leverage the opportunities for international cooperation in demand-reduction measures posed by China's uniquely decentralized transition economy.

China experts in academia, industry and government have long recognized the uniquely decentralized nature of China's planned economy and China's willingness to learn from advanced economies as it integrates into the global economy. Many American universities and industry think tanks have been working since the 1980s to transfer more efficient energy consumption technologies and to assist China's local governments in reducing energy demand.

The China Energy Group at the Lawrence Berkeley National Laboratory, for example, works with Chinese cities to collect and analyze energy consumption using international standards, and also to help them develop an energy information service industry that provides advanced conservation techniques to industrial and household energy consumers. As Chinese cities, particularly in the economically dynamic and yet resource poor Southeast and East regions, compete with localities around the world to attract foreign investment and develop local energy infrastructure, they will become the new global model of urbanization and local economic planning. Many local economic policy advisers and officials have trained at American universities. They also have worked with American energy policy think tanks to exchange information and strategies with energy experts from other oil-consuming nations — for example, at recent Baker Institute for Public Policy workshops on local government and energy policy planning in Northeast Asia. American private research foundations, such as the Energy Foundation and its China Sustainable Energy Program, also are supporting these opportunities to share invaluable comparative research and data.

China's urbanization is proceeding in the interior as well, adding dozens of new cities, each with populations in the millions. Many American localities have responded to this growth by developing sister-city and sister-state relationships with Chinese cities and training their city managers and administrators. The Houston Port Authority, for example, trains the airport managers of many medium-size Chinese cities. These relationships are particularly important opportunities for exploration because in some cases they connect the oil- and coal-producing interior regions of China with American localities that themselves are natural resource bases. As such, they share many of the same problems in sustaining economic growth — for example, depleted oil fields and residual environmental pollution — and in creating the governmental and industry means to resolve these, such as natural resource funds. Here, there are potential opportunities for researchers to conduct comparative studies of local government policies arising from shared histories, and successful measures identified should prove useful for Chinese and American localities, as well as the local governments of current oil supplier nations.

In sum, the United States can work with China and other oil-consuming nations to increase energy security, especially in demand-reduction policies. In particular, the United States should use the numerous and strong ties existing among American and Chinese local governments, industry and academic research institutions.

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Key Characteristics and Causes of the Resource Curse in Algeria

The principal cause of the "resource curse" in Algeria is, very simply, the near total dependence of economic activity and export income on the hydrocarbon sector — oil and natural gas — and the failure of governments to actively move away from this dependence. In Algeria since 1975, for example, hydrocarbons have accounted for 26 percent to 38 percent of the nation's gross domestic product, 54 percent to 63 percent of government revenues and 95 percent to 97 percent of exports. There has been much talk of the need to diversify — the talk began in the 1960s, in fact — but little of note has been accomplished. This lack of progress has been due to institutional failure inside Algeria — that is, weak state institutions characterized by patrimonialism, opacity and unaccountability, inappropriate policy decisions and weak rule of law — as well as to the problematic effects of international involvement.

Institutional failure derives largely from the fact that in Algeria, it is the hydrocarbon sector that keeps incumbents in power — incumbents who are not accountable to the population. It is the hydrocarbon sector that preserves a patrimonial system of clan politics, elaborated by a military-bureaucratic oligarchy that, along with its clients, is the principal beneficiary. It is a vertically fashioned system composed of intricate and overlapping networks of interests, in which some of the most lucrative economic transactions take place in the shadows, and where the principal objective of all players is to increase their access to power and to the hydrocarbon "rent" — the income that accrues to the state as profit from the export of hydrocarbons. This is a system that resists economic reform, since incumbents have no incentive to implement reforms that would necessarily have repercussions on their hold on power.

In Algeria, there is a unique feature related to the resource curse: since 1992, the country has been in civil war. The insurgency has wound down considerably since 2002, but sporadic fighting continues. It is reasonable to consider the civil war to be intimately linked to the hydrocarbon sector, since in a country like Algeria a struggle for power is also a struggle for control over the hydrocarbon rent. (Hence, it is not all that surprising that oil installations have never been targeted by the insurgents.) This rent has been important during the civil war years for several reasons. First, it has provided the regime with the means to combat the insurgency, while the ongoing fighting has provided the regime with the justification for fending off demands for political and economic reforms. The regime claims that the security situation in the country is primary, and only when the insurgency is brought to heel will it be possible to address demands for reform. Second, the hydrocarbon rent has encouraged ongoing support for the Algerian regime on the part of foreign governments, and especially those that have an interest in Algeria's oil wealth and those that perceive an "Islamist threat." France and the United States have been actively supporting the government in its efforts to neutralize the insurgency, largely because they want to continue to exploit the Algerian oil fields. Another reason for international support for the regime is that the insurgents are "Islamists," and so, especially in the post 9/11 environment, the Algerian regime has become an important ally of the U.S. administration. Both governments insist that they have a common enemy.

There have been recent changes in the resource curse experienced by Algeria. In the past five years, there have been important new discoveries of oil and natural gas, and these discoveries have fueled increased foreign interest and activity in the hydrocarbon sector. Moreover, since 1999, oil prices have been rising and the government's total budget revenue has multiplied; in 2001, for example, revenue was double what it had been three years before. However, while Algeria's foreign reserves at the end of 2005 were an impressive $56 billion for a population of 31 million, having increased from $32 billion in 2003, 13 million Algerians — more than 40 percent of the population — reportedly were living below the poverty threshold, on less than $1 per day.

