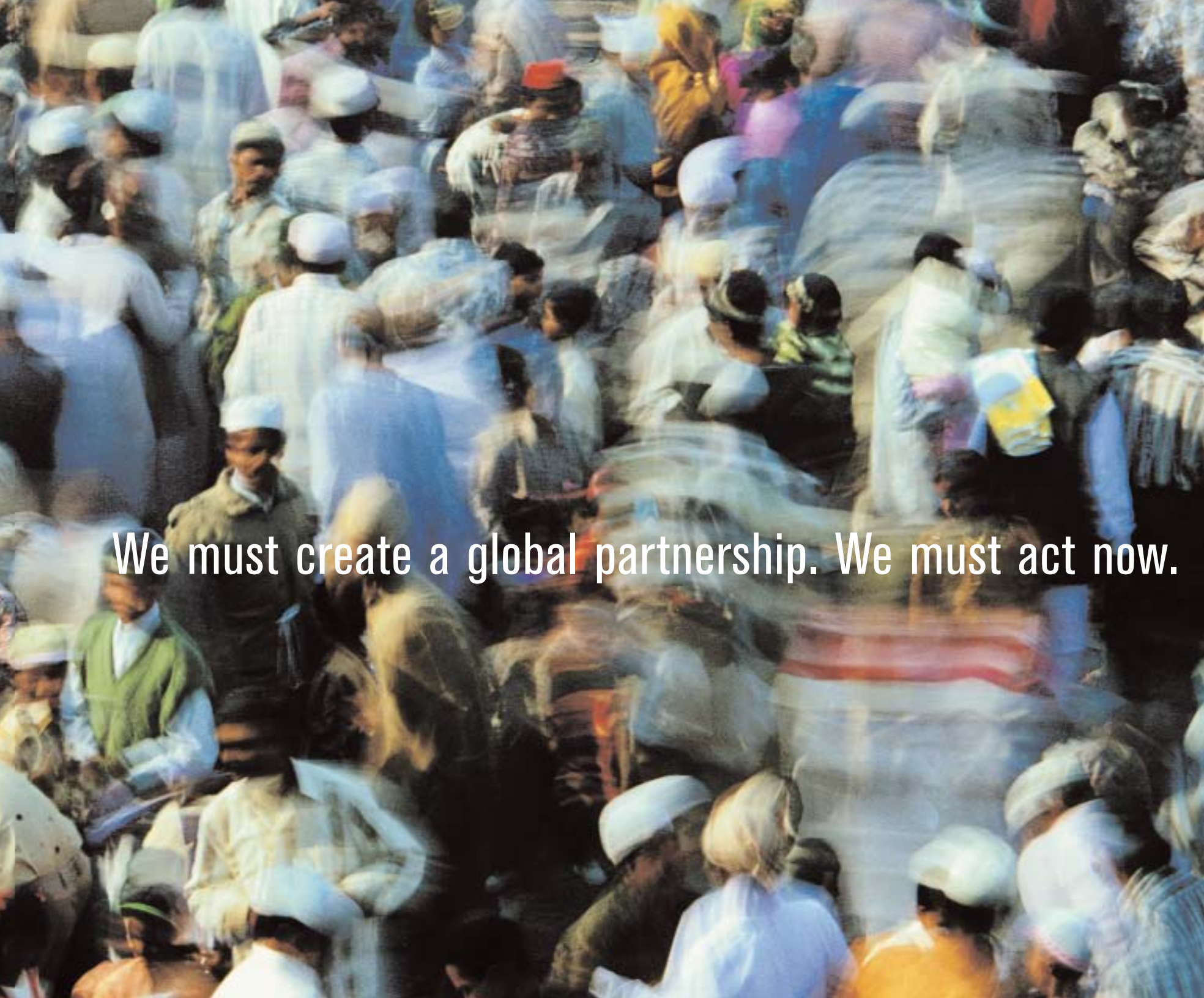
NTI

Working for a Safer World


We must create a global partnership. We must act now.

Nuclear Threat Initiative
2002 Annual Report
Table of Contents

To strengthen global security by reducing the risk of use and preventing the spread of nuclear, biological and chemical weapons and to work to build the trust, transparency and security which are preconditions to the ultimate fulfillment of the Nonproliferation Treaty's goals and ambitions.

