Woodrow Wilson International Center for Scholars

Conflict Prevention Project

Preventing the Next Wave of Conflict

Understanding Non-Traditional Threats to Global Stability

Report of the Non-Traditional Threats Working Group

by Carla Koppell with Anita Sharma

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Executive Summary

I. OVERALL FINDINGS AND CONCLUSIONS

Conflict and instability are increasingly driven by non-traditional factors like failures in governance, health crises and environmental degradation. Globalization and technological change are increasing interdependence and inter-connectedness in ways that magnify the security-related impact of developmental challenges around the world.

The impact on security of most non-traditional threats is still indirect, though the AIDS epidemic and the growing global freshwater shortage demonstrate that security and broad stability can be affected directly. The potential for terrorism originating in states with weak or unaccountable governments further underscores the potential direct threat to U.S. security.

Even when the connections are less direct, non-traditional threats are increasing the risk of broad instability. Local economic stagnation, environmental degradation, demographic shifts, urbanization, failures in governance and declining health status are all creating pressure on governments around the world. The quality of public service delivery is often declining. Often, as a result, governments are facing growing disaffection and competition for resources. In some places, environmental or health crises may be escalating to a point where generalized instability will become more likely.

There are growing implications for the United States of these local and regional trends to instability. Expanding travel and trade are increasing direct U.S. vulnerability to an ever-larger range of human, plant and animal diseases; broadening domestic concern for the range of conflicts taking place worldwide; and augmenting economic vulnerability to trends abroad. More sophisticated and frequent international exchange of information and communication also are having dramatic effects. They are raising awareness of global disparities in income and influence, increasing the focus on events abroad, particularly among diaspora communities, and increasing the ability to foment and sustain disputes through infusions of funds and ideas.

To address the changing security landscape, the United States needs to better track and strategically address non-traditional threats to stability.

Structural, informational and attitudinal barriers currently constrain U.S. responsiveness. While funding and attention are now focused on emerging threats to stability in some countries, coordination among the diplomatic, military and foreign assistance communities in planning and using those resources is limited. In some places, the funds available to combat non-traditional threats are decreasing dramatically. Additionally, the military and diplomatic communities do not fully appreciate the importance of human security concerns to traditional security; their ambivalence is matched by hesitancy within the development assistance community to viewing foreign aid through the lens of national security.

The limited timeframe through which threats are addressed further hinders consideration of non-traditional threats in national security planning and policy-making. Entities within the Federal Government have long tracked non-traditional threats to stability, but those assessments have rarely been factored into short-term strategic planning and resource allocation. In part, this is because their impact on stability is insidious, gradual and hard to assess specifically. In part, it is because of an insufficient commitment to prevention.

To reverse the trends to instability, there needs to be broader appreciation of the opportunities that exist. A proactive approach would offer the global community multiple benefits. In addressing one non-traditional challenge several threats could be reduced. For example, engaging to reduce declining global health status would improve the quality of life for millions, increase faith in government service delivery, and reduce the drain on national incomes. Such cooperation might also facilitate diplomatic cooperation and discourse among tense allies. Similarly, a single intervention could address several threats. Universal access to non-sectarian education would improve countries' economic prospects, citizen faith in government, gender equity and health status.

Perhaps most importantly, working proactively to stave-off non-traditional threats could shift the nature of our relationships with developing countries. By identifying and strategically targeting sources of instability, the United States could more effectively reduce unpredictability while building the community of functioning, prosperous democracies.

The shift to a culture of prevention will have to be accompanied by broader recognition of the fundamental importance of development assistance to foreign and national security policy. Threat assessments need to draw more broadly on information and intelligence from the diplomatic, military, intelligence and foreign aid communities. Cooperation and collaboration with developing nations needs to be structured more strategically. Planning and priority setting in the foreign aid program needs to bal-

ance the need for participatory, bottom-up planning with the importance of focusing on security-related concerns.

At times, the approach to foreign aid needs to be adjusted. The fundamental interdependence of programs to promote democracy and economic growth must be recognized, as does the need to move beyond national elections as the primary benchmark in the transition to democracy. Economic restructuring efforts need to more explicitly emphasize reducing disparities in income. The drive towards gender equity ought to be mainstreamed and recognized as fundamental to good governance and sustained economic growth.

Ultimately, any effort to combat non-traditional threats will require greater willingness and ability to work with and through multilateral organizations. Despite the ever-increasing struggle to balance sovereignty with the need for collective action, many emerging threats to stability do not respect borders; they will only be overcome through international cooperation. Critical investments must be made to improve multilateral institutions rather than seeking to circumvent or subvert multilateral efforts and international organizations.

Additional analysis would help define how to reduce non-traditional threats to security and stability. For example, the connection between failed states and terrorism needs clarification, as does the connection between economic grievance and conflict, particularly on a regional and global level. Complementing research should be the development of tools for assessing risk when several potential sources of tension converge, and defining priorities when several developmental challenges undermine stability. Ultimately, these analytical and diagnostic instruments will need to be supplemented by strategies for intervention that explicitly reduce the risk of instability and conflict from non-traditional threats.

II. KEY TOPIC SPECIFIC FINDINGS AND CONCLUSIONS

The following are a subset of the Working Group findings and conclusions on the specific topics that were studied: economic and social disparities; political and economic governance; demographic shifts; health and; natural resources and environment.

ECONOMIC AND SOCIAL DISPARITIES

- There is no proof of a direct causal link between inequities and violent conflict.

- Globalization does not automatically reduce poverty or decrease disparities in income.
- Intra-state and inter-state crises and conflicts will have greater relevance for U.S. security and well-being as economic interdependence grows.
- Inadequate attention is paid to education as an economic commodity and vehicle for promoting global stability.
- There is inadequate recognition that gender inequity is a cause of and contributor to persistent poverty and economic stagnation.
- Improving the links between those in the U.S. Federal Government focused on foreign economic and trade policy, and those focused on foreign intelligence, security, diplomacy and international development would strengthen foreign aid and defense effort.
- Improving the ability to adapt and apply locally-appropriate models for fostering economic growth, development and integration within the global economy would help facilitate planning and stave-off crises.
- Better tracking emerging strategic threats in developing countries could assist with planning and crisis prevention.

POLITICAL AND ECONOMIC GOVERNANCE

- Failed states are increasingly important threats to global stability.
- The destabilizing impact of failed and failing states poses an important indirect threat to U.S. national security despite the fact that most failed states will not pose a direct security threat.
- Greater local participation in government is critical to consolidating the transformation to democracy.
- Too much emphasis is placed on elections as the benchmark for transition to democracy.
- Efforts to resolve ethnic conflicts must seek to build bridges across ethnic groups as early as possible.
- The United States must focus on consolidating the democratic gains of the last two decades.
- In the near-term post-conflict, much greater priority must be given to satisfying the interests of the local population rather than those of

the international community.

- As weak states become more important sources of instability, a re-assessment of military strategy and expenditure is advised.
- Efforts to enhance governance and promote state building should place higher priority on work at the local and regional levels.
- Gender equity must be considered a fundamental building block for good political and economic governance.

DEMOGRAPHIC SHIFTS

- There is little evidence of a direct link between demographic shifts and U.S. national security. An indirect connection is, however, apparent in many ways.
- Population growth and urbanization will have significant negative implications for the environment, public health and economic growth in developing countries.
- The need for humanitarian assistance and longer-term foreign aid are likely to grow as a result of the persistently large number of forced migrants and the increasing burden growing populations place on developing country governments.
- The implications of demographic trends for the military are likely to be profound. The nature of warfare is changing and the priorities of our allies are shifting—both at least partly in response to demographic trends. There are important ramifications for budget, technology, burden-sharing and the future shape of battle.
- Inadequate recognition of the important economic benefits of immigration plagues discussions over immigration policy in the United States and Europe.

NATURAL RESOURCES AND ENVIRONMENT

- There is no clear evidence that environmental degradation is creating short-term threats to national security.
- There is abundant evidence that natural resources and environmental scarcities create instability.
- Given environmental trends, the number of humanitarian crises stem-

ming from natural disasters is likely to continue to climb, with a corresponding increase in involvement by foreign aid and military personnel.

- Reductions in the availability of water and climate change raise the specter that irreversible environmental challenges will reduce stability in the future.
- The gravest environmental threats to security and stability will require multinational cooperation to overcome.
- There is a critical need to seize the important opportunities that exist to reduce the threats to stability and security posed by environmental degradation.
- Better consideration of the environmental dimensions of military operations and the security-related dimensions of environmental issues would reduce the risks of destabilization and environmental degradation.

HEALTH

- There is a clear relationship between growing health threats and global stability.
- The United States faces an increasing, direct threat to human health within its borders as global travel and trade continue to grow, new diseases emerge, and vectors for disease alter their habitats and enter the United States.
- The timeframe for successfully pre-empting the further spread of infectious disease is short. The financial benefits from a proactive strategy of disease prevention would be enormous.
- At a threshold level, declining health status has a dramatic, dilatory impact on political and economic well-being.
- The impact of disease on armed forces strength and size will be dramatic, particularly in countries with high AIDS rates and with large populations of demobilizing soldiers.
- A multilateral approach is absolutely critical to reducing the growing global health risks posed by infectious diseases, bioterrorism and other food borne illnesses.
- An enormous opportunity exists to use health sector cooperation and assistance to build diplomatic bridges.

Working Group Structure, Focus and Approach

In May 2002, the Conflict Prevention project of the Woodrow Wilson International Center for Scholars launched its Working Group, "Preventing the Next Wave of Conflict: Understanding Non-Traditional Threats to Global Stability." Conceived of in the months following September 11, the Working Group based its analysis on an extensive review of research and analysis regarding the evolving implications of economic and social disparities, economic and political governance, demographic and health trends, natural resource scarcity and environmental degradation for global stability and U.S. national security.

The Working Group had two primary objectives driving the research and discussion:

- To characterize and assess the seriousness of non-traditional threats to global stability and national security;
- To understand how foreign and national security policies should be adapted to respond more effectively to emerging non-traditional threats.

The Working Group sought to focus its assessment narrowly. It defined threats to U.S. national security primarily as those that increase the likelihood that U.S. armed forces will be drawn into conflict, peacekeeping or humanitarian relief missions. In assessing threats to stability, the Working Group focused predominantely on threats that would increase the likelihood of armed conflict, whether or not that conflict was likely to directly embroil the United States. (The indirect implications of that instability for the United States also were considered.) While frequent reference was made to broader conceptions of stability and security, the findings and conclusions were crafted to focus on assessing the causes and reducing the risks of conflict and particularly U.S. engagement in conflict.

A wide range of experts participated in Working Group deliberations. A core group of approximately 25 people representing governments, research institutions, universities, non-governmental organizations and

Congress participated in the full set of Working Group meetings. They were joined by sector experts for deliberations regarding specific topic area. Over the course of the Working Group some 185 people participated in the discussions. Appendix 2 contains a list of participants.

Using research and discussions, the working group reached findings regarding the nature of threats faced by the United States and the global community. It also developed a series of conclusions regarding how emerging threats can be reduced and specific conclusions for each of the individual topic areas. (Those findings can be found in the topical chapters contained in the next section.)

The conclusions and findings represent a starting point. They define the current understanding of how broad trends are re-shaping political, social and cultural relationships around the world, and the implications of that evolution for U.S. foreign and national security policy. Using this document as a foundation, we hope that policy makers, legislators, researchers and journalists will help define the priorities for action that emerge from the deliberations.

Working Group Overall Findings and Conclusions

Julia Taft, May 31

Michael Moodie, November 14

Robert Kaplan, September 19

Working Group Overall Findings and Conclusions

Non-traditional threats are increasingly important sources of instability around the world. While most non-traditional sources of instability do not directly threaten national security, they are central to U.S. national interests and cause crises that call for U.S. involvement. The challenges faced by governments in governing, fostering economic growth and development, protecting the environment and maintaining public health will prove central determinants of global well-being; they will have important implications for U.S. diplomatic, military and development assistance policy. Moreover, they will increase in importance over time. Left un-addressed, some of these problems will grow and may reach a threshold point beyond which crisis aversion becomes far more difficult. In the post-September 11 world, the need to address non-traditional threats to stability has never been more apparent.

Global stability and U.S. national security are increasingly affected by non-traditional threats.

Globalization and technological advances are increasing the extent to which non-traditional factors are driving disputes and becoming proximate causes of conflict.

Global interdependence has grown dramatically. Expanding economic integration, the dramatic increase in international travel, and the accelerating exchange of information and communications mean that local economic, environmental, political and social challenges often have global implications. Today, unrest in what once might have been considered a distant developing country can have important domestic and foreign policy implications for the United States. As a result, the threat to U.S. security is often more direct and the likelihood of U.S. involvement in disputes greater.

The trend towards integration has delivered important benefits and opportunities. Increased national income and development have accompanied economic openness in many places. Broader channels for communication have fostered cooperative problem-solving as well as greater cross-

cultural exchange and understanding. Technological advances have increased global food security and accelerated the development of treatments for disease. The growth in opportunities to travel, study and work internationally have broadened the horizons and opportunities of millions of people around the world.

At the same time, global integration has had some important negative consequences. In some places, globalization has increased disparities in income, and fostered economic stagnation and unemployment. Unfortunately, in most places that have benefited developmentally from economic openness, development is fueling environmental degradation. Around the world, increased travel and trade facilitate the spread of disease. The increased flow of information is often a source of miscommunication and misunderstanding.

Seen through the lens of national security, globalization and technological advancement have directly facilitated the development and sustainability of terrorist networks, and have often helped sustain conflicts. Technology has made terrorists highly mobile and well-informed. Economic integration has facilitated the flow of funds and the trade in goods that can fuel terrorists and distant conflicts. Communications and the international flow of information have enabled disapora communities to play larger, often incendiary roles in disputes back home; they have also increased the domestic political importance in the United States of a wider range of conflicts.

Few non-traditional threats directly create broad instability or threaten U.S. national security.

While there are myriad examples of local conflicts and unrest driven by resource scarcities, inequities, refugee crises and failures in governance, few have snowballed to cause broad instability or conflict; even fewer have escalated to threaten U.S. security. Similarly, there is little research or evidence indicating that most non-traditional threats are likely to spark widespread conflict and instability.

There are important exceptions. The AIDS epidemic, which is ravaging Africa and worsening in Russia, India and China, is weakening social cohesion, national carrying capacities, military and security force strength, and long-term economic prospects; it will directly affect the broad security environment long into the future. Constraints on the availability of fresh water also are likely to create more widespread instability and tension as they become more acute. Development and environmental degradation are depleting water availability; in tense regions such as the Middle East

and North Africa, where water is already scarce, disputes are likely to worsen. Similarly, in light of globalization and technological advances, the growing number of failing states provide more havens for terrorists with the capacity to directly attack U.S. interests.

The indirect connections between non-traditional threats and instability are critical, and must be addressed in order for the global community to increase peace and stability long-term.

Non-traditional threats are often the fundamental, underlying causes of discontent and instability. Economic stagnation, disparities in income, failures in governance, environmental degradation and declining health status have dramatic costs for societies. They erode the legitimacy of the state by reducing citizen confidence in government capacity to provide and protect. By constraining the goods and services available to the population, they create an atmosphere of competition. In limiting the opportunity and hope of citizens, they create dissatisfaction and inhibit the capacity of individuals to feel vested in peace. They often drive ethnic, religious and class tension, facilitating the emergence of conflicts fundamentally driven by disparities but masked by cultural and social cleavages. They enable ill-intentioned leaders to foster divisive ethnic and religious conflicts in order to advance a personal power-seeking agenda.

In order to permanently reduce instability and long-term threats to U.S. security, the United States and the broader global community will have to address its fundamental causes. Without eliminating the underlying causes of conflict, cycles of violence will continue unabated and sustained peace will remain elusive. The introduction of functioning governments that deliver services, the implementation of locally appropriate strategies for economic growth, and the provision of broad-based universal basic education that addresses relevant topics in health and the environment will be critical building blocks. In providing those services, governments will begin to demonstrate concretely to their citizens the peace dividend.

There is increasing urgency to address non-traditional threats.

Many hypotheses have been advanced regarding the causes of September 11. Common among the analyses is the sense that there is growing discontent about the disparities in the wealth and opportunity that exist. There is no evidence to suggest a direct connection between September 11 and the inequalities in the world; nonetheless, there is consensus that inequity is an underlying cause of dissatisfaction and disaffection. Unfortunately, it is

equally clear that in many cases, without a concerted, explicit effort to address them, disparities will grow

Demographic shifts will make it more difficult to alter the trends. Rapid population growth is quickly reducing the capacity of states to provide for their people; in many cases these are countries like Egypt and Pakistan, which already have difficulty delivering to their citizens, are volatile, and have not embraced political and economic openness. Adding to the burden is the rapid pace of urbanization, which is reducing health status and environmental quality as it further strains service provision. Other, mostly developed countries are facing depopulation, which is likely to alter their fiscal and policy priorities as well as their military force structure.

In some cases, there exists an immediate need to address non-traditional threats because they risk reaching a threshold or "a point of no return," after which it will become far more difficult to eliminate instability and avert related conflicts. The stability-related implications of global climate change, water scarcity, and the spread of AIDS and other deadly infectious diseases pose such threats. Today, there are enormous opportunities to thwart these emerging environmental and health crises. There is even the prospect of fostering broader multilateral cooperation through collective efforts to combat these global problems. Unfortunately, by not seizing these opportunities today, the United States will face significant long-term threats that will be impossible to reverse and far more difficult to resolve.

The United States currently lacks sufficient capacity to strategically address non-traditional threats.

Post-September 11 has been marked by increased discussion of emerging non-traditional threats worldwide. Unfortunately, that discourse has not been matched by efforts to enhance capacity to strategically track and eliminate the fundamental underlying causes of tension and crisis. Increased funding for development assistance will deliver its best results for security if it is paired with concerted efforts to better integrate the strategic planning, and program implementation and oversight efforts of the military, diplomatic and foreign assistance arms of the U.S. government. The creation of a strategically coordinated means for assessing and addressing the full panoply of long and short-term threats to stability would help clarify priorities and better target resources.

The short-time horizon used in strategic planning and decision-making further hampers efforts to address non-traditional threats. Too often, insufficient opportunity exists to think strategically about the underlying causes and long-term consequences of policy-making. Unfortunately, the limited

time frame for analysis often leads to the adoption of policies and strategies that can undermine long-term prospects for stability and peace. For example, strategy might be altered if there were greater recognition of the extent to which military campaigns that destroy infrastructure interfere with long-term efforts to establish functioning governments and deliver a peace dividend. Acknowledgement of the costs of premature elections post-conflict might facilitate more sustainable peace building. Greater recognition of the importance of governmental legitimacy at the local and regional levels might lead to reallocation of resources towards states and localities rather than central, national governments.

Compounding the structural barriers to successfully combating non-traditional threats are attitudinal barriers that hinder progress. There continues to be hesitancy within the diplomatic and military corps to recognize the importance of human security issues to stability. Development experts continue to be unable or unwilling to factor in sufficiently the security and conflict-related dimensions of their work. And the limited capacity of military and diplomatic personnel to work in a transparent, participatory manner with non-governmental organizations and local communities further impedes cooperation.

A proactive approach to combating non-traditional threats offers enormous opportunities.

Many of the threats to stability posed by economic, social, environmental, demographic, health or governance-related challenges will grow over time. While they currently pose a limited or distant threat, their relevance and importance will increase dramatically if ignored. A proactive approach will be key, particularly in the health and environment sectors. Investments to halt the spread of disease through surveillance and early warning, vaccination and education could eliminate threats to stability while improving the quality of life for millions and decrease drains on national income. Similarly, early efforts to enhance energy and water use efficiency, accelerate the spread of clean technologies and negotiate water-sharing agreements could remove the risk of conflict. At the same time, they would reduce the risk that natural resource shortages and climate change lead to instability in the years ahead.

Attempts to reduce non-traditional threats also would offer multiple benefits. In many cases, efforts to address one concern would at the same time reduce other risks. An investment to facilitate the transfer of more environmentally sound technology could enhance trade and economic development as it improves environmental quality, reduces local health

problems, and helps reduce the growth in greenhouse gas emissions. In improving health status, countries could increase productivity and reduce the financial strain on the government, freeing-up resources for other services. Simultaneously, the faith of the citizenry in public service delivery would rise.

Strategic investments could also be used to address simultaneously several threats to stability. The provision of education for all would benefit the economies of poor countries, increase citizen faith in government service provision, increase gender equity, and improve environmental and health conditions. Programs to improve governance could increase citizen faith in the government while increasing the potential for environmentally sound economic investment and growth.

Used opportunistically, interventions to address non-traditional threats could also advance broader U.S. diplomatic goals. Cooperation to improve health care might be used to build bridges among countries with which the United States has a tense relationship. Assistance to foster economic growth and trade could help blunt the stability-related consequences of economic stagnation while reducing antipathy towards the Unites States.

Finally, engagement in reducing non-traditional threats in the near term would allow the United States to move from a reactive to a proactive posture in shaping its relationships; this would be a particularly significant change with regard to developing nations. By making critical investments to reduce instability in key countries, the United States could decrease the need to respond to crises and increase the ability to build lasting alliances. This would also reduce the degree of unpredictability in foreign affairs.

Foreign aid needs broad recognition as a fundamental tool of foreign and national security policy.

Too much distance exists between the diplomatic, military and foreign assistance communities. A strategic effort to eliminate non-traditional threats to stability and security will require significantly improved coordination and cooperation. Analytical and threat assessment capacity will need to be created building on the knowledge and skills of diplomatic, military, intelligence and development professionals; that collective assessment will also need to be used by all of those groups in program planning.

At the same time, extreme care will be needed to balance objectives and goals. The bottom-up planning, analysis and prioritization undertaken by the foreign aid program will need to be married with an analysis of priorities from a national security perspective. The longer time frame used by

development professionals to assess developmental impact will need to be reconciled with the shorter-term goals and objectives of diplomatic and military planners.

To reduce non-traditional threats to stability and security, a larger emphasis on conflict prevention is needed.

Many government and non-governmental efforts around the world focus on promoting economic growth, improving governance, halting the spread of disease and improving health status, reducing environmental degradation and enriching educational opportunities (in addition to a wide range of other important objectives). Their success varies; some make a significant positive contribution. But few of these sectoral efforts give high priority to reducing instability. Even fewer focus on reducing the risks of instability and conflict posed by inaction. If the goal is to reduce the risk of conflict, programs often pay inadequate attention to some of the most important long-term priorities.

While focusing on reducing the risk of conflict would undoubtedly change funding priorities in some parts of the world, it would not require a change in the approach to program design and realization. In fact, in many cases, an emphasis on conflict prevention would reinforce the need for a participatory bottom-up approach, and a longer time horizon for program implementation and results monitoring, already central tenets of development assistance.

In certain areas, the traditional approach to program implementation would have to be adapted. For example, in fostering the transition to democracy, the emphasis on speedy national elections as the critical benchmark would need to decrease dramatically. Instead, that transition process would need to be measured through assessments of power sharing, rule of law, freedoms of speech, assembly, religion and property as well as equity. Similarly, in providing assistance in the period immediately following conflict, humanitarian aid and assistance in providing security would best be more quickly paired with support to rebuild infrastructure and jumpstart service provision.

In some fields, priorities would need to shift. In helping promote good governance, greater emphasis would need to be placed on enhancing local and regional governance. Economic reform would need to place greater emphasis on democracy promotion; democracy promotion would need to be central in promoting economic reform. Economic restructuring programs would require a more explicit emphasis on reducing disparities in income. Across the board, the drive towards gender equity would need to

be mainstreamed and recognized as fundamental to good governance and sustained economic growth.

Finally, to facilitate the shift towards proactive programming to prevent instability, a suite of efforts would need to be created or substantially expanded as complements to existing programs. AIDS prevention within the military and peacekeeping forces would be critical. Environmental and health assessments would need to be integrated into economic assessments for countries under stress.

A reliance on multilateral organizations and international cooperation will be key.

Balancing the desire for sovereignty and control with the need for collective action is increasingly complex; the attendant tensions are evident everyday in discussions of the European Union, the World Trade Organization, the United Nations and the North Atlantic Treaty Organizations. Nonetheless, a re-commitment to these multilateral institutions will be critical to reducing long-term instability and maintaining U.S. national security.

Several fundamentally destabilizing challenges will not be overcome without international cooperation: halting the spread of infectious diseases; staving-off the threat of global climate change; combating terrorism; and fostering economic openness that meaningfully reduces disparities in income. These concerns are global and do not respect borders. Indeed, because they are global, they pose a direct threat to the United States despite the fact that they are the most difficult to combat unilaterally. Time and resources will need to be invested to support and nurture multinational vehicles for problem solving.

A second set of problems—the need to turn around failing states and promote sound natural resource management, for example, though nation specific—will require international cooperation to overcome. Financial and technical support will be critical to turning around countries under stress and promoting sound resource management. Sustainable environmental management will further require multinational commitments to trade regimes and norms supported by private firms.

Finally, a third series of challenges that are frequently derivative of domestic problems, will have important regional and global implications for stability and necessitate multinational cooperation to overcome. The management of refugee flows resulting from conflict, health epidemics, environmental crises or food insecurity are examples of this type of challenge. The need to prevent the degradation of natural resources (such as forests) to fund conflicts and insurgencies is another example.

There is historic precedence for the success of international efforts in a range of fields. The eradication of smallpox, polio and other diseases was achieved through international cooperation. Hundreds of transboundary water-sharing agreements have endured and staved-off disputes. The war on terrorism has made headway predominantly as a result of broad global cooperation to share and follow-up on intelligence. These and many other multilateral efforts facilitate cooperation and global governance in international trade, peacekeeping and humanitarian aid delivery, the growth of the internet, and other domains. It is impossible to overstate these organizations' importance or the extent to which their importance will grow as globalization increases.

At the same time, the weaknesses of multilateral organizations need to be addressed and the shortcomings of cooperative efforts must be reduced. Many international organizations are plagued by waste and mismanagement. Cooperative humanitarian and development efforts are often uncoordinated and duplicative. Many of the multilateral fora for responding to crises and reaching international consensus have lost flexibility, responsiveness and efficiency. Initial improvements might be facilitated by the identification of a lead nation to oversee and coordinate humanitarian and development aid to failed states and countries receiving post-conflict support (e.g. Afghanistan) in a manner similar to that used by NATO to coordinate military efforts.

Ultimately, broad based cooperation at all levels and by all stakeholders will be critical. Enhanced participation by individual citizens and local communities will increase the likelihood of success as it vests individuals in problem solving. Extensive participation by the private sector will provide important perspective, critical tools and resources for addressing threats (particularly in the heath and environment sectors) and an engine for economic growth and investment. Cooperation with non-governmental organizations of all types will increase awareness and broaden support for engagement.

A deeper analytical foundation for tracking and assessing the magnitude of non-traditional threats to stability and security is needed.

There is a very limited body of research that specifically looks at the security dimensions of most non-traditional threats. The weaknesses in analysis vary. For example, while there is substantial research into the environment-security nexus, most focuses on intra-state conflict; the base of information on inter-state conflicts, particularly paths for the escalation of local conflict, is far thinner. Similarly, while there is

research into how economic concerns feed instability, that research primarily focuses on local unrest; the hypothesis that global disparities in income feed grievances has received little attention. In the field of governance, there exists the need for assessments of when failed states provide fertile ground for terrorism, and the development of strategies for improving global governance.

Further limiting the capacity to move forward is the lack of taxonomies for assessing the risks when several potential sources of tension converge. For example, useful analysis might examine the demographic trends that are most volatile when combined with economic stagnation or growing disparities in income. Similarly, helpful assessments could focus on how assistance and intervention could be prioritized to reduce the risk of conflict when a state faces a range of challenges.

Critical will be strategies for explicitly reducing the instability associated with developmental challenges. For example, strategies need to be developed for promoting post-conflict reconstruction that minimizes the risk of a return to conflict. The work on environmental security threats needs to be translated into a framework for prioritizing efforts to improve environmental management. Research on political and economic governance is needed to develop a roadmap for democracy-building in a post-conflict setting.

A set of priorities for attention and action needs to be defined. Which are the most critical threats to stability that demand urgent attention? How can we refine the list of priorities and create an overall roadmap for action? In moving ahead, a collective vision for action will be critical, one that uses the growing base of research and analysis as the foundation and places a priority on preventing emerging sources of conflict.

Working Group Briefing Notes and Topical Findings

ECONOMIC AND SOCIAL DISPARITIES

POLITICAL AND ECONOMIC GOVERNANCE

DEMOGRAPHIC SHIFTS

NATURAL RESOURCES AND ENVIRONMENT

HEALTH

Richard Haass, Marina Ottaway, August 1

Nicholas Sambanis, June 20

David McIntyre, Joseph Collins, December 12

Economic and Social Disparities

A great deal of debate has focused on economic and social disparities as a root cause of the September 11 attacks on the United States. Essential to the discussion is the belief that poverty in developing countries feeds discontent and resentment. Moreover, stability is jeopardized by this endemic poverty, and the disparity of income between developed and developing nations. The critical questions for analysis thus become:

- To what extent do economic and social disparities directly threaten global stability and U.S. security?
- How can the U.S. and international community reduce economic and social threats to stability?
- How should efforts to correct disparities be structured to reduce their destabilizing impact?

I. GLOBAL ECONOMIC TRENDS

Globalization, "the growing interdependence of social, political and economic activity as a result of the increasingly unhindered movement of goods, services, information and ideas around the world,"[1] continues to advance. The *A.T. Kearney/Foreign Policy Globalization Index* found that despite September 11 and the information technology industry's retreat, global integration continues to advance. In 2001, world trade and tourist travel declined by 1.5 percent and .95 percent, respectively. Foreign direct investment (FDI) tumbled by 50 percent, from $149 trillion to $735 billion; nonetheless, total FDI flows in nominal terms were still higher than any year before 1999 and were almost double the 1995 level. Additionally, international telephony and Internet connectivity continued to grow substantially in 2001 and 2002 despite the global economic downturn.[2]

Increasing interdependence has been accompanied by greater economic openness around the world. The *Heritage Foundation/Wall Street Journal Index of Economic Freedom* finds that "economic freedom," as measured by

assessing the enabling environment for growth in 156 countries, is increasing. The index also indicates that increased openness is correlated with higher overall per capita income. These findings are supported by research from the World Bank. A 2001 study by David Dollar and Art Kraay found that countries that opened their economies post-1980 experienced increased trade and economic growth rates that averaged five percent in the 1990s, exceeding those of developed economies.[3] During the same period, developing nations that did not open-up experienced growth rates of about 1.4 percent. Further supporting the claim of economic benefits from globalization are studies by Surjit Bhalla and Xavier Sala-i-Martin. Sala-i-Martin, for example, finds that poverty rates have declined significantly in the last 20 years; 685 million fewer people live on one or two dollars a day than did in 1976.[4]

Nonetheless, on an individual country level, the impact of globalization and economic openness is sometimes less clear. Robert Samuelson points out that despite much greater economic openness in Latin America, economic growth has not soared.[5] China and India, two enormous countries that have very successfully reduced poverty, are not completely economically open and "globalized."