Combating the Resource Curse in Algeria

In Algeria, the hydrocarbon sector, the backbone and principal instrument of state power, has remained above supervision, regulation and accountability. SONATRACH, the state-owned oil company, has never been subjected to the monetary and fiscal controls that are imposed on other companies. Furthermore, reliable information regarding the company's methods of distribution, the amounts distributed and their recipients is unavailable. Although SONATRACH escaped the restructuring measures of the 1980s and early 1990s, there have been, and continue to be, various efforts to reform the company's organization and operational procedures. Given its critical economic and rent-channeling roles, SONATRACH is systematically exploited by different government circles for special interests. And given that the company is entangled with several government ministries, its decision-making powers are hardly independent. (The Minister of Energy retains sweeping powers and all senior managers are presidential appointees; hence, SONATRACH is not an autonomous actor.) Indeed, because of the strategic importance of hydrocarbons, coupled with the fact that the company is the primary vehicle for channeling rents and the principle source for the enrichment of individuals within the country's elite, SONATRACH remains the locus of some of the most virulent political struggles, at the same time as it resists reform. Far more attention needs to be paid to reforming the institutional structure of the hydrocarbon sector and its governance.

In addition, Algeria needs to adopt institutional mechanisms that allow the use of resource rents to achieve competitive diversification of the economy and reduce the risk from over-rapid absorption of rents and from oil price shocks. The suggestion that a natural resource fund be created in which hydrocarbon revenues in excess of budget needs, plus income from investments, are saved for longer-term budgeting is not new: such funds have been tried elsewhere — in Kuwait, Norway and Venezuela, for example — with varying success. Algeria ought to implement this strategy: capture rents, sterilize them in a fund managed by the Central Bank (with the funds to be withdrawn only gradually and after rigorous evaluation) and invest a portion of the funds offshore.

The Algerian government did establish an oil rent stabilization fund, managed by the Central Bank, in 2000. However, it used the funds for debt relief rather than for productive investment. Furthermore, effective implementation of rent stabilization programs presumes that fiscal transparency is assured, but in Algeria such transparency has been absent. Hence, clear objectives, and responsible managerial oversight of the implementation of those objectives, must be established.

Most other necessary structural reforms are largely institutional in nature. Carrying them out is tantamount to an overhaul of the system. At the very heart of the problem is the "nature of rule": the persistence of a military-bureaucratic oligopoly and clan politics that dominate all aspects of political and economic life, and where much takes place in the shadows, on the basis of client networks, and in the absence of regulation and accountability. As noted, the oil-dependent economy is part and parcel of this system of rule insofar as the important rents generated by hydrocarbons finance the oligarchy's incumbency, exacerbate patrimonial and predatory features of the system, and encourage resistance to reform. Many institutional deficiencies, including weak rule of law,

insecure property rights, a warped incentive structure for productive activities and an inept financial system, are derived from and buttressed by the political-economic system: it is these deficiencies that enhance payoffs to the "winners." Transforming institutions effectively is imperative to promote growth, ensure a safe and predictable environment and meet societal needs.

The alliance between the United States and Algeria in the "war on terror" is particularly problematic for encouraging institutional transformation. This alliance and the primacy of the "war on terror" in the U.S. administration's foreign policy concerns allow the United States to turn a blind eye to the pervasive shortcomings in Algeria. Since other efforts to promote reform in nations prone to the resource curse have not seen substantial progress, the participants in the round table have suggested that the U.S. administration and international financial institutions encourage reform by withholding energy sector aid from countries that are plagued by the resource curse but are as yet unwilling to treat corruption and pursue transparency. This would suggest that the United States withdraw its support for the energy sector in Algeria. It may be that a commitment to positive political-economic development and good governance should take precedence over the more elusive (and ideological) war on terror. If energy security is truly a priority for the United States and other donor countries, they will need to carefully consider the potential conflicts with their other foreign policy objectives.

Bolivia's Nationalization of Hydrocarbons and the Resource Curse[1]

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On May 1, 2006, three months after his inauguration, Bolivian President Evo Morales announced the renationalization of the hydrocarbon industry, returning control of the country's oil and gas resources to the state-owned company *Yacimientos Petroliferos Fiscales Bolivianos* (YPFB).[2] After Venezuela, Bolivia possesses the second largest reserves of natural gas in South America —and sends most of its export gas to Brazil and Argentina — yet it continues to be the poorest nation in South America. Groups traditionally excluded from Bolivian political processes have actively advocated for greater citizen input and control over the distribution of revenues from natural resources, but newly appointed government officials and indigenous leaders still lack a solid institutional framework or concrete policy experience to facilitate the attainment of these goals. The United Nations Development Program notes that the narrowly based Bolivian economy "reproduces practices and social and political institutions that impede transformations compatible with the democratization of economic and productive power."[3] The Morales government's ability to successfully manage increased hydrocarbon revenue flows will partially depend on its ability to strengthen weak state institutions. In spite of these challenges, the government's commitment to directly benefit Bolivia's poor majority and to widen the political spectrum, while at the same time consolidating control over its hydrocarbon resources, is a rare dynamic in resource-rich countries. This genuine desire for political reform provides a unique opportunity to contribute to the debate about the use of hydrocarbon revenue and to facilitate dialogue between local communities in hydrocarbon-producing zones and government officials.

Bolivia stands out from most hydrocarbon-rich countries in the developing world because it has a well-developed civil society. Indeed, this civil society was responsible for the election of Evo Morales. Moreover, the current government's base of support rests on indigenous groups and other groups which protested that the previous administrations' oil and gas policies favored foreign companies and Bolivian economic and political elites. It appears that the Morales government will be more responsive to the needs of the population than past administrations have been; furthermore, the government has professed its desire to create a state oil company that is "transparent, efficient, and socially controlled." This mutual interest in good revenue management differs from the situation in most other hydrocarbon-rich developing countries with state-owned oil companies, where international pressure typically has been needed to force the governments to consider transparency and accountability of petroleum revenue.

