

Reducing Uncertainty: Intelligence and National Security Using Intelligence to Anticipate Opportunities and Shape the Future

Thomas Fingar
Stanford University
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The United States Government spends a great deal of money to reduce uncertainty. The National Weather Service spends approximately \$4.5 billion a year to forecast precipitation amounts, track storms, and predict the weather. The Centers for Disease Control spend more than \$6 billion to detect and investigate health problems in the United States and abroad. The Departments of Agriculture and Energy track and predict production of crops and energy sources. Virtually every agency of the Federal Government monitors and forecasts something because farmers, manufacturers, state governments, travelers, and citizens in every walk of life want information that will reduce uncertainty and thereby make it easier to make decisions about what to grow, whether to invest, and where to travel. In other words, we spend a lot of money to anticipate problems, identify opportunities, and avoid mistakes.

A substantial portion of what we spend to reduce uncertainty—more than \$45 billion a year—goes to the US Intelligence Community. The need for this amount of money is justified through a process that emphasizes threats to our nation, our interests, and our people. For example, the classified and unclassified versions of the *Annual Threat Assessment* submitted to the Congress by the Director of National Intelligence devote far more attention to problems and perils than to opportunities for positive change. This emphasis is understandable, but it is also unfortunate because it obscures one of the most important functions of the Intelligence Community and causes both analysts and agencies to devote too little attention to “good news” and potential opportunities to move developments in a more favorable direction.

In theory, providing warning and anticipating opportunities are two sides of the same coin because both require deep understanding and close monitoring of developments in groups, countries, or issue areas. In theory, if one understands the situation, where events are headed, and what is driving them, it should be just as easy to identify opportunities to nudge things in a positive direction as it is to spot signs of trouble. The theory is sound, but priorities, practical considerations, and concerns about “politicization” cause the Intelligence Community to focus more attention on discovering and analyzing problems than on finding possible solutions. Each of these points warrants brief elaboration.

Despite its size, funding, and can-do attitude, the Intelligence Community (IC) cannot do everything that customers demand or desire. Requests and requirements have to be prioritized and the IC has a rather elaborate process to review and rank order the approximately 9,100 cells in the matrix created by arraying roughly 280 international

actors against 32 intelligence topics that have been grouped into three categories by the National Security Council. When I was given responsibility for the process known as the National Intelligence Priorities Framework, almost 2300 issues had been assigned priorities higher than zero. My first instruction was, “Reduce the number.” I simply could not keep a straight face while attempting to justify 2300 “priorities.” We reduced the number substantially, especially in the two highest priority categories, but it is still very large because policymakers need—and expect—intelligence support on a great many issues.

Doubtless reflecting a widespread conviction that it is more important to identify and prevent bad things from happening than to find opportunities to effect positive change, the process used to winnow requests to a manageable number focuses more attention on threats than on opportunities. The resultant guidance to collectors and analysts has real world consequences for what is targeted, what is collected, what is processed, what is analyzed, and what analysts look for. The net effect is that opportunities receive less attention than do threats.

Even with the consequences of a prioritization process biased in favor of threats, good analysts often have sufficient expertise and insight to identify opportunities to change the trajectory of events. Unfortunately, many are reluctant to write up their findings. Their reluctance stems, in part, from incentives and disincentives in the evaluation process (“Why are you spending time on low priority issues?”), but it also reflects concern that they might be perceived as attempting to make or change policy by recommending alternatives to existing policy. The “theoretical” distinction between pointing out opportunities and recommending policy is clearer than the real world constraints imposed by the imperative to be as objective as possible and to ensure that analysis is not skewed in order to support one’s preferred policy option. For many analysts, the “prudent” course is to keep their opportunity insights to themselves.