It is also unclear whether or not globalization has had an equally positive impact on disparities in income. The World Bank study cited above concludes that countries that are not globalizing are falling further behind in terms of growth and income. Some nations, among them Egypt, Saudi Arabia, Peru and Botswana are becoming less integrated into the global economy; they are losing pace with the accelerating movement of goods and services worldwide. Studies by Sala-I-Martin note a similarly disturbing trend; Africa, home to 11 percent of the poor in 1970, housed 66 percent of the poor in 1998. The stark difference in the wealth of nations is clear when it is recognized that 80 percent of the world's population lives on 20 percent of global GDP.

There is also evidence that economic openness does not necessarily reduce poverty and may be accompanied by increasing disparities in income within countries. Several studies, including recent work by Bhalla find that the poor benefit from globalization. But the *United Nations University's World Institute for Development Economics Research (WIDER)* has found that overall income inequality is growing within countries, sometimes with a concomitant dampening effect on growth rates. Data from the *World Income Inequality Database*, indicate that in the last 20 years income inequality increased in 48 of the 73 countries studied. It remained constant in another 16 (though it recently began to increase in Brazil, India,

Indonesia and Bangladesh) and fell in only nine.[6] Sala-I-Martin also finds a slight increase in disparities in income within countries; however, he concludes that they do not offset reductions across countries.[7]

Real wages are declining as unemployment increases in many parts of the world. *The World Economic Forum* and the *Harvard Institute for International Development* found that between 1990 and 1997, even prior to the economic collapse, real wages fell in China, Indonesia and the Philippines across all sectors of the economy. And according to the World Bank, per capita GDP in the Middle East and North Africa, Sub-Saharan Africa and Eastern Europe and Central Asia either remained unchanged or declined between 1965 and 1999. According to the International Labour Organization, unemployment rates across the developing world also have grown since 1990 as growth and economic expansion have failed to keep pace with population growth. According to the *Arab Human Development Report 2002*, about 12 million people are currently unemployed in the Arab world (15 percent of the population); given present trends that number could grow to 25 million by 2010.[8]

II. THE SOCIAL DIMENSION

Globalization has brought with it equally sweeping changes in technology, the availability of goods and services, and the flow of information. Access to radio and television are increasing global awareness of the diversity of cultures, societies, ideas, goods and services. Computers and the Internet have altered profoundly the opportunities for education and commerce.[9] The Progressive Policy Institute estimates that the Internet economy was $135 billion in 1999 and will have grown to $360 billion in 2001.

But while expansion of the Internet has been hailed by many as the great equalizer, the reality is a growing digital divide. *The Organization for Economic Cooperation and Development (OECD*) estimates that in 2000, 95.6 percent of Internet hosts around the world were located in member countries. OECD countries may have 100 Internet hosts per thousand inhabitants; non-OECD member states are likely to have less than one for every 1000 people. Similarly, while 41 percent of North Americans have Internet access, only three percent of those in Latin America, two percent of those in Asia and the Pacific, and .6 percent of the Arab world uses the Internet.

At the same time that access to information has created enormous opportunities, it has created new challenges and vulnerabilities. Cybercrime is rising far faster than the ability to regulate, monitor or con-

trol it. The Internet has proven a central tool for facilitating communication and planning among terrorist groups. Increased access to information has increased knowledge of the disparities in income and opportunity around the world, fomenting discontent and facilitating the mobilization of destabilizing constituencies.

The disparities among nations are even clearer in examining education rates. About one third of the world is illiterate. One hundred and thirteen million children are not in school; 97 percent of them are in developing countries.[10] While the situation has improved in Latin America, the Caribbean and East Asia, it is deteriorating in Sub-Saharan Africa where 40 percent of children are not enrolled in primary school. Similarly, disparities in education within countries are dramatic. In Africa, while almost 60 percent of men are literate, only 36 percent of women can read and write.[11] One in every two Arab women is illiterate.

Lack of education in a country depresses economic growth and fosters income inequality; in Africa it has been estimated that gender inequalities in education and employment reduced per capita growth between 1960 and 1992 by .8 percent. *Arab Human Development 2002,* which was published by the United Nations Development Program, concludes that gender inequities and inadequate investment in education (along with lack of freedom) are undermining progress in the Arab world. Lack of education has also been shown to contribute to unchecked population growth and is correlated with a higher propensity for conflict.

III. INTERPRETING THE TRENDS AND THEIR IMPLICATIONS FOR SECURITY AND STABILITY

Sweeping changes are altering the global economic and social landscape. The implications for U.S. national security are less clear.

ECONOMIC TRENDS AND SECURITY

There is growing consensus that in general terms, greater openness and economic advancement promote stability and peace. The State Failure Task Force found that openness to trade reduced the risk of state failure. The results have been supported by those of Russert and Oneal, and Polachek who find that greater mutual economic dependence reduced the risk of conflict; Polachek's analysis correlated a doubling in trade between two nations with a 20 percent reduction in the likelihood of conflict.[12] James Fearon and David Laitin have shown that the likelihood of civil war decreases with increased per capita income. And Paul Collier and Anne Hoeffler

have shown that healthy per capita GDP growth rates decrease the likelihood of civil war. There are, nonetheless, two ways in which increasing economic interdependence may threaten national security and global stability: by increasing vulnerability to economic downturns, and by fostering destabilization and conflict, particularly as a result of extreme disparities in income.

Vulnerability to Economic Crises Abroad

The United States is increasingly dependent upon international markets and international trade for its well-being. As a result, it is more vulnerable to economic downturns abroad. At least one-third of the economic growth and 40 percent of new jobs in the United States since 1992 are attributable to exports. Exports and imports today comprise about 15 percent of total national output.[13] Over $2.5 trillion of U.S. savings is invested abroad. Developing countries purchase 40 percent of U.S. exports.

The United States weathered recent economic turmoil abroad without dramatic consequence. But as the *Council on Foreign Relations' Task Force on the Future of the International Financial Architecture* has said, it is instructive to note that in the most affected sectors exports fell by 40 percent as a result of problems abroad.[14] And the crises hit when inflation was low and domestic spending was healthy, permitting the United States to weather the increase in the trade deficit, and buffering the economy from turbulent global markets. Increased interdependence will likely bring with it greater vulnerability. A less robust economy will also reduce U.S. ability to mute the impact of decline.

The secondary impact of financial crises should also be considered. Economic crises in a single country threaten regional contagion and broad economic failures that are more difficult to ride-out. Even without spread effects, individual country level financial bailouts have proven costly to the international community. The World Bank, Asian Development Bank and donor countries contributed loans totaling U.S.$112 billion for Indonesia, Thailand and South Korea. The International Monetary Fund provided U.S.$50 billion to Mexico in 1995. Additionally, recent financial crises had dramatic implications for inequity abroad; in Latin America and Asia crises increased inequality more that 60 percent of the time. They also had a serious, long-term impact on unemployment in places like East Asia, Russia and Brazil.

"The basic logic of civil war and economic behavior dictates that if one has something better to do with one's life then one will be less likely to join a rebel organization."

–Nicholas Sambanis

The Impact of Economic Disparities on Stability

It is evident that there is an enormous global gap between rich and poor, but it is not clear that disparities in wealth are fostering insecurity. In the

wake of September 11 a great deal of attention focused on how the economic gap between developed and developing nations may be fueling terrorism and conflict.

Some have theorized that terrorists tend to be poor, under-privileged, uneducated products of impoverished societies; that has not proven to be the case. A recent study by Alan Krueger and Jitka Maleckova found that consistent with past research in Europe, Latin America and Asia, poverty and education in the Middle East are not correlated with participation in violent, politically-motivated attacks.[15] The *Krueger/Maleckova study* did not even find greater public support for terrorist attacks among the poor and uneducated. Similarly, Surjit Bhalla found little connection between relative poverty and growth, and the Muslim world, concluding that there is little direct connection between wealth and terrorism.[16]

MIT economist Anne Amsden has put forth an alternative theory. She postulates that the increasing complexity of terrorism demands a more sophisticated approach. Terrorist troops can be recruited from among the mass of uneducated, unemployed residents of the poorest countries. But more complex management and organization require education and resources; hence the number of educated, middle class terrorists emerging from countries with stagnant economies. This perspective would be consistent with the analysis of Ted Gurr who has theorized that enduring economic decline will ultimate stimulate the greatest response from those who had been upwardly mobile, the "organized working class."[17]

Another hypothesis is that inequities within a country may be destabilizing when they reinforce other divisions within societies (for example, ethnic or religious differences). These horizontal inequities spread across identifiable sub-groups and facilitate mass mobilization for rebellion. Dani Rodrik finds, for example, that among fast growing developing countries in the late 1970s, the determinants for continued prosperity were the existence of strong institutions for governance and the absence of deep societal divisions.[18]

Some links between economic hardship, instability and conflict have been identified. Paul Collier of the *World Bank* has found several specific economic factors that are linked to the propensity for conflict. His research suggests that economic stagnation increases the risk of conflict: the lower the economic growth rate the higher the risk of conflict. The analysis is supported by the facts: "eight of the ten countries with the worst human development index and eight of the ten countries with the lowest GNP per capita recently had major civil wars."[19] The Collier study also suggests that the risk of conflict increases with economic decline

because when countries no longer have the financial resources for defense (as a result of sluggish growth), their financial and organizational advantage over rebels declines.[20]

Collier's analyses also indicate that the economic base of a country is a strong predictor of the propensity for conflict. Nations deriving approximately one quarter of their income from primary commodity exports are most vulnerable to conflict; Collier hypothesizes that this is because natural resources are most easily diverted to fund rebel movements. Alternatively, the commodity export-instability link could be seen to result from the "resource curse" that plagues many natural resource-rich countries; abundance is often linked to economic stagnation, corruption, and poor policy making and management.

Other links between economic stagnation and instability are easier to identify. For example, poor economic conditions increase the likelihood of civil conflict. In a post-conflict environment, economic stagnation increases the likelihood that conflict will recur.

SOCIAL EVOLUTION AND STABILITY

While there is little evidence that the increased flow of information and the spread of technology cause or worsen conflict on their own, they may influence stability and security.

Information Content as Destabilizing

The increased flow of information is influencing worldviews but the implications are unclear. In *Jihad vs. McWorld,* Barber hypothesizes that media exposure to Western consumerism may spur a rebellion against inequities in society. Consistent with this notion, a 2002 Gallup Poll found deep anti-American sentiment in the Muslim world. This correlated with levels of trust in Government-run anti-American media outlets abroad and dislike of American television deemed too violent and sexually explicit. At the same time, it is important to remember that the preponderance of the literature has concluded that cultural difference is not a leading cause of war. There is little research into whether cultural misunderstanding is an underlying cause of conflict.

Information Technology as Security Threat

There is clearly a growing potential threat to security from the spread of information technology. Information technology has proved an important terrorist tool; it facilitates communication and coordination among Al Qaeda cells and was used to plan for the September 11 terrorist attack. It is

a means by which to collect information on targets and arms manufacture which can be used to plan and carry-out attacks. It is also a medium through which to generate support for a cause and unite diasporas with a common cause (e.g., by reaching out to Jews and Muslims in the United States to encourage them to advance an agenda). Increasing U.S. dependence on technology and Internet commerce create additional national vulnerabilities to consider.

The Opportunities Created Through Information Flow and Technological Advances

Technology simultaneously offers opportunities to reduce threats at home and abroad. Increased information flow can increase awareness and understanding of different cultures and conflicts. It offers the hope of greater transparency in governance, reducing corruption and misinformation, and facilitating the spread of democracy. Similarly, technological advances hold great potential to aid crime prevention and crime solving.

The advent and spread of information technology is also increasingly recognized to be critical to economic and social advancement in developing countries. There is growing consensus that increased investment in information technology will be crucial to increasing the growth rates, economic productivity and international competitiveness of developing nations. Information technology will only become increasingly important to nations' economic well-being as its dominance grows worldwide.

IV. RISKS POSED BY ADVANCEMENT AND STRATEGIES FOR PROMOTING PROGRESS

Though economic and social disparities can undermine stability, efforts to correct those disparities can be equally destabilizing. The international community has over thirty years of experience assisting developing countries to reform their economies in an effort to foster economic growth. While the process of transformation and liberalization has often been critical in stimulating growth and economic development, there have frequently been consequences for stability.

Efforts to open-up economies for investment involve: reducing barriers to trade; introducing policies to permit investment and capital flows; creating a regulatory environment that fosters the creation and operation of private businesses; and implementing laws to secure property rights, permit secure business transactions, and ensure rule of law. Each component of the transformative process can have implications for stability, as

can the approach that is used to achieve transformation. Vested interests are threatened by the introduction of transparency and rule of law. Price liberalization and privatization of services can have dramatic implications for the cost of goods and services, with a particularly significant impact on the poor. The accumulation of debt to finance economic transformation can have significant economic and political ramifications for the long-term. At times, the delivery of social services like education and health care declines as countries seek to curtail government outlays and service debt.

Multilateral efforts to support economic restructuring have often been unsuccessful in managing the risks posed by the process of transformation. Countries around the world have faced riots and unrest in the short-term following the removal of subsidies for basic commodities like food, water or fuel. Some nations have refused to cut subsidies because they fear violence; others have backtracked on efforts to reduce market distortions when faced with opposition. Efforts to reduce investment, raise taxes and freeze wages have often led to increases in the real prices for commodities, stirring unrest and political opposition.

Efforts to correct social and economic disparities among different sub-groups within countries can also exacerbate tensions. In many countries, infrastructure exists only in areas populated by favored segments of society; therefore, when humanitarian and development aid have been delivered using only existing infrastructure they have sometimes perpetuated favoritism for certain sub-groups within countries. Similarly, where opposing groups have different socio-economic status and assistance has been distributed equally among grieving parties, it has sometimes elicited claims that inadequate efforts are being made to compensate for historic differences in treatment.

While there is some debate over the implications for stability of aid and reform, the most recent research is unambiguously positive. Though the Grossman model predicts that aid will increase the likelihood of conflict, Collier and Hoeffler conclude that increases in aid and improvements in policy will each reduce the likelihood of conflict. Together, the effect is to lower the risk of conflict by approximately 28 percent over five years.[21]

V. FINDINGS AND CONCLUSIONS

The evolution of the global economic and political system is a work in progress. Though it is difficult to reach clear conclusions regarding the specific impact of economic and social factors on the propensity for conflict,

the research does support some general statements about the implications of economic and social change for stability and security.

- **There is no proof of a direct causal link between inequities and violent conflict.** There are, however, indications that disparities can exacerbate tensions in situations where other sources of instability are present. And there is evidence that economic stagnation and decline do increase the likelihood of conflict, particularly when countries and regions are faced with other challenges. For example, conflict is more likely to recur where broad-based economic growth is not quickly stimulated following the end of hostilities. Similarly, ethnic hostilities are more likely to persist and worsen in the face of economic disparities among opposing groups.

- **Overall, globalization is having a positive impact on the global economy and society.** In many countries growing interdependence is helping raise national incomes and promoting development.

- **Globalization does not automatically reduce poverty or decrease disparities in income.** Though globalization has been salutary in its overall impact, in many places around the globe people are getting poorer. Often disparities in income within countries are growing because inadequate attention has been paid to promoting an approach to globalization that reduces poverty and inequity. This lack of attention has increased the destabilizing impact of change.

- **Intra-state and inter-state crises and conflicts will have greater relevance for U.S. security and well-being as economic interdependence grows.** The United States will be increasingly dependent upon the stability and health of international markets, international capital flows, and international supply and demand for goods and services.

- **The economic gap between open and closed societies is likely to widen and become increasingly apparent as globalization progresses.** Some nations will continue to be unable or unwilling to open-up their economies and societies; while that group will diminish, it will not disappear. The implications for U.S. national security will depend upon the countries that stagnate.

- **Inadequate attention is paid to education as an economic commodity and vehicle for promoting global stability.** Research has indicated that education at all levels enhances economic and political development, but the higher the level of education the greater the returns. The United Nations' Millenium Development Goals call for universal primary education by 2015; from an economic perspective, this is insufficient. Increased attention to the content of education also will be important to breaking down barriers among cultures and societies; efforts like those of UNESCO to revise textbooks and curricula are to be lauded as important efforts that will help prevent future conflict.

- **Improved education must be coupled with efforts to promote economic growth through sector reform, decentralization, and improved governance and rule of law.** There is some evidence that a highly educated, underemployed population resident in a politically and economically stagnating society increases the risk of conflict and unrest. Strategies for growth and employment creation must accompany broad increases in economic opportunity.

- **There is inadequate recognition that gender inequity is a cause of and contributor to persistent poverty and economic stagnation.**

PROPOSED DIRECTIONS FOR RESEARCH

There is a great need for policy relevant research to further explore how economic and social inequity can destabilize and spur conflict. Fruitful avenues for research include:

- the destabilizing impact of economic and social disparities given the presence of other sources of instability. Disparities within and between countries are most likely to be destabilizing when they exist or emerge in concert with other sources of tension. Research that advances our understanding of the interactions among different sources of instability would facilitate the development of conflict prevention and sustainable development strategies that more effectively reduce the threat of conflict.

- the implications of global and regional inequities for stability and conflict. Much of the analytical attention to date has focused on

how economics influences the likelihood of civil war. Much less investigation has analyzed how growing inequities among nations are affecting the propensity for interstate conflict. Given policy-maker attention to the impact of global disparities on the likelihood of conflict and terrorism, increased investigation would be instructive.

- the differential impact of various types of inequities for conflict. Some have theorized that varied types of inequality will spur violence in different places. In some cases, inequity in the distribution of assets may be the source of grievance; in other places, lack of equity in political access and representation may be the source of discontent. Greater insight into the circumstances under which different types of inequity spur conflict would facilitate development of conflict avoidance strategies.

FINDINGS RELEVANT TO POLICIES AND PROGRAMS

The relevance to U.S. national security of the economic and social well-being of nations around the world is growing. Efforts to break-down institutional barriers and promote cooperation would enhance the work of our armed forces, diplomatic corps, foreign aid professionals, economists and trade negotiators. The U.S. Federal Government should create the capacity to:

- promote economic prosperity and address social and economic disparities in strategic ways that also prevent conflict and promote post-conflict reconstruction. The United States would strengthen its national security and development assistance efforts by:

    - improving the links between those in the U.S. Federal Government focused on foreign economic and trade policy, and those focused on foreign intelligence, security, diplomacy and international development. The United States might create a task force to institutionalize discussion of the opportunities and threats posed by changing economic circumstances around the world. Such a task force (which might bring together policy makers from the State Department, the Defense Department, the Treasury Department, the U.S. Trade Representative, the Commerce Department, the U.S. Agency for International Development (USAID), the Central Intelligence Agency's National Intelligence Council (NIC), the

President's National Economic Council (NEC) and the President's National Security Council (NSC) would permit ongoing strategic assessment of policies to promote economic growth and trade abroad and their implications for stability.

- institutionalizing a foreign economic policy and analysis function. Research indicates that economic trends (such as growth and unemployment, per capita GDP and education rates) can foster instability and the likelihood of conflict. Yet there is no entity within the Federal Government that tracks economic indicators and connects it to U.S. efforts to provide economic assistance and foster political stability. Creating an analytical team to strategically link the Defense Department (J-5), the State Department, USAID and the CIA (NIC) would enhance U.S. ability to eliminate underlying causes of instability.

- improving the ability to adapt and apply locally-appropriate models for fostering economic growth, development and integration within the global economy. The use of tailored approaches to economic reform could significantly reduce the negative impacts of globalization.

- better track emerging strategic threats in developing countries. Currently, the potential strategic relevance of developing countries is underestimated given their growing economic and political importance. As a result, developed countries are increasingly forced to intervene to help resolve rather than prevent crises. Continued neglect will make it increasingly difficult to reduce disparities in income. It is also likely to increase the number of countries in crisis. To increase focus, the NSC could convene representatives of Regional Bureaus in the Department of State, Defense, the CIA and USAID on a periodic basis to examine strategically trends across countries and regions with an eye towards program emphasis, coordination and resource allocation.

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Political and Economic Governance

There is a rich body of literature that discusses the implications of different approaches to governance for peace and conflict. The Cold War pitted communism and authoritarianism against democracy and capitalism. In the post-Cold War period, attention has focused on facilitating the spread of democracy. September 11 reminded policy-makers and scholars that we also need to weigh the value of functioning governments against the absence of any state whatsoever. Not since Thomas Hobbes has there been a greater need to consider whether the greatest threats to stability may lie in the vacuums that are created when governance of any type disappears. Three focal questions guide our analysis of how trends in political and economic governance affect national security:

- Which are the most serious of the threats to national security posed by challenges to good governance around the world?
- How can efforts to improve governance around the world most effectively enhance U.S. national security?
- In light of potential security concerns, are there changes in U.S. trade, economic, military or foreign policy that could be adopted to enhance governance globally?

I. POLITICAL GOVERNANCE

One of the most important lessons of September 11 is that the national security risks to the United States posed by poor governance, even in distant, seemingly strategically-marginal countries can be enormous. Al Qaeda gained strength over time because it found places where it could operate freely in the absence of a traditional government with an investment in the global community (Afghanistan, and before that, Sudan).

Today, in considering how political governance affects national security a range of potential threats to the United States could be considered. Pariah states such as Afghanistan under the Taliban, North Korea and Iraq are dangerous because they are unpredictable and unaccountable to the global

community. Their isolation may facilitate and foster their support for terrorists (as it did in Afghanistan), development of destructive weaponry (as we fear is the case in Iraq and North Korea), or vast humanitarian crises and human rights abuses (as it is in North Korea and did in Iraq).

Threats to national security may also be emerging in regions within countries. Throughout Africa, Asia and Latin America there are vast territories that, while geographically part of nations, are virtually untouched and uncontrolled by government. With advances in technology, the potential for these ungoverned regions to serve as terrorist bases will grow. Already the U.S. military has spent a great deal of time and resources searching for Al Qaeda in Pakistan's autonomous tribal regions (e.g., North and South Waziristan), which are territorially part of Pakistan but are *de facto* ruled by tribal chiefs.

In the wake of September 11 discussion focused particularly on two additional governance-related challenges that are reducing global stability—the threats posed by the slowing global trend to democracy and the increasing prevalence of failed states. Our analysis focuses particularly on assessing the veracity of the threats that stem from those trends.

THE FADING GLOBAL TREND TO DEMOCRACY

The evidence that democracy reduces the risk of conflict is overwhelming. A great deal of analysis has evaluated the behavior of democratic and non-democratic states when faced with the prospect of war. A number of well-supported conclusions can be advanced. It is almost axiomatic that mature democracies do not go to war against one another; when involved in disagreements democratic states prefer negotiation to conflict in resolving differences.[1] Research has also shown that they are less likely to fight wars in general, regardless of the type of potential opponent, though there is more debate about that claim.[2]

In building on the proposition of the "perpetual peace" that would accompany democracy, De Mesquita, Morrow, Siverson and Smith have hypothesized that democratic accountability to an electorate forces leaders to pick more carefully the wars they enter and to dedicate more resources to wars in order to ensure victory.[3] The likelihood of electoral defeat following loss of a war stimulates more caution, and dedication in decision-making and execution.

Others have theorized that voters use the ballot to express their interest in minimizing the costs of governance (and particularly of war) and ensuring avoidance of conflict.[4] Another explanation is that international negotiation rather than war is the natural extension of the philosophy of

democracy, which favors bargaining and conflict resolution. Finally, the restraint imposed by checks and balances on the political system has been cited as an explanation for the correlation between democracy and peace.

Democracy-Promotion as Conflict Prevention Strategy

Given the overwhelming persuasiveness of the research to date, it would be easy to conclude that fostering the transition to democracy around the world is the best strategy for assuring U.S. and global security. Unfortunately, it has become clear that the process of democratic transition is unpredictable. Often the process fails or progress is extremely slow, and the risks to stability during and immediately following transformation are great.

The Findings of Research on Transitions. Nations in the periods during and immediately following democratization are more prone to conflict. The Central Intelligence Agency's analysis has found that countries are most vulnerable in the period immediately following transition.[5] Paul Collier of the World Bank has estimated the risk of conflict to be about twice as great for countries in the first decade post-conflict. Mansfield and Snyder have reached similar conclusions. Their research finds that nations in transition to democracy are 30 percent more likely to fight wars than states of all types that did not undergo a regime change, and 60 percent more likely to go to war than states that remained unchanged or were becoming less democratic.[6] Additionally, they find that in the ten years following the transition to democracy, there is a 25 percent likelihood of a war. (It should be noted that the corollary to this would be that three-fourths of democracies avoid war in the ten years following transition.) While nations undergoing a regime change are more likely to engage in a war than those that experienced no change, those transitioning to autocracy are less likely to engage in war than those that are democratizing.

Mansfield and Snyder hypothesize that wars are more likely to predominate in nations transitioning to democracy because in democratizing countries the elite often seek to maintain power by manipulating foreign policy and stirring-up nationalist sentiment. They theorize that in a democratizing country the weakness of the state and state institutions permits elite power seekers to manipulate the public and the military by controlling the political agenda, and filtering news and media, often stirring-up nationalism. Ted Gurr's research into conflicts in the 1990s showed that ethnic political assertiveness was at its maximum in the middle of the decade-long period of transition following the break-up of the Soviet Union (in 1989-1991). It waned by the middle of the 1990s.

The Global Trends. The future seemed bright for democracy, peace and security with the end of the Cold War. Authoritarian regimes had fallen in Southern Europe and were declining in parts of Asia.[7] Communist dictatorships in Eastern Europe had crumbled. Military dictatorships throughout Latin America had been replaced by elected governments. The Soviet Union was about to break into 15 republics. One-party regimes in many parts of sub-Saharan African were weakening. And in the 1990s, some Middle Eastern nations seemed to be liberalizing.

Today, while democracy continues to expand modestly, disturbing trends have developed. The Freedom House survey of democracy, *Freedom in the World 2002: The Democracy Gap*, finds that at the end of 2001 63 percent of the world's governments were electoral democracies (121 of 192 governments). Eighty-six countries respect basic political rights and civil liberties, and 58 nations demonstrate some respect for rights and civil liberties. These 58 "Partly Free" societies tend to suffer from corruption, limited rule of law, ethnic and religious conflict and, often, one-party dominance. Worldwide 17 countries seemed to progress towards greater freedom while 17 nations suffered setbacks. In Africa, while seven states improved in 2001, nine regressed. Additionally, the gap in political freedom between Islamic countries and the rest of the world is dramatic and seems to be growing: only 23 percent of Muslim-majority countries are electoral democracies while 76 percent of non-Islamic governments are democratically elected.[8] No electoral democracies exist among the 16 Arab nations of the Middle East and North Africa. In the past 20 years as governments around the world moved towards freedom and democracy, repression in Islamic states grew.

A deeper examination of the democratizing countries, mostly those that would be classified as "Partly Free", further compromises optimistic analysis of the quantitative trends. Larry Diamond has estimated that less than 20 of the almost 100 countries that were considered to be in transition recently seem to be maturing into "true" democracies.[9] Thomas Carothers has noted that many of those nations in transition to democracy have either fallen back towards authoritarianism or have failed to progress and mature into free societies. In the latter case, these nations have gone one of two directions. Some have become electoral democracies (in which there are competing parties and free elections) but remain weak states with poor policy-making and little public perception that any elected official will make a significant difference. Others have become electoral democracies in which there is no real competition for power; a single party, family or individual asserts dominant control.

Electoral Democracy as Harbinger of Good Governance

The development of electoral democracies that do not mature into full liberal democracies is challenging conventional wisdom. Clearly elections are currently proving less effective at ushering in the broad panoply of political rights and civil liberties than originally thought. Many countries with firmly entrenched voting systems are plagued by corruption, human rights violations, internal disorder, poor legislative, policy-making and judicial systems, and excessive military authority. At the same time, nations such as Singapore seem to govern effectively in the absence of electoral democracy; they are fostering development and providing for their citizens without conflict or gross abuse of rights.

It has proven particularly difficult for nations to ensure the provision of a wider range of freedoms and rights while also seeking to construct or reconstruct a functioning state that makes solid policy and delivers services effectively. As Fareed Zakaria has noted, the democratic ideal we promote encompasses rule of law, separation of powers, freedom of speech, assembly, religion and property in addition to the conduct of fair and free elections.[10] Unfortunately, many of the democracies the United States recognizes and supports have not embraced that liberal democratic ideal.

"The problem for policy makers is that it is harder to make the case for prevention than for dealing with its consequences,"

–Richard Haass

While the spread of electoral democracy has created the veneer of political participation, the breadth and depth of that participation is not always proving satisfactory. There are implications for the stability. Larry Diamond has noted that participation and political freedom help increase the legitimacy of the state as it improves decision-making. In giving voice to opposition and criticism, the degree of accountability rises with a commensurate impact on public respect for the government and rule of law. Snyder and Mansfield have cautioned that unless broad participation and public debate are fostered, elites are given the opportunity and incentive to consolidate power, using mass media to distort and often stirring-up destructive nationalism.

While the democratic peace proposition has not proven false, it has not proven valid where democracy is not mature and full. Electoral democracies, in the absence of rule of law, full participation, and political and economic freedom are not demonstrating an equal level of stability. The process of transition is proving rocky, insecure and uneven around the world, particularly in countries where the state is weak.