1 This is part of an ongoing collaborative project, with Erika Weinthal of the Nicholas School of the Environment and Earth Studies, on nationalization in Bolivia.

2 Bolivia's state oil company was created in 1936. Ownership and control of the hydrocarbon sector has oscillated between the state and foreign oil and gas companies. Bolivia was the first Latin American country to nationalize its oil industry, in 1973, when it seized the holdings of Standard Oil of New Jersey, but then renewed its concession policy to foreign companies in the 1950s. In 1969, Bolivia nationalized the holdings of the Gulf Oil Company, but once again reverted to a petroleum policy of foreign-led development in the 1970s.

3 "Informe Sobre Desarrollo Humano en Bolivia: La economía más allá del gas", United Nations Development Programme. August 2005. p. 31 (AIN translation).

Public Demands Fuel Radical Restructuring of Hydrocarbons Policy

Many hydrocarbon-rich countries in the developing world have failed to build strong state institutions. Indeed, state ownership and control often has only reinforced government waste, inefficiency and corruption. In many cases, the reliance on state ownership and control is largely responsible for the poor levels of economic growth, large public debt, low levels of human development, income inequality, poor governance, resource wastefulness and the lack of strong state institutions. Unlike in other hydrocarbon-rich nations, Bolivian citizens have increasingly pressured for a greater share of revenues to remain within the country and for a more equitable and transparent distribution of the revenues.

In fact, wide-ranging popular rejection of the privatization of the hydrocarbon industry and opposition to the operation of foreign companies in the country led to the rapid succession of four presidents in four years (2002-2006). In September and October of 2003, widespread protests took place against the government's lack of transparent hydrocarbons policy that was seen as favoring foreign oil and gas companies and national political elites over the bulk of the population. What is now referred to as "The Gas War" of 2003 resulted in the resignation of President Gonzalo Sánchez de Lozada along with the deaths of approximately 60 civilians. Although the Bolivian Congress passed new legislation granting a 32 percent increase in hydrocarbon revenue for the nation during the tenure of his successor, Carlos Mesa, an array of unions, indigenous groups and other social sectors viewed these changes as superficial and demanded and obtained his resignation.

Evo Morales won the early election in December 2005 with an unprecedented 54 percent of the vote. His platform called for the recovery of the nation's natural resources to benefit its citizens and for a broad-based program to extend basic health care and education to all Bolivians. One of his first actions was to pass an austerity decree that lowered his salary to $22,500 dollars a year, stipulated that no government employee could earn more than he did and eliminated bonuses for high-ranking officials. The resulting savings have been invested in education, health care and other basic services. The administration has made concrete improvements in health and education infrastructure and provided salary raises to employees in these sectors. Cuban and Venezuelan support for some of these projects has provoked criticism from the United States and the Bolivian political opposition, but the initiatives have been well received by their low-income beneficiaries. Other international donors, including the United States, continue to contribute in these areas as well.

The May 2006 decree to recover the nation's gas and oil resources through a modified nationalization process is regarded as a first step in responding to the demands of social groups for a greater share of Bolivia's natural resource wealth. The Morales government successfully pushed the foreign oil and gas companies to renegotiate their contracts, which had stipulated that 18 percent of revenues would remain in Bolivia; the current policy increases the percentage of these revenues to between 50 and 82 percent depending on the field. Major investors, including Petrobras and Repsol, signed new contracts by the Nov. 1, 2006, deadline set by the nationalization decree. Subsequently, 44 contracts were submitted and approved by both houses of Bolivia's Congress.

The U.S. government and some U.S. corporations objected to the renegotiation, expressing concerns about the stability of a government that unilaterally abrogates existing contracts and thus creates an unfriendly investment climate. However, proponents of renegotiation considered the contracts signed under previous administrations illegal, as they were never ratified by the legislature, in violation of the nation's constitution. (In early 2007, the Bolivian Congress continued to debate the possibility of "accountability trials" for ex-presidents that allowed this practice.) Proponents also argued that there had been no transparent reporting on foreign investments required as part of the previous privatization process. Morales's surprise decision to announce nationalization a month early and use the armed forces to take over all hydrocarbons installations was portrayed as a

dictatorial tactic in the international press. This measure, though, was prompted by an effort to obtain access to accounting information and permit much-needed audits and inventories.

The Morales administration recognizes the need to improve the technical capacity and infrastructure of its state-owned company, YPFB, and has sought and obtained international aid to carry out this initiative. Venezuela has provided much of this economic and technical support, a move that has been criticized by the U.S. administration, but Bolivian officials have also sought assistance from the Norwegian government and from nongovernmental organizations.

Successful Implementation of "Nationalization" Faces Multiple Challenges

The move toward increased centralization of the petroleum sector is taking place at the same time that the Bolivians are developing a new constitution and discussing decentralization of hydrocarbons administration. Bolivian voters elected 255 delegates to a year long Constituent Assembly that convened on August 6, 2006. The demand for a new constitution began in 1990 with pressure from indigenous groups in the eastern part of the country, including many hydrocarbon-producing regions. Since that time, indigenous and other grassroots groups have been at the forefront in the push for greater participation in the political process, especially regarding the use and distribution of land and natural resources and the allocation of state revenues. In a regional autonomy referendum in July 2006, half of the hydrocarbon-producing departments (the equivalent of U.S. states) also voted for greater decentralization and administration of natural resources. Debate in the conflict-ridden Constituent Assembly should define the nature and degree of this process.

