

REPORT ON THE WORKSHOP ON ENERGY SECURITY:
ARABIAN GULF OIL, INTERNATIONAL SECURITY, AND AMERICAN
STRATEGY

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Introduction

The Workshop on Energy Security took place at Cornell University on 10-11 November 2006. Duane Chapman organized the workshop with assistance from Matthew Evangelista, Neha Khanna, Judith Reppy, and Isaiah Wilson, III. Funding for the workshop was provided by the Peace Studies Program and a grant from the Einaudi Center for International Studies. Elaine Scott and Sandra Kisner of the Peace Studies Program provided the essential staff support that made the workshop possible. A list of the participants and the workshop schedule are attached.

Too often, deliberations on energy policy take place divorced from their implications for national and international security, and the converse is also true: discussions of national security strategy, while recognizing the importance of energy supplies, do not engage with the community of energy experts. Our goal for the workshop was to promote discussion among a group of experts from different backgrounds of the complex set of issues at the nexus of energy policy, international security, and regional policy for the Arabian Gulf. The focus was on U.S. policy options, tempered by the recognition that there are many other players in the region whose interests must be considered. This report does not attempt to summarize the entire discussion, but rather to outline the main issues that were raised and the connections between them.

The Importance of Gulf Oil Resources

Guy Caruso presented data from the Energy Information Administration (EIA) showing that oil is the largest single source of the energy used in the world today (38%), and is expected to remain dominant for at least the next 25 years, although its share will decrease with the expected increase in China's use of its coal. Natural gas and coal are

currently the other major energy sources (24% each). Historically the introduction of oil-fueled engines provided the first truly mobile source of energy, and the transportation sector remains the most important user of oil products today. In this use there are no significant substitutes, so the demand for oil is relatively price-inelastic. Caruso noted that fuel costs are actually declining as a percent of the total cost of mobility because the other costs—automobiles, insurance, maintenance—have increased at a higher rate than fuel.

Higher oil prices do encourage shifts in demand in non-transportation uses, as well as increased oil prospecting and the production of oil from unconventional sources, such as oil sands or coal. To date such responses have succeeded in discovering additional oil resources, so that the estimated date by which oil production will peak (“peak oil”) is continually receding into the future. If sustained, higher prices should also lead to substitution in investment decisions in the transportation sector, for example, a shift to more fuel-efficient automobiles or public transportation.

The Middle East holds 58% of the world’s oil reserves and 42% of natural gas reserves. It is also the top oil-producing region in the world. At present most of the oil production in the region is controlled by national oil companies, companies that, however, have close links with the large multinational oil companies and rely on them for technical support. Production costs for oil in the Middle East are substantially lower than in other parts of the world so that profits are high. When oil prices rise, the local suppliers earn high rents and the imputed value of the oil in the ground increases proportionately.

Future growth in world demand for energy will be dominated by demand from non-OECD countries, especially China and India. Note that the EIA’s estimates of future demand are based on expected rates of economic growth and levels of energy intensity with no change from current policies. As a result of the increased demand from economic growth, world excess capacity in oil production will diminish—indeed it has already fallen to less than half the level of the 1990s so that the ability of the Gulf producers to moderate any future crisis is in doubt.

Muawia Barazangi discussed the geologic conditions that made possible the huge oil deposits in the Arabian/Persian Gulf region. There are about 30 super-giant oil fields in the Middle East (a super-giant field is one with more than 5 billion barrels of recoverable/proven oil reserves) and about 80 giant oil fields (a giant oil field has between 0.5 -5 billion barrels of proven reserves). For example, the Rumaila super-giant oil field (discovered in 1953 and located mostly in southern Iraq and partially in northern Kuwait) has more proven reserves than the total of all United States reserves, including the Gulf of Mexico and Alaska. He emphasized that the date for “peak oil” is far in the future, at least 50 years and possibly 100 years. We can expect to find additional oil deposits: there is geologic evidence to suggest that there is “another Middle East in the Middle East” (i.e., the potential of the Paleozoic play); a possibility of major oil discoveries in Siberia and north Russia (though logistically and politically difficult); and finally the future of exploration along most continental margins (such as what is happening in the Gulf of Mexico and some parts offshore West Africa), in deep water (though very expensive), and oil from “oil sands” of Canada (though both expensive and environmentally unfriendly).