THE INCREASING PREVALENCE OF FAILED STATES

The number of states that are unable to sustain themselves and manage as part of the international community is growing as well. Countries like Haiti, Somalia, Sudan, Liberia and Cambodia are characterized by gov-

ernmental inability to manage the state, control criminal elements, tackle social, economic and environmental challenges, or resolve conflicts over borders and territory. They can contribute to regional and global instability in several ways. By creating havens in which there is no rule of law, they permit the growth of transnational crime. As hosts to continuing conflicts over territory and the rights of religious and ethnic groups they often become gross violators of human rights, and generate humanitarian and refugee crises with regional implications for stability. The perpetual incapacity of these governments to solve problems and foster economic and social development erodes the faith of the citizenry in government, rendering the process of transformation and democratization more difficult.

"In the short run, the most important issue in term of stability is not the kind of governance but the degree of governance."

–Marina Ottaway

There are varied theories to explain the root causes of state failure. Robert Dorff has hypothesized that excessive United Nations emphasis on the importance of self-determination has led to insufficient analysis of the economic and political viability of new independent nations. Mohammed Ayoob among others has explored the vicious cycle in which weak states that are politically or economically incapable of asserting authority lose control, creating opportunities for political, ethnic or criminal interests to create conflict or seize power.

There is increasing U.S. and global concern over failed states and the implications of failed states for global stability. In 1994, the State Failure Task Force was created upon request of the Vice President. The goal was to develop a means for predicting state failure based upon the identification of key variables and critical risk thresholds. The project analyzed a wide range of possible explanatory variables linked to total or partial state failure. Four proved most predictive: openness to international trade (imports and exports as a percent of GDP); democracy (elections of chief executives, competitive political participation and checks on executive power); infant mortality (as a signal of well-being in a country); and public satisfaction with government. The project had several related findings.[11] Economically open less democratic countries faced little risk of state failure, as did countries with very low infant mortality rates. More democratic nations with high infant mortality faced a high risk of state failure. And although less democratic countries closed to trade faced significant state failure risks, exceptions were identified such as Cuba and North Korea.

II. ECONOMIC GOVERNANCE

"Economic governance encompasses the policy, institutional and legal environment within which an economy functions."[12] It incorporates

macroeconomic, microeconomic and fiscal policies, as well as government economic institutions, policies, laws and regulations. The economic governance a country provides has important implications for its legitimacy and stability as well as its ability to raise revenue and deliver services.

The risks to global stability posed by failures in economic governance may be no less severe that those posed by failures in political governance. Economic governance has profound implications for the strength of countries and the sustainability of their governments. In today's globalized economy, nations' economic policies may have equally important ramifications for global economic and political well-being.[13]

The provision of economic rights and opportunities has long been seen as central to the political stability and viability of the state. Extensive research has shown that the institution of a system for economic governance that encourages investment and ownership can provide an important rationale for local cooperation with a new government.[14] By fostering economic investment through respect for contract, property and ownership rights, a new government increases its legitimacy to investors (local citizens) as well as citizens' stake and interest in the government's continued operation. Additionally, by creating a structured process for the distribution and exchange of resources, a solid economic governance structure provides an unbiased alternative to violence for the allocation and trade of assets among interest groups within a society.

The same is true among nations. Immanuel Kant theorized in the 1700s that international trade and mutual economic interdependence would enhance the peaceful relationship among democracies. Recent research supports this contention. Russett and Oneal have found the likelihood of conflict is lowest for countries that are democratic and economically open; when the countries involved in a dispute are significant trading partners, the risk declines further. The U.S. State Failure Task Force has similarly found that openness to trade and level of social and economic well-being are correlated with significantly lower risks of state failure. Further research indicates that a greater volume of trade correlates with a reduction in the risk of escalation of conflict.[15] (Some of the research has even led to the view that economic interdependence, not regime type, reduces the risk of conflict; this view is not supported by the persuasive research of Gaddis and Waltz.)

More than simply setting the rules of the game, solid economic governance requires enforcement of and respect for those rules. Corruption within the system will reduce stability directly and indirectly. It will erode faith in political processes, judicial systems and service delivery functions, under-

mining the legitimacy of the state, increasing willingness to rebel against its authority and disinterest in the political process. Corruption within a system touted for its protection of rights may be more destabilizing that corruption within a system where expectations are low; Ted Gurr has theorized that the willingness to revolt against a government depends upon the extent to which expectations have been created and gone unfulfilled.[16]

Corruption can also have dramatic economic implications that can reduce stability. In diverting resources from government, corruption impedes social investment, military oversight and maintenance, and economic development. Inadequate rule of law, a lack of transparency and corruption also stifle the investment critical to economic growth and development. Daniel Kaufmann found that the growth in sales and investment was reduced by almost 50 percent in countries with pervasive corruption. Kaufmann, Kraay and Zoido-Lobaton found a direct "development dividend" to improved rule of law/reduced corruption; a reduction in corruption from a very high level to a lower level correlated with a two-to-four fold increase in per capita income. Terrorists are more likely to seek corrupt countries as base because criminal transactions are facilitated, or at least accepted.

At the same time that effective economic governance promotes stability and peace it helps establish and maintain democracy. At the most basic level, people will not seek or work for democracy until they have achieved a level of prosperity beyond subsistence; that prosperity comes with sound economic policy. Carothers has noted that weak economic development is undermining the legitimacy of countries that are seeking to democratize. Poor performance decreases the faith of the citizenry in its government, reducing the capacity of the state to provide services, and hindering the development of a healthy, financially viable civil society that can enhance political debate and dialog. The relationship is symbiotic—Olson has found that democracy is the only form of government that provides the conditions necessary to maximize economic development: inviolate property and contract rights, and a government strong and sustainable enough to protect and enforce those rights.

Global trends support these analyses. The most developed countries that have consistently had good economic performance for generations have all been stable democracies.[17] And many researchers, North and Thomas, and Scully among them, have undertaken emipirical analyses that support the connections between economic freedom and growth. Freedom House highlighted that in 2001 "Free countries" accounted for 87 percent of the world's economic activity, while countries that were "Not free" represented seven percent of global GDP. Similarly, the Wall Street Journal/Heritage

Foundation 2002 Index of Economic Freedom concluded that countries with the greatest economic freedom enjoy higher rates of long-term economic growth and greater prosperity.

III. GLOBAL GOVERNANCE

In a world of growing interdependence, institutions of global governance are increasingly important to international stability. Already multilateral institutions are key actors in efforts to promote development, keep peace and assist recovery in failed states (through humanitarian, military and political support, and in the provision of development assistance). They are central in ensuring rule of law within the trading system (e.g. the World Trade Organization), intellectual property protection (e.g. the World Intellectual Property Organization), global respect for human rights (e.g. the United Nations and the International Criminal Court) and protection of the environment (e.g. through treaties governing climate change, desertification and biodiversity among other things).

The democratic accountability, universality and ownership/control of these organizations varies widely. For example, Knight has questioned the extent to which the UN Security Council is consultative and representative given the changing global environment.[18] Michael Edwards has found that these organizations have a limited capacity to realize liberal democratic norms such as broad-based grassroots participation in debate and discussion, and full transparency and accountability.[19] Membership policies, rules for entry, opportunities for civil society participation and dispute resolution procedures differ. For example, while the Commission on Sustainable Development has clear guidelines for civil society participation, the World Bank is more ad hoc in its approach.

At the same time, non-governmental organizations (NGOs) have had difficulty ensuring that diverse viewpoints from around the world are heard. The tendency has been for NGOs from developed countries to gain greater access than their counterparts in developing nations. Marina Ottaway has found that while efforts to create formal opportunities for the private sector and NGOs to provide input to international organizations have helped defuse tension and broadened discussion, they have heavily favored well-organized NGOs from developed countries claiming to speak on behalf disaffected groups. Yet David Malone points out that part of the reason for this apparent favoritism is that these organizations are the ones that have taken the time to learn the rules and best approaches to interaction in international fora.[20]

IV. FOSTERING GOOD GOVERNANCE: RISKS POSED BY EFFORTS TO INTERVENE

The international community is central in seeking to prevent conflict through efforts to promote good governance. The United States Agency for International Development spends some $500 million a year on democracy-related efforts. Foundations and other bilateral donors including Europe, Canada, Australia and Japan have democracy promotion programs. Multilateral institutions such as the World Bank promote the participation of civil society in decision-making and rule of law.

A debate has long raged over whether or not foreign assistance, per se, fosters good governance. Milton Friedman and others have argued that assistance hinders the transition to a democratic, free society by favoring public spending and investment. Others such as Moore and Karl have theorized that aid weakens government accountability because the government does not depend upon taxpayer revenues (and citizens are not vested in the government because their personal resources are not at risk). Concern has also centered on whether the aid process undermines the system of checks and balances by providing extra-budgetary assistance through the executive without consulting legislatures. And there is the theory that aid fosters political instability and coups because it can foment struggles for control of substantial financial assets.

PROMOTING DEMOCRATIZATION

Beyond the general debate about the role of aid in fostering good governance are specific questions about its effectiveness when focused on promoting democracy. Studies by Knack find that the intensity of assistance has not historically correlated with democratization or improved governance. Svensson finds that aid has correlated with increased corruption in ethnically diverse societies. Knack's conclusion is not that aid is generally ineffective. Rather, he hypothesizes that aid is either too limited to have the desired impact or that the dependency created by aid undermines the positive impact on governance.[21]

More specific analysis of efforts to promote the role of civil society result in mixed conclusions. Ottaway and Carothers find that while aid to foster and sustain public interest groups has multiplied the number of NGOs existent in developing nations, there is not compelling evidence of broad political change as a result. Additionally, because support for advocacy groups tends to favor those espousing certain political perspectives and goals, donor support does not apolitically promote the free flow of ideas. It

is fairly clear that in isolation, efforts to promote advocacy NGOs do not play a major role in promoting democratization.

ASSISTING POST-CONFLICT RECONSTRUCTION

There is little question today as to whether or not aid has a role to play post-conflict, particularly in developing nations. In poor countries wracked by long conflict and ethnic division, the international community is playing an ever-larger role facilitating the transition back to peaceful society.

The approach to aid during the delicate post-conflict reconstruction and reconciliation stage is perhaps where it can play the greatest direct role in preventing or fomenting a return to conflict. Ottaway has warned the over-promising in the plan for reconstruction can raise expectations regarding a weak, new government, particularly if adequate funding for implementation is not forthcoming.[22] Similarly, planning for reconstruction without adequate local participation and attention to local (rather than international) priorities can make it impossible for the new government to satisfy local constituents. In the absence of a strong, meaningful, well-financed international commitment to a comprehensive strategy, an incremental, de minimis approach driven by local priorities is less risky.

Similarly, in its project on post-conflict reconstruction, the Center for Strategic and International Studies and the Association of the United States Army conclude that too often international support for reconstruction has been limited to supporting formal election processes and a wide range of NGOs. The result has often been reversals to the peace process and extensive loss of money, lives and credibility. They recommend a focus during reconstruction on: constitution of a legitimate government, strengthening of state capacity to deliver services, and ensuring broad local participation in the government and reconstruction.

SECURITY SECTOR GOVERNANCE

Whether as part of an agenda to enhance rule of law or as part of a post-conflict reconstruction effort, too little attention historically has been paid to the importance of security sector reform for reducing instability and fostering sustainable transformation. Nicole Ball has found that as a result, security forces have often been used to stifle discontent and retain power in the face of public disapproval. The military has often retained autonomy and authority despite efforts to promote governmental accountability to citizens. Ensuring security is a critical precursor to stability; an unaccountable, corrupt or subversive security force (whether police, military, intelligence, judicial, border, customs or immigration services) will

undermine the legitimacy of the state and greatly increase the risk of a return to conflict.

V. FINDINGS AND CONCLUSIONS

A great deal of research and recent history provide insight into the impact of good governance on national security. Clearly the time is right for a reassessment of the strategies the United States uses to reduce governance-related instabilities, as well as the priorities for U.S. action to reduce instability due to failures in governance. There are several important conclusions that can be reached.

- **Failed states are increasingly important threats to global stability.** They are changing the nature of the political opponents and military targets faced by the United States (e.g. Bosnia, Kosovo, Afghanistan).

- **The destabilizing impact of failed and failing states poses an important indirect threat to U.S. national security despite the fact that most failed states will not pose a direct security threat.** Failed states are often so divided and non-functional that they do not provide a hospitable setting for a terrorist organization or military action for the same reasons that they are inhospitable for establishing a central, democratic government. Nonetheless, their political and economic woes will directly effect U.S. interests when they have broad regional or global repercussions, or harbor terrorists.

- **The United States must be more strategic in efforts to reduce the national security threats posed by failed states.** Development assistance programs that aid economic, social and political development must be recognized and reflected in strategic planning efforts.

- **Greater local participation in the formation and ownership of government is critical to consolidating the transformation to democracy.** The greater the extent to which the avenues for participation are grounded in local tradition and experience, the more likely meaningful participation by local interest groups. The Afghan Grand Council, "Loya Jirga," which was convened in June 2002 to elect national leaders following the Bonn Agreement of December 2001 is a positive example of the growing consensus that reconciliation and reconstruction are best achieved using locally appropriate mechanisms.

- **The period of transition to democracy is characterized by a heightened risk of conflict.** Increased attention needs to be paid to focusing on specific efforts that reduce the risk of conflict while planning the transition and implementing efforts to enhance democratic governance.

- **Too much emphasis is placed on elections as the benchmark for transition to democracy.** Recent history is full of examples of nations that unsuccessfully began what seemed to be a transition to democracy through elections. A more refined definition of democratic transformation needs to be adopted in peace treaties, programs and research. Democracy must be unpackaged and defined by component pieces such as rule of law, separation of powers, freedom of speech, assembly, religion and property and power-sharing, in addition to elections.

- **Key to successful resurrection of failed states and consolidation of good governance is government delivery of key services and construction of critical infrastructure—often it needs to precede democratic institution building.** Functioning institutions and concrete service provision are critical to building the local legitimacy of and local support for the new government. They also help establish the presence of the state nationwide.

- **Efforts to improve governance and promote economic development should be undertaken in tandem.** Economic reform needs to be appreciated as fundamental to the foundation for stable government. Similarly, efforts to create healthy political structures must be appreciated as critical for economic development and growth.

- **Efforts to resolve ethnic conflicts must seek to build bridges across ethnic groups as early as possible.** While ethnic differences are not generally an underlying causes of conflict, they can dramatically exacerbate tension and can easily be manipulated to foster instability. Reemphasizing ethnic cleavages through support for the creation of ethnic political parties, quotas in governing bodies or the division of economic or humanitarian aid based upon ethnicity can increase the potential for a return to violence.

PROPOSED DIRECTIONS FOR RESEARCH

Despite a wealth of research regarding political and economic governance, significant gaps exist, particularly when viewed through a post-September 11 lens. Additional thinking and analysis are needed to:

- understand the implications for terrorism of ungovernable geographic territories within countries. As technology enhances the ability of these areas to serve as remote bases for planning, training and coordination, how can individual nations and the global community increase control and reduce vulnerabilities;

- delineate when a failed state or an ungovernable region offers a hospitable environment for terrorists. Refining our understanding of the terrorists' analysis would help set priorities and design strategies for countering threats;

- map out strategies for improving global governance as its importance grows.

FINDINGS RELEVANT TO POLICIES AND PROGRAMS

The United States must focus on consolidating the democratic gains of the last two decades. Many of the countries that have become electoral democracies have not followed-through in making the needed institutional and policy changes that would reduce corruption, promote transparency, encourage political discourse, and enhance the legitimacy of the state.

- Rather than seeking to move more states toward electoral democracy, resources should be focused on ensuring that the transition process that began during the last twenty-five years progresses and is sustained.

- To legitimize the government during the transition to democracy, assistance must focus on building the capacity of the government to manage and administer policies and programs.

- In the near-term post-conflict, much greater priority must be given to satisfying the interests of the local population rather than those of the international community. Too often international demands (for macroeconomic reform, broad democratic institution-building, quick elections) are placed ahead of local priorities. This slows legitimization of

the nascent government in the eyes of local constituents and can breed discontent, feeding rivalries and tensions.

- As weak states become more important sources of instability, a re-assessment of military strategy and expenditure is advised. The underlying assumption behind our military infrastructure is that we will still face strong states as opponents yet the increasing importance of failed states as threats to global stability is changing the nature of the political opponents and military targets faced by the United States (e.g. Bosnia, Kosovo, Afghanistan).

- Efforts to enhance governance and promote state building should place higher priority on work at the local and regional levels. Local and regional authorities are more easily accountable to citizens. Improvements at those levels are also more visible and tangible to local people.

- Gender equity must be considered a fundamental building block for good political and economic governance. Too often, the long-term economic and political consequences of disparity are overlooked. Each stage in the process of democracy building, should seek to institutionalize equal rights and opportunities.

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Demographic Shifts

Dramatic demographic shifts are re-shaping the composition and distribution of population around the world. The overall growth in world population, increasing volume of immigrants and refugees, aging population in developed countries, growing "youth bulge" in developing nations and urbanization are all reshaping countries and regions, affecting local politics, economies and priorities. The changes are obviously destabilizing, but in what ways might they affect U.S. national security?

I. THE GROWTH AND CHANGING COMPOSITION OF THE WORLD'S POPULATION

THE TRENDS

The global population, which now stands at over 6.2 billion, grows by 70-80 million each year.[1] While demographers have scaled back their estimates of when the population will peak, they now predict that it is likely to be ten billion people before 2200, when it will start to decline. This implies that the global population will grow by an additional 31% by 2025 to over 8.2 billion people.[2]

Some 95 percent of the increase in world population is occurring in developing nations. Six countries—Bangladesh, China, India, Indonesia, Nigeria and Pakistan—account for half of the annual growth. In 2000, Asia accounted for 57 percent of the increase in population, Africa accounted for 23 percent. Although fertility rates have fallen consistently for nearly forty years towards the replacement level of 2.1 children per couple, the record number of young people reaching adulthood will translate into population growth for decades to come. In Africa, for example, the population will nearly quadruple to 2.8 billion by 2150.

At the same time that enormous population growth rates burden many developing nations, developed countries (as well as several East Asian nations) are aging and some are beginning to shrink. The growth in global life expectancy and the decline in population growth rates are radically

altering the composition of many developed nations. The Organization for Economic Cooperation and Development (OECD) has estimated that in less than thirty years, one in four people in the industrialized world will be 65 or older. The United Nations believes that this will translate into a threefold increase in those aged 65 to 84 (to 1.3 billion) and a sixfold increase in those over 85 (to 175 million).[3]

THE RAMIFICATIONS

The overall growth in world population, as well as the disparate growth rates of developed and developing nations could have dramatic implications for global well-being. Overall population growth will increase demand for food and resources. Today, the United Nations and World Bank estimate that between one and two billion people are malnourished—one in three people lacks food security. The problem is predominantly one of distribution; while the Food and Agriculture Organization believes that overall food production will rise sufficient to meet growing demand, it estimates that in 2015 at least 17 countries will still face high rates of undernourishment.[4]

Resource degradation will also threaten the sufficiency of food worldwide. The Center for Strategic and International Studies points out that population growth has already been tied to deforestation, declining fish catch, water resource depletion and diminished land fertility.[5] In addition to reducing local productivity and the availability of food and fuel, resource scarcity has been tied to instability and unrest spurred by struggles for control over a shrinking resource base, and migration driven by resource shortages.[6]

For some developing countries, the growth in population will represent a daunting economic challenge. The National Foreign Intelligence Board estimates that each year through 2015 some 45 million people will enter the job market in developing countries; this will place an enormous strain on economies that are already struggling to foster growth and keep populations productive. The challenge is already evident. The World Bank reports that despite average aggregate growth rates over the last thirty years of 3.0 percent and 2.6 percent, respectively, the Middle East and Africa have seen no per capita growth (and in some cases have seen a decline); economic growth did not match the growth in population.[7] Unemployment in these countries is high and rising. The International Labour Organization estimates that 160 million people are unemployed worldwide, 41 percent of them are youth. In the 98 economies for which data are available, 51 have a youth unemployment

rate of over 15 percent, 15 have rates of over 25 percent including South Africa (56 percent), Egypt (34 percent), Morocco (35 percent) and Macedonia (49 percent).[8] The situation is deteriorating. Unemployment of youth worldwide rose by eight million between 1995 and 1999. Underemployment exacerbates the situation.

The implications of the growing "youth bulge" in unemployment and underemployment are important in developing countries. Paul Kennedy has noted that a large contingent of unemployed youth has historically proven destabilizing. Additionally, the lack of economic opportunity at home is an important driver to potentially destabilizing migration.

Rapid population growth itself may have ramifications for security and stability. Jack Goldstone studied the links between population growth and the beginning of the French Revolution. He found that increased population stirred unrest by driving up food prices and accelerating inflation, which reduced purchasing power and business health. When the government proved unable to support public spending on the way to bankruptcy, revolution was fomented. Others have found a similar connection between population growth and civil unrest.

The enormous increase in the number of young people in the developing world will have other economic and social implications. Keyfitz, Mathew, Musgrove and Hayes all predict that it will reduce the money available at the household and societal levels for savings, productive investments, law enforcement and defense. Alex de Sherbinin hypothesizes that the large number of dependents, particularly among low-income families, will widen disparities in income.[9]

In Africa, the youth bulge will have particularly problematic implications because AIDS is simultaneously devastating the population of working age adults. Seven countries in Africa face AIDS prevalence rates among adults of at least 20 percent.[10] In South Africa, there are already 13 million orphans; that number is predicted to grow to 42 million by 2010.[11]

Developed countries are likely to face their own economic issues as a result of the aging of their populations. Aging is likely to reduce economic growth rates, decrease the pool of savings and alter capital flow patterns.[12] Developed countries' official projections indicate that they will spend at least an additional nine to 16 percent of GDP in the next 30 years to provide promised benefits to senior citizens. Unfunded liabilities for pensions today total almost $35 trillion; health costs will add to the magnitude of future resource requirements.[13] And these may be combined with related, significant upheaval and downturns in financial markets worldwide.[14] Peter Peterson, among others, has pointed out that this is likely to

squeeze the human and financial resources available for defense and related military expenditures. In Europe, where the aging trend is more pronounced, support for military spending may contract even more quickly as could the European interest in sharing the defense burden with the United States. Already France and Great Britain are evolving towards military forces that are smaller, more flexible and more professional.[15]

In Europe, decelerating population growth rates are creating labor shortages, particularly for low pay/low skill jobs. It is estimated that some three million illegal migrants live and work in the European Union, augmenting the legal migrant labor force of over 20 million that grows by 400,000 per year to fill a widening gap in workers. (Similar trends can be noted in some parts of the developing world. Nicholas Eberstadt finds that by 2015, the growth in domestic manpower in Singapore and Thailand will cease; all of Eastern Asia's increase in manpower will come from Indonesia, the Philippines and Vietnam.[16])

A decline in the population of young people will have implications for national defense and the evolution of military forces. Julie DaVanzo notes that the declining birthrate in Russia will soon reduce the number of citizens of military age; economic constraints on the ability of Russia to modernize its military may compromise its ability to defend its borders and increase its dependence on weapons of mass destruction. A RAND Conference on demography and security concluded in 2000 that the slowing population growth rates in industrialized nations are likely to increase reliance on technological approaches to national defense. Despite efforts to substitute technology for labor in the military, Peter Peterson hypothesizes that deployment may be constrained.

THE IMPLICATIONS FOR INTERNATIONAL STABILITY AND NATIONAL SECURITY

There are direct and indirect stability and security-related implications of population growth and the differentials in population growth rates. In addition to the pressure on resources and increase in resource-driven conflicts, which will be most acute at the local level but will also be felt globally, a cultural and political shift may accompany demographic changes. As Nicholas Eberstadt has said "Current population trends are redistributing global population and moving it away from today's industrial democracies."[17] By the year 2025, industrial democracies may account for less than one-fourteenth of the total population of large countries. Samuel Huntington warns "the juxtaposition of a rapidly growing people of one culture and a slowly growing or stagnant people of another culture gener-

ates pressure for economic and/or political adjustments in both societies."[18] Huntington believes that lack of accommodation could lead to conflict. Eberstadt has suggested that the continuation of these trends could lead to an international environment "even more menacing to the security prospects of the Western Alliance than was the Cold War for the past generation."[19]

At the local and regional level, differential population growth rates can decrease stability and increase tension. The Middle East provides a case in point. Despite healthy population growth rates, Israeli Jews are a decreasing percentage of Israel's population. The population growth rates of the country's Arabs are higher; those of Palestinians in the territories are higher still. Israel has sought to compensate for this by encouraging large-scale immigration. According to Dennis Pirages this immigration has, however, increased Palestinian's sense of insecurity as immigrants place greater pressure on the land and give Israel further justification to retain the territories. Pirages notes that similar friction between different ethnic and religious groups exists in Russia, Somalia, Rwanda, and Canada. Nichiporuk adds examples from Lebanon, Northern Ireland, Kosovo and Bosnia. At times, even the perception of differential fertility rates (whether real or imagined) has created friction; this has been the case in India, where despite evidence to the contrary, Hindus believe higher birth rates among Muslims will soon lead to a shift in the majority population.

II. INCREASING POPULATION FLOWS

Whether forced or voluntary, temporary or permanent, desirable or undesirable, people are moving and resettling around the world at an increasing rate.

IMMIGRATION

Today over 150 million people (three of every 100) live outside their country of birth. In more that 50 countries, migrants comprise over 15 percent of the population.

Each year, about one million people migrate legally to the United States. Another 300,000 enter illegally. In all, over ten percent of the United States population (over 30 million people) was born elsewhere. While significant, this percentage is lower than the historic high of 15 percent in 1890 and 1910. Legal migration to Western Europe totals about 400,000 per year. And Central and Eastern Europe have seen millions flow to the region since the 1990s in the form of repatriants, refugees and internally displaced persons.

Migration is being driven by factors that push people out of their countries of origin and pull them into other nations. Alex de Scherbinin has summarized that "migration is the result of a profound process of socioeconomic change, urbanization, rising material expectations (fueled in part by exposure to mass media)…skewed income distribution and lack of political freedom in developing countries… Slow labor force growth, population aging, and employers' desires for low-wage workers have all created an effective demand for immigrant labor [in industrialized countries]."[20] It is not difficult to understand that earning potential is one of the major drivers to migration. Industrial and Labor Organization statistics indicate that in the 1990s Mexican migrants earned nine times more in the United States than they did in their last job in Mexico. Polish construction workers earned three times as much in Germany as they did in Poland. And Indonesian laborers earned eight times as much in Malaysia as they did Indonesia.

Migration is being further fostered by globalization. According to the National Foreign Intelligence Board expanded international trade, investment and financial flows are increasing financial insecurity in some parts of the world and fueling the shifting demand for workers. Coupled with the increasing simplicity of travel, labor is moving more quickly and with greater ease. The United States, Australia, Canada and the Nordic countries have already opened up immigration for high-tech workers; Japan and the rest of Europe, though more resistant, ares following suit. According to the President of Siemens, Germany will need 300,000 additional high-tech workers by 2005.

The Ramifications

Migration can offer important advantages that bring stability. Connelly and Kennedy, and Howard Wiarda and Iéda Siqueiri Wiarda have warned that the elimination of outlets for surplus labor can generate political instability in the countries from which people are migrating. Their analysis is supported historically. Stephan DeSpiegeleire has found that immigration to the United States from Japan in the early 19th century helped enable Japan to moderate the impact of rapid population growth. When that immigration was restricted, the imperialist agenda gained strength. An analogous situation has been observed in Mexico where the most stable states are those with the highest migration rates.

Similarly, migration has historically helped build bridges among cultures and societies, providing an important means for increasing communication and understanding. Migrants can often act as a liberalizing force

in their home countries. The National Foreign Intelligence Board has noted that repatriating Europeans and North Americans were important forces for democratization in southern Europe in the 1970s and 1980s. Western educated elites played the same role in several Latin American and Asian nations. Since the end of the Cold War expatriates have helped promote the transition to democracy in former communist countries including Serbia.

Apart from the political and cultural benefits migration may deliver, the economic importance of migration to the home country cannot be overstated. Remittances by emigrants to their countries of origin are an increasingly important contribution to local economies. Worldwide the flow of remittances exceeds $100 billion, sixty percent of which flows to developing countries; the totals would be much higher if informal transfers were included. In Senegal, remittances supply up to 80 percent of household budgets. Remittances to the Dominican Republic exceed the value of the country's exports by 50 percent. Unfortunately, remittances can also be used to foment instability in the home country. Myron Wiener and Paul Collier among others have noted the important role diaspora communities can play in exacerbating tension in their countries of origin. Nicholas Van Hear has found that remittances have been used directly and indirectly to fund conflict and facilitate its perpetuation. Nichiporuk has tied diasporas to fundraising, arms shipments, international public relations and some training to support conflict in Sri Lanka, Armenia and in several nations in the Baltics.

"Now what I want to emphasize is that poverty does not cause upheavals and terrorism—development does."

–Robert Kaplan

The financial windfall from remittances and emigration also comes with a development-related cost; many of the most educated people from developing nations leave, creating a potent "brain drain" from poor countries. At least 1.5 million skilled migrants from developing nations are employed in Western Europe, the United States, Australia and Japan. According to the 1999 UN Human Development Report, Africa has lost some 30,000 academics and 200,000 professionals to immigration during the 1990s. At the same time, Susan Martin has concluded that in the effort to maximize the money they send home, immigrants often are forgoing investment in education and skills-building, compromising their economic prospects in their new country.

Immigration is also believed generally to have a salutary economic effect in recipient countries. The National Foreign Intelligence Board finds that notwithstanding the initial downward pressure on wages and social investment, most experts believe that immigration facilitates sustained non-inflationary growth. Immigrants most often provide a financial benefit to

the receiving country; annually immigrants in the EU earn $461 billion and pay $153 billion in taxes. The receive $92 billion in welfare. Similarly, during the 1990s almost 40 percent of new jobs in the United States were filled by immigrants; given the low unemployment rates that accompanied the surge in jobs, the immigrant contribution to the labor pool was critical to continued expansion. As the population ages, the immigrant contribution to the labor pool will only become more important. In Europe, it may be the only means by which to reduce the impact of a shrinking labor force on industrial production and military force size.