Systemic corruption has traditionally corroded all levels of Bolivia's state institutions and hydrocarbon concessions. These deeply entrenched patterns of interaction could ultimately result in many of the same problems that have plagued other resource-rich countries with weak institutions. The Morales government's stated goal of transparency and its zero tolerance for corruption campaign has led to the firing or forced resignation of implicated officials, including the director of YPFB, Pedro Alvarado. The administration will require international support to make inroads in this area.

Significant policy reform within the framework of hydrocarbon "nationalization" is essential to sustaining this process, but polarized regional interests have presented considerable impediments to the development of a hydrocarbons policy. Existing legislation stipulates that a percentage of hydrocarbons revenues go to producing departments, yet traditionally the governments in these departments have not equitably distributed or efficiently applied these funds. Prefects, or governors, in three of the four producing departments come from opposition parties that have sought to actively block Morales administrative initiatives. In turn, the Morales administration proposed a bill in November 2006 to create accountability for prefecture governments to ensure transparent spending of hydrocarbon revenues and other national funds. Six of nine prefects and elites in hydrocarbon-rich regions rejected the initiative and have stated that they will not comply with its terms. Antagonistic relations between the national government and these prefects present additional obstacles to policy reform.

For example, in the Chaco region of the Tarija Department, the largest gas-producing region in the nation, indigenous groups have been consistently excluded from political processes at the same time that they suffer the negative environmental impact of exploration and exploitation. These impoverished communities do not have direct representatives in the Morales administration or in any other formal political group, nor do they have a clear means to influence decision making in the departmental governments currently in charge of the distribution of part of hydrocarbons revenue. In the recent referendum on regional autonomy, Tarija voted for greater

departmental control over natural resources and revenues. New departmental mechanisms for revenue distribution and management will be defined in the Constituent Assembly; indigenous groups in the region continue to advocate for the separation of their hydrocarbon-rich territory into an independent department. Although this area contains the most intense hydrocarbon exploitation, its distance from La Paz, the administrative capital, and less direct involvement in national politics limit the access of its residents to government officials and policymakers. It is essential that these residents develop strategic nonconfrontational means to articulate their interests to their elected representatives and capitalize on existing union relationships to contribute to the development of transparent policies to benefit their members.

Indigenous groups in Bolivia have a long history of activism in highly sensitive issues such as gas and water concessions, coca growing and human rights. These communities will seek to be actively engaged in developing institutional mechanisms for oversight and distribution of hydrocarbon revenues. Already in the hydrocarbon sector, representatives of different Bolivian indigenous groups have elaborated a series of demands for a greater voice and oversight in the distribution of hydrocarbon revenues. Building and strengthening institutional links among local governments and indigenous groups might ensure that revenue is spent wisely to promote economic development and social welfare policies and not result in wasteful spending that promotes administrative popularity. Dialogue between the government and nonstate actors, along with local oversight to determine the best use of petroleum revenue, is essential to enhance the institutional capacity of the state. Although these groups currently have greater access to indigenous leaders, they still lack effective mechanisms, short of direct protests, to articulate strategically their demands and pressure more sympathetic state bodies to manage hydrocarbon revenues responsibly and transparently.

Likewise, new Bolivian government institutions and actors would greatly benefit from concrete strategies to enhance transparency efforts to heighten their legitimacy with their constituency and facilitate the implementation of their stated policy goals. Owing to the current political reform under way in Bolivia, with the Constitutional Assembly and Autonomy Referendum, this nation presents a unique opportunity to explore how local groups and communities in a weak state can create institutionalized mechanisms for improving transparency and accountability of hydrocarbon revenue flows within the framework of regional autonomy.

In short, Bolivia is working to credibly implement strategies to avoid the resource curse. The government has taken concrete steps to fight corruption and implement transparency mechanisms. Although the Morales administration faces opposition from regional and traditional party elites, along with various other challenges, it has proved responsive and attentive to the demands of the country's poor majority. Bolivian civil society has demanded and obtained greater government accountability in hydrocarbons management. In spite of its initial rejection of the nationalization process, the United States has a unique opportunity to reinforce these initiatives and help promote them by providing technical and financial assistance, as well as aid to build administrative capacity, strengthen institutions and develop technical skills in an effort to promote greater financial transparency, improve accountability and reduce corruption.

The Resource Curse in the Caspian Region:
Azerbaijan and Kazakhstan as Case Studies

By Kate Watters
Co-Founder and Executive Director, Crude Accountability

Azerbaijan and Kazakhstan both have economies that depend heavily on oil and gas extraction and development — that is, revenue generation, gross domestic product and exports all derive primarily from oil and gas. In Azerbaijan, oil and gas earnings make up approximately 50 percent of government revenues, and 70 percent of exports are oil- and gas-related. Yet in 2002, only 1 percent of employment was in the oil sector. According to the International Monetary Fund, 45 percent of the population lives below the poverty level[1]. The figures for Kazakhstan are similar: in 2005, oil revenues accounted for approximately 30 percent of government revenues and 50 percent of exports.[2]

Following the dissolution of the Soviet Union, Azerbaijan and Kazakhstan, like most former Soviet republics, fell into a period of economic and social chaos. Living standards fell dramatically and their social safety nets virtually disappeared.

Both Azerbaijan and Kazakhstan began negotiating oil and gas contracts with transnational corporations early in the 1990s, and over the next decade hydrocarbon development became a key component of economic development in both countries. Their substantial petroleum reserves have been exploited by Western oil companies, in partnership with national oil companies. But while windfall profits from these ventures have begun to fill the coffers of the governments, average citizens continue to live in poverty.