Barazangi emphasized that to have oil available as a major source of energy for about the next 100 years, we must do the following: 1) undertake considerable more exploration; 2) develop techniques for more oil recovery, from the present 25 -30% to as much as 50%; 3) develop new and cheaper technologies to produce oil from offshore and deep water sites; and 4) develop better and more efficient methods to develop/produce oil from non-conventional sources, such as the “oil sands” of Canada. To succeed in these tasks, there is an urgent need for a comprehensive national and international energy policy; such a policy does not exist for the United States.

Given these facts of supply and demand, the importance of the Gulf region for world energy supplies and the global oil market cannot be overstated. Several consequences flow from this situation:

- order in the world oil market depends on the actions of the Gulf states;

- the United States is unavoidably affected by events in the Gulf region, even though U.S. imports from the region are only 15-17% percent of its total imports of oil;
- the United States can have only a limited impact on the world oil market through its energy policies. Most of the future growth in demand and supply will be elsewhere.

Saudi Arabia and the Gulf States

Among the Gulf States, Saudi Arabia plays a dominant role. It has the largest share of known and extrapolated oil reserves (that is, oil expected to be discovered in the future based on the geology of the region) in the world. It has invested in production capacity greater than needed for current demand, so that it is in a position to moderate swings in the world price of oil by increasing production in response to crises that have caused spikes in the prices, for example, during the U.S. invasion of Iraq in 2003. Chapman and Khanna argue that in effect the Gulf States have made a tacit bargain with the western powers to exchange stability for security: in exchange for their willingness to maintain a stable oil market with access for all, the United States and its allies have provided a security guarantee for the governments in several countries. This guarantee was perhaps most visible in the international coalition formed to fight Iraq after it invaded Kuwait in August 1990. From 1986 to 2003 crude oil prices were generally kept within a target price band in accordance with the agreements (formal and informal) made between producers and importers. Military support for Persian Gulf governments were a major part of the framework.

The wealth and economic power of Persian Gulf oil is significant because it is a target or a prize: the security implications are as important as the traditional concern about access to Persian Gulf oil by oil importers. The oil-for-security framework has created a cycle of

violence involving the United States, jihadists, and others. According to Chapman and Khanna, there are at least three general approaches to the problem: hands-off, a U.S. security framework, and an international framework.

Rachel Bronson discussed the relationship between the United States and Saudi Arabia in some detail. While agreeing that the elements of an “oil for security” bargain exist, she argued that there is more at stake. Saudi Arabia enjoys its position as “the central banker of oil” and is willing to invest in additional capacity to maintain its ability to influence markets. Its national oil company can afford to take a long view, and to balance its costs in the short run against future economic and political benefits, including maintaining its position as the leading power in the system.

There are also domestic political factors at work. Saudi leaders depend on a close relationship with Muslim clerics. During the Cold War, Saudi opposition to “godless communism” was the basis for a genuine shared interest with the West in opposing Soviet influence in the region; the importance of this issue, along with the Iranian revolution and the Soviet invasion of Afghanistan, helped to empower radical Islam in Saudi Arabia.

The demographic situation in the country has political consequences: the large number of young people virtually requires a long-term strategy in order to produce jobs in the future. Despite the great wealth of the Saudi royal family, the per capita income in Saudi Arabia is rather low (about \$9,000/yr.), and was falling throughout the 1990s. There was considerable popular unrest, which was successfully suppressed. Since the current king (King Abdullah) ascended to the throne in 2005, the popular legitimacy of the government has improved.

The U.S.-Saudi relationship is under strain at present as a result of the 2003 U.S. invasion of Iraq, the strength of radical Islam, and continuing resentment of the US support for Israel on the Saudi side and, on the U.S. side, disapproval of the lack of democracy and the treatment of women in Saudi Arabia, and of the only lukewarm support by Saudi Arabia for the war on terrorism. For both partners, however, the alternative to a close relationship appears worse than the status quo.