Despite the advantages immigration can deliver to the receiving nation, some experts and political leaders believe there are significant risks and costs to immigration. In the United States, Patrick Buchanan has theorized that American culture and society are being undermined by immigration, and immigrants are taking jobs that would otherwise be filled by native U.S. citizens. His concerns have been echoed by William McGowan, who feels that Muslims, in particular, are not integrating into U.S. society or accepting local authority, mores and taboos. While Alan Greenspan has spoken about the economic benefits of immigration he has noted the deep public concern. Nearly two-thirds of Americans want to eliminate illegal immigration and reduce legal immigration. Almost every European nation now has an anti-immigration political party.

The September 11 attack heightened concerns about the security risks posed by migrants and immigration. A spotlight was focused on the weaknesses of the visa and immigration process, which is now being revamped. Thirteen of the nineteen September 11 hijackers entered the United States legally with visas. They were among the more than 30 million non-immigrants that enter the United States to visit, study or conduct business each year. Monitored by a system with little capacity to track, supervise, locate or expel people overstaying their visas the hijackers were relatively free to train for and plan their attack while in the United States.

FORCED MIGRATION

Currently there are about 42 million people around the world that have been displaced and need emergency humanitarian assistance.[21] These include refugees (who have been forced from their home country), internally displaced people (IDPs, who have been forced to move within their own country) and others in "refugee-like situations" (who fear persecution or harm at home but are not officially recognized as refugees). Despite a decline in the number of conflicts since 1999, the number of people in need has grown by about six million. The National Intelligence Council

hypothesizes that the rise is due to the severity and duration of internal conflicts and repressive regimes, which has driven up the number of IDPs. While forced migrants make-up only about one percent of the world's population, their predominance on a regional level can be significant. According to William Wood, in Sub-Saharan Africa, the Caucasus, the Balkans, the Middle East, Central American and Central, South and Southeast Asia, forced migrants are a significant share of the population.

There is a range of ethnic, economic, ecological and political reasons why people are being displaced from their homes. According to the National Intelligence Council, some 20 humanitarian emergencies that currently exist are creating forced migrant populations around the world. Internal conflict rages in eleven countries. In Iraq and North Korea, severe government repression can be blamed for crisis. Seven nations are recovering from natural disasters. And six are in a period of transition from emergency. Wood has noted that often, the economic, political, social and environmental causes of forced and voluntary migration are similar although the degree of urgency may differ. This is reflected in the statistics as well; according to Wood four of the five countries that rank highest on the Human Suffering Index (Mozambique, Somalia, Afghanistan, Haiti and Sudan) have fourteen percent or more of their population uprooted.

"Challenges to U.S. interests are going to come from rapid population movements that can have regional security effects because of their speed and in some cases, unpredictability."

–Brian Nichiporuk

The Ramifications

Forced migration is often severely regionally destabilizing, and the number of conflicts spurred or exacerbated by migration is on the rise. Jessica Mathews has observed that refugees "flood the labor market, add to the local demand for food and put new burdens on the land"[22]…spreading environmental stress and scarcity. At the same time they often introduce new cultures, and social mores and taboos to neighboring countries. Heated debates over repatriation and the rights of refugees have surrounded crises around the world including Europe and several Central and Eastern European nations, West and Central African nations, Vietnam and Hong Kong, Cambodia and Thailand, and the United States and Mexico, and Cuba and Haiti. Destabilization has been the result of refugee crises around Somalia, Sudan, Ethiopia and Rwanda. At times, refugees also have fostered instability from their new "homes"; Hutu guerillas launched attacks on the Tutsi-led Rwandan government from the Democratic Republic of Congo (formerly Zaire.) Cuban refugees in the United States have had an impact on U.S. politics toward Cuba.

Increasingly, forced migration and the attendant need for humanitarian assistance have become an integral part of the work of the U.S. military

and development assistance communities. In the last fifteen years, aid to refugee populations and assistance with the resolution of and reconstruction following humanitarian crises have become a larger component of U.S. military and foreign aid. In Central America, Afghanistan, Iraq, Kosovo, Bosnia, Somalia, Rwanda and Sudan the U.S. military has been called upon to help provide humanitarian assistance in the face of humanitarian and refugee crises, often in the face of local political resistance. The implied shift in the role of the U.S. military is important.

Unfortunately, at times, assistance has had undesirable consequences of its own. Efforts to provide relief can distort local markets, creating the risk of even greater instability when assistance ends. In some local economies, refugee aid becomes a fundamental building block of the local economy. This is particularly true where long-term refugee populations (such as Palestinians, Ethiopians, Cambodians and Afghans) have settled outside their home countries. In these communities, reintegration also is particularly difficult; refugees often have difficulty weaning themselves from assistance to contribute productively upon return home. There is a great risk that they once again become refugees.

Forced migration also directly affects the United States when it is spurred along its borders by civil conflict, humanitarian disaster or severe economic downturns. Hurricanes Mitch and Georges spurred a flow of migrants northward in the 1990s. According to the National Foreign Intelligence Board, the instability plaguing Colombia has already displaced some one million people and has prompted visa applications to the United States that sometimes total 50,000 monthly. The United States could face surges in forced and illegal migration from Haiti, Cuba, China and Mexico.

URBANIZATION

The number of people living in cities is growing dramatically. In 1950, less than 30 percent of the population lived in cities. By 2007 more than half of the world's people will be urban dwellers. The United Nations predicts that by 2030, 5.1 billion people, three fifths of the world's population, will live in urban areas.

The vast majority of new urban residents are in developing nations where many cities are estimated to be growing by 160,000 per day. The United Nations estimates that between 2000 and 2015, 65 million people will move annually to cities, 93 percent of them will be in developing nations. While urban growth rates in developed countries are often under one percent per year, in developing nations they are often over four per-

cent per year. "Mega cities," which have a population of at least ten million, will increase more than fourfold to at least 20 by 2015; all but four will be in developing nations. An estimated 564 cities worldwide will grow to have at least one million residents, 425 of these in developing countries. And some 30,000 smaller urban centers will expand, some by as much as nine percent per year.

Urbanization seems to be driven primarily by economic expectations. It has been estimated that between 35 and 60 percent of urban population growth can be attributed to rural migration by people who believe economic opportunity is greater in cities. Eugene Linden has described urbanization as "a product of both the pull of perceived opportunities and services in the metropolis and the push of rural unemployment caused by the mechanization of agriculture…over subdivision of farmland, and environmental degradation."[23] The eroding security of farming, shrinking profit margins as well as the unavailability of credit, fertilizer and technical assistance can also drive urban migration.

While urban migrants may be right that higher paid work exists in urban areas, its availability is often limited. The World Bank has found that wages can be significantly higher in urban areas; urban construction workers in Cote d'Ivoire can earn eight times the rural wage rate. Indian urban steelworkers can earn 8.4 times the rural wage rate. But, according to Jackie Wabha, the search for a well-paid job is not always rewarded, hence the high rates of unemployment, slums, over-crowding and poor service delivery.

The Ramifications

Urban growth can help foster commerce and lower the cost of service delivery (by reducing distances and transport costs). Eugene Linden has noted that it can encourage smaller families, use of mass transit, recycling and more efficient use of energy, water, space and other limited resources. But today, rapid over-urbanization is putting an enormous strain on economies and societies. Kasarda and Parnell have found that the influx of new arrivals is generating high unemployment rates and housing shortages, exacerbating the inadequacy of already limited education, sanitation, water supply and transportation systems, and contributing to congestion, environmental degradation and municipal budget shortfalls. Slums house over one-third of the urban population in developing countries. In places like Istanbul, Turkey, Dar es Salaam, Tanzania and Caracas, Venezuela half of the city's total population calls slums home.

The consequences of urbanization for public health and the environment are noteworthy. Johns Hopkins Bloomburg School of Public Health has found that there are profound long-term implications. Dennis Pirages points out that in Bangkok, Thailand parts of the city are sinking five to ten centimeters a year because groundwater is being depleted. The center of Mexico City has dropped eight meters in the last fifty years as a result of groundwater extraction. It is estimated that each year at least 500,000 hectares of agricultural land are converted to urban settings in developing countries. David Satterthwaite has suggested that the most significant problems in secondary cities may receive little attention. For example, the infant mortality rate in Kanpur, an Indian city of over one million people, is over four times the rate in Delhi.

The links between urbanization and violence are still being investigated. While past analyses have shown little link between them, Peter Gizewski and Thomas Homer-Dixon have hypothesized that when combined with economic stress, state failure and increasing calls for democratization, urbanization may increase the tendency to unrest and violence. Clearly urban demonstrations and violence have been a common response to unpopular policies. Gizewski and Homer-Dixon report some 146 separate urban strikes, riots and demonstrations as well as modern revolutions in Iran, Bolivia, Nicaragua that began in cities. Ethnic and communal conflict is also common in cities like Ahmedabad, Bombay and Karachi; their frequency is increasing.

Clearly crime is increasingly widespread in cities around the world, particularly in developing countries. Mexico City, Mexico, Lagos, Nigeria and Rio de Janeiro, Brazil are well-known for urban crime and violence. Bogota, Colombia, Dacca, Bangladesh and San Jose, Costa Rica are among the many other cities that have serious problems as well. Moser and Grant have shown that some types of street crime and gangs are predominantly urban phenomena. Fajnzylber and others have linked crime to urban settings. Gaviria and Pages have hypothesized that crime may rise in an urbanizing environment because law enforcement effectiveness declines. And Buvinic and Morrison have suggested that density may explain some of the increased tendency to violence. Nonetheless, little research indicates a connection between urbanization and broader instability and violence. Alan Gilbert has concluded that security problems in the urban environment result from problems in urban management rather than urbanization itself.

Apart from the implications for stability, as the world population becomes increasingly urban, the nature of warfare will change. Already, as

September 11 and other recent terrorist attacks demonstrate, terrorist targets will be predominantly urban. Terrorists often plan and hide in urban areas. Similarly, the battlefield will increasingly be found in cities and urban environments. To a certain extent, this will level the playing field among combatants and imply the need for a dramatic shift in military planning, research and development, and deployment strategies. Michael Desch has noted that different strategies and approaches will be needed to respond to the call for urban peace enforcement, counterinsurgency, or full-scale urban combat. William Hawkins, and Robert Hahn and Bonnie Jezior have noted that urban conflicts are most often longer, and characterized by a high degree of collateral damage, a higher number of casualties (with a larger share of non-combatants) and use of a wide range of asymmetric methods that can slow operational tempo. The National Defense Panel has noted that the U.S. military (among most others) is not prepared to fight on "mega city" terrain.

The inability of traditional military forces to efficiently and effectively engage in the urban environment has already been demonstrated in places like Grozny, Chechnya where, despite a 5:1 manpower advantage and technological superiority, the Russians suffered tremendous losses, and reduced credibility as a result of the enormous level of destruction and civilian casualties.[24] The United States had similarly unsuccessful results in Mogadishu, Somalia in 1993. A greater emphasis on intelligence gathering, retraining, and reorganization are needed to enable U.S. military forces to engage in urban settings.

Additionally, technological development needs to shift. Robert Hahn and Bonnie Jezior have noted the current consensus that in urban areas, U.S. technological advantages are negated. John Stanton, and Hahn and Jezior have suggested that the improved command, control, communications, computers, intelligence surveillance and reconnaissance (C4ISR) technology as well as navigation and designating equipment, and unmanned lethal and non-lethal weaponry will be critical to fight successfully in urban settings. Given the smaller number of forces that can be utilized in urban combat operations, uniforms must increase dramatically the protection they afford.

III. THE REGIONAL DIMENSION

Ultimately, the impact of demographic shifts on stability and security will vary by region based upon local trends, and local adaptive and carrying capacity. Rapid population growth will stretch resources wherever it is

present; but threats to stability linked to that growth are likely to emerge where resources such as food or water are already constrained, or where economic stagnation means that population expansion will translate into vast unemployment and degraded service provision. For many nations in Sub-Saharan Africa, rapid population growth and the AIDS epidemic will undermine economic prospects and strain already-weak institutions. In the Middle East economic stagnation will magnify the risks of the youth bulge by ensuring an ever-growing pool of unemployed young men.

Similarly, the security implications associated with forced migration and urbanization will depend in large part upon the capacity of societies to adapt to change. Where service delivery is poor or economic opportunity is lacking, the rapid infusion of refugees or urban migrants is likely to spur greater resentment. It also creates more opportunity for ethnic cleavages to emerge. Robert Kaplan has concluded that it is the skill with which countries handle the development that will determine the propensity to instability and violence accompanying demographic shifts.

"You are going to see a decline in the availability of potable water over the next twenty or twenty-five years by half in a lot of areas of the Middle East."

–Robert Kaplan

IV. FINDINGS AND CONCLUSIONS

Demographic shifts are clearly altering the global landscape. The extent to which those changes will affect security and instability will, in large measure, depend upon the response at the local and global levels.

- **There is little evidence of a direct link between demographic shifts and U.S. national security.** An indirect connection is, however, apparent in many ways. The rising number of refugees (and related need to commit human and financial resources for relief), the emerging economic burdens related to the population growth and aging, and the implications for environmental health all have implications for global stability and U.S. security.

- **On a regional level, demographic shifts will impact stability directly.**

  - The growing number of refugees around the world will increasingly elicit consternation, resentment and debate among nations that border one another.

  - Growing urban populations in developing nations throughout the world will place enormous strains on frail governmental institu-

tions, local environmental well-being, and traditional cultures and social groupings.

- Rapid population growth rates will compromise the efforts of some developing nations to promote economic growth and development.

- Migration will alter the composition of countries and regions, changing political and economic priorities with consequences for bilateral and multilateral relations.

- **Population growth and urbanization will have significant negative implications for the environment, public health and economic growth in developing countries.** Indirectly, these challenges may threaten stability and increase the risk of conflict.[25]

- **The need for humanitarian assistance and longer-term foreign aid are likely to grow as a result of the persistently large number of forced migrants and the increasing burden growing populations place on developing country governments.**

- **The implications of demographic trends for the military are likely to be profound.** The nature of warfare is changing and the priorities of our allies are shifting -both at least partly in response to demographic trends. There are important ramifications for budget, technology, burden-sharing and the future shape of battle.

PROPOSED DIRECTIONS FOR RESEARCH AND ANALYSIS

While a substantial body of analysis examines demographic trends and what they portend for the future, there has been far more limited investigation of how the convergence of different trends will affect the likelihood of instability and conflict. Additional research is needed into the implications:

- of urbanization for conflict and instability given economic insecurity and growing disparities in income;

- for stability of a "youth bulge" given economic stagnation;

- of demographic trends for conflict prevention strategies. That is, given particular trends, how can countries reduce the potential for violence and insurrection.

Analytical work to elucidate strategies for reducing instability and risk could provide countries with tools for combating the negative effects of demographic trends. For example, guidance as to how to minimize the impact of a "youth bulge" on social and economic well-being would be instructive. Recommendations for reducing the tensions created by differential growth rates among ethnic groups would help prevent conflict as well.

FINDINGS RELEVANT TO POLICIES AND PROGRAMS

Demonstrating to policy-makers the potential impact on different localities and regions of demographic transformations could facilitate planning in a range of settings. For example:

- though some important work has been undertaken to analyze how the military can get in front of the curve, planning would be aided by a more concerted effort to reassess budgetary and strategic priorities in light of demographic trends and their implications.

- strategic analyses of demographic trends in combination with assessments of projected economic growth rates, food security and local institutional capacity could reveal "hot spots" where developmental challenges pose wider threats to stability. This type of assessment might be used to inform and focus the allocation of development assistance by region and sector.

- inadequate public recognition of the important economic benefits of immigration plagues discussions over immigration policy in the United States and Europe. Increased information dissemination regarding the importance to economic expansion of immigration could help inform the debate.

- the development of mechanisms for fostering investment by emigrants in their countries of origin could help enhance the economic benefits of migration. It would also increase the value of remittances to local economic well-being in developing countries.

- to reduce the impact of migration on the knowledge and skills base in developing nations, the international community might develop strategies for facilitating the movement of skilled

migrants interested in working intermittently in both their old and new countries.

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Natural Resources and Environment

The connections among natural resources, environmental degradation, instability and conflict seem to be growing. Increasingly apparent are the threats of a terrorist attack on natural resources, or the emergence of conflicts driven by struggles for control of natural resources or worsening resource shortages. History is not littered with wars involving natural resources. Nonetheless, increased pressure on resources, the severity of declines in environmental quality, and the economic and political consequences of degradation can increase the likelihood of instability and conflict. In examining the implications for stability and security of the environmental trends that predominate today, the questions for analysis become:

- In what ways could environmental change and the vulnerability of natural resources threaten global stability and U.S. national security?
- How can environment-related threats be reduced?

I. THE GLOBAL CONTEXT

It would be difficult to overstate the importance of the natural environment to human well-being. According to the Food and Agriculture Organization of the United Nations (FAO), in 1997, 95 percent of the plant and animal protein and 99 percent of the calories consumed by humans were provided by agriculture.[1] The World Resources Institute (WRI) estimates that agriculture, forestry and fishing provide one of every two jobs worldwide, seven of ten jobs in sub-Saharan Africa, East Asia and the Pacific. Crops, timber and fish contribute more than industrial production to the economies of one quarter of the countries around the world. Minerals make-up more than 40 percent of the exports of thirty-nine countries.[2]

U.S. dependence upon global natural resources is significant. Over 75 percent of the fruits and vegetables sold in the United States are imported. By 2020, the United States may only be able to meet 65 percent of its demand for oil domestically.[3] At the same time, agriculture accounts for

13.1 percent of GDP and 16.9 percent of employment in the United States (some 860,000 jobs). Mining employs more than 500,000 people. Some 760,000 people work producing lumber and wood products.[4]

II. RESOURCE WARS

There is a rich history of struggles to control or ensure continued access to natural resources, particularly non-renewable resources. Competition seems to be intensifying. Arthur Westing identified 12 resource-related conflicts that took place between World War I and the Falklands War. Michael Renner finds about one quarter of the 50 conflicts ongoing in 2001 involved resource issues.[5] Local conflicts have occurred in South East Asia over timber, in Latin America over land degradation, and in Europe over fish, but competition for mineral resources has been most visible and problematic.[6] Japan sought oil and minerals in China and Southeast Asia during World War II. Conflict for control over diamonds affects Sierra Leone and Angola. The Democratic Republic of Congo has faced conflicts over copper and diamonds.[7]

Conflict driven by the desire for control over resources is complemented by conflicts financed using natural resource endowments. Renner notes that in recent resource-related conflicts, resource control and exploitation is either the source of dispute, an exacerbating factor or the source of financing for conflict.[8] Paul Collier finds that the existence of these resource endowments is correlated with the likelihood of conflict. His research shows that the likelihood of civil conflict is much greater for countries that earn around 25 percent of their income from commodity exports.[9]

Many of the long-simmering civil conflicts in Sub-Saharan Africa demonstrate how wars to control resources are fueled and financed by the resources themselves. Renner contends that timber, diamonds and oil have played roles in conflicts in Angola, the Democratic Republic of Congo (DRC), the Republic of Congo, Sierra Leone, Liberia and Sudan.[10] A UN Panel of Experts has pointed out the important role timber exploitation has played in financing various factions involved in the conflict in the DRC. Global Witness contends that timber has played a similar role in Cambodia, Burma and Indonesia as well as Liberia.[11]

Michael Klare believes that "resource wars" will become increasingly prevalent, feeding global instability and geopolitics as they fuel local and regional disputes. He hypothesizes that the increase in resource-related conflicts will be driven by: the increasing importance of economic con-

cerns; increasing demand for basic commodities; instability in regions endowed with reserves of commodities; festering disputes over ownership and control of supplies; and impending shortages of basic, non-renewable commodities.[12] While Klare believes that technology and the adaptation of markets will help avert conflict in some cases, he perceives there to be a general trend towards the use of military force to protect and acquire vital resources.

Struggles to ensure continued access to resources also will shape foreign and military policy around the world. Ensuring access to oil has long been a component of U.S. foreign policy, particularly in the Middle East. More recently it has helped shaped U.S. policy in the Central Asian Republics near the Caspian Sea, where vast oil reserves have been identified. United States' concern about ensuring an adequate supply of fuel is likely to continue for the foreseeable future, though sources of supply are diversifying. According to the National Intelligence Council, the Persian Gulf's production capacity will increase as will West Africa's, Russia's and Greenland's. Commensurate with those increases in output will be increases in the regions' importance in the world energy market.

Guaranteeing access to a range of commodities will continue to affect U.S. strategic priorities; Klare has predicted that vast untapped African reserves of timber, minerals, gems and oil will increase the region's perceived strategic importance.[13] Already, U.S. military assistance and training are provided to 33 of 48 Sub-Saharan African nations.[14] Military training exercises in Central Asian Republics were launched in 1997.[15]

"Even one hundred years ago, one could find linkages between resource degradation in one place, and economic and social change in another. Today, in a much more globalized and populated world, the linkages are much stronger and faster."

–Norbert Henninger

III. ADVANCING ENVIRONMENTAL DEGRADATION AND RESOURCE SCARCITY

Framing the increased focus on resource access as a component of foreign policy is the emergence of resource shortages driven by industrialization, urbanization, over-use and misuse of natural resources. The decline in overall global environmental quality is evident around the world and throughout the natural environment; the impact on social and economic well-being are becoming increasingly clear.

Some 65 percent of the world's croplands are degraded and the percentage continues to grow. Soil erosion, salinization and compaction have weakened land as urbanization has reduced its availability. The World Bank estimates that in the last three decades land degradation has reduced global productivity by 12 percent.[16] Urbanization, agricultural conversion, and deforestation-driven sedimentation have had a similarly devastating impact

on wetlands. According to Worldwatch, over half of the world's wetlands have disappeared in the last 100 years; the Hadley Centre for Climate Prediction estimates that forty to fifty percent of what remains will disappear by 2080.[17] The result of this loss is increased flooding in places as disparate as Mozambique and the United States, reduced water quality, decreased fish catch and species depletion.

Evidence of degradation is equally evident in forests and oceans around the world. Global forest cover has shrunk by some 50 percent as a result of conversion to agriculture and logging according to Bryant et al; the World Bank believes that an additional .71 percent of forests is lost annually. According to the Earth Policy Institute illegal logging alone results in some $15 billion dollars in lost revenue to governments and depletes from the $4.7 trillion in value forests provide annually.[18] Coral reefs are experiencing an equally precipitous decline. Some 11 percent of the world's coral reefs have been destroyed and the World Bank believes that an additional 32 percent will be threatened in the next thirty years. The Global Coral Reef Monitoring Network believes that as of 2000, some 27 percent had been severely damaged compared with only ten percent in 1992. Fish stocks risk similar fates; according to Garcia and Deleiva, about 75 percent of major marine fish stocks are being fished at or above their replacement limit.

Among the most disturbing environmental trends is the decreasing availability and quality of freshwater around the world. A shortage of safe drinking water already plagues 28 percent (over one billion) of the world's population.[19] The World Commission on Water predicts that in the next 30 years water use will rise by 50 percent.[20] As a result of that increase in usage and climate change, the United Nations believes that as many as 7 billion people in 60 countries will face water shortages by 2050.[21] At the same time, according to Postel, groundwater is being over-pumped by at least 160 billion cubic meters per year. WRI finds that rising numbers of algal blooms and increasing eutrophication confirm a significant decline in water quality worldwide.

Overarching all of the local evidence of ecosystem degradation are global climatic shifts, which threaten to affect human, plant and animal health and well-being. Climate change has increased global surface temperatures from .4 to .8 degrees Celsius in the last century. According to the Intergovernmental Panel on Climate Change most of the warming in the last 50 years can be attributed to greenhouse gases emissions resulting from human activities. While Worldwatch reports that global emissions from fossil fuel have declined slightly, the atmospheric concentration of greenhouse gases is rising steadily. Consistent with the increase in temperatures,

sea levels have risen ten to 20 centimeters in the last century. Arctic sea ice has shrunk and glaciers are retreating.[22] According to the World Bank, "droughts have become more frequent and intense in Asia and Africa."[23] The behavior and geographic range of animals and plants has changed. Extreme weather events may be increasing in frequency.

The economic implications of environmental decline are enormous. One analysis has estimated that the net economic cost of wild habitat conversion and loss is $250 billion per year.[24] WRI has estimated that water shortages already cost urban economies $11.2 billion in reduced industrial output. Air pollution in many developing and transition countries may be reducing urban income by four to six percent. The loss of ecosystems can also be translated into economic losses. For example, reefs are estimated to deliver $375 billion in value to half a billion people annually worldwide. 1.2 billion extremely poor people depend upon forests for food and livelihood.

The immediate implications of degradation for human health are equally evident. Inadequate availability of clean water and sanitation cause some 12 million deaths per year.[25] Air pollution kills almost three million more.

The long-term implications for human health are less clear. Technology and innovation are already demonstrating their capacity to compensate for shortages and resource loss. For example, despite dire predictions regarding food availability in light of population growth and land degradation, per capita caloric intake has risen and the number of extremely malnourished is declining. The FAO predicts that there is likely to be enough food available to meet the needs of the growing world population for the foreseeable future. This is due to the intensification of agriculture, increases in aquaculture, and the introduction of new technologies that reduce crop losses and increase yields.

Similarly, while periodic alarms have been sounded regarding the continuing availability of non-renewable extracted resources (e.g. oil, natural gas, metals and minerals), sufficient supplies of critical resources are now expected. Technological advances are rendering additional reserves economically accessible. The trend to liberalization of trade is increasing the number of suppliers entering world markets.[26] Substitutes for natural materials are reducing the price of and demand for many non-renewable resources.

Whatever the future holds for overall global well-being, it is clear that the general trends are not universally reflected in regions and countries around the world. Resource endowments vary enormously from region to region as does the extent of degradation of the environment. The economic importance of different resources is widely variable. Moreover, while many parts of the world have seen environmental improvements fol-

"We have to handle these cumulative actions of rapidly growing and industrial societies, causing us to face challenges like acid rain, greenhouse gas emissions, ozone depletion or large-scale industrial problems."

–Norbert Henninger

lowing industrialization; the environment in other nations is deteriorating precipitously as populations grow, urbanization advances and the process of economic development unfolds.

The critical task becomes to identify the regions and countries where shortages and degradative processes are likely to be fundamentally destabilizing , and to couple that with some judgment as to where that destabilization is likely to threaten national security.

ENVIRONMENTAL CHANGE AND CONFLICT

A large body of literature explores how instability and conflict may stem from environment and natural resource-related challenges. Despite the analysis, no consensus has been reached. Many scholars have concluded that issues of access to control of natural resources have caused tension and conflict.[27] Arthur Westing for example concludes that "Global deficiencies and degradation of natural resources, both renewable and non-renewable, coupled with the uneven distribution of these raw materials, can lead to unlikely and thus unstable alliances, to national rivalries and of course, to war."[28] Within this group of scholars, there are differences in opinion as to the most serious threats. For example, Lipschutz and Holdren differentiate between the risks associated with disputes over natural resources such as oil and minerals as opposed to services such as clean water or air; they find environmental service disputes more likely to generate conflict.[29] Homer- Dixon believes that conflicts over non-renewables such as minerals are more likely, particularly interstate conflict; he reasons that renewable resources tend to be easier to convert to financial assets and the countries that possess renewable resources tend to be poorer with less capacity to act aggressively.[30]

Two groups, one based in Canada the other in Switzerland have undertaken particularly comprehensive theoretical and empirical analyses of the potential global environmental security threat. The Swiss 'Environment and Conflict Project' concludes that concerns over resource control and scarcity combined with overpopulation, economic decline and political instability are spurring conflict around the world, particularly in the poorest developing nations. The Canadian researchers, under the leadership of Thomas Homer-Dixon, focus specifically on the links between environmental scarcity and conflict concluding that conflicts driven by environmental scarcities already exist and are likely to continue to be "sub-national, persistent, and diffuse."[31] Homer-Dixon finds that environment-related threats to stability may be supply-driven (by dwindling availability), demand-driven (by population growth or increases in consumption) or distribution-driven (by inequities or perceived inequities in the allocation and availabili-

ty of resources). Both groups conclude (as do most others) that developing nations will be most afflicted by resource-related conflicts because they are less adaptable and have more fragile governance structures.

Other researchers question the links between environment and security.[32] Marc Levy, for example, questions the causality. He finds that while migration has caused violence and degradation has caused migration, the link from degradation to migration to violence has not been empirically demonstrated. He concludes that ozone depletion and climate change are the only environmental challenges that currently pose a direct physical threat to the United States.[33] Gleditsch focuses on the methodological shortcomings of environmental security research and finds that the environment-security link is overstated. He endorses the view of Julian Simon, that technological innovation and adaptation will reduce the likelihood and impact of environmental stress. Daniel Deudney, and Lipschulz and Holdren agree that technological advances will continue increasing the ability to substitute for dwindling non-renewable resources. Deudney more broadly criticizes the attempt to make the case that environmental issues are issues of national security. Gledisch notes that globalization will reduce the likelihood of resource wars as countries' control over supplies declines.

The predicted paths to conflict from environmental stress wary widely in the literature.[34] David Wirth speaks of how environmental change may shift balances of power. Heilbroner talks about the impact of growing disparities in income leading to military confrontation. Jacobsen discusses the destabilizing impact of a growing pool of environmental refugees. Gleik focuses on growing water scarcity. Wallenstein is concerned with the impact of reduced crop production and the potential use of food as a weapon. Gurr examines the role of environmental scarcity in fostering the emergence of ethnic and class rivalries. And Ophuls discusses how scarcity creates an underlying atmosphere of tension within the global community impeding cooperation and peaceful coexistence.

An analysis of the trends to different types of environmental scarcity, and the possible links to instability and conflict helps define the current state of knowledge.