According to Transparency International, which ranks the perception of corruption of 163 governments around the world, Kazakhstan and Azerbaijan ranked 111 and 130, respectively.[3] Expectations for oil wealth among the population were initially high, but with the lack of transparency regarding petroleum revenue, such expectations have been replaced by cynicism, apathy and distrust. This distrust extends not only to government entities, but also to international finance institutions and foreign oil companies.

The governments together with the state oil companies have created a system with no transparency or accountability for oil revenues within the countries and with little opportunity for impacted communities to have input on energy development. Oil revenues primarily go to state-owned and international oil companies. Government oversight as to how revenues are distributed and used within the country is virtually nonexistent. Since the late 1960s, production sharing agreements are the contract of choice for foreign operations in

1 http://www.eia.doe.gov/emeu/cabs/Azerbaijan/Background.html
2 http://www.eia.doe.gov/emeu/cabs/Kazakhstan/Background.html
3 (http://www.transparency.org/news_room/in_focus/cpi_2006/cpi_table)

developing countries where there are substantial political or economic uncertainties. Foreign companies lock in their fiscal burden to the host country so they are not subject to normal taxation and its potential fluctuations. These agreements are proprietary, meaning that there is limited public disclosure of their terms. The result is that agreements negotiated between international oil companies and governments can supersede national law in both Azerbaijan and Kazakhstan.

The local populations are largely unaware of the environmental, social and health components of the oil contracts, as they are often excluded from meaningful discussion on impacts of oil and gas development. This occur despite the fact that Azerbaijan and Kazakhstan have signed the Aarhus Convention, which gives citizens the right to be informed of and participate in environmentally significant decision-making processes.[5] Unfortunately, both countries have remained quite authoritarian in the post-Soviet period. Both President Ilham Aliev in Azerbaijan and President Nazarbaev in Kazakhstan were elected (and Nazarbaev re-elected) in elections whose legitimacy was questioned by numerous international observers. Citizens are excluded from much of the political process in both countries and nongovernmental organizations (NGOs) experience numerous restraints on their activity.

The influx of large amounts of foreign investment has changed the nature of the local economies. Such investments focus mainly on supporting the oil industry, to the detriment of traditional economies, which are collapsing. The quality of life in many communities near oil and gas fields has significantly degraded since these projects have begun. Traditional economies based on agriculture and animal husbandry have been replaced by economies based on resource extraction, and these new economies have failed to provide long-term, stable employment for the majority of residents. Social problems have accompanied the influx of international workers in many traditional communities, destroying the local fabric of life and bringing disease, alcoholism, drug use and other vices. For example, Aksai, located in Western Kazakhstan Oblast, has been transformed from a small village to a small city filled with casinos, bars and an expensive hotel for oil executives. Numerous incidents of workers' protests have taken place, illustrating the growing discontent with severe economic inequalities between local and foreign salaries and working conditions.[5] A recent study by the CEE Bankwatch Network and Gender Action pointed to serious social and health problems among women living along the Baku-Tbilisi-Ceyhan pipeline in Azerbaijan.[6]

Serious environmental problems, including air, water and soil pollution, have accompanied many oil and gas projects. The high sulfur content of the oil extracted from many of the fields in western Kazakhstan increases the environmental problems, as the sulfur must be removed prior to transport. Additionally, much of the gas is flared at these fields, causing concerns among local residents about toxic exposure. Although international corporations claim to abide by national laws and use the most environmentally friendly technology available, local accounts of continuous flaring at many of these fields remains a cause for concern. According to the Western Kazakhstan Oblast environmental authorities, hundreds of thousands of tons of toxic airborne pollutants have been emitted into the air from the largest fields in the region, exceeding the legal limits every year for the past four years.[7] Additionally, the regional environmental authorities have reported illegal dumping of toxins into waterways and illegal storage of toxic waste on the oil fields[8].

Efforts to Combat the Resource Curse

Efforts to combat the resource curse exist both internally and externally, with varied degrees of success. Both nations have developed oil funds and also participate in the Extractive Industries Transparency Initiative, a program developed by the British government and other countries in conjunction with a number of

international nongovernmental organizations. The program is active in both nations, with participation from government, business and NGO representatives.

State Oil Funds and International Oversight

Both Azerbaijan and Kazakhstan have created state oil funds as a repository for oil revenues. International oversight through the Extractive Industries Transparency Initiative and Publish What You Pay coalitions has improved transparency, as their efforts have targeted revenue flows into the funds from foreign oil and gas companies. The Azerbaijan Oil Fund (SOFAZ) has provided the first audited report of revenues received, and this action represents an important step in increasing transparency. However, once the money goes into the state budget, there is virtually no oversight. Oil fund revenues are used at the discretion of the nations' presidents. Without parliamentary or citizen oversight of the funds, the risk of funds misuse is significant. Modeling these funds more closely on the Norwegian or Alaskan models, which have either citizen or parliamentary oversight, would greatly improve their legitimacy.

Although the Azerbaijan Oil Fund is supposed to fight poverty and build housing for refugees and internally displaced persons from the Nagorno-Karabakh War, little money has gone to these purposes, and what little refugee housing has been built fails to provide for basic needs. In July 2006, this author witnessed new refugee housing that lacked indoor plumbing, heat, gas for cooking, telephone service or running water. Additionally, the village lacked proper medical facilities, school supplies and jobs. Kenan Aliyev, a reporter for Radio Free Europe/Radio Liberty's Azerbaijani service, has stated, "According to figures provided by the Oil Fund, it took in roughly $412.3 million in revenue during the first half of 2006, and spent about $288.4 million during the same period. Of expenditures, approximately $29.8 million — or just over 10 percent — was allocated on development projects, including housing construction. Over $207 million was transferred to the state budget, with no further information provided. The bulk of the remainder went to financing Azerbaijan's share of the debt for Baku-Tbilisi-Ceyhan pipeline construction."