Thinking about Security

One way to understand the various positions taken by different countries or interest groups on the question of oil and security is to see them as the products of different narratives. Roger Harrison argued in his presentation that Americans need a narrative to make sense of complicated situations, but it must be a narrative of a particular kind. It should serve the perceived U.S. interests but also invoke shared ideals and offer the hope of a happy ending. Such narratives can have powerful effects, as for example, in the influence of Admiral Mahan's theories about sea power on German strategy. By recasting the story about naval forces to emphasize protection of the sea lanes, Mahan provided the rationale for Germany's build-up of naval forces in the period leading up to World War I.

In the case of the U.S. invasion of Iraq, the Bush administration's narrative was marred by errors in all three elements: the weapons of mass destruction that were the announced motive for the attack turned out no longer to exist; the promise of a happy ending hailed by grateful Iraqis collapsed in the ensuing sectarian violence, and the ideal of bringing democracy to Iraq could not bear the weight attached to it when the other parts of the narrative failed. The challenge now is to devise a new, more realistic narrative to guide policy and sustain commitment. In Harrison's view the idea that we can control the process, e.g., by brokering the participation of Sunnis in the Iraqi government, is a fantasy and should not be the basis for planning. But because the United States has a real interest in maintaining access to Middle East oil and hence in political stability of the system, we need to recast our narrative with that interest as its core, and a different set of ideals to justify our actions. It's not clear what those ideals might be, however; indeed, it seems inevitable that they will appear self-serving to outside observers.

David Patel presented one kind of narrative in his use of a game theoretic model to analyze the probable impact of the shift in power in Iraq to the Shias following the overthrow of Saddam Hussain, on Shias elsewhere. Here, the interests and values of the narrative form are expressed in the pay-off structure of the model. Some analysts, such as Vali Nasr, have argued that increased Shia power in Iraq will destabilize other regimes in the Middle East through a demonstration effect based on rising aspirations and a more acute sense of grievance in the Shia communities. Patel analyzes the choices facing Shia minorities in those countries with authoritarian regimes that can be expected to crack down on any new demands. He concludes that there will be a shift from the status quo only if 1) the sense of grievance becomes so acute that the status quo is devalued relative to the psychic benefit of protest, even allowing for the inevitable crackdown, or 2) governments expect their minorities to gain outside support from a Shia government in Iraq, so that the cost of repressing unrest rises to the point that the governments prefer to grant new concessions. But because the Shia in Iraq are factionalized, they are unlikely to be able to agree on supplying support to other Shia groups in the region. In countries such as Bahrain and Egypt there are large Shia populations but no evidence of new demand; in Lebanon the Shia were mobilized before the 2003 Iraq war so the source of their militancy has to be sought elsewhere.

In Iran, the issues of regional hegemony and oil supplies are joined to the nuclear question. Richard Fullerton argued that the Iranians have a number of reasons for wanting to acquire nuclear weapons, ranging from concern about future energy supplies when the oil runs out to a desire to deter U.S. aggression and increase the popular legitimacy of the current regime. This is a narrative in which U.S. interests and ideals are clear, but there is no happy ending. The United States has few resources to attempt to influence Iranian decisions: diplomatic and trade contacts have been severely limited for years in response to earlier crises and our military forces are already overtaxed. Fullerton listed some unknowns: will Israel intervene militarily with a strike on Iranian nuclear facilities? When will Iran get the bomb and what might it do with it? Can Iran be deterred? The danger of proliferation to terrorists is probably greater than the probability that Iran would itself use the bomb. In his view, our best policy would be to send a message by

putting severe sanctions on North Korea, coupled with renewing ties to Iran and moving to provide guarantees on access to energy supplies through international treaties.

There was some disagreement in the group over how much or how little influence the United States might have on Iranian decisions, whether we really have no viable military options, and whether the Iranian expectation that nuclear weapons would give it “a seat at the table” is realistic. One way to phrase the last issue is to ask whether North Korea or India is the right comparison (i.e., should Iran expect respect or isolation as a result of acquiring nuclear weapons); on this question opinions differed. Similarly, not all agreed that international guarantees for access to energy markets would satisfy Iranian concerns, given the other insecurities it faces on all its borders.

The Oil Market and International Security

Catherine Kelleher presented an overview of the energy situation in Europe; like the United States, Europe is increasingly dependent on imported oil and gas, but following the Suez crisis of 1957 European countries adopted a strategy of diversifying away from Middle Eastern oil. Today their energy supplies come from North Sea oil (now declining), gas from Algeria and Russia, and, to a lesser extent, renewable sources and nuclear energy; Middle Eastern oil is only 21% of petroleum imports. Europe has also been successful in increasing energy efficiency through investment in energy-efficient buildings and machinery.