POTENTIAL SECURITY-RELATED IMPLICATIONS OF SPECIFIC ENVIRONMENTAL THREATS

Water

Clean water scarcity may be the most central environmental security concern today. Growing populations and demand for water are increasing demand as

pollution and more frequent droughts strain supplies. There are no substitutes for fresh water, and the cost of desalinization is still high. According to the United Nations, between 1970 and 1997 the amount of water economically available for use worldwide dropped by 37 percent.[35] Since 1950 the renewable supply of water has fallen by 58 percent.[36] It has been predicted that by 2050 demand for water could equal 100 percent of supply.[37]

Agriculture today accounts for more than two-thirds of water use worldwide (and over 80 percent of use in the poorest developing nations); the push to increase agricultural productivity will further strain supply as irrigated agriculture becomes more widespread. In agricultural regions of northern China the water table is already declining by five feet per year and 10 to 20 percent of grain production is threatened.[38] Simultaneously, municipal and industrial demand for water are growing. According to Foster, water tables are falling in cities across Latin America and Asia reducing the water supply and quality, and hurting surrounding agricultural productivity.[39] Throughout India the water table is falling three to ten feet per year. Compounded by water subsidies that maintain artificially low prices for water around the world, the strain on the resource is escalating.

Ensuring an adequate supply of water for economic development around the world is complicated by the fact that water resources are often shared among countries. More than 30 countries draw over one-third of their water from neighboring nations.[40] According to the Institute for National Strategic Studies "about 200 river basins are shared by two or more countries.[41] Thirteen are shared by five or more countries. Four basins are shared by nine or more countries." Watersheds that cross national boundaries comprise over 60 percent of Africa, Asia and South America, and 47 percent of the world as a whole.

Recent history reveals conflicts over water in China, Pakistan, Thailand, Bolivia and India and Bangladesh. Around the world there are some 17 water basins in which disputes over water currently exist or are likely to develop over the next decade; 51 countries on five continents will be affected.[42] The Middle East and North Africa are where water conflict is most acute, particularly in the Euphrates, Nile and Jordan river basins. Turkey is constructing dams and irrigation that will impact water flow to Syria and Iraq. Disputes between Ethiopia and Egypt have continued for decades over rights to water from the Nile. Israel is currently embroiled in a dispute with Lebanon, and a trilateral exchange over water rights with Jordan and Syria. The Palestinians have long complained about the division of water with Israel (Some 40 percent of the ground water used by Israel (about one quarter of its supply) originates in the Occupied Territories.)

While it would seem that a conflict driven by water shortages is inevitable given the situation, history proves otherwise. According to Postel and Wolf, only one war over water has ever been recorded and it took place 4,500 years ago in Mesopotamia. To the contrary, more that 3,600 water-related agreements and treaties have been signed to govern the sharing and division of the resource.[43] Similarly, the Transboundary Freshwater Dispute Database Project finds "little evidence that water has ever been the cause of international warfare."[44]

That does not mean instability and disagreements over water use do not abound. According to the Transboundary Freshwater Dispute Database Project, small scale, acute conflicts have occurred. Additionally, growing scarcity and declines in quality are likely to gradually decrease the internal stability of countries if they are not addressed proactively. It is unclear whether or not desperation over water supplies will end the cooperation that has typified water use negotiations. Norman Myers among others has discussed the risk of reaching a critical threshold beyond which conflicts over environmental scarcities result in violent conflict. Homer-Dixon has, however, questioned the likelihood of conflict; he believes that wars will only be likely if the country losing access to water is highly dependent on the source, there is a high risk of substantial water limitations, there is a history of antagonism between the countries and the negatively affected country is militarily stronger.[45] Additionally, efforts to map, source and negotiate resource-sharing agreements to govern abundant deep aquifers may stave-off profound global shortages. Ultimately, the question is whether or not the degree of water scarcity will overwhelm the tendency towards cooperation.

Food Security and Agricultural Productivity

Despite the promising trends in the availability of food and per capita caloric intake on a global level, persistent local and regional agricultural production problems exist around the world, particularly in Sub-Saharan Africa. The U.S. Department of Agriculture (USDA) has estimated that per capita food consumption is likely to decline in 47 of the poorest nations of the world through 2008. USDA predicts that as of 2008, 39 countries will likely be unable to meet their food requirements. Two-thirds of Sub-Saharan Africa will be undernourished. Forty percent of the population in Latin America and Asia will be undernourished.[46]

Driving the vast undernourishment are population growth, insufficient distribution channels, civil unrest and differential purchasing power. According to USDA, twelve of the nations that are likely to face contin-

ued undernutrition have adequate supplies of food for their population, but lower income groups lack the financial resources to provide adequately for themselves. Many of these people live in rural areas that lack access to employment, land or credit to facilitate self-sufficiency. In Sub-Saharan Africa population growth is a particular problem; agriculture production growth rates in the region between 1980 and 1997 were largely offset by increases in the number of mouths to feed.[47]

Insufficient growth in productivity, and environmental degradation exacerbate the problems. For example, to satisfy projected nutritional requirements for 2008, Sub-Saharan African agricultural productivity would have to increase at a rate 60 percent greater than the 1.4 percent per year productivity growth rate achieved between 1980 and 1997.[48] Unfortunately, the availability and productivity of cropland are in decline. In developing countries, arable land declined in the 1980s by 1.9 percent per year. And Vaclav Smil estimates that each year in developing countries three million hectares are lost to erosion; another one million are lost to salinity. Urbanization consumes another approximately six million hectares of cropland. Desertification affects some 20 percent.[49] Genetically modified seed varieties could help reduce the crop losses attributable to insects and disease (which are often up to 30 percent in tropical Asia and Africa) and increase yields by 10-25 percent. But, thus far, continued debates over the political, economic and environmental consequences of genetically modified crop technologies have blocked their mass distribution in developing nations.

There is a long history of conflicts related to land use and distribution. Calls for land redistribution are central to conflicts in Asia, Africa and Latin America. Afghanistan, Angola, Ethiopia, Rwanda, Sierra Leone, Somalia and Haiti have all faced conflicts that were exacerbated (and maybe partly caused) by environment-induced food shortages.[50] Riots have been the response to increases in food prices and shortages.[51] Nonetheless, the link between food security and armed conflict may be more indirect, with poverty as the impetus to violence. While Messer et al have suggested that there is a direct causal link between food security and conflict, their statistical analysis does not strongly support the claim.[52] The same is true in a study by Turi Saltnes analyzing the connections between desertification and conflict; the statistical significance of the relationship practically disappeared when controlling for political and economic factors.[53] De Soysa and Gleditsch et al have concluded "rehabilitation of agriculture is a central condition for development, reducing poverty, preventing environmental destruction—and for reducing violence."[54] Their analysis finds that in the

Post-Cold War period, the preponderance of armed conflict (multinational and internal) has taken place in regions that are heavily dependent upon agriculture. Their deeper analysis indicates that agriculture-related issues often have been among the causes of that conflict.

Global Climate Change

The Intergovernmental Panel on Climate Change (IPCC) currently projects that globally average surface temperature will rise by 1.4 to 5.8 degrees Centigrade above 1990 levels by 2100. This is likely to exacerbate significantly flooding and droughts. It is also predicted to reduce crop yields in tropical and sub-tropical regions; decrease water availability in water scarce regions; increase exposure to vector (e.g. malaria) and water borne diseases; and prompt widespread increases in flooding as a result of sea level rise and increased heavy precipitation in some parts of the world. The magnitude of the negative impact on human health and well-being as well as economic prosperity will depend upon societies' ability to adapt; developing countries will face the greatest challenges.[55]

Global climate change is being driven by the growth in human-induced emissions of greenhouse gases around the world. The energy sector is the biggest contributor, with fossil fuels (oil, coal and natural gas) contributing the most to total emissions. That is unlikely to change for the foreseeable future. Global demand for energy currently consumes about one percent of fossil fuel reserves per year. Given improved extraction and recovery technologies as well as continued exploration, energy supply is likely to be sufficient to meet demand without a dramatic increase in prices for the foreseeable future. This portends well for the world's ability to foster economic development and expansion unhindered by constraints on the availability of fuel. It also means that a dramatic shift away from fossil fuels is unlikely.[56]

While energy efficiency is improving, and the energy intensity of economies (the amount of energy used per unit of output) is decreasing, demand for energy will increase by almost fifty percent in the next 15 years from about 75 million barrels of oil in 2000 to over 100 million in 2015. Demand for natural gas, particularly driven by Asia, will increase by over 100 percent. Fossil fuels will remain the fuel of choice. A continued increase in greenhouse gas emissions is predicted. It is likely that developing countries will overtake developed nations as the major emitters of greenhouse gases.

Though heated arguments have typified negotiations of the Framework Convention on Climate Change, no one has argued that these disputes will precipitate war. The implications of climate change for stability will

primarily be indirect. The IPCC has predicted, for example, that between 75 million and 200 million people could be displaced annually by storm surges. It has also found that climate change will accelerate erosion, water scarcity, and loss of wetland and mangroves, all of which will magnify the local and global economic impacts of change. Some have estimated that hundreds of millions of environmental refugees could be created as a result of climate change-induced food and water shortages.

There is some empirical analysis of the instability produced by climatic shift. Angus McKay has studied whether climate change-induced food shortages in the 1400s in the kingdom of Castile (most of modern Spain) caused violent unrest. Thomas Homer-Dixon has hypothesized that global warming could increase the flow of migrants from Oaxaca, Mexico; they are already leaving because of drought and soil erosion, and global warming could decrease Mexican production of rainfed maize by up to 40 percent. Desertification has forced significant migration across African borders.

Military Waste and Clean-Up

The generation, storage and disposal of waste generated by military forces around the world continue to present significant environmental challenges. The U.S. Department of Defense (DOD) generates some 750,000 tons of hazardous waste each year.[57] Chemicals and heavy metals are dispersed in every base and nuclear weapons facility. It has been estimated that the cost of cleaning-up military bases in Germany or the Philippines would each cost $1 billion dollars. The U.S. Department of Energy has estimated that comprehensive clean-up of all facilities over the next 75 years would cost around $500 billion; stabilization of the worst sites would cost some $230 billion.[58] The DOD Inspector General has found "potentially significant liabilities" and pollution at U.S. bases in Canada, Germany, Great Britain, Greenland, Iceland, Italy, Japan, Panama, the Philippines, South Korea, Spain and Turkey as well as other countries. The health costs of military contamination are already evident in the heightened rates of cancers, asbestosis, stillbirths and birth defects, and skin, throat and nose diseases in the vicinity of bases such as Subic Bay and Clark in the Philippines.

Radioactive waste remains a particularly significant environmental problem in states of the former Soviet Union. According to the Yablokov Commission, beginning in 1965 the Soviet Union dumped the equivalent of some 2.5 million curies of radioactive waste in the ocean.[59] Additionally, the Soviet military has inadequate means for safely decommissioning nuclear submarines; as of 2000, some 180 submarine reactors were still awaiting disposal. While those submarines have been termed "floating

Chernobyls," Paul Benjamin believes that the threat to U.S. security is overstated; while environmentally sound disposal of waste and decommissioning are desirable, he contends that no direct health, environmental or military threat to the United States has been demonstrated. Benjamin does feel that significant risks to the United States may be posed by the billions of curies of radioactive waste that may be stored around the cities in which the Soviet Union produced nuclear weapons during the Cold War.

THE INDIRECT SECURITY-RELATED CONSEQUENCE OF SCARCITY

The indirect connections between environmental decline and instability may be the clearest. In his research, Homer-Dixon concludes that environmental scarcity can be driven by the dwindling availability of certain natural resources, increasing demand for resources or unequal distribution and access to resources. He concludes that scarcities can drive conflict but that "scarcity's role in such violence…is often obscure and indirect. It interacts with political, economic and other factors to generate harsh social effects that, in turn help to produce violence."[60] In fact, Homer-Dixon feels that environmental scarcity will only cause violence when it occurs in combination with other social, economic and political stresses. Nonetheless, Homer-Dixon notes that environmental factors are not always subordinate to other concerns in driving violence; sometimes they underlie or supercede other factors in terms of importance.

"The issue to me is how to integrate environmental security into the overall fabric of the national security planning process."

–Sherri Goodman

Homer-Dixon sees two primary paths to instability. One scenario in which resource degradation and depletion combine with demographic trends such as population growth to foster elite seizure of control over resources or their distribution. A second scenario in which resource scarcity and demographic pressures drive migration to increasingly fragile lands, feeding degradation and the marginalization of weak groups. Homer-Dixon believes that these environment-driven effects on societies will have broader implications for nations' social, cultural and economic well-being causing insurgencies, ethnic clashes and coups d'état.[61] Hauge and Ellingsen support his hypotheses. They find that environmental degradation increases the risk of civil conflict, albeit smaller rather than larger conflicts. While they find that conflict is linked to degradation, they find that economic and governance-related factors are more predictive.

Migration

There is a long history of migration correlated with environmental degradation, but there is not consensus regarding the causality of the linkage.

According to Suhrke, while experts in migration tend to see degradation as a contributory factor, developmental and environmental experts perceive there to be a causal linkage.[62] Nonetheless, there is a clear correlation with environment-related stresses including drought, famine and flooding in places such as the Sahel and Bangladesh. That correlation (and perhaps causality) is likely to become increasingly clear as global climate change progresses, raising sea levels, and increasing the frequency and severity of droughts.

The nature of the threat posed to stability by migrants relates to the inherent instability in large-scale population movements. Suhrke points out that refugees of flood and famine are generally so weak, powerless and marginalized that their ability to pose a direct threat is limited.[63] Nonetheless conflict spurred in part by migration has occurred. The 1969 "Soccer War" involving Honduras and El Salvador began when Honduras sought to return Salvadoran migrants that had entered the country in search of arable land. Bangladeshis have met violent resistance when they enter India fleeing famine and overcrowding.[64] Severe environmental degradation in Haiti has dramatically compromised the ability of the nation's land to support its population economically or nutritionally, at times spurring exodus "en masse"[65]; in September 1994 the United States entered Haiti militarily, partly in response to the attempts at mass migration to the United States by boat. Somerville analyzed the tension induced by drought- and famine-induced migration in the Sahel. He found that conflicts arose as a result of: competition for and corruption using relief aid; attempts to close-off borders to migrating victims; and within urban areas in drought-affected regions stretched by the influx of refugees.[66]

Economic Losses

There can be no question that environmental degradation has severe economic costs at the national and global levels. Estimates of the economic consequences of different types of degradation have been made.[67] But most dramatic are the impacts of environmental degradation on the overall economic well-being of countries around the world. Russia has estimated that total economic losses from environmental degradation are the equivalent of 10 to 12 percent of GDP.[68] Similarly, the estimated losses in the nations of Central and Eastern Europe range from two to eleven percent of GDP.

The same is true in other parts of the world. Robert Repetto estimates that the lost future productivity resulting from poor Indonesian environmental management is valued at half a billion dollars in future income.

Smil calculates that the economic impact of China's environmental challenges is at least 15 percent of GNP. Barbier has estimated that nine percent of GDP in Burkina Faso is lost as a result of dryland degradation.[69]

IV. ENVIRONMENTAL TERRORISM AND AGRICULTURAL BIOLOGICAL WARFARE

In the post-September 11 world, increased attention has focused on the potential for attacks on natural resources. Though limited, there is a history of such attacks. In 1967 Israel destroyed oil installations in Syria during the Six Day War. During World War II and the Korean War dams were routinely struck.[70] The United States, Great Britain, France, Japan and Germany all experimented with agricultural biological warfare during World War II; their targets included animals and crops.[71] Iraq sought agricultural biological warfare capacity prior to the Persian Gulf War. The former Soviet Union had an extensive program developing anti-plant and animal biological weapons from the 1930s until the 1970s.

Non-state actors have also used such tactics. Oil pipelines in Colombia are regularly attacked. In 1978, the Arab Revolutionary Army Palestinian Commandoes used mercury to contaminate Israeli citrus exports.[72] Insurgents in Kenya used a toxin derived from a plant to poison cattle. And claims that Sri Lankan tea and Chilean grape exports to the United States had been contaminated caused significant disruptions with millions of dollars in economic consequences.

The specter of terrorist attacks on reservoirs has received particular attention post-September 11. Theoretically, explosives, poison or disease-causing agents could be used to interrupt or contaminate supplies.[73] There is precedent. In 2000 French chemical workers dumped acid in a river as a protest. Alternatively, dams could be destroyed, pouring out massive quantities of water. A malfunctioning bomb was found at a reservoir in South Africa in 1999.[74] Other approaches to environmental terrorism might include forest fires, destruction of coral reefs, the intentional spread of crop or animal diseases or crop poisoning.

While the risk of environmental terrorism and agricultural biological warfare exist, determining the level of risk is difficult. Significant research programs that existed around the world have created a foundation of knowledge, and source of scientists able to plan attacks and aid anti-agriculture biological weapons development. The scientific and operational impediments to these attacks are smaller than the barriers hindering attacks on people. Most agricultural resources and natural resource-related infrastructure are virtually

unprotected.[75] Sources of supply are often highly centralized, increasing the vulnerability of large populations to attack. Even the false report of an attack can have significant economic and psychological consequences.

V. FINDINGS AND CONCLUSIONS

While the trend to environmental degradation is undeniable, the impact of that decline for national security is less clear. History is filled with predictions of impending environmental disaster that proved incorrect. Technology has demonstrated its ability to overcome some of the environmental challenges posed by development. Societies have proven their willingness to invest in environmental restoration and protection once they have reached a threshold level of development. It is conceivable that the global community will prove able to overcome even the most serious environmental threats that are looming. That having been said, in assessing how we can bolster stability and security vis-à-vis environmental threats, a number of conclusions can be reached.

- **There is no clear evidence that environmental degradation is creating short-term threats to national security.** Despite dramatic evidence of resource depletion, short-term, local environmental challenges are likely to be managed (or absorbed) without broader implications for global stability. Where conflict occurs in resource constrained environments, it will be difficult to isolate environmental factors as the critical cause or key to resolution of disputes.

- **There is abundant evidence that natural resources and environmental scarcities create instability.** Violence related to resource distribution, control and growing scarcity exist and are likely to become more frequent as pressure on the resource base grows as a result of population growth, development induced degradation and climatic shifts. The local consequences are likely to be severe, though the causes and consequences of environment-induced instability will vary by region, and within countries and different ecozones.

- **Given environmental trends, the number of humanitarian crises stemming from natural disasters is likely to continue to climb, with a corresponding increase in involvement by foreign aid and military personnel.**

- **Reductions in the availability of water and climate change raise the specter that irreversible environmental challenges will reduce stability in the future.** While it is hard to predict that armed conflict will result, the types of change that are foreseen are unprecedented and require urgent attention.

- **Environmental degradation is causing economic losses, declines in human health and migration.** These secondary effects have implications for stability and security that are discussed in sections on health and demographics.

- **The gravest environmental threats to security and stability will require multinational cooperation to overcome.** Climate change, water and other resource scarcities as well as localized food shortages will only be overcome if nations around the world work individually and collectively to share resources, increase efficiency and reduce consumption.

- **A broader, long-term perspective is needed to fully incorporate into decision-making natural resource and environment-related risks to stability.** For example, if trade negotiators better appreciated that barriers to developing country entry into the World Trade Organization threaten food security with consequences for regional stability, it might facilitate progress. If there was broader understanding of the importance of biodiversity to the development of drugs to combat catastrophic illnesses such as AIDS, Hoof and Mouth, and Mad Cow diseases, habitat conservation might become a higher priority.

- **The scale and speed of environmental changes will have important implications for their impact on stability, and societies' adaptive capacity.** Long-term threats to security will provide more time for adaptation but less impetus for crisis aversion. That is, gradual environmental changes allow opportunities to adapt, but if left unaddressed, they can become irreversible crises with few remedies.

- **The indirect though dramatic negative impact of environmental degradation on the prosperity of developing nations around is evident and alarming.** Given the implications for stability of economic stagnation, a more concerted effort to reduce the environmental costs of economic development is needed. The potential for success is

already evident in Brazil, India and China where there is evidence that the energy-related environmental costs of production are being reduced, helping to promote a "greener" path to development.

- **Efforts to promote increased water and energy efficiency will benefit the environment, economies and, indirectly, global stability.** The full range of efforts to facilitate more efficient resource use need to be recognized for the full range of benefits they deliver.

PROPOSED DIRECTIONS FOR RESEARCH

The ability to more specifically assess resource-related threats to security would be enhanced by efforts to:

- create a taxonomy for weighing and prioritizing environmental threats by identifying those place where challenges are most critical and those that are approaching the threshold beyond which stability is compromised;

- explicitly connect specific local and regional environmental threats to broader global concerns;

- better assess the direct connection between environmental scarcity and intrastate conflict.

FINDINGS RELEVANT TO POLICIES AND PROGRAMS

There is the critical need to seize the important opportunities that exist to reduce the threat to stability and security from environmental degradation. For example:

- Efforts such as those of Bangladesh to anticipate and reduce the threat posed by storm surges and floods using engineering, technology and planning are important and need to be replicated in "high risk" areas;

- Programs to integrate environmental issues into regional security and conflict resolution processes are needed to ensure that environment-related sources of tension are diffused, reducing the likelihood that they cause the resurgence of conflict;

- Concerted efforts to negotiate resource-sharing agreements in advance of conflict could be critical in reducing the threat of future conflict. The are many models that could be drawn upon including the U.S.-Canada Boundary Waters Treaty, which has endured since 1909. Negotiated agreements that exist have proven resilient over time.

- Vehicles for cross-border, multinational problem-solving such as the U.S. Department of State's Environmental Hubs Program should be strengthened and expanded, particularly in high-risk regions in order to facilitate negotiation, strategic planning and problem solving that is not constrained by national boundaries.

- Activities to facilitate resource use efficiency, accelerated technological advancement and less resource-intensive development should be pursued globally, but particularly in countries facing destabilizing resource shortages.

- Efforts to promote cooperation around environmental issues can provide an entry point for launching discourse and partnership among opposing factions in conflict zones. They can also be used to promote civilian-military cooperation. Using an environmental agenda to stimulate negotiation can help provide a less confrontational vehicle for discussion while resolving an important source of tension.

- Better consideration of the environmental dimensions of military operations and the security-related dimensions of environmental issues would reduce the risks of destabilization and environmental degradation. For example,

    - an increased understanding of the environmental implications of new materials used in weaponry could decrease dramatically costs of clean-up and reduce the social, economic, health and environmental implications of combat;

    - greater incorporation of environmental analysis into military planning would reduce the unintended negative environmental consequences of military operations.

- Improved assessment of the security and stability-related implications of environmental and natural resource-based threats would facilitate strate-

gic use of limited financial resources, and increasing returns from improved environmental management and conservation efforts.

- More comprehensive attention to the vulnerability to attack of environmental infrastructure as part of planning and management efforts could reduce exposure and promote creative efforts to reduce risk.

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Health

Attention to health-related risks to national security and global stability has increased in recent years. Attention has focused on the resurgence of infectious diseases, the threat of bioterrorism, and the debilitating impact of the growing disease burden on the political and economic well-being of nations around the world. While the negative implications of new and emerging health threats are clear, the magnitude of the risks is debated. In analyzing the implications for stability and security of health concerns, the questions for analysis become:

- Which health trends significantly threaten U.S. interests;
- How can the threat be reduced;
- How can the nation's vulnerability be minimized?

I. THE RESURGENCE OF INFECTIOUS DISEASES

Infectious diseases are the world's leading causes of death and have resurged in the last twenty years. In 1998, infectious disease deaths accounted for between one quarter and one third of the 54 million deaths worldwide[1]. In the United States, some 170,000 people die each year from infectious diseases. That number is increasing by about 4.8 percent per year. Overall, the rate has almost doubled since 1980 when it was at its historic low.

According to the World Health Organization (WHO), six infectious diseases—HIV/AIDS, tuberculosis (TB), malaria, pneumonia, diarrheal infections and measles—account for half of all the premature deaths in the world. HIV/AIDS has killed more than 20 million people. Malaria kills at least one million people and afflicts another 300 to 500 million worldwide each year; 3,000 people die each day from malaria in Sub-Saharan Africa. One-third of the world's people carry TB; The Global Fund to Fight AIDS, Tuberculosis and Malaria predicts that between 2000 and 2020 one billion additional people will become infected and 35 million people will die from TB[2].

Since 1973, some 20 well-known diseases have increased in prevalence. For example, new cases of TB rose worldwide from 8 million in 1997 to 8.4 million in 1999. Often, diseases have re-emerged in more virulent, drug-resistant forms.

In the United States, 25 percent of all visits to physicians each year concern infectious diseases. Some 14,000 people die each year as a result of drug-resistant microbes acquired while in the hospital. The total direct and indirect costs of infectious diseases to the United States could exceed $120 billion.[3] Anti-microbial resistance to six common bacteria increases U.S. hospitalization costs by $660 million annually.[4]

At the same time according to the American Society for Microbiology, in the last thirty years some 35 newly emerging infectious diseases have been identified, including incurable Ebola, HIV and hepatitis C.[5] The U.S. Institute of Medicine believes that the most likely future health threat to the United States will come from a pathogen not yet known to us.

THE CAUSES FOR GROWTH OF INFECTIOUS DISEASES

Driving the resurgence of infectious diseases is increasing movement by people and goods around the world, changes in population density and settlement patterns, as well as environmental change. Population movement has increased dramatically. Today, over 120 million of people live outside their country of birth. Some two million people cross an international border each day[6]. One million people travel between developed and developing countries each week[7]. The United States receives some 70,000 foreigners each day and some 57 million Americans travel abroad each year. For the past 20 years, air travel has grown by about 7 percent per year.[8] The World Travel and Tourism Council claims that tourism is the world's largest industry, having generated 11.7 percent of global GDP in 1999.[9] They predict annual industry growth rates of 4.5 percent per annum over the next decade.[10]

Increasing mobility is facilitating the spread of disease. AIDS and West Nile Virus are examples of diseases that were imported to the United States. Up to 92 percent of multi-drug resistant TB in Canada is imported.[11] Fujiwara and Frieden have noted that New York City has traced TB cases back to 91 countries.[12] The recent global struggle to contain the spread of Severe Acute Respiratory Syndrome (SARS) using World Health Organization warnings and the quarantine of travelers to Asia from around the world is emblematic of the growing challenge.

SARS gained world attention when WHO officials issued global warnings after it was discovered 22 people onboard a single airline flight from

Beijing to Hong Kong fell ill. Little is known about SARS, but unlike other respiratory diseases, the World Health Organization has found that "reliable antibody tests can detect the virus only around day ten following the onset of symptoms."[13] The current rate of world mobility facilitates its spread such that, according to the *Washington Post* article "Superspreader,"[14] one person traveling from the southern Chinese province of Guangdong could have been responsible for the outbreak in Beijing, which then found its way to Hong Kong. The disease is contagious not just for those in direct contact with infected people but is suspected to be contagious for those in the vicinity of an infected person.[15] Estimates made in May 2003 conclude that in the four months since the WHO has been tracking the disease there have been 8384 probable cases and 770 total deaths in 29 countries.[16]

The trade in goods has risen equally dramatically at the local and international levels, with implications for the spread of disease. U.S. food imports have doubled in the last five years, creating greater opportunities for the rapid spread of disease around the world.[17] More than 75 percent of the fruits and vegetables in stores and restaurants in the United States are imported. Food-borne diseases afflict some 76 million people in the United States each year.[18] In developing countries the growth in trade links between urban and rural areas has been closely correlated with the spread of disease. For example, HIV/AIDS and other sexually transmitted disease rates are significantly higher along truck routes throughout the developing world.

Population growth and urbanization have also increased the likelihood of infection and epidemic. According to Laurie Garrett, while population density in the United States currently is 74 people per square mile, seven countries have overall population densities above 2,000 people per square mile. Another 43 countries feature population densities of over 500 people per square mile. Urbanization is fostering the growth of the sex industries that spread disease. It is also facilitating black markets for medicines, which are often of poor quality, over-used and misused, aiding the emergence of drug resistant bacteria. Finally, rapid urbanization is straining the health systems in many countries; as a result, over-burdened unhygienic health centers are becoming vectors for the transmission and spread of disease.

Exacerbating the situation are environmental and land use changes, which are altering the habitats for disease-carrying agents. The range for the dengue fever-carrying mosquito has expanded to cover almost all of Latin America in the last thirty years. Malaria-carrying mosquito were found for the first time this year in the mid-Atlantic United States. Land use change has facilitated the spread of Lyme Disease in the United States

"There has been great reluctance on the part of the health community, the relief community, the humanitarian assistance community and on the part of the security community, to define health as a national security issue."

–Michael Moodie

and Europe, and malaria, yellow fever and the plague around the world. Climate change will likely increase the distribution of malaria, yellow fever and dengue haemorraghic fever as well as water temperature-dependent diseases like cholera.[19]

THE IMPLICATIONS FOR STABILITY AND SECURITY

Despite limited analytical evidence of a direct link between public health and global stability, the CIA's National Intelligence Council (NIC) has concluded the "new and reemerging infectious diseases will pose a rising global health threat and will complicate U.S. and global security over the next 20 years. These diseases will endanger U.S. citizens at home and abroad, threaten U.S. armed forces deployed overseas, and exacerbate social and political instability in key countries and regions in which the United States has significant interests."[20] Reflecting this increasing recognition, the UN National Security Council first appointed a health advisor in the Fall of 1998, and first held a session on AIDS in January 2000. The Clinton Administration first recognized AIDS as a security threat in April 2000.