That they do so is unfortunate because their expertise and experience sometimes makes them better able to see opportunities than can the policymakers they support. Moreover, policymakers regularly state that they want the IC to identify opportunities as well as problems and, in my experience, most of them really mean it. The key, much of the time, is development of a relationship of trust between the analyst and the policymaker that allows for dispassionate discussion of possibilities and policy alternatives. Without such trust, it doesn’t happen.

Types of Intelligence. Commentary on the Intelligence Community often draws a distinction between “current” and “strategic” intelligence, usually in order to decry excessive attention to explaining the latest intelligence factoids obtained by collectors and inadequate attention to longer term, strategic analysis. Such criticisms are valid, but they generally miss (or misrepresent) important points. One error is to underestimate the demand for what the military calls “situational awareness.”

Policymakers throughout the government want to know what is happening in their geographic and/or substantive areas of responsibility. No official wants to be caught by

surprise by a colleague, foreign counterpart, or Member of Congress who seems to know more than the official does about what is happening in his or her own portfolio of responsibilities. Even if the development in question is of almost no intrinsic importance, failure to know about it will be embarrassing and could be politically fatal. Washington can be a tough town. In order to prevent surprise and embarrassment, policymakers expect their own staff and their Intelligence Community support team to ensure that they are always “on top of” their own portfolios. This is the demand side “pull” for current intelligence. There is also a supply side “push” from the IC support team. Knowing that their ability to provide timely, targeted, and useful intelligence support to their primary customers requires winning and maintaining the customer’s confidence, IC analysts err on the side of providing more “current intelligence” than necessary. Some policymakers will say, from time to time, that they would welcome more long-range analysis, but the unspoken caveat is that receiving it should not come at the expense of constant situational awareness.

Even though policymakers often are so consumed by the demands of their in-box and immediate policy issues that they have little time or appetite for longer-term developments, the pundits who proclaim the need for more “strategic” analysis are right. In the grand scheme of things, it is far more important for the Intelligence Community to reduce uncertainty about what might happen in the future than it is to ensure that policymakers know what has happened in the last few days or hours. Indeed, it can be argued that the most important justification for having an intelligence enterprise is to provide “strategic warning” sufficiently far in advance that policymakers can act to prevent, ameliorate, or capitalize on the anticipated developments.

Anticipating the Future. As Yogi Berra famously observed, “Prediction is hard, especially when it’s about the future.” But prediction is not—and should not be—the goal of strategic analysis. Rather than telling policymakers “This is what will happen so you better prepare for that outcome,” strategic analysis treats the future as neither inevitable nor immutable. The goal is to identify the most important streams of developments, how they interact, where they seem to be headed, and what drives the process. Stated another way, strategic analysis seeks to identify the factors that will shape the future so that policymakers can devise strategies and formulate policies to maintain positive trajectories and shift negative ones in a more positive direction. The ultimate goal is to shape the future, not to predict what it will be.

Strategic analysis is more difficult than consulting a crystal ball or a few smart analysts. In most real world situations, the number of variables is large, timelines are long, the players are numerous and susceptible to pressures of many kinds, and everything is both dynamic and interactive. In a highly globalized and interdependent world, what happens anywhere can affect possibilities and developments everywhere. Since it is seldom practical to tackle the problem by building elaborate models that can be run on powerful computers to generate a comprehensive list of possible outcomes, the task has to be rendered manageable by making judgments about what factors or drivers are most important; where and when tipping points or thresholds exist, and whether and why developments seem to be moving along a different trajectory than had been anticipated.

The exercise also involves identifying key institutions and individuals, who or what they heed when making decisions, and what they seek to accomplish, among other variables. The ultimate goal is to provide insights and signposts that will help US decision makers to assess probabilities, set priorities, and develop strategies to shape outcomes.