The dependence on Russian supplies, however, provides a cautionary tale: Russia has not hesitated to use its control of oil and gas pipelines to put pressure on Ukraine and Georgia, and its actions in limiting supplies to these countries have resulted in cutting off supplies to some parts of western Europe because of the path taken by the pipelines.

There is an asymmetry in the way in which energy security is understood: to the Europeans it means security of supply, whereas Russians are more concerned about security of demand, as demonstrated by their investment in a new pipeline that bypasses central European countries to deliver gas directly to Germany.

The Russian willingness to use the oil weapon in its relations with other countries calls into question the market model, which assumes that suppliers will always be willing to sell if the price is high enough. Again, we see contrasting narratives: the market solution depends on the presence of institutional arrangements to support open access and a modicum of price stability—as exemplified by the oil-for-security bargain attributed to the U.S.-Saudi special relationship—but the institutions are generally taken for granted in the daily operations of the market. The ideals and interests that drive this narrative are to be found in the ideology of the free market, and the happy ending is the accommodation of shifts in supply and demand for energy through price changes that affect all suppliers and customers equally. The alternative narrative as in the Russian case emphasizes that powerful states don't have to play by the rules but can use their dominant position in the energy market as a weapon in the political realm. To a considerable extent, differences in opinion about appropriate energy policies depend on which view of the conditions governing the supply of oil one adopts. Put differently, we can see that there are two different markets for energy, one of which is subject to overt political pressures. To believe that the free market for oil can solve the problem of matching oil supply to oil demand is to believe that no one will use power strategically.

Daniel Moran's paper asks the question, What if the system breaks down? Given the demonstrated robustness of the oil market since the end of World War II, it would probably take a conflict between major states to generate a breakdown of the market model. This is clearly a worst-case scenario, but one worth exploring for what it can tell us about potential threats and outcomes. It is worth noting that historically states have gone to war over oil, or at the very least, access to oil has been an important issue contributing to conflict (for example, the Japanese attack on the United States in WWII).

This is a narrative of rational actors weighing prospective costs and benefits. The U.S. interest is in defending the market, but military force is of limited use for this purpose; a predictable effect of going to war would be an increase in the price of oil and the ushering in of a global economic recession; other indirect effects are more difficult to predict. Moreover, military action looks like something else to others. It may *be*

something else: during the discussion it was noted that it is not possible to defend the market without defending one's own favored position. The U.S. military footprint in the Middle East is large and presumably there to defend U.S. interests; in effect we have already begun the militarization of energy.

Ike Wilson presented an analysis of the U.S. military footprint in the Middle East and beyond as an example of the way in which U.S. strategic planning imagines the global threat across the "arc of instability." The phrase is related to the ideas of Thomas Barnett, who has proposed a "New Map," one that divides the haves from the have-nots, with failed states and instability concentrated in a broad swath from the Caribbean across Africa and the Middle East, the Caucasus, south Asia, Indonesia, and other Pacific Island states. The Pentagon has accepted the "New Map" concept and is basing its strategic planning and the positioning of U.S. forces on it. Several of the regions where competition for oil resources is most fierce lie within the arc of instability; the failed states ("ungoverned areas" in Defense Department language) that are seen as breeding grounds for terrorists also lie within the arc.

In Wilson's view, this U.S. strategic approach is a one-dimensional concept that misses the underlying cause of the instability in these regions: the lack of human security. Through a series of map overlays he demonstrated that the markers of poverty, ill-health, hunger, and failed governance are all concentrated in countries within the arc, and contribute to the conditions that make these states a threat to U.S. interests. A multi-dimensional policy that addressed the human security needs would do more to reduce the threat than our current policy, which depends on military assets and may actually be making the situation worse. To the extent that the U.S. military presence inflames anti-American sentiments and crowds out other policies that could produce sustainable security, it feeds the threat rather than reducing it.

Wrap-up Discussion

Judith Reppy presented a short list of the themes and challenges that had emerged during the workshop:

1. How issues are framed by different stakeholders matters. If the academic community hopes to understand the connections between energy and security in a deeper way than is suggested by their mere conjunction (“and”), we need to pay attention to these framings or narratives.