NGO Involvement

Local and international NGOs are working to hold corporations and governments accountable, with some limited success. For example, the residents of Berezovka, Kazakhstan, alarmed by local deteriorating environment conditions, are seeking relocation and compensation. They have successfully engaged parliamentarians and the Ministries of Health and Environment and have reached out to the International Finance Corporation about their concerns. In Azerbaijan, NGOs have succeeded in increasing the level of transparency regarding development of the Baku-Tbilisi-Ceyhan pipeline. In addition, international NGOs are working in partnership with local activists in both Kazakhstan and Azerbaijan. They seek not only corporate

4 The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (commonly called the Aarhus Convention) was signed in Aarhus, Denmark, on June 25, 1998. It came into force in October 2001 in both Azerbaijan and Kazakhstan. For more information, see Tatiana Zaharchenko and Gretta Goldenman, "Accountability in Governance: The Challenge of Implementing the Aarhus Convention in Eastern Europe and Central Asia," International Environmental Agreements: Politics, Law and Economics 0: 1-24, 2004, 2004 Kluwer Academic Publishers.

5 Eurasianet insight: http://www.eurasianet.org/departments/insight/articles/eav112106.shtml

6 Bacheva, Fidanka, Manana Kochladze and Suzanna Dennis, "Boomtime Blues: Big Oil's Gender Impacts in Azerbaijan, Georgia and Sakhalin," CEE Bankwatch Network and Gender Action, September 2006.

accountability, but also responsible investment by international financial institutions such as the World Bank and the European Bank for Reconstruction and Development (EBRD). Both institutions have responded with substantial investments in energy development in the region.

Participation of NGOs, corporations, government officials and international institutions in the Extractive Industries Transparency Initiative and Publish What You Pay coalitions has resulted in greater transparency, and, perhaps more importantly, greater expectations for transparency and accountability among all parties. The Azerbaijan Oil Fund is the first in the world to submit an audited report of its activities. Local NGOs in both Azerbaijan and Kazakhstan are working with international partners on transparency, fiscal responsibility, environmental and social improvements and a host of other oil- and gas-related issues.

International Financial Institution Involvement

World Bank and EBRD-funded projects are subject to International Financial Institution(IFI) regulations. The existing mechanisms within the World Bank and EBRD, such as the International Finance Corporation's Office of the Compliance Advisor Ombudsman, provide some measure of control. However, these mechanisms are weak, and none of the complaints brought by local NGOs against regional projects has resulted in substantial positive change for local communities or resolution of the existing problems. If IFI regulations would address environmental and social concerns from the outset — by urging national and international compliance with existing national right to know and environmental laws — it will help to create more sustainable projects. In addition, requiring environmental and social impact assessments and public hearings before the onset of projects could better set groundwork for stable investments. Using the financial incentive of new projects to encourage national governments to enforce their own laws could be a crucial approach for strengthening oversight and improving some of the detrimental aspects of the resource curse.

IFI funding to both Azerbaijan and Kazakhstan is overly focused on resource extraction projects, and this situation contributes to the resource curse as other industries fail to develop. According to a recent study by the nongovernmental Bank Information Center, IFI funding for oil and gas projects represents 57 percent of its overall lending.[9] The International Finance Corporation's oil and gas portfolio represents 90 percent of its lending to Azerbaijan, and the EBRD's portfolio represents 66 percent .[10] The World Bank, whose mission is to promote economic development in order to alleviate poverty, could greatly benefit Azerbaijan and Kazakhstan by providing broader support for projects focused on improved social infrastructure, education and microfinance.

At Kashagan, in Kazakhstan, off-shore operations are just beginning, so international companies, the IFI and host governments have an opportunity to avoid the problems of the other ventures. Serious environmental assessments have yet to be done regarding potential impacts on the local communities; the public has not yet been adequately engaged in discussion about the plans for an oil and gas processing plant near Atyrau; and

7 Zlobina, Alla, "Environmental Dregs," Uralsk Weekly, April 7, 2005. http://www.crudeaccountability.org/eng/headlines/kpress/uralskweekly_03.htm.
8 Ibid.

threats to the endangered beluga sturgeon and other species endemic to the North Caspian by development at Kashagan have not been resolved.

In Conclusion

The United States is rightly concerned about the stability and democratic governance of nations that supply much of the world's oil. While the U.S. government can have limited direct impact on sovereign nations and private industry, it can use its diplomatic leverage to work against corruption and work with international financial institutions to push for transparency and governance efforts as a prerequisite for financing of energy projects. By joining the Extractive Industries Transparency Initiative and building state oil funds, these countries have started a process that can be greatly improved with the right incentives and support.

As the Kashagan field begins development, efforts should be focused on tying international funding to improved accountability. New avenues should be developed for local communities and nongovernmental organizations to provide oversight and comments to international financial institutions, international corporations and the Kazakhstan national government as the project develops. Greater stability and reduced domestic discontent would result if citizens and NGOs have an opportunity to address social, economic and environmental concerns.

9 Mainhardt-Gibbs, Heike, "Azerbaijan's Continued Struggle with Poverty and Oil Dependence: Concerns surrounding a Decade of IFI Lending," Bank Information Center Discussion Paper, August 2006.