I will now shift from a general and idealized discussion of strategic intelligence to three specific examples that illustrate the nature and utility of Intelligence Community efforts to inform decisions about the future. I will not address the use of covert methods to manipulate events. The reason for doing so is not simply that I cannot address classified activities in an unclassified discussion. That is certainly the case, but a more important reason is that my own estimate of their impact is rather low. If one divides the impact of covert manipulation into three categories (decisive, marginal, and irrelevant), I believe most should be classified as of marginal or no relevance to what actually happened. Others will disagree with this assessment but I do not intend to provide additional evidence or justification for my opinion except to note the requirement that if such activity played a key role in US foreign policy, it must be noted in the legally mandated compilation of documents produced by the State Department in the series entitled *Foreign Relations of the United States*. The number of examples in that compilation is very small.

Examples of Projects Intended to Help Officials to Anticipate and Shape the Future.

The first illustrative example is a completely unclassified study entitled *Global Trends 2025: A Transformed World*. You can order this from the Government Printing Office or download it for free from the dni.gov website. Although I will mention a few of its findings, my focus here will be on purpose and process. Those who want to hear what I have said about the findings themselves can find videos on the websites of the Atlantic Council and the Stimson Center, and transcripts on the dni.gov website.

Global Trends 2025 is the fourth iteration of an exercise that began in the mid-1990s under the leadership of John Gannon, one of my predecessors as Chairman of the National Intelligence Council. I participated in that effort and launched a parallel study at the State Department. These initial efforts attempted to describe the world of 2010. Our motivations were similar: to see if we could do it, to learn from the process, and to answer complaints that we did not do enough strategic analysis. The exercise proved to be both difficult and rewarding. It was difficult, in part, because analysts were very uncomfortable driving so far beyond the headlights. We had almost no intelligence on what was likely to happen fifteen years into the future and the coping strategy for many analysts was to project continuation of then current trends. Most analysts, and the studies we produced, attempted to predict what would happen and were not very good at identifying drivers and potential sources of discontinuity. Perhaps the most important lesson we learned from this exercise was that it changed for the better the way participating analysts thought about their subjects and the utility of strategic analysis for understanding current events.

The second iteration was launched a few years later but unlike the first attempt, which had relied entirely on Intelligence Community analysts, the look out to 2015 convened

several meetings to tap the expertise and insights of US-based specialists on issues that we thought would be important over the next fifteen years. The second effort was less predictive and made more effective use of scenarios to help analysts and readers to think about issues and relationships.

By the time we prepared for the third iteration, in 2004, we had a much clearer idea about the target audience, what we wanted to accomplish, and how to achieve our objectives. We produced *Global Trends 2020* in December so that it would be available at the start of a new administration when officials would be thinking about what they wanted to accomplish over the next four years. We wanted to catch them before the tyranny of the in-box made it more difficult to foster consideration of how short-term decisions might affect long-term developments. This time, we expanded the universe of experts far beyond those in the United States. We convened six seminars on five continents in order to elicit the views of foreign as well as American scholars, journalists, businessmen, and officials. Intelligence Community analysts drew upon the insights from these sessions when drafting the final report.

Publication of *Global Trends 2020*, and the way it was produced, had impacts far beyond what any of us had anticipated. We gained understanding and insight from our foreign contributors but, as important, involving hundreds of non-US citizens in the process gave them an interest in the product and an incentive to use it in their own countries. This edition was translated into several languages, adopted in university courses around the globe, and became the starting point for longer-term policy deliberations in many countries besides our own. Others benefited from what we had learned and many acknowledged that they could not have undertaken anything even remotely comparable on their own. Interestingly, however, many who encountered the *Global Trends* exercise for the first time interpreted it as a prediction of what the United States thought was going to happen or, even more strikingly, as what the US wanted to happen over the next decade and a half. The latter interpretation is particularly striking because one of the scenarios envisions a Jihadist victory and establishment of a new caliphate in the Middle East. How anyone could interpret that thought-provoking scenario as an outcome desired by Washington is hard for me to understand.