There is a substantial historic record demonstrating that disease has influenced conflict. The Spanish conquest of Mexico in the 1700s was significantly aided by a devastating Smallpox epidemic among the Aztecs.[21] The fall of the Byzantine Roman Empire and the collapse of Athens during the Peloponnessian Wars have been attributed to plagues.[22]

Today, the vast majority of the victims of infectious diseases are in developing nations. Some 95 percent of those infected with HIV, 90 percent of those with TB, and over 90 percent of those killed by malaria reside in third world countries. Increasing rates of infection pose dramatic challenges to economic and political well-being in many of these countries. The NIC believes that "the persistent infectious disease burden is likely to aggravate and, in some cases, may even provoke economic decay, social fragmentation, and political destabilization…"[23]

The Economic Costs

The economic cost of the infectious disease burden is hard to overstate. One outbreak of TB in 1993-1994 cost New York City over $90 million.[24] A retrospective study estimates that were it not for malaria, GDP in sub-Saharan African nations would be 35 percent higher.[25] TB is estimated to reduce income in the poorest parts of the world by some $12 billion.[26] The World Bank estimates that AIDS is reducing GDP in half of the nations of sub-Saharan Africa by 0.5 percent-1.2 percent per year.[27] Malaria is reducing annual GDP growth by a further 1-2 percent[28]. In a

separate study, the World Bank has estimated that AIDS and TB may cost Russia up to one percent of GDP by 2005.[29] The transmission of infectious diseases through the global trade in agricultural products could have enormous costs; the WHO estimates that the outbreak of Foot and Mouth Disease in Great Britain cost the British economy $5.75 billion.[30]

There are several reasons for the vast economic costs. Diseases like malaria, TB and AIDS reduce the productivity of the workforce as they increase the costs of labor and the provision of a social safety net. It has been estimated, for example, that a 4-5 percent per annum decline in productivity can be attributed to AIDS in Africa. The costs of providing support for the ill and dying will increase by a third as a result of AIDS in the region. A 1996 World Bank-sponsored study found that at the firm level the overall direct and indirect costs of AIDS (e.g, absenteeism, declines in productivity, insurance payments, recruitment and training) would reduce profits by 5-6 percent and decrease productivity by five percent.[31]

Periodic disease outbreaks also have a dramatic impact on trade and income. Fear of a 1994 outbreak of pneumonic plague in India lead to global panic that cost the Indian economy at least $2 billion.[32] A 1991 cholera outbreak in Peru reduced tourism and trade revenue by $775 million. In 1997, an outbreak of Foot and Mouth disease in Taiwan shut down pork industry exports for one year, devastating the industry.[33]

Even in developed nations, the economic costs of infectious disease are daunting. In 1993, excluding TB, AIDS and other sexually transmitted diseases, the direct and indirect costs of infectious diseases in the United States was over $120 billion.[34]

The Political Consequences

Significant political implications are likely to accompany the broadening global health crisis. Political tensions have already risen internationally around food boycotts, embargoes and restrictions on migration as well as the intellectual property rights over drugs.[35] India and Zaire have endured rapid, fear-driven internal migration in response to outbreaks of pneumonic plague and Ebola.[36] French, German and British politicians have all faced heated political debates over infectious diseases.

More fundamentally, infectious disease epidemics are likely to hinder political progress and evolution in countries around the world, with consequences for stability. The National Intelligence Council predicts that AIDS and other health problems will hinder the transition to democracy, and slow the development of sound political and economic institutions as it intensifies struggles for control and resources.[37] In particular, they pre-

dict that the infectious disease burden will have negative political consequences in Sub-Saharan Africa, the former Soviet Union and parts of Asia.

Andrew Price Smith has found that poor or declining health correlates with reduced state capacity, which leads to instability and unrest. His research indicates that high disease prevalence fosters inter-elite conflict and reduces national prosperity.[38] This is consistent with the findings of the Central Intelligence Agency's State Failure Task Force, which explored the factors that most correlate with state failure; the Task Force found the most significant correlation between infant mortality and state failure. Their analysis attributed the correlation to the erosion of the legitimacy of the state that accompanied its inability to provide for the health and well-being of the population. Recent analysis by Hotez extends the correlation further; he finds that the nations with the highest child mortality rates are over 17 times more likely to be in the midst of armed conflicts. And the likelihood of entering a conflict increases substantially when a country faces high rates of HIV and TB.[39]

The Council on Foreign Relations and the Millbank Memorial Fund have reached similar conclusions; their historic analysis of state failure correlated it with infant mortality, particularly in nascent democracies. Research by Kennedy, Kawachi and Brainerd supports this analysis; they found that across Russia poor health correlated with declining social cohesion and reduced trust in government.[40] The British House of Commons has concluded that lack of leadership in addressing HIV/AIDS is likely to have a similarly negative impact on faith in government, with implications for stability.[41]

As vast epidemics like AIDS kill a significant percentage of the elites in developing nations, the erosion of state function is likely to accelerate. George Fidas has hypothesized that as countries' military and political elite declines, struggles for control will intensify.[42]

The Military Consequences

Infectious diseases already have a significant impact on the effectiveness of military forces, and the impact is likely to grow as the prevalence of disease increases. Infectious diseases have long accounted for more military hospital admissions than battlefield injuries. The implications of growing infectious disease burdens for cost, force size and readiness are dramatic.

According to the Africa Center for Strategic Studies, sexually transmitted infection rates are thought to be 2-5 times higher in the military than they are among civilian populations in peace times.[43] But the Civil-Military Alliance to Combat HIV/AIDS has found that during deployment, infection rates among military personnel can be up to 50 times

higher than rates for civilians. Additionally, a soldier's risk of infection doubles for each year on deployment in a conflict area.[44] Today, infection rates in sub-Saharan African military forces are estimated to be between ten and 60 percent. In Zimbabwe and Malawi the estimates run as high as 70-75 percent. In South Africa, preliminary testing indicates infection rates of 66-70 percent, with some units showing rates of up to 90 percent.

Infectious diseases are eroding both the armies and the recruiting pools of several nations. In Russia, declining public health has meant that one in three military recruits is rejected on medical grounds.[45] South Africa's Institute of Strategic Studies has warned that if the spread of HIV/AIDS within the military is not stopped, many African nations will no longer be able to provide peacekeeping forces. Fear of the spread of HIV/AIDS through the military also is interfering with peacekeeping operations. Before deploying the UN Mission in Ethiopia and Eritrea, Eritrea asked that only HIV-negative peacekeepers be sent; the government hoped to maintain their relatively low rate of infection. Eritrean concern may have been sparked by allegations that the UN Transition Authority was responsible for the introduction of HIV in Cambodia, and evidence that the risk of infection among peacekeepers is up to five times higher than it is among the general population.

Given high rate of infection among troops, demobilization will bring with it attendant risks of infection. The end of the Civil War in Ethiopia in the 1990s brought with it the demobilization of troops and a surge of infections. Further demobilization in the next few years is likely to result in a new surge in infections as over 150,000 additional soldiers return home.[46]

Apart from the numbers, the productivity of armed forces will decline when faced with a substantial infectious disease burden. In some contingents of peacekeepers, 25-50 percent of the troops is afflicted each month with what is assumed to be malaria.[47] The lost productivity and cost of treatment are enormous.

Some analysts have hypothesized that infection with an incurable disease is likely to change the perspective of military forces. Given a shorter time horizon, the interest in fostering peace and democracy will decline. Schneider and Moodie have suggested that military cohesion will decrease. Fidas has suggested that high infection rates in countries with military-dominated governments will face increased insecurity. The International Crisis Group has also suggested that widespread awareness of the significant extent to which military forces are debilitated by AIDS could spur adventurism by neighboring countries perceiving a tactical advantage.

"A more cooperative dynamic is needed to involve private companies, the corporate community, the humanitarian community, the military community, and the broader security community."

–Michael Moodie

Namibia has refused to divulge information about infection rates, citing the information to be a "sensitive intelligence issue."[48]

AIDS – A CASE UNTO ITSELF

The spread of the HIV/AIDS epidemic provides direct evidence of how threats to human health can undermine stability and security around the world. According to UNAIDS there are currently 42 million people who are HIV positive. Estimates vary as to the number of people that will be infected by 2010 but it will undoubtedly be more than 60 million and may well fall between 80 and 100 million people worldwide.[49] In Sub-Saharan Africa, one in four adults may die as a result. Already in seven countries including South Africa some 25 percent of the adult population is estimated to be HIV positive.[50] The CIA's National Intelligence Council now predicts that by 2010, 50 to 70 million people in Nigeria (10-15 million), Ethiopia (7-10 million), Russia (5-8 million), India (20-25 million) and China (10-15 million) will be infected.[51]

The economic impact of the epidemic is already being felt, but it is likely to worsen significantly over time. AIDS is undermining growth, reducing foreign investment and devastating the elite population of businessmen and government workers in Sub-Saharan Africa where the epidemic is currently worst. The World Bank suggests that an adult prevalence rate of ten percent may reduce the growth in national income in a country by up to one third. When infection levels exceed 20 percent, USAID has found that a nation can expect a decline in GDP of up to 2.6 percent per year. At the household level, AIDS can be equally devastating; in Botswana, where one in three adults is infected with HIV (the highest HIV prevalence in the world), the percentage of the population living in poverty has risen back to 45 percent after falling to 38 percent in 1996. UNAIDS has found that family income can decline by 40-60 percent when someone becomes infected.

Much of the loss in growth and income is attributable to decreases in productivity and labor. More than 860,000 teachers died of AIDS in Sub-Saharan Africa in 1999. Some countries are facing the loss of one-quarter of their agricultural workforce by 2010. In Namibia, up to one third of the labor force in the agriculture, construction, tourism, mining, education, health and transport sectors is likely to be lost to AIDS by 2020. As many as one in seven civil servants is believed to be HIV positive in South Africa, and this is emblematic of the toll AIDS is taking on the elite.[52]

The additional social burden imposed by the HIV/AIDS epidemic is enormous. Infant mortality has risen in high-prevalence countries like

South Africa by 44 percent, and is expected to rise 60 percent higher in the period 2005-2010.[53] It has been predicted that by 2010 orphans will account for at least 15 percent of the children in 12 sub-Saharan African nations; AIDS will be responsible for the death of the vast majority of their parents.[54]

The costs to governance and social stability are also being felt as a consequence of AIDS. In South Africa, for example, lawlessness is increasing. Sexual violence and child rape have increased enormously as a direct result of the AIDS epidemic. Between 1994 and 2000, rape and attempted rape increased by 20 percent to 52,860 reported cases per year.[55] Serious crime in general is increasing as well; it rose by some 32 percent between 1991 and 1996.

Organizations including the CIA, the British Parliament, the U.S. Department of State and the UN Security Council have analyzed the impact of HIV/AIDS on stability. They all have identified cases where the disease has fostered instability by reducing human security, breaking down governance, harming social and economic prospects, and directly limiting the capacity of the armed forces and the police.[56] The U.S. Department of State has cited HIV/AIDS as a potential "war starter" or "war outcome determinant" because of its likely impact on economic well-being and military capacity.[57] In July 2000 the UN Security Council adopted Resolution 1308 declaring that HIV/AIDS is "a risk to stability and security"; this marked the first time the Council considered the connection between disease and conflict.

The head of UNAIDS summarizes the relationship between instability and AIDS by stating that "AIDS and global insecurity coexist in a vicious cycle. Civil and international conflict help spread HIV, as populations are destabilized and armies move across new territories. And AIDS contributes to national and international insecurity, from the high levels of HIV infection experienced among military and peacekeeping personnel, to the instability of societies whose future has been thrown into doubt."[58] More recently, U.S. Secretary of State Colin Powell summarized the impact of AIDS in saying, "HIV doesn't just destroy immune systems; it also undermines the social, economic and political systems that underpin entire nations and regions."[59]

II. THE DELIBERATE SPREAD OF DISEASE – BIOTERRORISM

Following the September 11 and subsequent anthrax attacks, increased attention has focused on the risk of biological warfare and terrorism—use

of weapons that intentionally spread infectious disease—by state and non-state actors. The United States today believes that at least four countries including Iraq and North Korea possess biological weapons including smallpox. (The others are Russia and France.)[60] Non-state actors such as Al Qaeda are believed to be developing such weapons, but there is no evidence that they have been successful to date.

According to the National Intelligence Council, the risk that biological weaponry will proliferate is increasing.[61] In addition to the many scientists that used to work in biological weapons laboratories, particularly in the Soviet Union and the United States, a growing pool of information and highly trained scientists exists around the world. It has been estimated, for example, that some 60,000 scientists were involved in the Soviet biological warfare research program at the end of the Cold War.[62] Nonetheless, as Jonathan Ban has noted, biological weapons are difficult to develop, and the weapons' impact is determined by environmental conditions, the communicability of the malady, the dosage of weapon delivered, as well as the quality of the weapon itself.[63] Elisa Harris notes that according to reports from the Bush and Clinton Administrations, the number of countries believed to be seeking to develop biological weapons has remained stable.[64]

Concern about domestic vulnerability to biological weaponry focuses on the vulnerability to attack of humans, as well as the food and water supply. The Department of Health and Human Services is focused on reducing the risk that anthrax, smallpox, pneumonic plague, tularemia, viral hemorrhagic fever and botulism could be intentionally released in the United States to trigger widespread disease.[65] The Centers for Disease Control is stockpiling vaccines and pharmaceuticals, and expanding research on diagnoses and treatments.[66] The experience with the Aum Shinrikyo cult in Japan releasing Sarin gas in the subway in 1995, and the concern raised by the natural outbreaks of West Nile Virus in the United States are indicative of the smaller scale risks posed by bioterrorism. The U.S. Office of Technology Assessment has calculated that a large-scale risk such as the release of 100 kilograms of anthrax using a crop duster over Washington D.C. could cause two million deaths.[67]

The threat of biological attack on the food supply is also growing. U.S. agriculture is increasingly large scale and geographically centralized, facilitating attack. Seventy eight percent of U.S. cattle are processed through 2 percent of the feedlots in the country. Swine farms often have over 10,000 animals. Chicken farms sometimes pen 100,000 birds in one place[68]. The threat to human health from the spread of disease through the food chain could be

significant, depending upon the infection; the potential economic impact of the spread of Mad Cow (Transmissible Spongiform Encephalopathy), Chronic Wasting or Foot and Mouth (Bovine Spongiform Encephalopathy) diseases would be enormous for the United States. Agriculture accounts for over 13 percent of GDP and almost 17 percent of employment. Exports from the sector provide $140 billion in revenue and 860,000 jobs.[69] $6.4 billion in livestock would be placed at risk by attack.

Nonetheless, Roger Breeze, with the U.S. Department of Agriculture's Agricultural Research Service believes that the likelihood of a large-scale attack is currently low because of the significant technological barriers that exist.[70]

Posing a whole different set of challenges is the risk that biological weapons will be used to threaten U.S. military personnel abroad. Biological weapons are relatively inexpensive and easy to hide. The Center for Strategic and International Studies and the Chemical and Biological Arms Control institute have concluded that there exists the risk that forces abroad might be confronted with efforts to use biological weapons in the face of overwhelming American military superiority. Additionally, forces may face smaller-scale threats from biological weapons when undertaking peacekeeping, humanitarian and other limited operations.[71]

III. PREDICTING THE LEVELS OF VULNERABILITY AND RISK

The implications of health trends for stability and security could vary greatly. The National Intelligence Council believes that the implications of health for stability will depend upon the success of efforts to: combat microbial resistance and develop new medicines; promote development and address the needs of the poorest of the poor worldwide; and improve disease surveillance and response at the national and international levels. Similarly, the threat posed by biological weapons will depend upon the ability of the United States to track biological agents, develop treatments and vaccines; and create an efficient, effective means for coordinated response at the local, state and national level. Ample opportunity exists to significantly reduce the spread of infectious diseases, and decrease vulnerability to a biological attack.

IV. FINDINGS AND CONCLUSIONS

Of the non-traditional security threats being examined by the Working Group, the links between health and security have received the least ana-

lytical attention. Nonetheless, important conclusions can be reached by reflecting on the trends and their correlation with broader social, political and economic conditions.

- **There is a clear relationship between growing health threats and global stability.** The impact of health on stability will grow as infectious disease prevalence rises and the magnitude of the overall global disease burden grows. The multifaceted impact of the AIDS epidemic in Africa provides a clear example—AIDS is eroding the capacity of many Sub-Saharan African nations to meet the needs of their populations. This is likely to reduce stability. The growing prevalence of the disease in strategically important nations such as Nigeria, Ethiopia, Russia, India and China bodes poorly for the future in the absence of concerted proactive intervention.

- **The United States faces an increasing, direct threat to human health within its borders as global travel and trade continue to grow, new diseases emerge, and vectors for disease alter their habitats and enter the United States.** The growing prevalence of West Nile Virus, the recent outbreak of SARS and the reappearance of malaria portend increased vulnerability.

- **The timeframe for successfully pre-empting the further spread of infectious disease is short.** The geometric growth in infection rates for AIDS, increases in anti-microbial resistance to drugs, the emergence of new diseases and a diminishing pipeline of new drugs are reducing the ability to effectively treat diseases and stop their spread. An immediate emphasis on prevention and reduced misuse of drug therapies will be important.

- **The financial benefits from a proactive strategy of disease prevention would be enormous.** Smallpox eradication cost the United States approximately $30 million; that investment has been repaid to the United States every 26 days since 1977.[72] The same benefit could be accrued by eradicating other diseases. Measles eradication will save the United States over $250 million per year. A significant reduction in TB could save the United States some $500 million annually.[73]

- **If they are not addressed, declining global health status risks undermining investments in development, particularly in the**

poorest countries of the world. There are likely to be significant consequences for stability.

- **At a threshold level, declining health status has a dramatic, dilatory impact on political and economic well-being.** For example, in the case of the AIDS epidemic, infection rates in excess of ten percent have a dramatic impact on national political, social and economic health.

- **Investments in overall socioeconomic development in developing countries can significantly reduce the instability-related impacts of disease.** Investments in poverty reduction, women's empowerment, education, and economic development can directly reduce the disease burden, lowering the risk of instability stemming from health threats.

- **The impact of disease on armed forces strength and size will be dramatic, particularly in countries with high AIDS rates and with large populations of demobilizing soldiers.**

AREAS FOR FURTHER ANALYSIS

Research is needed to deepen global understanding of the health/security interface. For example, analytical work must examine the:

- impact of health status and approaches to health care on political stability;

- affect of health and health care on military operations. That is, how different maladies and approaches to treatment can affect the attitudes of soldiers, external perceptions of military vulnerability and the risk of coups or invasion;

- relationship between international travel and trade, and health, particularly with an eye towards preventing the spread of disease.

FINDINGS RELEVANT TO POLICIES AND PROGRAMS

- A multilateral approach is absolutely critical to reducing the growing global health risks posed by infectious diseases, bioterrorism and other food borne illnesses. In all cases, health threats know no

national boundaries and require collective action. A cooperative approach is needed to:

- track and regulate emerging diseases;
- coordinate monitoring;
- finance efforts to combat health threats;
- halt the spread of diseases;
- prevent the spread of biological weaponry;
- improve the reliability of bioterror threat assessments.

- An enormous opportunity exists to use health sector cooperation and assistance to build diplomatic bridges. "Vaccine diplomacy"[74] could be an important means for addressing an underlying cause of instability while using joint research and public health efforts as a theme to encourage cooperation. The World Health Organization's "Health as a Bridge for Peace Program" could offer important insight into how efforts in the health sector can reduce the risk of conflict.
- A proactive approach to stopping the spread of disease and pathogens could dramatically reduce the risks to stability posed by health threats. A more proactive approach might be facilitated by:
  - improving and expanding global capacity to track the spread of disease;
  - offering debt relief linked to increase health care investments;
  - more aggressively engaging the private sector in efforts to reduce the threat of bioterror, provide low cost medicines, and fight the emergence of multi-drug resistance;
  - facilitating greater South-South exchange of lessons learned in combating disease. For example, using Uganda, Thailand, Brazil, and Zambia to spread the message of success combating AIDS could help stave-off the spread of the epidemic;
- More extensive outreach and education of the military will be key to reducing the spread of infectious diseases. Programs such as the

Department of Defense's Leadership and Investment in Fighting an Epidemic (LIFE), which promote military education abroad are important and should be expanded. Similar programs should be part of more aggressive efforts to reach out to peacekeepers around the world through individual countries and the United Nations.

- Given the implications of the HIV/AIDS epidemic for force size, availability and productivity, it might be advisable for the United Nations to revisit its decision not to screen peacekeepers for the disease. Testing would help ensure that military forces are not vectors for disease transmission while serving as a means for educating soldiers about HIV/AIDS.
- In strategically important countries facing dramatic consequences from disease, a more comprehensive and strategic approach to reducing health-related instability could be facilitated by the placement of health attaches (or the more strategic use of health specialists providing foreign aid).

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Working Group Meeting Notes

Brian Nichiporuk, September 19

Sherri Goodman, Norbert Henniger, October 17

James Steinberg, December 12

Opening Session

The first session of the Woodrow Wilson International Center for Scholars' Conflict Prevention Project working group, "*Preventing the Next Wave of Conflict: Understanding Non-Traditional Threats to Global Security*," was cosponsored by the U.S. Committee for the United Nations Development Program (UNDP). It featured Julia Taft, Assistant Administrator and Director of the Bureau for Crisis Prevention and Recovery, UNDP. Kathleen Houlihan, Director of the U.S. Committee for UNDP, gave opening remarks as did working group co-chairs Carla Koppell, Deputy Director, Washington, D.C. Office, Hunt Alternatives Fund; and Anita Sharma, Deputy Director, Conflict Prevention Project, Woodrow Wilson Center.

"It is quite a luxury to think of non-traditional threats when we already have so many traditional threats that we are not quite sure how to confront," Taft said. Nonetheless, these issues are becoming central concerns for all multilateral and national organizations. According to Taft we must apply a new lens when looking for long-term solutions to these issues, as illustrated by UN Secretary General Kofi Annan's commitment to conflict prevention.

Taft then asked, "How do we harmonize and integrate multilateral leadership to address problems such as development and conflict prevention?" The issue is complicated further when one considers that organizations like the United Nations are only as effective as member states allow. Perhaps, Taft suggested, less political ways can be found to approach transnational problems.

The challenge of the working group will be to take lessons learned and apply them to the future. "This is a difficult proposition—as has been shown by the issue of early warning," she said. "We often have many early warnings, but we have no response mechanisms nor political will to create response mechanisms." Taft encouraged working group members to work on developing feasible solutions.

Addressing the points in the Briefing Note, Taft advised caution when asserting that economic and social isolation have dramatic effects, noting that some of the most stable governments and economies are insulated and

are not globalizing. "I remember going to Bhutan once—and Bhutan is in fact isolated—economically, socially, geographically. Nonetheless, Bhutan is the only country that I know that has made its number one priority gross national happiness."

Concerning governance, Taft questioned whether governance alone was the proper solution. Although Nepal is a democracy, "it has a huge threat from the Maoists and a total disconnect between the government and the people," she said. The United Nations conducted an analysis of population centers, poverty indices, hospitals, schools, Maoist threats, and donor supported projects. "It is quite interesting to see that where there is unrest, very few donors have any projects or programs. It approaches risk aversion; donors do not want to get involved in areas of instability because they do not want to be seen as taking sides. It is a very interesting analysis of where money is going and the problems organizations are trying, or not trying, to address." Conflict prevention requires attention to underserved and disenfranchised populations and national and international aid needs to ensure better equity so disenchanted populations are reduced and not vulnerable to rebel recruitment.

"All of this creates a challenge—at least from the UN standpoint—to figure out how to create a global effort to try to deal with some of the root causes.'"

-Julia Taft

In discussing demographic trends, Taft agreed that there are too many people chasing too few resources. She said, however, that current efforts are insufficient to meet the need, and that some interventions run into roadblocks. Taft said that the working group's efforts in the area of demographics will undoubtedly confront some politically charged issues, but that analyzing demographics will be necessary to understanding non-traditional threats.

"There are a few other things that I think are important," Taft stated. "One is youth unemployment. There are one billion young people between the ages of fifteen and twenty-three who are both highly reproductive and highly unproductive. I think that we really need to think about how we get those young people to feel like they have a stake in society. If you interview people from West Bank or Gaza, some of the best educated young people come out of the United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNRWA) schools. They are computer literate and have all kinds of skills—but they have nothing. They are immobile. They do not have jobs. And they do not have a future. You see the consequences."

"All of this creates a challenge—at least from the UN standpoint—to figure out how to create a global effort to try to deal with some of the root causes—whether it is poverty, disaffection, lack of education, lack of hope, lack of governance, etc. The Secretary General published the Millennium Development Goals," Taft said. While these goals will not

solve all of the problems, they provide the United Nations, governments, and civil society with a framework through which to plan some very specific, measurable efforts focused on accomplishing eight goals. "The goals all add up to an aspirational list that established human well-being goals by 2015," she stated.

Taft also voiced her concern about post-conflict issues; in particular understanding how UNDP can best create opportunities after the violence has ceased. "Issues such as a proper demobilization of ex-combatants and the return of refugees offer daunting challenges, among them the need to ensure equity in the distribution of resources, and the willingness of communities to help reintegrate these populations."

Lastly, Taft offered her thoughts on her work on Afghanistan. She said that Afghanistan has provided a chance to look back on twenty-five years of collective experience and apply lessons learned. Taft catalogued a few of the successes she witnessed including, most importantly, the peace process. "When the United Nations went into the peace process, Lakhdar Brahimi ensured that women were involved, and that there was a process to establish an interim government with specific timelines and goals."

In previous missions, she said too many UN members, NGOs and other external actors swamped host country capacity. "In Afghanistan there has been an effort to maintain a light footprint. The United Nations is not running Afghanistan, the Afghans are running Afghanistan; and the UN agencies are not setting priorities, the Afghans are setting priorities. It comes down to the question of who has the lead and how do we implement the desires of the elected officials," Taft said.

"Another thing that we learned, mostly from Rwanda," Taft continued, "is that when the United Nations and NGOs come in with all of their equipment and capacities, and they try to relate to a government that is sitting in a room that does not even have a paperclip, it is very disempowering. It is actually an insult to that country, even though the donors are very well meaning. So what we did in Afghanistan is set-up a separate fund to pay for civil service salaries, communications equipment, vehicles, furniture, and other primary needs. This has been incredibly helpful. These efforts communicate that 'We want to help you be in charge, instead of "us" being in charge.'"

Concerning the road ahead, Taft said that the question is how one takes all of the available information on complicated non-traditional threats and synthesizes them to create a roadmap. She stressed that the will and some resources are present, but "How do we make sure that the ideas match the challenges and that we have the capacity to solve those challenges?"

Following Taft's comments, Carla Koppell, the working group co-chair, asked Taft for her thoughts regarding the creation of a roadmap. Specifically, she asked Taft to consider how the working group conclusions might facilitate such a roadmap.

Taft responded that the roadmap should identify goals that will reduce the threat of conflict, like the UN's Millennium Development Goals. She said, "We know that there are 'best practices' out there. We know that there are some wonderful studies. We do not have the time. We are so busy trying to figure out how to be harmonious that we, at times, do not really know who is *not* at the table or what the real keys to long-term success are."

"There are one billion young people between the ages of fifteen and twenty-three that are both highly reproductive and highly unproductive. We really need to think about how we get those young people to feel like they have a stake..."

-Julia Taft

Mark Schneider of the International Crisis Group agreed with Taft, saying that currently there is no unified capacity to develop a preventive strategy in a certain region. "Long-term development strategies are needed to address non-traditional threats, but the mechanism to address them is lacking." He recommended that the United Nations follow-up with the Brahimi Report to create capacity to deal with these issues.

Ken Bacon of Refugees International mentioned the Secretary General's report on the prevention of armed conflict, which was released in the spring of 2001. "In that report, he talked about the need to intervene to stop egregious human rights abuses, civil wars, and other crises. But he said that so often, concepts of sovereignty prevented the United Nations or coalitions of the willing from entering into the fray and stopping conflicts before they metastasized into much larger problems." Bacon wondered, in the wake of September 11, whether or not the United Nations had changed its views on the issue of sovereignty.

Taft responded by noting that a more problematic issue concerns the unwillingness of countries to militarily prevent conflict. Given such reluctance, she said, ensuring security to support post-war development in Afghanistan becomes difficult at best. And given poor security, development will not take place.

Arif Lalani of the Canadian Embassy then spoke, saying, "In some ways we already know the sources of instability. It is not actually that hard to look at a map of the world and predict the areas and countries that need attention. Our problem is generating the political will to actually do something about it. The classic example is Kosovo. We all knew what was going to happen in Kosovo," he said, yet steps were not taken to prevent it.

Economic and Social Disparities Session

Anita Sharma, working group co-chair, introduced Professor Nicholas Sambanis, Associate Director of United Nations Studies at Yale. Sambanis began his remarks stating that he would focus on how disparities may influence the threat of civil war.

Sambanis' remarks covered four broad themes: whether economic inequality or other types of inequality increase the risk of civil war; the relationship between inequality and the onset, duration, termination and recurrence of civil war; the types of inequality that may be most important—inequality among groups or states, income or assets, or political inequality; and lastly some of the policies proven to reduce the risk of civil war. He addressed whether policies to reduce the threat of global instability should try to reduce inequality, or target other problems associated with civil war.

Referring to the Briefing Note circulated prior to the working group session, Sambanis stated that the focus of the paper—globalization and its consequences for economic inequality—assumed that inequality is related to political violence. He cautioned that this conclusion had not been demonstrated in the empirical or theoretical literature in political science or the political economy of civil war.

Sambanis explained that globalization may reduce the likelihood of civil war directly or indirectly by increasing the level of income. "Research has shown that civil war is mainly the problem of poorer societies," he said. "It has distributional consequences that are poorly understood and that are a function of a number of variables." These variables include the level of development of an economy, the resources the country trades, the regional concentration of resources, and the cultural, social and political differences among regions. "We do not yet fully understand how globalization will actually impact the likelihood of violent political conflict," he stated. "There are plausible arguments and hypothesis on both sides, suggesting that globalization may reduce or increase the risk of civil war."

Sambanis painted a picture of the evolution of civil war by region. The prevalence of civil war has increased steadily since 1960. There were two spikes, one around 1950-1960 with the period of decolonization resulting in more civil wars in newly independent countries, and another around

1990-94, with civil wars breaking out in former USSR and Yugoslav Republics after the end of the Cold War. Few civil wars have started in the last several years, but some wars are ongoing for many years, with the longest civil wars lasting more than 30 years. Civil wars pose major development and security risks; they result in high mortality rates, and large numbers of internally and externally displaced people. In the developing world civil war has proved to be one of the major obstacles to development. One study also shows that civil wars have contagion effects; countries bordering conflict zones are at least three times as likely to experience a war of their own within one year. Sambanis posited that, "civil war, as September 11 showed, is directly related to terrorism and other acts of political violence. Afghanistan has been at civil war since 1978, and the Taliban and Al Qaeda were direct products of that war, and of external intervention in that country over time." According to Sambanis, a number of different challenges that we face today are directly related to patterns of civil war.