Letter from the Co-Chairmen
NTI 2002 Annual Report

In October of 2001, top U.S. government officials received a highly classified intelligence report, according to media accounts, warning that terrorists had acquired a 10-kiloton nuclear bomb and planned to smuggle it into New York City, where – if detonated – it could destroy much of lower Manhattan and kill hundreds of thousands of people. The intelligence report was later judged to be false. But it was never judged to be impossible or implausible. Nor could such a report be discounted if the threat involved Moscow, Seoul, New Delhi, London, Tokyo or any other city…

We believe the prospect of terrorists getting their hands on weapons of mass destruction should focus our attention on two fundamental questions: First, if a catastrophe happened, what would we wish we had done to prevent it? Second, why aren't we doing it now?

Other circumstances provoke similar questions. The world's two nuclear superpowers, the United States and Russia, still maintain thousands of strategic nuclear weapons on high alert and propose to continue this status into the indefinite future. What is the risk of an accidental launch or miscalculation? What should we be doing to prevent it? Why aren't we doing it now?

In South Asia, tensions persist between India and Pakistan, two nuclear-armed states. On the Korean Peninsula, North Korea has announced its withdrawal from the Nonproliferation Treaty and appears intent on producing nuclear weapons. In the Middle East, many analysts posit scenarios where chemical or biological weapons might be used.

What if circumstances spin out of control in any of these regional hot spots and nuclear weapons are exploded or chemical and biological weapons are used? Again, what would we wish we had done to prevent it? Why aren't we doing it now?

We founded the Nuclear Threat Initiative two years ago because we believe:

- The gravest danger in the world today is the threat from nuclear, biological and chemical weapons.
- Preventing the spread and use of nuclear, biological and chemical weapons should be the central organizing security principle of the 21st century.

At NTI, we are working to move toward zero the risk that nuclear, biological and chemical weapons will ever be used, by intent or accident, anywhere in the world.

NTI is governed by an international Board of Directors with members from nine countries including two sitting U.S. Senators, two members of the Russian Duma, one member of the UK House of Lords, a former commander of U.S. strategic nuclear forces, a former U.S. Secretary of Defense, and a Nobel Prize winning economist. We were delighted to welcome five new members to our Board this year: HRH Prince El Hassan bin Talal of Jordan, Deputy Chairman of the Duma Vladimir Lukin of Russia, Judge Hisashi Owada of Japan, the Rt. Honorable Shirley Williams of the United Kingdom, and Dr. Fujia Yang of China. Warren Buffett, CEO of Berkshire Hathaway Inc., serves as an advisor to the Board. NTI's staff includes experts in international affairs, nonproliferation, security and military issues, public health, medicine and communications, who have operational experience in their areas of specialty.

Under the leadership of our Board, NTI's work is focused on activities that address significant high-risk situations involving nuclear, biological and chemical weapons and materials and opportunities to leverage additional funding and action for threat reduction.

Since our founding in January of 2001, we have committed more than $38 million in funding over five program areas: Communications and Education; Russia and New Independent States; Biological; Regional; and the United States. Over the last year, key projects have included:

■ *Project Vinca*, an international effort to remove two and a half bombs worth of vulnerable highly enriched uranium from a research reactor near Belgrade, Yugoslavia. NTI committed $5 million to support spent fuel management and reactor decommissioning at the Vinca reactor, a critical element in gaining the agreement of the Yugoslav government in allowing the nuclear weapons material to be removed, secured and eventually eliminated.

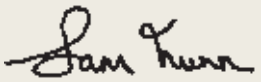
■ The funding of the WHO-NTI Global Emergency Response Fund, which allows the World Health Organization to respond more quickly to disease outbreaks wherever they occur around the world – whether naturally occurring or from the deliberate release of biological weapons.

■ Support for the International Atomic Energy Agency's (IAEA) critical and woefully underfunded work to secure nuclear materials around the world with a contribution of $1.15 million to the IAEA's International Physical Protection Advisory Service program. U.S. Secretary of Energy Spencer Abraham announced a matching contribution from the U.S. Department of Energy, and the NTI contribution has leveraged a total of $11 million in additional funding for the Agency's Nuclear Security Fund from governments around the world.

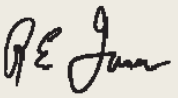
■ A project bringing together a coalition of nineteen security organizations from fifteen nations to build the necessary political and public support for a Global Partnership to prevent the spread of nuclear, biological and chemical weapons and materials. This is the first time that experts from many nations have reached consensus on specific steps to secure, account for, and safely dispose of nuclear, chemical and biological weapons, agents, materials and infrastructure in Russia and the other former Soviet states.