When a few of us sat down in late 2007 to determine what we wanted to accomplish and how we would produce the fourth iteration of *Global Trends*, we recognized that we had an unprecedented combination of opportunity, experience, and willing participants. We knew that the 2008 election would result in an almost complete changeover of senior officials, no matter who won, and saw this as a rare opportunity to help senior policymakers to build their agendas with awareness of longer-term trends. In my experience, the start of a new administration is one of the few times officials have the time and desire for strategic thinking and we were determined to hit that window of opportunity. Moreover, we had learned from our *Global Trends 2020* experience that non-Americans had much to contribute and would be influenced by our next look to the future. This offered an almost unprecedented opportunity for focused dialog with influential people from many nations on issues that they and the Americans who would produce *Global Trends 2025* considered to be among the most important. This, in turn,

offered opportunities for collaboration to address those and other issues. The *2025* report has been translated into several languages and my former NIC colleagues are awash in invitations to speak on its findings, as am I. In addition to many talks in the US, I have led discussions in Indonesia, China, Qatar, and Korea and will do so in Spain next month.

We made one major procedural change in the way we prepared the *2025* report. This time, we invited both American and non-American contributors to comment on draft versions of the report. We solicited input through a variety of conferences, seminars, and commissioned studies, as we had done previously. But this time we also posted drafts on a special website and invited continuing interchange to ensure that we had understood points correctly, to smoke out alternative judgments, and to ensure that we were communicating judgments effectively. The process worked. We produced a better product and we built interest in and support for the project among influential people around the world.

Before commenting briefly on some of the report's findings, I want to flag two additional points with respect to process and purpose. First, *Global Trends 2025* does not predict what will happen in the future. What it does do is describe a dozen or so trends that appear likely to drive, shape, and constrain the actions of individuals, firms, nations, and the international system as a whole. They are not the only trends that will be important and it is possible, even probable, that we did not get it completely right even with respect to the factors we did examine. But, at a minimum, the trends and drivers we examined reflect what members of the foreign policy elites of many countries think is going to happen and are already beginning to factor into their own plans and policy options. In certain respects, perceived reality may be more important than reality itself because many players will act on the "reality" we captured in *Global Trends 2025*. Some of the trends appear likely to spawn or fuel competition or conflict, but many others offer opportunities for cooperation and sufficient lead-time for unilateral and coordinated action.

The second point is that *Global Trends 2025* does not offer a roadmap or recipe for addressing the developments cited. Our purpose was to tell officials what they should consider, not what they should do. The message, in effect, was, "Here are the trends that we judge will be important over the next fifteen years. If you like where they are headed, you should devise policies to preserve their projected trajectory. If you don't like where they are headed, you should begin now to consider ways to shift them in a more favorable direction. The ultimate success of the policy agendas you develop will be influenced by how that agenda intersects with the trends we have identified. What to do is up to you."

The decision to eschew policy recommendations was an easy one because both law and professional ethics enjoin the Intelligence Community from policy advocacy. That certainly does not mean that individuals working on the report had no thoughts about whether or how to take advantage of or attempt to alter the trends we discovered. We did. I certainly did. In this case, as is true most of the time, I think we did a pretty good job of insulating the analysis of trends from personal attempts to spin them in particular ways. That said, I think those of us who were most deeply engaged in the project would have been disappointed if nobody asked for our thoughts on what might be done. I can

assure you that when Mat Burrows and I briefed then President-elect Obama on our findings we did not refuse to answer when he asked for our thoughts on what to do with respect to certain of the issues and trends discussed in the report.

It would require another hour or so to describe the principal findings reported in *Global Trends 2025* and you do not have that much time, but I would be remiss not to provide a few examples of trends, drivers, and the ways in which they interact. One of the long-evolving trends that we expect to continue involves the cluster of developments subsumed under the heading of globalization. We anticipate that globalization will continue, albeit possibly at a somewhat slower pace than before the current economic downturn, and that it will continue to foster both unprecedented prosperity and growing inequality. More people will become wealthier but the gap between rich and poor will widen.