10 Ibid.

Conclusion: U.S. Energy Security and the Resource Curse

By Erika Weinthal
Associate Professor, Nicholas School of the Environment and Earth Sciences, Duke University

Although the United States has been a net importer of oil for almost a decade, not since the oil embargoes of the 1970s has this "addiction" to foreign oil elicited such immense concern in policymaking circles over the substantial amounts of petroleum imports from countries increasingly hostile to American national interests. Currently, the United States imports approximately 60 percent of its oil, of which a large share comes from its neighbors — Canada and Mexico — and from Saudi Arabia, Venezuela, Nigeria, Iraq, Algeria, Angola and Russia. Other minor suppliers include the Persian Gulf countries — Kuwait, Qatar and the United Arab Emirates — and Ecuador and Colombia in Latin America. Table 1 provides a breakdown of the percentage of oil imports from the different supplier nations in 2005.

Table 1. 2005 U.S. Crude Oil Imports from Top 15 Supply Countries [1]

Country	Daily Average, Thousand Barrels	Annual Average, Thousand Barrels	Percent contribution to US crude oil imports**
Canada	1,633	596,183	16.11
Mexico	1,556	567,955	15.35
Saudi Arabia	1,445	527,287	14.25
Venezuela	1,241	452,914	12.24
Nigeria	1,077	393,038	10.62
Angola	456	166,404	4.5
Iraq	527	192,524	5.2
Algeria	228	83,359	2.25
Ecuador	276	100,730	2.72
Kuwait	227	82,730	2.24
Brazil	94	34,459	0.93
Colombia	156	57,002	1.54
Oman	22	8,102	0.22
Norway	119	43,454	1.17
Chad	74	26,948	0.73
Total	9,131	3,333,089	90.07

**Of the total quantity of crude oil imported to the United States, these top 15 countries make up 90 percent

Yet as the United States' thirst for oil continues to swell and the dream of achieving energy independence

1 http://tonto.eia.doe.gov/dnav/pet/pet_move_impcus_a2_nus_epc0_im0_mbbl_a.htm & http://www.eia.doe.gov/pub/oil_gas/petroleum/data_publications/company_level_imports/current/import.html

fades, competition with other major consuming nations for newly discovered supplies in the Caspian Basin and the Gulf of Guinea is mounting. In particular, the world's fast growing economies in Asia — China and India — are fervently expanding their search for additional oil supplies to meet growing domestic demand. With new supplies imminently coming on line in the Caspian Basin, Joseph Stanislaw astutely argues that the current geography of global energy markets will be transformed in the 21st century into a new Saudi Caspian Siberian Canadian Corridor of supply in which the United States will have to compete aggressively for access to these coveted supplies.

Another dynamic of the new geography of global energy markets is that an increasing number of countries that supply petroleum to the United States have economic and political interests that do not align with those of the United States. As a result, the United States' petroleum supply is increasingly susceptible to internal disturbances and shifting alliances within these supplier nations. In particular, access to potential petroleum reserves in Sudan are hampered by the United States' commitment to a resolution to the conflict in Darfur. Yet the United States' concern over Darfur has not prevented Sudan from sending two-thirds of its oil exports to China. Further, it is becoming more apparent that political and economic instability in supplier nations is having a profound effect on the security of the United States' energy supply. That nearly half of all oil exports from Nigeria end up in U.S. domestic pumps makes American consumers susceptible to the frequent violence in the Niger Delta, where production has periodically come to a standstill and culminated in a sharp spike in oil prices thousands of miles away. Similarly, there is good reason to be concerned about the turbulent political situation in Venezuela and its potential effects on U.S. domestic oil prices and supply, given that Venezuelan oil comprises more than 10 percent of oil imports.

What has often been overlooked by American consumers and policymakers is that a large number of supplier nations to the United States are prone to political and social instability and have closed markets, weak institutional capacities and/or authoritarian or weak democratic regimes. In particular, many of the major oil- and gas-producing suppliers — among them, Venezuela, Nigeria, Angola and Iraq — rank poorly according to indicators that measure government effectiveness, political instability and corruption.[2] The United States, in effect, receives a significant amount of its petroleum supply from countries that have either experienced or are susceptible to negative political and economic effects associated with what is widely referred to as "the resource curse."

Yet the prevalence of the resource curse in petroleum-rich states has not gone completely unnoticed by scholars and policymakers over the past decade. Numerous studies have sought to offer concrete proposals for how countries can avoid or overcome the negative consequences of petroleum wealth.[3] Conventional solutions have focused primarily on fiscal and monetary policy, economic diversification, natural resource funds and transparency initiatives. During the Nicholas Institute's round table, we sought to narrow our policy recommendations to those that would be most relevant for enhancing U.S. energy security broadly and, as a result, prioritize where the United States could best leverage its foreign policy clout and aid abroad. Thus, while we limited the scope of our recommendations to the issues of governance and corruption, we recognized that implementing the recommendations would entail balancing American foreign and energy policy concerns with the respect for domestic sovereignty within supplier nations.

2 For details, see the World Bank's Governance Research Indicators and Transparency International's Corruption Perception Index.

3 For a detailed overview of these solutions, see Erika Weinthal and Pauline Jones Luong. 2006. Combating the Resource Curse. Perspectives on Politics 4 (1): 35-53.

Why corruption and governance? To be sure, these are age-old challenges, the effects of which are felt widely in developing countries beyond the energy sector. No single formula or approach has emerged capable of tackling the formidable governance issues. That said, given the global commodity trade and the rising price of a barrel of oil, a particular focus on the energy sector is timely. First, studies have consistently found that oil wealth is highly correlated with corruption in supplier nations, which is indicative of broader governance failures.[4] More so, the pervasiveness of corruption suggests that leaders have repeatedly mismanaged their revenue streams for personal gain rather than investing in productive activity and the social welfare of their people. Simply put, ubiquitous corruption can undermine the economic well-being of a country. That oil resources are often controlled by state oil companies, over which little oversight exists, exacerbates the pathologies of resource wealth since the revenue is concentrated within the state and can be siphoned off to support short-term political interests. Miriam Lowi's description of SONATRACH, the state-owned oil company in Algeria, illustrates this point since it has never been subjected to financial oversight, as is common practice in private oil companies. The lack of government accountability, moreover, encourages large public-works projects (i.e., white elephants) that are notorious for their inability to generate long-term economic growth.