"How does inequality figure into all of this?" Sambanis then asked. "The short answer is that we do not yet know if inequality really matters in a specific sense," or helps explain the timing, duration, or termination of civil conflict. "Recent advances in the theory of civil war suggest that what really helps explain the outbreak of civil violence is not so much the underlying structural conditions but rather the conditions that facilitate insurgency. Economically, there will always be a more efficient bargain short of civil war to resolve preexisting grievances. The fact that civil war occurs needs to be explained by other factors such as informational asymmetries, mistaken assumptions about resolve, or an inability to credibly commit to a bargain that will resolve grievances." In other words, regardless of what drives mobilization, what matters is the ability to "credibly commit" to a non-violent solution. It is the problem of non-credible commitment that actually sparks the violence. As an example, Sambanis pointed to the recent war in Aceh. The Indonesian government proposed and implemented reforms to grant greater regional autonomy to the people of Aceh but, according to Sambanis, in the eyes of the rebels the government lacked credibility because of the history of repression and expropriation of resources.

According to Sambanis, "If you believe that it is most important to create the conditions for stakeholders to make credible commitments to bargain peacefully, then inequality and the focus on reducing inequality take second stage. Policies should really focus on reducing the conditions that favor insurgency and the organization of insurgents."

Sambanis also discussed civil war as the mobilization of ethnic conflict. He said that as ethnic groups compete for resources or for representation in the government, unequal distribution can fuel grievances and may motivate rebellion. There may be systemic causes of inter-ethnic inequity in the distribution of resources; small groups may control governments or mobilize to try to gain control of resources. In this situation, reducing inequality and increasing equity are paramount. The challenge is to identify an empirical model that demonstrates clearly that ethnic and elite mobilization are motivated by inequality and that policies addressing inequality actually reduce the risk of civil war. "One major policy that reduces one form of inequality is democracy, because it can be argued that proportional representation and other systems of democracy reduce political inequality," Sambanis stated. "However, in most empirical studies of civil war, analysts have found that democracy is not significantly correlated with the onset of civil war. The State Failure project does show a correlation, and in my research I have also found democracy to be a significant predictor of civil war. Several other research groups working on this topic find this to be a very fragile finding, and we still really do not know if democracy is the way to reduce the risk of civil violence that results from political inequality."

Sambanis then discussed the economic theory of civil war, which suggests that economic factors—specifically poverty and dependence on natural resources—are significantly correlated with the onset of civil war. The model does not, however, satisfactorily explain the duration of war except to note the importance of the level of fractionalization of ethnic groups. Sambanis explained that some of his colleagues postulated that ethnic fractionalization is parabolically related to civil war duration and onset. It is easier, they hypothesize, to organize and mobilize conflict when you have a relatively polarized system with two or three major groups.

Noting that democratization is always risky, Sambanis referenced another model that shows the effects of extreme political change and minimum political change, regardless of whether change is in the direction of democracy or autocracy. Using this model, Sambanis found that political change is dangerous, but the danger decreases as the level of democracy increases. "This suggests that democratization can reduce the grievances that might lead to civil war when there are the conditions for insurgency," Sambanis remarked.

Sambanis then overviewed Francis Stewart's work on civil war, discussing the difference between horizontal and vertical inequality, and the impact on civil war. "Horizontal inequality refers to inequality between

groups that can then be mobilized for rebellion," Sambanis explained. "Vertical inequality refers to what Horowitz calls 'unranked societies,'" in which inequality is spread across groups. Vertical inequalities are less risky because it is difficult to coordinate across the cleavages that separate different subgroups within societies. Consistent with the theory, to design policies that reduce inequalities in order to reduce the risk of civil war, types of inequality would need to be identified. Concern over the outbreak of conflict would need to focus on ranked societies rather than unranked societies. And, where globalization favors some groups and unfavorably affects others, it will have an effect on the social as well as the economic domains within societies

"We do not yet fully understand how globalization will actually impact the likelihood of violent political conflict. There are plausible arguments and hypothesis on both sides, suggesting that globalization may reduce or increase the risk of civil war."

–Nicholas Sambanis

Sambanis then noted that one of the main objectives of further research ought to be to identify the types of inequality, for example income or asset inequality, that most increase the risk of political violence. "In El Salvador, for example, asset inequality was one of the major factors that fueled the war, and asset reallocation was a direct consequence of efforts to terminate the war. It was one of the reasons that the peace was sustained," Sambanis said. In other civil wars, such as the Greek civil war, in which political grievances were the concern —and the target was the capture of the state —there was no attempt to address or redress inequality yet civil war did not recur. "So there are solutions that prevent the recurrence of civil war that are democratic, autocratic or somewhere in the middle," Sambanis said. "There is not uniform strategy that can be applied to different environments and there is certainly not a strategy that targets inequality in general. Zaire under Mobutu before 1989, for example, was probably just as unequal a place as it is now but it was much more stable when it was clearly autocratic and repressive and when the United States was clearly supporting that repression. The lessons out of the literature on civil war management are not necessarily compatible with the lessons suggested by the literature on political development and democratization in general. If priority is to be given to the establishment of global stability and violence reduction in the short term, different strategies have to be followed than if the aim is to provide an environment in which more segments of the population are represented."

Commenting on the effectiveness of UN Peace Operations and international assistance, Sambanis drew several conclusions. Most importantly he emphasized that early intervention is always less problematic. At the same time, if inequality is really more important in explaining ethnic conflict than non-ethnic conflict, interventions must focus on reducing the types of inequality that might mobilize ethnic groups.

Following Sambanis' remarks, Anita Sharma introduced David Epstein of Columbia University and the State Failure Task Force, and asked him to relate some of the Task Force's preliminary findings. Epstein noted that the Task Force is concerned with sources of instability—broadly defined—and that it has identified four primary triggers of state failure: ethnic war, civil war, sudden collapse towards autocracy, and genocide/politicide. Epstein explained that the Task Force compiled data on all cases of these types of failure from 1955 on, and analyzed various correlates of state failure. He said that the Task Force also focuses on democratization and is beginning a terrorism project.

In response to Sambanis' remarks, Epstein stated, "inequality is one of those variables that is always around and yet is very hard to measure." Epstein noted that the Task Force is trying to use infant mortality data as a proxy for inequality.

Concerning democratization, Epstein remarked that one needs to think of it as a U-shaped function in which the ends represent autocracies and democracies, which tend to be more stable than the partial democracies in the middle. Epstein further noted that awkward "middle-stage governments" seem most unstable and prone to different kinds of failure, such as sliding back into autocracy. This instability is due largely to the existence of governments that have some democratic institutions but have not consolidated. The Task Force is trying to identify ways to prevent a country's backwards slide towards autocracy in addition to determining how international efforts can be most efficacious.

Following Epstein's comments, Lani Elliot, independent consultant, noted, "economic growth, in its early stages, is often characterized by income inequalities." He then asked whether there was any proven relationship between economic growth and civil war or the prevention of civil war.

Sambanis responded that there was a negative correlation, and that high growth reduced the risk of civil war. "The basic logic of civil war and economic behavior dictates that if one has something better to do with one's life then one will be less likely to join a rebel organization," Sambanis relayed. "Growth, therefore, increases opportunity and decreases the risk of civil violence." Sambanis explained that there are theories that growth can upset existing social patterns and rekindle economic competition, but he cautioned that these theories have not been tested systematically. Other theories hold that high levels of development and growth explain the sustainability of democracy, Sambanis continued. The combined findings of the State Failure Task Force propose that "growth sustains democracy which sustains peace," he added.

Howard Wolpe, Director of the Woodrow Wilson Center's Africa Project, followed by offering that he was troubled by the use of the term "democracy" in these studies because it is necessary to "unpack" the various elements under the rubric of democracy in order to understand state performance. Wolpe said that "one of the elements is inclusiveness, in which the elements of society have a sense of ownership of the national system, and that relates to wealth and power sharing—some sense of equity in the way that power is arranged." "But democracy," Wolpe continued, "also means competitiveness in the political process, such as the multiparty elections in the American system." In areas like Burundi and Rwanda, inclusiveness is key to long-term stability, but competitive elections can be terribly destabilizing.

Sambanis replied that most of the studies in civil war literature measure democracy using a composite scale that examines several different components. A simple binary measure asks whether a country has an election, and whether and how election results are implemented. Other analyses examine electoral competition, the proximity of previous elections, and the importance of minorities as electoral constituencies. "There is movement towards defining democracy as a set of measurable variables."

Michael Lund of Management Systems International questioned how one applies the econometric, large-end analysis when one must distribute resources. Lund stressed that, "a more defined level of analysis helps determine the combination of resources that are particularly appropriate in a specific case. Otherwise, one may fall into a trap of waiting for the econometricians to give 'the answer' and then 'the answer' is applied in all the different contexts." With that in mind, Lund asked Sambanis how the econometric analysis would facilitate more fine-grained studies to test the validity of the general conclusions of large-end studies.

Sambanis replied that the first part of the question is a question of values, and that the political process drives it. He then gave a specific example. A large-end approach might dictate that one always intervenes, while a fine-grained analysis might measure the relationships between local capacity, hostility and international capacity. "While not fine-grained enough to tell you which specific countries to intervene in, it would give policy-makers broad parameters and indicators to help guide decisions." Sambanis mentioned that the World Bank studied twenty-seven case studies of civil wars to test theories in case-specific contexts. But in the end, an area specialist in cooperation with a "large-end specialist" would be needed to make decisions about intervention, and they would both have to operate within a policy context driven by values.

Leslie Johnston of USAID cautioned that one must maintain a broad view when looking at issues of economic and social disparities. As an example, she noted that linking conflict management and economic growth strategies can be problematic if it is done without looking at the unintended consequences that can accompany growth.

Finally, responding to an earlier recommendation for a separate session on ethnic conflict, Howard Wolpe offered his opposition, stating that the end result might suggest that ethnicity drives conflict. He said that the evidence suggests that when inequalities correspond with ethnic boundaries, one has a much more destabilizing situation.

Political and Economic Governance Session

Anita Sharma, working group co–chair, opened the working group's third meeting by introducing the session topic, *good governance,* and guest speakers: Marina Ottaway, Senior Associate of the Democracy and Rule of Law Project at the Carnegie Endowment for International Peace, and Ambassador Richard Haass, Director of the Office of Policy Planning at the U.S. Department of State.

Ottaway began by saying that the best guarantee against instability and conflict is the existence of a strong state, rather than a failed state working towards good governance and democracy. Ottaway continued, "There is no doubt that the model of the Weberian state—the state that has full control of its territory, that has clearly delineated borders, that has an administrative capacity not only for making but implementing policy—is what we need in all of these situations. If you have a government or a state that actually can make things happen on its territory, then you are unlikely to have the kind of conflict, the kind of disintegration that we have seen," she stated. "In other words, there is not much point in talking about good governance if you do not have a functioning state."

"What I would like to do is discuss why the existence of—and under what conditions—a collapsed state poses a real danger of major conflict," and when it is a danger not only to its own citizens but also to the international community. That, she said, determines whether or not it should be a priority to intervene forcefully to reconstitute collapsed states. "If I can use an analogy; every time that you have a natural disaster, there is always a great fear that you will have an outbreak of cholera. The outbreak of cholera does not, however, always take place. In fact, most of the time it does not; because you only have an outbreak of cholera if you have a source of infection to begin with. In other words, somebody has to be the carrier of that infection. The weakness of the state only leads to conflict if there is a source of conflict, if other conditions are present. I would argue that this only happens if you have groups that are competing for power at the center."

Ottaway noted that there is much less danger when none of the major groups involved wants to reconstitute a unitary state. When groups are less

interested in reconstituting the state, such as in Somalia, conflict actually decreases. "In Somalia, when most of the clans accepted that what they were fighting for was not a Somali state, but for running their own affairs in their own territory, the level of conflict abated greatly." "I think that this has serious implications in terms of intervention," Ottaway said, "because it means that the international arrangement to restore the state can in fact be a major source of conflict in and of itself. Unless the intervention is decisive—meaning that is there is enough force deployed or enough diplomatic intervention to impose the reconstitution of the state on the competing parties—the intervention can be a source of conflict rather than a source of stability. In other words, this is an area where half measures are much more dangerous that no measures at all."

Ottaway also focused on the notion that collapsed states do not automatically become major problems for the international community. "Yes, we do know that collapsed states can become safe havens for terrorists groups," she said. Yet "collapsed states are not necessarily good places from which terrorist groups can operate." For example, various organizations have tried to reorganize and use Somalia. "Yet all the evidence I see suggests that one of the reasons that these groups have never succeeded in establishing a major base of operations is that they are facing the same problems that everyone else faces. The country is so splintered and divided along clan lines that it is as difficult for a terrorist organization to function on the national level as it is for any other organization."

"The argument that I am making is that the issue of state collapse is not always an important issue," Ottaway said. "It is not that it is not a worrisome issue; but we cannot assume that whenever we find a really weak state or collapsed state we automatically have all of these dire consequences."

On the issue of governance, Ottaway agreed with Samuel Huntington, saying, "In the short run, the most important issue is not the kind of governance but the degree of governance. This is very important because there are a lot of state reconstruction efforts where the emphasis is on good governance when the state lacks the basic capacity to implement anything. There is not much point in talking about good governance if the writ of the government cannot extend past the capital city because you do not have roads to get there."

Ottaway then argued that after establishing a basic capacity to govern comes the need to create government capacity to address issues most important to the population, i.e., jobs, education, health care, etc. She cautioned that, "Many of the issues that the international community seeks to address and wants these frail states to address are not on the radar

screen of the population. We have a real tension between the long run need to solve certain problems and put certain institutions in place, and the short run need to satisfy the demands of the population in order to increase the legitimacy of the government in the eyes of the population rather than the eyes of the international community." Ottaway noted that the international community will value the establishment of the government's macroeconomic management capacity but these types of efforts will be invisible to the local population in the short-term.

"One of the lessons of Afghanistan and September 11 is that what we thought of as largely humanitarian problems have a way of morphing into strategic problems very quickly, and that increasingly the problem of state failure is both a humanitarian and political and strategic challenge."

–Richard Haass

Ottaway underlined that democratization is an extremely destabilizing process. "It is not a process that contributes to stability in the short run. It is a process that contributes to instability as it reignites competition for power. It creates very serious tensions—ethnic tensions, regional tensions and so on. I would argue that the importance of democratization in conflict prevention depends very much on the conditions in the particular country." Unless the rudiments of governance—the capacity of the government to implement a decision—are in place, representation in the decision-making process is not going to have much of an impact. "Increasing expectations cannot be fulfilled because the government does not have the capacity to implement a decision," she said. "So I would argue that if you look at rebuilding a state in post-conflict situations as a natural process—and I mean by "natural" a process that takes place without major international intervention—then I would argue that there is a sequence of events that has to take place, beginning with the construction of the state and moving on to solving basic issues of administration, the problem of how to maintain some sort of government presence, and finally moving to the issue of democracy."

Ottaway concluded by asking, "How much can the international community and under what conditions can the international community influence and help? I would argue that it is possible to conceive of having simultaneous processes towards state building, governance, reestablishment of good governance and democracy only if there is a major international presence and major international investment. Even at this, it is difficult."

Richard Haass opened by saying, "The issue of state failure is a big issue for us. In this field there has often been a tension between the bombs and bullets crowd—the 'pol-mil' crowd—and the developmental crowd. What I think is interesting about this issue is that there has been something of a coming together. One of the lessons of Afghanistan and September 11 is that what we thought of as largely humanitarian problems have a way of morphing into strategic problems very quickly, and that increasingly the

problem of state failure is both a humanitarian, political, and strategic challenge." "Failed states or failing states," according to Haass, "are not to be confused with poor states or weak states or even brittle states, as none of those are necessarily failed or failing. States that deserve the definition of 'failed state' clearly are having trouble controlling their territory and guaranteeing their borders. They are clearly unable to govern themselves in any meaningful way."

Haass said that the prevention of state failure characterizes the actions of the United States in many places, including Colombia and Pakistan. In Colombia, one sees an embattled democracy with a new president taking office while facing two insurgencies on the left, paramilitaries on the right, drug trafficking, and over two hundred districts of the country without a police presence. "Colombia is one of the most challenged countries in the world, but I would not describe it as a failed state or even a failing state," Haass stated. Instead, he said that if one were to picture a spectrum of state health where on one end there is a thriving state and on the other a failed state, the challenge of American foreign policy is to make sure that Colombia moves towards thriving rather than failing. What Colombia illustrates more than anything else, according to Haass, is the centrality of the security issue. "When all else is said and done, the security situation needs to move in the right direction or nothing else will happen; you cannot have governments, you cannot deliver basic services, you cannot farm, and people cannot go to school."

Turning the focus to Pakistan, Haass said that efforts and thoughts concerning this country show the utility of thinking about security on different time horizons. He said, "We are doing all sorts of things with Pakistan right now that are dealing with security, economic and governance challenges, and also educational reform. In order to get countries on a trajectory in the direction of the thriving end of the spectrum, things like education become terribly important. One of the reasons that we are so interested in doing things like improving curricula, trying to reduce the role of madrasses or at least ensuring that someone who gets a madrass education gets more than a narrow religious education, is that in the long term that sort of social investment will be necessary."

Haass offered general thoughts about prevention, stating that there has been tremendous emphasis on economic reforms to avoid state failure. Nonetheless, Haass noted that one of the lessons of recent Latin American experience is that countries can adopt fairly good economic policies and still not thrive. "Unless you have the safety nets and governance infrastructure there, these societies risk being overwhelmed. I think that one of the

things that we have found is that a broader notion of good policy is needed, one that does not subtract on the economic side of it, but clearly introduces a larger political side," Haass suggested.

Haass discussed the greater use of conditional aid to prevent state failure, as exemplified by the Millennium Challenge Account. "One of the things we are trying to do with the Millennium Challenge Account—what I like to call the 'tough love account'—is that we are basically offering hundreds of millions of dollars of aid that is contingent on specific political and economic reform." Haass noted that the international community has very useful tools to influence behavioral changes by states such as institutional arrangements and memberships in international institutions that require certain structural adjustments.

Haass cautioned, however, "States are still going to fail. In trying to help countries recovering from failure it seems to me that the analogy you want to use is that of medicine; one wants to avoid relapse. One wants to avoid renewed failure." He said that Afghanistan shows a fairly comprehensive approach, placing tremendous emphasis on building police and indigenous security capability. The mixture of the International Security Assistance Force and the Operation Enduring Freedom forces provide for basic security, enabling activities of aid providers and the Loya Jirga. Haass continued by saying "an ounce of prevention is worth a pound of cure." Preventing state failure is a lot less expensive than dealing with its consequences. "The problem for policy makers is that it is harder to make the case for prevention than for dealing with its consequences," he said. "Once you have the mess on your hands, you can point to it and it is often dramatic." But without the mess, it is hard to get the international community to notice, and it is equally hard to get Congress to put up the resources to deal with it."

Haass then offered that occasionally state failure is desirable. "It is not always a bad thing. In the case of the Soviet Union, it was a wonderful thing. Or, I can argue, in the case of South African apartheid, it was a welcomed development. I suppose one could differentiate between government failure and systemic failure and social state failure. But again, a degree of major failure can be a great thing if one wants major change," he said.

Haass concluded his remarks by posing four difficult questions to the working group members.

"What do we do when a state that is unattractive in many ways is failing? Take the current situation in Zimbabwe. You want to somehow avoid humanitarian problems but you do not want to throw a lifeline to someone like Mr. Mugabe. How do you fine-tune a policy without perpetuating a system that is essentially responsible for this mass suffering,

for this state failure? How do you protect people without getting in the way of a broader goal?"

"Second, what do you do when a friendly state that is failing is reluctant to accept help? Or is reluctant to adopt the sorts of policies that you want?"

"Third, what sort of new capacities do we need, either inside the U.S. government or internationally to deal with it? This gets into the question of diluting sovereignty. When we see a state that is failing and a government that is unable or unwilling to do much about it, what sort of new rules do we need in the international system to govern or guide interventions?"

"Lastly,…is the danger of halfway measures. The question is 'What is the right amount of ambition?' It is a real world question that we face in the Balkans, in Afghanistan and that we could face in Iraq. Is your goal to make the situation 'good enough,' or is your goal to make it 'good'?"

The question and answer session opened with Ken Bacon of Refugees International posing a question about Zimbabwe-type situations. "Given all of the discussion about the United States as a unilateral power versus a multilateral power—or cooperative actor—when you look at Zimbabwe, is it better to construct a response that is multilateral or unilateral? And how do you make those decisions as a government official?"

Haass answered with regard to Zimbabwe. "At the start, the United States decided on a multilateral response, in part because the initial response was sanctions," and if you are going to have political and economic sanctions, invariably they have to be broad-based or they will be ineffective.

Howard Wolpe of the Woodrow Wilson Center's Africa Project, stated that democratization can be destabilizing when it involves multi-party electoral competition. He reiterated his view, expressed during the *economic and social disparities* session, that democracy must be "unpackaged." Then it becomes clear that it is a stabilizing factor. By allowing free media, the opportunity for people to organize and express themselves freely, and rule of law democracy provides a stable environment even when there is competition.

Lani Elliot, an independent consultant, concurred with Haass' statement that security is a foundation for democracy but noted that it does not come easily. Elliot noted his sense that a country's people will only exercise national self-determination once they have personal and property security.

Bill Loiry from Equity International asked Haass to define the road to success in Afghanistan and clarify how it relates to the U.S. reluctance to participate in a nationwide peacekeeping force.

In response, Haass suggested that the role of U.S. leadership in a post-war environment must be to consult and plan for the post-conflict phase as

"There is not much point in talking about good governance if the writ of the government cannot extend past the capitol city because you do not have the roads to get there."

–Marina Ottaway

readily as one does for the pre-conflict and conflict phases. Given a scenario like the one in Afghanistan, one must decide whether the goal is to be "good" or "good enough." He went on to say that depending upon the situation and the resources available, we have more or less say. "Your influence is directly related to feet on the ground and economic resources going in. If you are simply cheerleading from the side, you are not going to have a lot of influence," Haass stated.

Haass next addressed the question of how to ensure that a post-Saddam Iraq is not worse than the current Iraq. He said that the best way is to be very clear regarding the principles upon which post-war Iraq policy would be based. "My hunch is that this is not something that can be done quickly or cheaply. If you want to make it last, you have to be prepared to be there with a lot of financial and human resources."

Regarding the unpackaging of democracy, Haass warned that political participation ought not be confused with having elections. Elections are only one dimension of the democratization process. Haass noted that his sense that Americans put too much emphasis on elections. "Our goal should not be to create 'elect-ocracies.'" One must be careful introducing elections too quickly in societies that are not yet open and do not yet have multiple avenues for political participation. Elections, according to Haass, should be promoted as a society matures.

In support, Ottaway offered her thoughts on participation and democratization, saying that "like it or not, the international community has made democratization synonymous with democracy." Ottaway recommended that the global community be aware of the tendency to come up with comprehensive plans that include democracy and democratization, without following through with resources, resulting in "half-baked interventions."

John Sewell, of the Woodrow Wilson Center, offered a few reactions. He first agreed with Haass' reference to security as a pre-condition, but cautioned that, "all else does not automatically follow." Sewell concurred with Haass' important points on economic policies, adding, "that they are very difficult in two ways, both substantively and bureaucratically." Sewell added that the consensus regarding how to build successful states needs to change and has to take politics into account. He emphasized the need for new ground rules that allow for more gradual progress and real institutional development. He agreed with Haass' point about conditional aid, but worried that the empirical record "is as questionable about its efficacy as are trade sanctions." It can work, but "it can be very destabilizing if it is not done right." Finally, Sewell suggested the need to discuss some form of

"trusteeship" for failed states through which the international community could nurse countries like Liberia and Sierra Leone back to good health.

In closing, Ottaway addressed the issue of conditionality. She emphasized the need for clarity regarding the key conditionalities to impose, and to avoid imposing too many. On the issue of trusteeship, Ottaway said one of the most vexing issues is the best approach to financing rebuilding. "In many ways, we are reinventing an imperial structure; and we forget that imperial structures of the past tended to finance themselves."

Demographic Shifts Session

The fourth meeting of the working group examined how international global demographic trends affect the international security environment. The meeting assessed the seriousness of demography as a potential threat to security as well as the related foreign and security policy implications. Speakers Brian Nichiporuk, a political scientist at RAND and author of the RAND report entitled *The Security Dynamics of Demographic Factors* and Robert Kaplan, author and correspondent for the *Atlantic Monthly*, helped explore whether or not demographic changes are destabilizing and may affect U.S. national security.

Nichiporuk, offered a preliminary assessment about the ways in which demographic trends may threaten American interests and the international security environment. He framed his comments by saying, "When we talk about population composition, the usual issues of size and age distribution are part of the equation." But other factors may be less apparent, like the geographic distribution of a population or the level of education and human capital available. He noted that in addition to the more static variable of composition, one has dynamic issues related to population increase or decrease, or migration across borders. Population movement can consist of international migration or migration within the country, with the latter causing a rise in the urban population and stagnation in rural areas. He concluded that the challenges to U.S. interests are going to come from rapid population movements because of their speed and unpredictability. Nichiporuk summarized, "I think that the issues now have to do with: Where are people living? In what regions are populations growing? And what is the age of the populations; are they very old or young or somewhere in the middle? So it is now both more selective and area specific."

Speaking from a military viewpoint, Nichiporuk stated that population movement and fertility rates are pushing people into urban environments, a trend that will make urban conflict more prevalent in the future. His concluded, "high and low fertility states are going to cause nations to draw on different sources of military power, which will be important to military analysts." Militarily, "the absolute size of a population is probably less

important than its composition, the rate of growth, its location, age and ethnic distribution."

Changing gears, Nichiporuk then examined the importance of diasporas, noting that they have a growing, "real-time impact on conflicts in their home states." He said, "I think the emphasis is on some activist elements, relatively small elements within diasporas that otherwise are made up of law abiding productive, citizens. But you do see cases, for example, in Kosovo, Nagorno-Karabakh, and the Yugoslav Civil War, where the Albanian, Armenian and Croat diasporas in the West send money, work on the internet, work through the media, and have a much more direct effect on home state conflicts than they could have had in previous years." In some places such as Sri Lanka, insurgents rely on the diaspora for support. Nichiporuk commented, "It gets to the point where one begins to wonder if the real "center of gravity" in the Sri Lankan Civil War might be outside Sri Lanka—it might be the Tamil Diaspora as opposed to actual fighters on the ground in Sri Lanka."

With regards to the policy implications of demographics, Nichiporuk suggested first that the intelligence community needs to refine the indicators and warning measures that it uses based upon demography. He highlighted that there are a number of short-term warning indicators of long-term issues that employ demography; these could be brought into the national intelligence planning process. Nichiporuk also called on policymakers to more carefully consider the security implications of foreign aid to non-military sectors such as infrastructure, agricultural development, and female literacy. And, he urged better military preparedness for urban campaigns. Finally, Nichiporuk said that the issue of multinational force compatibility was becoming important as a result of demographics. "You have European states with very low fertility and increasing demands to fund the needs of the elderly." Nichiporuk concluded that Europeans will likely fund fewer weapons systems and may have smaller youth cohorts to draw from for the military forces. "This might really create a split in military capabilities between the United States and its NATO European partners," Nichiporuk said.

Robert Kaplan, offered the working group a challenging thesis, suggesting "that poverty does not cause upheavals and terrorism—development does. It is development, the very thing that the international community wants to promote that causes most instability and terrorism."

While cautioning that his presentation was not an argument against development or foreign aid, Kaplan said that many countries have large populations "of peasants, who are very easy to govern because they have

"Every great power in history has to try to improve the world, and because there is no other path than development, we promote development. We are just privately realistic that it is going to have a lot of unintended consequences."

–Robert Kaplan

very few demands and they rarely leave their town and village. But development means that they are migrating slowly into bigger cities where they are taking lower wage earning jobs and becoming proletarian." For the first time in their collective histories, "they are full of ambition and yearning and desire. They form labor associations and self-help groups, which put more demands on creaky, over-centralized bureaucracies, as in Jakarta, Lagos and India." As a result, the central government becomes the least dynamic element of society and begins to fray under strains and stress. "The best and most obvious example of this," Kaplan offered, "was the overheating of the Iranian economy in the 1970s."

Kaplan added that one side effect of urban migration can be growing attachment to religious organizations. In the absence of familial connections, migrants join religious organizations and begin to look to these organizations for structure. At the same time, Kaplan said, "religion has risen to the challenge of keeping society together in the face of governments that may be dictatorial to the outside world, but actually govern very weakly internally."

According to Kaplan, migration and population shifts will pose long-term challenges for Middle Eastern leaders. "First of all, they are not going to be ruling countries as much as vast urban metroplexes. Think of Jordan as one vast, 'greater Beirut' that now stretches from near the Israeli border in the South to near the Syrian border in the North," Kaplan said. "If you are going to survive as a Middle Eastern leader, you are going to have to grasp messy municipal politics like governing New York City with fifteen Burroughs. Do not think of states; think of Venetian city-states."

Migration challenges, however, will not be limited to the cities. Kaplan noted that almost two-thirds of the Chinese population, which produces much of China's industrial wealth, lives in environmentally fragile flood zones. Normal climatic and seismic variations will affect urban concentrations and challenge the government's capacity to respond.

Addressing youth bulges, Kaplan noted that the one factor that unites unrest in Indonesia, riots in the West Bank, and trouble in the Karachi of the 1980s and 1990s is that young males between the ages of fifteen and thirty are responsible for all of the violence. "The result," he predicts, "will be the weakening of larger, more complex, more developed states in the next ten to twenty years."

Next, Kaplan turned his attention to democracy as a source of instability. Kaplan commented, "With 190 or so governments in the world, most with different historical experiences, the United States cannot project its own historical experience onto those of other countries. In a number of these places, expanding the boundaries of historic liberalism will not occur

by putting a gun to a country's head and saying 'hold elections in six months or else.' Democratic elections tend to work best when instituted last; after there is already some kind of functioning middle class, after there are already institutions that work, and after the big issues of society—like which ethnic group, if any, controls what territory, and what the borders are—have already been answered."

Addressing stability, Kaplan said, "The real issue is the size of the middle class. You find a country with a large and confident middle class and I do not care whether it has held elections or not. It is a good business investment, it is predictable, and it is not going to fall apart tomorrow." In such a country, there are measures in place to deal effectively with changing demographics. Alternately, he said, a country "which is just basically a country of peasants with a rapacious elite on the top…is not a good business investment."