Developments linked to globalization, but having other dynamics and drivers as well, include the rise of Brazil, Russia, India, and China (the so-called “BRICs”) as well as a number of other nations. The report anticipates that the next “wave” of rising states will include Indonesia, Turkey, and, possibly, Iran. The rise of new powers and the weaknesses in existing multilateral institutions illustrated by the current global financial crisis underscore the decreasing efficacy of the post-WW II institutions that made possible globalization and the rise of the BRICs and others benefiting from the current international order. But that order—the United Nations, the World Bank and other multilateral financial institutions, alliances formed to deter or defeat a country that no longer exists (the Soviet Union), and numerous control regimes such as the Nuclear Nonproliferation Treaty—is showing its age. It was forged in a different time to manage a world very different from that of today.

Those institutions, and the global order they make possible, are increasingly in need of reform, reengineering, or replacement. Remaking the global order will be much more difficult than it was in the 1940s. For starters, there are 140 more countries today and norms of equality and democratic participation mean that most will demand a seat at the table. The US remains the preeminent power but the gap between the US and the rest is narrowing. We are not in decline and we benefit enormously from the rise of the rest, but we are no longer the undisputed leader of the “free world.” The need for major changes to the global order are increasingly apparent, but key players who benefit from the status quo—the rising powers—are not eager to change it because any replacement order will require them to assume greater responsibility. Change is impossible without their active participation but they have strong incentives to stretch out the current order—in which the US serves as the ultimate guarantor of peace and prosperity and others can be free riders—for as long as possible.

I will close this section by mentioning without elaboration four additional trends for you to consider. The first is demographic. Global population will grow by 1.2 billion between now and 2025. Less than three percent of that growth will be in the “West”—the US, Europe, Canada, and Australia plus Japan and South Korea. The most developed nations will face major challenges associated with the “graying” of their populations; the

rest of the world must deal with youth bulges. Much of the projected growth will occur in Africa, Central Asia, and Central America where governments already struggle to meet expectations and requirements. Youth bulges will increase demand for education, jobs, and opportunity that probably cannot be satisfied by governments that are already struggling. Add to this the initial impact of changes caused or exacerbated by global climate change, which scientists tell us will begin to be felt between 2025 and 2030. These effects will change weather patterns, exacerbate water shortages in some places and flooding in others, and stress food supplies in places already living close to subsistence levels. On a happier note, the appeal of extremist ideologies will continue to decrease, as will the number of terrorists and terrorist groups. However, the potential lethality of terrorist attacks will increase because of advances in bioengineering that make use of lethal biological agents more likely. Globalization facilitated growth will increase the demand for energy and other resources, with likely increases in price and the potential for conflict to ensure access. This will provide impetus to the search for greener technologies but the transition to a system based on alternatives to hydrocarbons cannot be achieved in fifteen years.

Geopolitical Implications of Global Climate Change. *Global Trends 2025* was a self-initiated project. No one told us to do it, no one told us what to address, and no one pressed us to deliver our conclusions before we were ready. In these and other respects, it was truly unique, not least of which was the positive reception it received from Members of Congress on both sides of the aisle. The National Intelligence Assessment on the geopolitical implications of global climate change that we produced earlier in the year had a very different history and reception. I should note in passing that National Intelligence Assessment or NIA is one of those terms of art that is important to cognoscenti and almost meaningless to anyone else. The short explanation of the difference between an NIA and the better-known National Intelligence Estimate or NIE is that an NIA addresses subjects that are so far in the future or on which there is so little intelligence that they are more like extended think pieces than estimative analysis. NIAs rely more on carefully articulated assumptions than on established fact.