Second, many of the most promising solutions promoted today still fail to address adequately the weakness of domestic institutions that have been linked to poor governance and corruption.[5] While natural resource funds, for example, are touted as highly promising for sterilizing government budgets from supra extraordinary windfalls, especially when the price of oil hovers around $60 a barrel, the few such funds that have worked best are in long-standing democracies where oversight and accountability mechanisms are already in place, such as in the United States, Canada and Norway. Rather, Venezuela provides a vivid illustration of the problems associated with introducing a fund in the absence of strong institutional capacity. Here, owing to tremendous political pressure for redistribution of wealth compounded by the lack of oversight over presidential discretion, even a democratically elected government has raided the fund periodically to support its special policies. Kate Watters' analysis of Azerbaijan and Kazakhstan, moreover, cautions against expecting that authoritarian governments with strong presidents and nascent civil societies will manage their funds better unless improvements are made in citizen oversight.

Other initiatives favored by the international community to reduce corruption and enhance transparency and governance include the Extractive Industries Transparency Initiative and the Publish What You Pay coalitions. Yet, these initiatives have largely targeted the foreign oil and gas companies to force them to declare their revenue payments to national governments. Although this is an important step in encouraging greater transparency in the petroleum industry, the effectiveness of these programs is hurt by lingering corruption within the states. Once the revenue enters state coffers, without strong institutions for oversight and accountability, there are no assurances that the revenue will be used wisely, especially if a leader's legitimacy and authority rests on the ability to distribute revenue as political patronage or, worse, to use it to repress potential opposition within society.

Thus, in the end what guidance might we offer from the case studies undertaken as part of this report for assisting U.S. policymakers to leverage American political standing to address corruption and foster greater transparency? First, the most effective way to ensure that petroleum revenue is managed in a transparent manner is to promote a robust civil society. Yet many local nongovernmental organizations (NGOs) fear repercussions if they were to challenge the patronage of state oil companies. The United States, therefore, must not waiver in its support for the development of civil society within supplier nations, as such societies can

4 For example, see Leite, Carlos and Jens Weidman. July 1999. Does Mother Nature Corrupt? Natural Resources, Corruption, and Economic Growth. IMF Working Paper 99/85.

5 Weinthal and Luong (2006).

provide a credible oversight mechanism or counterweight to ensure that petroleum revenue is not misallocated. Azerbaijan, once again, shows the limitations of American policy to date. The United States has consistently overlooked suppression of the opposition in Azerbaijan, especially prior to the October 2005 parliamentary elections, which international observers widely criticized as not being truly free.

Second, the United States must be aware of its limitations in trying to promote transparency and better governance. The best chances for the United States to leverage assistance effectively is to target countries that have publicly committed to reforms that encourage transparency and public oversight. Countries that have guaranteed NGOs and members of civil society institutional safeguards such as freedom of assembly and speech will be most responsive to initiatives that link aid to fight corruption and improve governance. In countries that have allowed NGOs to operate freely, the United States should broaden the scope of its assistance to judicial reform and private-sector development. Private ownership, in particular, denies state bureaucrats easy access to petroleum revenues for personal gain.

Lastly, the United States should look for and target key opportunities that may arise. As Steven Lewis warns, it may not be easy to garner the international support necessary to promote anticorruption efforts consistently across nations, but at a minimum the United States should take advantage of opportunities that may arise to help countries that have committed to combating the resource curse. Kathryn Ledebur's analysis of Bolivia, in particular, suggests that the recent democratic election of the Morales government should not go unnoticed. Despite reasserting state control over the petroleum industry, the government has embraced reforms for expanding transparency and accountability within the industry. Here might be a classic case where promoting a robust civil society could yield abundant rewards, given that democratic countries motivated by informed and active citizens are best endowed to use their petroleum revenue for promoting social welfare[6].

In so doing, American policymakers should avail themselves of the rich array of private-sector talent and initiatives already under way. Many universities, nongovernmental organizations, trade associations and companies have sponsored exchanges and other programs that not only promise improved energy policy but in the best of circumstances can help strengthen civil society.

Though we focus here on anticorruption and improved governance, it should be noted that whatever credibility, leverage or influence the United States can bring to bear on these issues is undermined by the nation's growing reliance on imported oil. Every participant in the Nicholas Institute round table quickly came to conclude that one of the most important steps the United States can take is to reduce this reliance through investments in new fuels and more efficient vehicles.

6 Michael L. Ross. 2001. *Extractive Sectors and the Poor: An Oxfam America Report*. Boston, MA: Oxfam America.

Notes

Notes

the Nicholas Institute

The Nicholas Institute for Environmental Policy Solutions at Duke University is a nonpartisan institute founded in 2005 to engage with decision makers in government, the private sector and the nonprofit community to develop innovative proposals that address critical environmental challenges. The Institute seeks to act as an "honest broker" in policy debates by fostering open, ongoing dialogue between stakeholders on all sides of the issues and by providing decision makers with timely and trustworthy policy-relevant analysis based on academic research. The Institute, working in conjunction with the Nicholas School of the Environment and Earth Sciences, leverages the broad expertise of Duke University as well as public and private partners nationwide.

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