In concluding, Kaplan offered that one of the things hampering the United States is the lack of an imperial tradition. "The real essence of an imperial tradition is that you never leave anywhere. What you bring is the idea of permanence. The permanence is that you will always be working this issue. Because we will always be working this issue, 'you are going to have to help us out, because we are not going to go away.' The American bureaucracy handles this well, because it is so big and we have different elements always dealing with and managing problems in different sectors. But the people at the top tend to go from issue to issue. I can almost predict that in six to nine months, Afghanistan will fall off the radar screen."

"In a number of these places, expanding the boundaries of historic liberalism will not occur by putting a gun to a country's head and saying 'hold elections in six months or else.'"

–Robert Kaplan

In the question and answer session that followed, Carla Koppell, working group co-chair, raised the issue of assistance. She asked Nichiporuk about the role of development assistance in blunting some of the national security impacts of demographic factors. To Kaplan she said, "You started your discussion saying that in some ways development is the most destabilizing element and threatens national security. Yet development is also the primary tool we have for solving the problem. Therefore, how do we overcome the conundrum we face when we look at how to deal with these issues in our policy making?"

Kaplan answered, "Every great power in history has to try to improve the world, and because there is no other path than development, we promote development. We are just privately realistic that it is going to have a lot of unintended consequences. Also, poverty programs have a secondary value: they allow us to create good feelings, networks, good relations with a lot of countries that we can then access in case we need to evacuate an embassy, we have a terrorist incident, or we have to insert troops. So while development is destabilizing, we still promote development."

Natural Resources and Environment Session

Many leaders in the area of Environmental Security were present at the fifth meeting of the working group including the Woodrow Wilson Center's own Geoffrey Dabelko, Director of the Environmental Change and Security Project; as well as Allen Hecht of the White House Council on Environmental Quality; William Nitze of the Gemstone Group; and Wendy Grieder of the Environmental Protection Agency. Speakers for the session were Norbert Henninger, Deputy Director for the Information Program of the World Resources Institute, and Sherri Goodman from the Center for Naval Analysis.

Henninger began the discussion by pointing out that, "Even 100 years ago, one could find linkages between resource degradation in one place, and economic and social change in another. "Today, in a much more globalized and populated world, the linkages are much stronger and faster," he said. Now, "We have to handle these cumulative actions of rapidly growing and industrial societies, causing us to face challenges like acid rain, greenhouse gas emissions, ozone depletion, or large-scale industrial problems."

Summarizing today's major global threats, Henninger stated that, "The first is population growth and rapid urbanization." The world needs to feed, house, and support another three billion people in the next fifty years. "Most of these increases will be in the developing countries, primarily in urban areas," he said.

Poverty and inequality are also major global trends. "Over the past decades, we have seen an increase in inequality. Any future reduction in poverty will require significant growth and productivity in incomes," he stated. Henninger pointed out that while hunger and chronic undernourishment have declined, there are still more than 800 million undernourished people.

Another important trend is that conflict and wars are destroying past gains or are limiting opportunities in some of the poorest countries. Eighty percent of recent conflicts have taken place in counties at the bottom half of the UNDP human development index. "This does not suggest that there is necessarily causality, but it really makes it difficult to develop in these countries," Henninger noted.

Henninger offered that, "growth in agricultural production has kept pace over the past decades but we are really undermining its foundations. These gains have come at the cost of degrading our soils."

Similarly, he said, there is significant risk that our food production system, which relies on a small pool of species and varieties, is vulnerabile to catastrophic events. An example is the outbreak of hoof and mouth disease in the United Kingdom and "Mad Cow" disease. Both immediately affected markets and trade of livestock products in Europe.

Freshwater is growing scarce amidst competing human needs. Already one-third of the world's people face water scarcity and water use is rising twice as fast as population. The problem, Henninger said, "can be solved technically sometimes—you get stronger pumps and you can dig deeper wells. But it has an impact on who has access to wells and who can afford pumps—it is certainly not the poor farmer."

Biodiversity is also disappearing Henninger said. "We are really losing our genetic library to deal with environmental change."

The last trend that Henninger noted was climate change, which will exacerbate problems in many stressed ecosystems and economies. "One of my colleagues mentioned that to combat sea-level rise the Dutch are building dykes and rich home owners on the Outer Banks want federal flood insurance; but in other places people just die. This highlights the big difference in how we handle some of these changes."

Henninger stated that he believes these global trends will lead to more conflicts; and that some of these conflicts will involve armed intervention. "These environmental changes will cause political change and these environmental changes will certainly impact the world economy." Henninger envisioned more emergency interventions because of humanitarian crisis. He also predicted that degraded ecosystems and weak economies would create greater challenges in rebuilding societies.

Finally, Henninger recommended increasing our commitment to development assistance. "With only a modest increase in aid we could enable vast improvements," Henninger said. "International collaboration would increase what I would call 'Human Security for All.'"

Sherri Goodman approached the topic from the point of view of the policy practitioner. She noted that there is increasing awareness in the mainstream national security community of environmental threats to security.

The challenge for practitioners, however, is dealing with the reality that "environmental threats are not the acute bolt out of the blue that Cold War military planners are accustomed to dealing with. The severity of the threat is hard to measure and it is complex," Goodman continued. "And because

"Similarly, a very large danger is that our food production system is relying on the small pool of species and varieties and that increases the vulnerability to catastrophic events."

–Norbert Henninger

many of these issues do not immediately threaten the lives of Americans, they are not within the three to four year planning cycle of many administrations."

The main issue she identified was "how to integrate environmental security into the overall fabric of the national security planning process." She believed this to be critical, as "modest cooperation today can prevent catastrophe tomorrow."

Goodman noted that since September 11, it is clear that humanitarian issues can become strategic issues. This has lead to the convergence of "the traditional 'pol-mil' proponents and the 'development camp'—the folks who do aid." Tension still exists, however, between the functional experts in environment and the regional experts. Additionally, she said that homeland security is better understood. "Focusing on the vulnerabilities of various parts of our infrastructure clearly relates to the whole concept and fabric of environmental security," she said. "You now see environmental practitioners becoming much more engaged in the traditional national security realm both here and abroad." Goodman recommended cross training between environmental experts and national security experts. Lastly, she questioned whether the United States would reengage in a meaningful way on environmental issues with its major allies. "We have an opportunity to do that, we have the capacity to do that, and we have the ability to do that. But often the issue resides in leadership."

Before seeking comments, Anita Sharma, noted that the need for greater interagency planning and less stove-piping had been highlighted throughout the discussions of the Working Group.

Allen Hecht offered a few points, saying "If you ask where the Administration is and what is going on in terms of national security, the U.S. Report on National Security is the benchmark." The NSS, the report of the UN Secretary General on progress towards achieving the Millennium Development Goals, and the UN Arab Human Development Report—written by Arab scholars—underscore that security now means more than traditional security.

Hecht continued, saying "Environmental security is a tough thing. It is elusive. It is vague. It can be hard to define. So let's just divide it into two parts. Let us talk about the part that is clearly 'down-to-earth environmental security' in the sense of a threat –use of environmental damage to create terrorism or anything else. This could be anything from an attack on a water system to the deliberate burning of land, to the safety of food. All of these issues need to be looked at in a much greater context than before."

"The other part is more elusive," Hecht said. "How do you deal with the impact of natural resource degradation, and do these changes have

any traction as national security issues. As Henninger stated, 'global trends may lead to more conflict; some may involve armed intervention. Environmental changes will impact the world economy,' and so forth. All of these are areas to be explored. These things are linked and worth looking at as national security issues."

With regards to the upcoming war with Iraq, Bill Nitze posed the question of whether there is a planning process and commitment of resources to address some of the social and environmental implications associated with conflict. "There will be initial hostility, and then a rise in expectations—not just in Iraq, but also in the Arab world—for the benefits of the new American Imperium."

Next, Geoffrey Dabelko overviewed four ways to look at the connections among environment, conflict, and environmental security. The first frame of analysis was prevalent in the late 1980s and early 1990s when "the environment was the goal." Environmental groups advanced analyses that held that certain environmental issues had complex security dimensions that were "killing people post-Cold War." Dabelko contrasted this analysis with a second in which policy-makers looked at a host of critical variables to identify conflict potential—"a very different notion of where environment links to conflict, and how environment contributes to conflict." The third approach used the environment as a vehicle for exchange. Environmental issues built a foundation for dialogue via, "military-to-military" programs and professionalization programs while simultaneously addressing specific environmental challenges. Dabelko referenced work in the Russian Northwest—a collaborative effort of DoD, DoE and EPAs—that aimed to secure radioactive materials in the Russian Northwest, noting that it was also used to get the militaries talking. A fourth category that has recently come to the fore is use of the environment as a tool of war or terrorism, with threats to infrastructure as a clear example.

Dabelko agreed with Henninger that correlation does not equal causation, even where environmental stresses and conflict occurs. "What mediates the connections," Dabelko said, "are intervening institutions. To me, that is where the better work in the last six or seven years has focused. It offers promise because it creates the possibility that through institutions we may be able to intervene, to mitigate threats to stability, and to look more deeply at environmental connections." As an example, Dabelko highlighted water scarcity, saying that institutional evidence shows that it may be more of a factor in sub-state level conflict, running counter to conventional wisdom about "water wars" between states.

"The challenge for practitioners is that environmental threats are not the acute bolt out of the blue that Cold War military planners are accustomed to dealing with. They are most often chronic rather than acute."

–Sherri Goodman

Referring to working solutions, Richard Smith, a consultant with the U.S. Department of State, said that there are currently twelve Department of State offices that deal with regional environmental issues. The "Environmental Hubs," are cutting across bureaucracy, forcing the Department of State to think regionally about environmental issues.[1]

Wendy Grieder said that the EPA has had success working with the State Department's European Environmental Hub located in Copenhagen on the Baltic and Nordic countries. She said that the Hub had been instrumental in facilitating the EPA's work, which has been sponsored by the Northern European Initiative. As examples, she cited the work of two environmental security projects Lithuania and Latvia.

John W. McDonald of the Institute for Multi-Track Diplomacy then offered some comments on a multilateral approach to water concerns. As a member of the U.S. State Department, he facilitated the launch of the UN Water Decade. By decade's end, the United Nations very successfully provided safe drinking water for one billion people and sanitation for seven hundred million people. He proposed launching a second water decade to start in 2005, tied specifically to the Johannesburg summit recommendations on water and sanitation. "I really believe that this kind of concerted effort at the global level can make a difference," McDonald stated.

Carla Koppell, working group co-chair, mentioned that the State Failure Task Force found that there is a statistically significant though indirect connection between environmental degradation and the likelihood of intrastate conflict. Often, however, the linkages are tied to economic and political issues. She noted that given the connections between instability and weak governance, demographic trends, and economic disparities, one "can see a clear, though indirect, connection to instability within states resulting from environmental degradation."

Lastly, Anita Sharma drew a distinction between environmental terrorism, and the indirect and direct security related costs of resource scarcity. She noted that there is a big difference between poisoning the water system for environmental terrorism and a conflict over resource scarcity.

NOTES

1. Subsequent to the meeting, working group member Gene DeLaTorre mentioned another promising broad-based regional effort spearheaded by the American Association for the Advancement of Science and the Center for Global Security Research. That initiative examines the links between science and technology and U.S. policy in Central Asia in areas such as education and research, agriculture, health, the environment and emergency response.

Health Session

The sixth working group meeting focused on the potential implications of health threats for security. To lead the discussion, Michael Moodie, co-founder and president of the Chemical and Biological Arms Control Institute (CBACI), offered his perspective.

Moodie began by stating, "Health and security have a long relationship. Diseases have had a decisive impact in some conflicts, whether the Aztec's in Mexico, the invasion of Canada by the United States, or the rebellion in Haiti that ultimately led to French sale of the Louisiana Purchase to the United States." But looking at those connections does not necessarily reveal whether or not health is a national security issue. "That has been a question of significant debate," Moodie said.

Moodie noted that health is not a stand-alone issue; it contributes to problems that result from health factors' interaction with a number of other conditions. Whether it is population growth, migration, urbanization or globalization, all interact with health to create a threat. "These interesting correlations highlight that more research is needed to understand the relationships between health status and other trends," Moodie acknowledged.

Moodie expanded upon the intersection of health and security on three levels: macro, micro, and microbial. The macro level analysis specifically focuses on understanding the impact of health on political instability and potential conflict. The primary concern at this level according to Moodie is that in states with fragile political systems, infectious diseases will strain social order, which may lead to violence and conflict. "An oversimplified description of what we are describing is a negative synergy among health problems, population dynamics, environmental degradation, weak governmental structures and long-standing grievances. This negative synergy creates a downward spiral linking infectious diseases and what Andrews calls 'state capacity;' disease reduces the ability of the state to respond to challenges," Moodie said.

According to Moodie, "This process is most intense in developing countries." A pernicious pattern develops in which deteriorating levels of health care, immunization, sanitation, education, and an increase in the total disease burden interact with poverty and ecological degradation to

roll back the level of development. While most common in the developing world, it is a pattern that occurs elsewhere as well, including some countries of strategic significance. Moodie mentioned the Briefing Note's emphasis on HIV/AIDS, saying that it "really is the poster child for this relationship between health and security."

"But there is a second dimension also at this macro level, which has to do with the relationship between health and complex humanitarian emergencies," Moodie stated. "These emergencies are produced by four scourges: war, disease, hunger, and displacement. They have their roots in ethnic, tribal, religious animosities, deterioration of governmental authority with control passing to other elements in the country, mass population movements, massive dislocation of the economic system and the decline in food security. These complex humanitarian emergencies highlight the inability of governments to cope," Moodie said. "They underline the destructive dynamic between disease, population movement, and inadequate food security. They capture our attention precisely because of the intense interaction among violence, starvation and disease."

Moodie also noted, "This is not just a national issue—there are regional concerns as well. The U.S. State Department did a report on HIV/AIDS and described it as a potential war starter or war determinant. It provides a rationale for intervention in the affairs of a country across one's borders. It obviously complicates peace support operations in regional contexts. There have been instances where infected troops or countries that are known to have high incidences of AIDS are refused as part of peace support operations. And there is some dispute over the use of health as a tool in political disputes." The North Korean famine is an example as is Iraq, where a UN report argued that in the Kurdish areas food availability and children's medical conditions were improving, but not in areas under Iraqi control. "Iraq used the health of their children as an argument for lifting sanctions in a situation in which responsibility for the condition of those children was debatable."

The micro level relationship between health and security was defined by Moodie as referring to "aggression through control and denial of the vital human needs of a civilian populace for political and military objectives." Moodie noted that there are a number of examples in which health care resources have become targets in conflicts. As an example, Moodie cited Milosevic's placement of anti-aircraft guns on top of hospitals.

Turning to microbial health issues, Moodie first emphasized that the quality of threat assessments is not very good. The problem is that a proper assessment should examine the interaction among operational consider-

ations, alternate targets and the nature of possible agents, including genetically manipulated agents. To overcome the shortcomings Moodie believes more extensive cooperation is needed involving industry and government. "A more cooperative dynamic is needed to involve private companies, the corporate community, the humanitarian community, the military community, and the broader security community," Moodie offered.

Moodie recommended first focusing on leadership. "What we are seeing with respect to AIDS and the Global Fund is an interesting new model that brings private money and public money together in a way that is designed to maximize the impact of both," Moodie said.

In the long-term, Moodie is convinced that the effort is worth it, "not because health problems will be the most important security challenge, but because health and security represents so well the complex problems that await us in the future. Health as a security issue brings together the personal, the public, the individual and the international in a world characterized by globalization and fragmentation, enormous wealth and crushing poverty, soaring human achievement and incomprehensible human brutality. By focusing on the ways that health and security interact, we may be able to achieve a better understanding of how to live in that world."

Lani Elliot, independent consultant, opened the question and answer period. "Increasingly, the incidents of conflict in the world are internal wars rather than intrastate wars—Iraq withstanding. I think that you can make a very strong, rational actor/ rational choice case that HIV/AIDS and slow onset epidemics are very destabilizing at the local level, while fast onset epidemics—which are the ones we normally think about, like smallpox—are effective stabilizers, because of the effect on the population physically and the incentives faced by the members of these local groups that might fight one another."

Concerning Moodie's "public/private model," Patti Benner of the U.S. Army commented that the globalized world is like a spider web, where everything is interconnected. She recommended that the working group look at the Critical Infrastructure Assurance Office, which has created specific public/private partnerships for infrastructure areas such as power, banking, energy, and communications.

Melinda Moore of the U.S. Department of Health and Human Services offered a few thoughts. "My first comment is to underscore Mr. Moodie's point that this is a cross-sectoral, multi-sectoral set of issues and endeavors; there is no one sector that really has the full vision or full capacities. You talked about health, military, security, development, agriculture, transportation and commerce. All of these sectors are involved

"These complex humanitarian emergencies highlight the inability of governments to cope. They underline the destructive dynamic between disease, population movement and inadequate food security."

–Michael Moodie

and it is important to understand that before you even consider the private sector. The second comment I have is that we may be talking about a combination of top-down and bottom-up thinking, whether from a policy perspective or an operational one. You need a map of where you are going; that is the top down part. But you also need to take the steps to get there. That refers to whole range of things from deterrence to prevention to consequence management."

Victoria Holt of the Henry L. Stimson Center noted that diseases such as HIV/AIDS threaten peace operations. Poor screening and preventative work have impeded efforts to deploy peacekeeping forces, resulting in reduced efforts. She asked, "How do you look at the option of providing peacekeepers in areas of instability—perhaps unstable in part as a result of infectious disease—when the peacekeepers themselves may be falling apart due to infectious disease?"

Chuck Woolery of the United Nations Association's Council of Organizations suggested that poverty and migration are probably the two biggest factors driving the infectious disease burden. According to Woolery, universal access to water and sanitation could reduce that burden by fifty to sixty percent. In addition, the reliance on mass production might facilitate wide distribution of infectious agents. Woolery questioned the effects of an al Qaeda operative releasing an agent in, for example, the Ben and Jerry's plant in Vermont that serves the entire country. Finally, Woolery pointed out the importance of understanding the pathogen's ability to continually change, and the importance of recognizing that our reliance on antibiotics will have an impact. The lesson is that we must learn to practice disease prevention instead of simple treatment.

Jennifer Kaczor of the Woodrow Wilson Center's Environmental Change and Security Project stated that it is important to think about private sector participation beyond the treatment issue by encouraging testing, behavioral change, and destigmatization. As an example, she stated that to encourage participation in their free testing program, Heineken's African subsidiaries offered anti-retroviral therapy for employees and their dependents who have tested positively for AIDS. Unfortunately, as a result of the social stigmatization and fear of job loss, only a small percentage of employees took advantage of the program. Most employees ultimately decided that a secure job and social acceptance were more important than treatment. In addition to free testing and treatment companies such as Heineken, could also foster destigmatization and behavior change by encouraging their employees to form People Living with AIDS (PLA) support groups and educating employees and their families about risky sexual behaviors.

Carla Koppell, working group co-chair, asked, "If we can solve a significant percentage of the health problems through poverty alleviation and economic development, is health really a fundamental threat to national security that needs to be tackled through health sector interventions? Perhaps we should really be looking at health as symptomatic of economic challenges.

In closing, Woolery mentioned the current nursing shortage, saying that it was a critical risk to national security. He also mentioned that the military gave the health community the best approach to dealing with infectious diseases, determining that surveillance, response, research and development, and prevention provided a comprehensive approach to thwarting disease. The military, according to Woolery, found that prevention proved the most effective way to combat the spread of disease.

Final Session

Anita Sharma, working group co-chair and moderator, introduced the session by outlining the Conflict Prevention Project's goal of analyzing the causes of global instability and changes to the threats facing the global community. Sharma stated that the objectives of the working group over the eight-month period were to characterize and assess the seriousness of non-traditional threats to global stability and national security, and to understand how foreign and national security policies should be adapted to respond more effectively to emerging and non-traditional threats. She then introduced James Steinberg, Vice President and Director of the Foreign Policy Studies Program of the Brookings Institution, Joseph J. Collins, Deputy Assistant Secretary of Defense for Stability Operations in the Office of the Secretary of Defense, and David McIntyre, Deputy Director of the ANSER Institute for Homeland Security. The final session focused on summarizing conclusions from thematic discussions in an effort to draw overall conclusions, determine linkages, and discuss how to deal with both the individual and collective non-traditional threats to security.

Initiating the discussion, Steinberg reflected on the work of the project, saying that he would offer comments as an analyst outside of government, as former U.S. Department of State's Director of Policy Planning Group, and as a past Deputy National Security Advisor. "First, I think your exercise can help us in priority setting. By looking at these different factors and trying to understand the linkages between these underlying social, economic, demographic, and political trends, it is possible to make some judgments about the things that are more important." Continuing, he said, "The second thing that you have done is to help us think about information requirements. By looking at these linkages, by trying to understand the framework within which conflict arises and what these challenges contribute to foreign policy, you have begun to provide some of the material that would help in trying to establish the information requirements: what do we already know? What do we need to know? The third thing that I think that this exercise does is to help develop strategies to deal with [the challenges]." Confirming the working group's conclusions, he said "a

fourth important contribution that you can make is a recognition that by its nature, these problems require a different structure of decision-making."

Steinberg said "what you are also helping us to develop is a map of the universe of participants in the policy formulation and policy implementation process. I think that taken together you can see—and I mean this as quite a compliment—that this kind of exercise really does have very direct consequences. Now having said that, the challenge then becomes to make these linkages real to the policy community. And the reason that it is a problem is that the issues you have raised and are exploring here are the kinds of things that tend to take place in the medium term and long term rather than in the crisis phase. The question is 'how do you develop the strategy that allows policy makers to take these problems seriously and to make decisions about problems in which action today is necessary to prevent more serious problems in the more distant future?'"

"What I think that your work needs to do is to help us think through not only what is the character of the problems, but what is the character of the solutions that are appropriate given the level of priority and given the level of the degree to which one can identify the linkages between these kind of underlying social and economic and political problems, and core national security interests. And obviously, that the most difficult case does involve a question of when and under what circumstances these kinds of conflicts would rise to the level in which military intervention is justified. But I think that is one of the problems that we need to address. That is, having mapped out the world as you have begun to do, how do you decide the appropriate level of engagement and how do you make the linkages between the degree of risk to our core interests and the degree to which we should become engaged?"

Steinberg concluded, saying with regard to the working group, "I think that it is a really a very important effort," and that "in some ways I think that this is a natural successor to the National Intelligence Council's *Global Trends 2015,* which was an important step to trying to bring a little more rigor to the whole notion about how these broader social, economic, and demographic trends affect the national security landscape."

Next, Joseph Collins acknowledged that he was impressed with the working group's efforts, particularly with the rigorous thought applied to causation and correlation. It is important to realize that "there are things that go hand-in-hand that are not causing one another. So often on this particular topic, we get the notion that somehow the fact that conditions coexist means that there is some kind of causation." Collins also agreed with the conclusions in the group's final Briefing Note, saying that he

"Having mapped out the world as you have begun to do, how do you decide the appropriate level of engagement and how do you make the linkages between the degree of risk to our core interests and the degree to which we should become engaged?"

–James Steinberg

believed non-traditional threats are not direct threats, but that they are "certainly complicating factors." Additionally, he spoke about the role of development, focusing on education while stressing the need for balanced development. "I think all of this argues for more emphasis on prevention. We also have to realize that prevention usually fails. You then get into the business of conflict management and even, from time to time, the business of operations. And you need to also factor in humanitarian assistance and reconstruction."

"A word about multilateral institutions," he continued, asking "Have multilateral institutions—in particular the United Nations and UN agencies—kept up with the information age? Are they reliable partners? To some extent, certainly. Things are better than they used to be. But we have seen, particularly in Afghanistan, tremendous friction between the Afghan government and the UN agencies. Minister of Finance Ashraf Ghani has on two occasions, with Mr. Brahimi in the room, called for a full and comprehensive audit of all UN agencies because they are all so particularly wasteful. My point here is that it is incumbent upon multilateral institutions to work on improving the efficiency of their operations."

David McIntyre explored these challenges from another angle. As a strategist, he reviewed all working group discussions in order to distill common ideas from differing perspectives. He came to the conclusion "that what we want to do in ending conflicts and preventing them is to convince people that continued fighting is a false hope and offer some alternative hope which will bring them to negotiation."

Explaining his analytic process, McIntyre said, "While others have asked the question, 'why do conflicts begin?' what I have really been interested in the last five or six years is 'why do they end?' When others are asking, 'why do men fight?' what I would really like to explore is, 'why do men surrender?' My proposal is that if you can figure out how to win, that should tell you how to manage the conflict and maybe even how to prevent the conflict." In expanding his thoughts, he asked, "What are the implications of this idea for managing hope for conflict prevention? It is that we must move early and that we must move strongly to deny hope that an aggressive party will get what it wants through conflict." Having done that, we must then offer a realistic alternative to hope to address the underlying causes of aggression.

Carla Koppell, co-chair of the working group, set the stage for the remainder of the session by asking, "How do you make space within the policy making community for people to think about these issues and deal with them? The challenge is to get people, to enable people to have the

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–David McIntyre

time and space to look broader and think longer term as part of the strategic process involved in deciding what you are going to do tomorrow."

Lani Elliott, independent consultant replied, in part, that the policies addressing these issues were developed during the Cold War and that it is time to revisit them. He recommended that a working group be established to launch a national discussion and review.

Elliott then added, "One cannot win if we are losing, and we lose at times because of the way that aid is delivered. We provide a policy structure that tends to undermine the potential for long-term growth. That is an issue that must be addressed within the policy community on a bi-partisan basis because our aid impedes growth all too often, and a lot of it grows out of how we start out with these emergency relief activities and then go on to welfare activities which substitute the distribution of resources by the public sector instead of the market in a disproportionate share."

John Sewell of the Woodrow Wilson Center commented on several aspects of the working group. He stated that the final paper of the working group should include a reflection that the process of development is essentially destabilizing because resources are shifted in the process. He added that this is particularly true in terms of income inequality. In discussing how to convince people that these issues are important, he said that one must focus on the fact that the time frame is long reaching—much longer than an Administration's stewardship. Sewell also said that we must view a lot of these things as opportunities rather than threats. A world with less conflict, better health, better education, and more economic growth should be seen as positive rather than negative. Lastly, he said that the key to addressing complex humanitarian issues is to understand the linkages among the issues and to develop policies that integrate approaches to dealing with non-traditional threats.

Lionel Rosenblatt of Refugees International agreed with Collins' comments about the United Nations being inefficient, but suggested that he believes that the U.S. military is a more inefficient and more expensive vehicle for undertaking reconstruction. Overall, he stressed that local NGOs must be brought into the process to improve dialogue, especially with war in Iraq looming.

Finally, Roger Carstens, of the U.S. Army noted that when dealing with complex contingency operations, the National Security Council uses the PDD-56 model to ensure interagency visibility and synergy. He recommended that when considering the long-term nature of non-traditional threats, such an approach might allow various agencies to create linkages, focus, comprehensively evaluate threats, and suggest long-term solu-

tions. Such an approach would, in effect, apply crisis mechanisms to distant problems, and force prioritization and rational decision using an interagency process. This would also allow the use of a strategic approach to address the issues as opposed to a "problem-policy" approach.

Noting the diplomatic, military and economic influence of regional military combatant commanders, such as the Supreme Allied Commander of Europe, Carstens further suggested creating non-traditional threat fusion cells at the combatant commander level. Such cells would integrate the efforts and response mechanisms of allied military, NGOs, and interagency departments of stakeholder countries, improving visibility for issues such as demographics, governance, resource scarcity, and their impact at the individual and state level.

Appendix 1: Working Group Meetings and Speakers

May 31, 2002

Preventing the Next Wave of Conflict: Understanding Non-Traditional Threats to Global Stability - Opening Session

Featuring ***Julia Taft,*** Assistant Administrator and Director of the Bureau for Crisis Prevention and Recovery, United Nations Development Programme; inaugural meeting, co-sponsored by the U.S. Committee for the UN Development Programme

June 20, 2002

Economic and Social Disparities

Featuring ***Nicholas Sambanis,*** Assistant Professor of Political Science Associate Director of United Nations Studies at Yale (UNSY), Department of Political Science, Yale University

August 1, 2002

Political and Economic Governance

Featuring ***Marina Ottaway,*** Co-director, Democracy and Rule of Law Project, Carnegie Endowment for International Peace, and Ambassador ***Richard Haass,*** Director, Policy and Planning Staff, United States Department of State

September 19, 2002

Demographic Shifts

With ***Brian Nichiporuk,*** Associate Political Scientist, Arroyo Center, Army Research Division, RAND, and ***Robert Kaplan,*** Contributing Editor, The Atlantic

October 17, 2002

Natural Resources and Environment

With ***Norbert Henninger,*** the Deputy Director for the Information Program of the World Resources Institute, and ***Sherri Goodman,*** the former Deputy Under Secretary of Defense for Environmental Security from 1993-2001 and currently with the Center for Naval Analyses

November 14, 2002

Health

Featuring ***Michael Moodie,*** co-founder and President of the Chemical and Biological Arms Control Institute (CBACI)

December 12, 2002

Preventing the Next Wave of Conflict: Understanding Non-Traditional Threats to Global Security - Final Session

With ***Joseph Collins,*** Deputy Assistant Secretary of Defense for Stability Operations, Office of the Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict, Department of Defense; ***James Steinberg,*** Vice President and Director of Foreign Policy Studies, Brookings Institution; ***David McIntyre,*** Deputy Director, ANSER Institute for Homeland Security

Appendix 2: Working Group Participants

Stephen Anderson, Environmental Protection Agency

Ross Anthony, Rand Kenneth Bacon, Refugees International

Nicole Ball, University of Maryland

Rick Barton, Center for Strategic and International Studies

Daniel Benjamin, Center for Strategic and International Studies

Patti Benner, United States Army

Jacob Bercovitch, formerly at United States Institute of Peace

Alex Biscaro, Embassy of Switzerland

Ann Blackwood, Department of State

Tony Blinken, U.S. Senate Foreign Relations Committee

Avis Bohlen, Woodrow Wilson Center

Ellen Brennan-Galvin, Woodrow Wilson Center

Esther Brimmer, Johns Hopkins University

Neil Brown, Center for Strategic and International Studies

Dawn Calabia, United Nations Information Centre

Roger Carstens, United States Army

Nancy Carter-Foster, Department of State

Lawrence Chalmer, National Defense University

Joel Charny, Refugees International

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