I should probably take it as a badge of achievement that Members of Congress began to press for an NIE on global climate change in late 2006 and early 2007. The reason I say this is that I made improvement in the quality of analysis, notably NIEs, and the restoration of confidence in the quality of IC analytic work my highest priorities when I became Deputy Director of National Intelligence for Analysis and Chairman of the National Intelligence Council in mid 2005. By 2007, we had regained the confidence of a growing number of Members who began to request NIEs in order to have reliable and objective assessments of important issues. Or so they said. Many of these requests came from Democrats who may have had an additional motivation, i.e., to use NIEs as a stick with which to pummel the administration. That is a tale for another time; here I want to focus on climate change. The short setup for the story I'm about to tell is that whether climate change is occurring, the extent to which it is caused by human activity, whether the US was incurring too high a price for being out of step with its allies on the importance of combating global warming, and a host of other politically-charged issues provided the backdrop for the initial requests that the NIC produce an NIE on climate

change. Another factor was the release and reception of former Vice President Al Gore's book and documentary on global warming entitled *An Inconvenient Truth*.

In order to tell the story, I will compress a number of conversations with several Members and staff into a single and greatly simplified set of invented exchanges that accurately reflect the dialog.

Member: We need an estimate on climate change.

Me: We don't do climate change, talk to NOAA or the National Academy of Sciences.

Member: But we trust you and know we will get an objective assessment.

Me: Thank you, but the NIC doesn't know anything about climate science.

Member: But we trust you, and the NIC does analyze geopolitical developments, right?

Me: Yes, but we still don't have any expertise on climate change.

Member: OK, then do an NIE on the geopolitics of global climate change.

She had me. Congress eventually ordered us to produce an Estimate on the geopolitical implications of global climate change. Our first step was to decide how to say something meaningful without disgracing ourselves by misconstruing the science or straying too far into the political minefield.

Despite the rather inauspicious origins, we rather quickly discovered that producing this NIA would be highly educational for those who worked on it and that it had the potential to stimulate thinking about future US policies in a host of areas. My focus here, once again, will be on process and purpose rather than on the substance of the report. The NIA remains classified, but the substantive content except for the names of countries likely to encounter and be unable to cope with climate change induced problems can be found in the unclassified Statement for the Record that I submitted to the Congress in June 2008. That also can be found on the dni.gov website.

Our first challenge was to establish a scientific baseline. Unable to make an independent judgment on climate science, we began by asking climate science experts to provide a general assessment of which regions and countries are likely to be relatively hard hit by climate change between now and 2030. Lacking appropriate in-house expertise, we enlisted the help of specialists from the Joint Global Change Research Institute (JGCRI), a joint undertaking of the University of Maryland and the Department of Energy's Pacific Northwest Laboratory. To develop the scientific scene-setter we needed, JGCRI used the most recent report by the Intergovernmental Panel on Climate Change (IPCC) and subsequently published peer-reviewed material. We solicited comments on the scene-setter from the US Climate Change Science Program. We took that as our starting point and asked, "If those projections are correct, what effects would they produce between now and 2030." We chose 2030 as the endpoint because looking out further than that required too many assumptions about politics, economics, social cohesion, and other variables to permit confident judgments. In addition, scientists seem to agree that nothing could be done that would alter the effects of climate change between now and 2030. That die had already been cast.

The next challenge was to ask how effects projected at a global level would be felt in specific regions, countries, and sub-national areas. We enlisted the assistance of Columbia University's Center for International Earth Science Information Network (CIESIN) to develop country-specific data on water scarcity, climate vulnerability, and sea level rise. Among other things, we discovered that working at national and sub-national levels required more granular information—greater detail—than was available for many countries. We fed this back into the larger climate change effort as an “intelligence gap” or information requirement. Some existing data might be capable or further refinement but the report established the need to collect additional data if we are to develop appropriate responses.