2. One valuable product of research could be a better understanding of the energy statistics and of the history of the role of energy in international security, as exemplified in the papers by Caruso, Khanna and Chapman, Moran, and Wilson. Better factual information could contribute to a more informed discussion of such issues as “peak oil” or the utility of energy independence as a policy goal.

3. Three policy issues stand out:

- Is the status quo acceptable in terms of the risks it presents for security of energy supply and demand, and international security more generally?
- Is securing the market enough? In other words, can we trust the market to provide the security of supply and demand of oil at relatively stable (and hence predictable) prices?
- What is the value and practicality of multilateral approaches vs. a go-it-alone policy for the United States?

In the discussion that followed, the group renewed its discussion of the ability of the market to balance supply and demand and the likelihood that it will continue to do so in the future. Even if one makes a distinction between short-term instability and long-term issues, there was no consensus position: some argued that short-term instability required intervention by the IEA or other actors to assure supply, while others considered that the short-term disruptions could easily be absorbed by the market left to its own devices. The greater risk is a breakdown in the market as a result of strategic actions by major oil suppliers or consumers. At that point the link between energy and security would become all too close.

**CORNELL CONFERENCE ON ENERGY SECURITY: ARABIAN GULF OIL,
INTERNATIONAL SECURITY, & AMERICAN STRATEGY**

November 9 – 11, 2006

Participants

Muawia Barazangi, Department of Geological Sciences, Cornell

Christopher Boucek, Transregional Institute–PIIRS, Princeton University

Rachel Bronson, Middle East Studies, Council on Foreign Relations

Guy Caruso, Administrator, Energy Information Administration (EIA)

Duane Chapman, Applied Economics and Management, Cornell

Matthew Evangelista, Director, Peace Studies Program and Department of Government,
Cornell

Col. Richard Fullerton, USAF, Department of Economics and Geography, USAFA

Amb. Roger Harrison, former Ambassador to Jordan and Department of Government,
USAFA

Catherine Kelleher, School of Public Policy, University of Maryland

Daniel Moran, Department of National Security Affairs, Naval Postgraduate School

David Patel, Department of Political Science, Stanford University and Department of
Government, Cornell

Judith Reppy, Department of Science & Technology Studies, Cornell

LTC Isaiah Wilson III, Department of Social Sciences, USMA

Program
**Energy Security:
Arabian Gulf Oil, International Security, & American Strategy**

November 10–11, 2006
Cornell University
Ithaca, New York 14853

Friday, November 10, 8:30 am, G08 Uris Hall

- 9:00 – 9:10 **Logistics; Issues; Questions**
Duane Chapman
- 9:10 – 10:10 **Middle East Oil and Energy Security**
Guy Caruso, Director Energy Information
Administration, DOE
- 10:10 – 10:30 **Comments on Oil Resources in the Arabian Gulf**
Muawia Barazangi, Geological Sciences, Cornell
- 10:50 – 11:40 **Economic Value of Gulf Oil and Security Issues**
Duane Chapman, Applied Economics & Management,
Cornell
- 11:40 – 12:30 **The Saudi-American Partnership**
Rachel Bronson, Council on Foreign Relations
- 1:30 – 2:20 **The Role of Narrative in Our Policy Toward Iraq**
Roger Harrison, U.S. Air Force Academy
- 2:20 – 3:10 **The Shia Resurgence?**
David Patel, Stanford and Government, Cornell
- 3:30 – 4:20 **Iran, Oil, and Nuclear Weapons**
Richard Fullerton, U.S. Air Force Academy
- 4:20 – 5:10 **European Perspective on Energy Security & the Gulf**
Catherine Kelleher, Naval War College (ret.); Univ. of
Maryland

Saturday, November 11, 8:30 am, G08 Uris Hall

9:00 – 9:50

The Militarization of Energy Security

Daniel Moran, National Security Affairs,
Naval Postgraduate School

9:50 – 10:40

The Arc of Instability and Energy Predation

Isaiah Wilson III, U.S. Military Academy and Council on
Foreign Relations

10:40 – 11:30

Discussion and Conclusion

Coordinators:

Duane Chapman, Matthew Evangelista, Judith Reppy, Elaine Scott