Our objectives in this phase of the study were to identify which regions, countries, and sub-national locations would be affected by climate change during the period under study, which would be affected first, which would be most severely affected, which had the largest or most impoverished populations at risk, and so forth. In order to make the task more manageable, we focused on water, food production, and changes in weather patterns. Data issues made the results of this phase somewhat problematic, but we determined that what we had was the best we were likely to have for some time. This was a familiar situation because the intelligence business always deals with problematic and spotty data; the key was to communicate effectively the uncertainties and limitations of our results.

After integrating the results from the independent studies to obtain a composite map of relative impacts from climate change, we set out to discover which of the places affected by climate change had sufficient economic, technical, and governmental resources to deal with the problem, and which would be overwhelmed by the additional challenges of climate change. We then convened groups of country and area specialists and asked them to address a number of questions regarding the capability of governments and societies to cope with the challenges of climate change. This was obviously a subjective exercise, but we used multiple experts and integrated their judgments to produce a rough matrix of vulnerability. Only then did we ask questions about how climate change effects, government coping mechanisms, likely population movements to escape drought, and other factors might affect the United States and American interests.

The result was a path breaking study that identified areas for data collection, the need for new or refined analytic methodologies, and opportunities to begin dialog with officials to pave the way for collective action. We fed some of the results into the *Global Trends 2025* project but we also brought them to the attention of a wide range of US officials from DOD, the State Department, USAID, and other agencies so that they could begin developing strategies and plans to address the consequences we identified. Among the kinds of decisions we hoped to inform were: Should assistance be broadly distributed in the name of fairness or concentrated where it would do the most good? Should US and/or coordinated efforts focus on the governments needing the most help (because they have severely limited capabilities) or on those most likely to use the assistance effectively? Should assistance efforts be focused on regions that will be affected first, on those with the most vulnerable populations, or on those with the greatest potential for

spillover into other countries? The list of such questions can be extended quite easily but I'm sure you see where I'm going. The point is that resources will be limited, the media will focus attention on specific situations, domestic constituencies in the US will seek assistance for their homelands or co-religionists, and many other real world factors will greatly complicate decision making on how to respond unless careful work is undertaken at an early date. We hoped that the NIA would stimulate that kind of strategic thinking.

I think that it has proven to be a useful and influential study and confess to being proud of our work. But you need to remember that the NIA was requested for mostly political reasons and was embroiled in controversy almost as soon as it was released. The issue had nothing to do with its methodology or substantive findings; it was all about political gamesmanship. The first issue was classification. As attention to global warming increased as a result of Vice President Gore's book and documentary, calls for the Intelligence Community to produce an unclassified study increased. The request was not unreasonable; after all, almost none of the information used to produce it was classified. But use of classified information is not the only reasons to restricting access to NIC or other USG products. I had two reasons for opposing declassification of this report. The first was the desire not to complicate diplomatic efforts to develop coping strategies by publishing the names of the countries, governments, and societies that we judged to be least capable of coping with the effects of climate change. I thought it best for American officials to develop a strategy to address the kinds of questions illustrated above before being subjected to predictable additional pressures. I also wanted to avoid complicating negotiations on other matters by appearing to insult the capabilities of those with whom the US was currently negotiating and involving places where American firms were pursuing investment and other forms of engagement. The second reason was that I did not want to fire the starting pistol for the flight out of countries where we predicted impacts beyond the coping ability of their governments. To be blunt, I did not want to trigger an exodus before countries had a chance to devise strategies and mechanisms to keep people in or out of particular regions. Most of those with whom I discussed this on the Hill understood the logic but wanted to play a different game.

My offer—and the delivery—of unclassified testimony didn't solve the problem. It actually made it worse. Democrats and some Republicans wanted the report declassified to make the case for more urgent attention to the issues it identified. Republicans wanted it declassified to bolster their claim that Democrats had foolishly diverted intelligence resources to pursue a study that contained no intelligence and should have been undertaken by another agency. I have to smile when I recall one memorable public exchange with a Congressman who demanded to know why I had allowed the use of Intelligence Community resources to produce an NIE (he wasn't interested in the distinction I noted earlier) on climate change. I was delighted to be able to respond, "Because the Congress instructed me to do so."

Iran's Nuclear Intentions and Capabilities. I will close with one more short illustration of how intelligence can help officials to prepare for and shape the future. This example is drawn from the highly contentious 2007 National Intelligence Estimate on Iran's Nuclear Intentions and Capabilities. It became contentious, in part, because the

White House instructed the Intelligence Community to release an unclassified version of the report's key judgments but declined to take responsibility for ordering its release. Critics on the right and the left denounced or praised the report as a deliberate effort by the Intelligence Community—or, in many of the commentaries, by me—to derail administration plans to attack Iran. That, too, is a story for another day. What I want to do here is to take advantage of the fact that a small portion of the estimate was declassified (3 of about 100 pages with none of the almost 1500 source citations) making it possible for me to talk about it in public. If you are interested, the declassified portions of the Estimate are available on the dni.gov website.

In order to get you home in time for dinner, I will comment very briefly on just two of the findings intended to help policymakers to shape the future. One of the findings—actually a cluster of findings—attempts to answer the question, “How long until Iran has a nuclear weapon?” This is another way of addressing the question, “How long do we have to work this problem?” The prospect of an Iranian bomb and the deleterious consequences that would have for regional stability and global efforts to limit the spread of nuclear weapons had achieved high salience long before we prepared this estimate, but before answering these questions, I will use this example to illustrate a broader point. In my experience, most policymakers ask themselves, and often ask their intelligence support team, whether the reported or projected development requires immediate action on their part or can be deferred while they work on more pressing issues or more attractive parts of their policy agendas. That is a natural and rational approach. To compensate for this, intelligence has a built-in, and on some subjects, like terrorism, a recently reinforced propensity to underscore, overstate, or “hype” the findings in order to get people to pay attention, and to fireproof the IC against charges that it failed to provide adequate warning. I note in passing that this propensity was one of the reasons for the errors in the infamous 2002 Estimate on Iraq's weapons of mass destruction.

Back to the timeline. The pacing element for production of a nuclear device or weapon is the acquisition of sufficient fissile material. The message of the Estimate is clear: “You have some, but not a lot of time.” The key judgments state we had moderate to high confidence that Iran had not obtained sufficient fissile material from external sources and that its fastest route to having enough is through uranium enrichment using centrifuges. The NIE said it was possible, but very unlikely, that Iran could do so as early as late 2009. We judged it more likely that they could do so “sometime during the 2010-2015 timeframe.” The declassified portion of the estimate did not address how long it would take Iran to convert highly enriched uranium into a weapon but the classified text did. What I can say here is that we judged Iran has the scientific, technical, and industrial capacity to produce a weapon if it decided to do so.

The second finding of direct relevance to this discussion is the judgment that Iran had halted the weaponization portions of its nuclear program in 2003 in response to international pressure and scrutiny. It interprets this development as indicative of a cost-benefit approach suggesting that diplomacy had been effective in 2003 and might still be an effective instrument for deterring Iran from acquiring a nuclear weapon. In other words, the message it was intended to send to policymakers was, “You do not have a lot

of time but you appear to have a diplomatic or non-military option.” Prior to the publication of this Estimate, the judgment of the Intelligence Community—and of many pundits and policymakers—was that there was no chance of deterring Iran from pursuing a nuclear weapon and that the only use of force—military options—could prevent Tehran from acquiring the bomb. The estimate also judged, and stated clearly, that Iran at a minimum had retained the option to pursue a weapon and that whether to do so would be a political decision that could be made at any time.

How those judgments could be construed as dismissing the idea that Iranian nuclear activities were a major problem continues to mystify me, but the point I want to make here is that, in addition to many other things, the NIE gave policymakers a timeline, a sense of urgency, and possible alternative ways to address the problem. We were helping them to anticipate and shape the future.

Thank you for coming and thank you for your attention.