We hope this annual report on NTI's activities will give you a comprehensive look at the work we have undertaken over the last year to help make the world a safer place.

The stakes are high. We must act now.



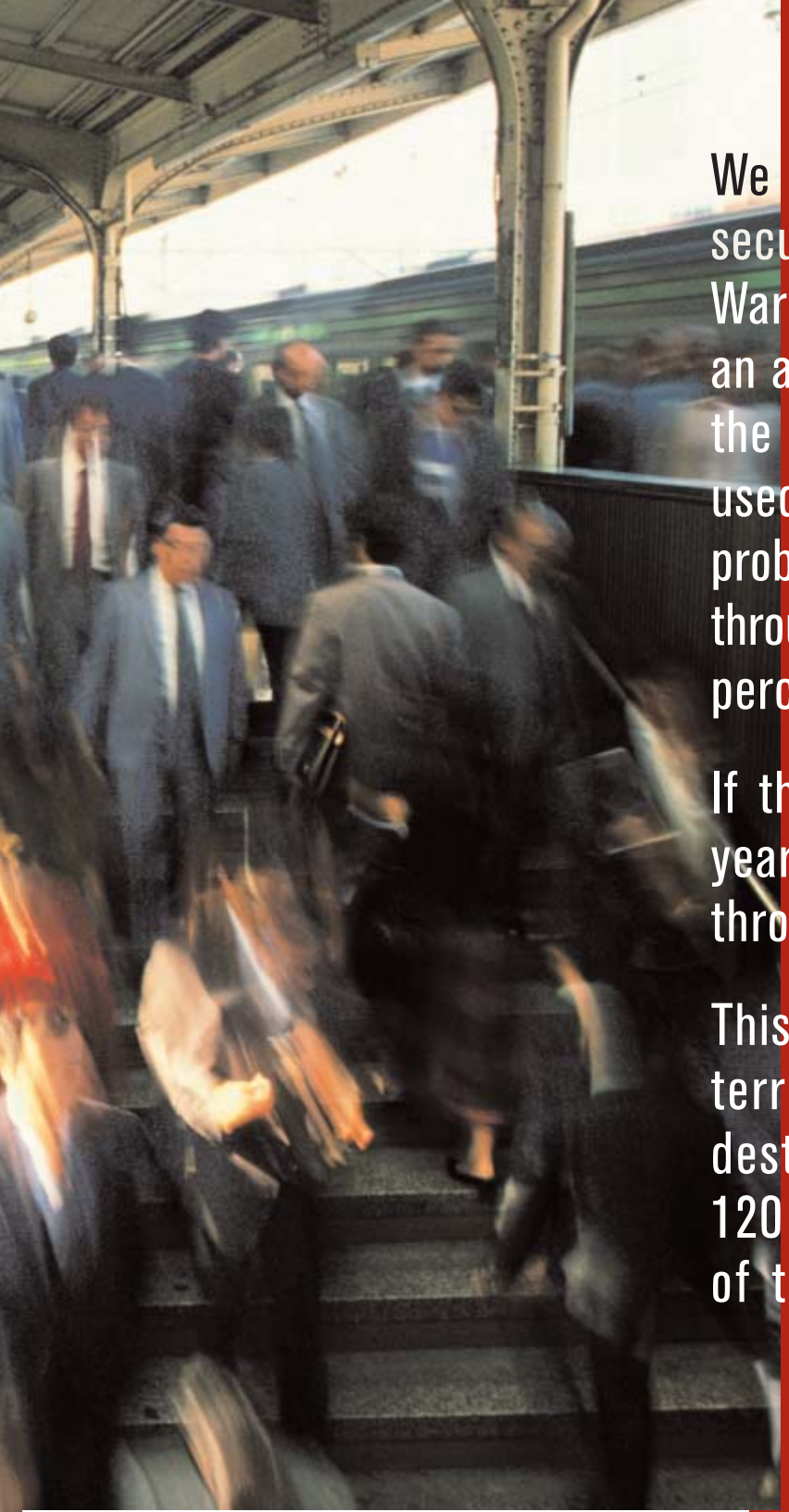
Sam Nunn
Co-Chairman and CEO



Ted Turner
Co-Chairman

At NTI, we are working to move toward zero the risk that nuclear, biological and chemical weapons will ever be used, by intent or accident, anywhere in the world.

WORKING FOR A SAFER WORLD



We can make a difference. A small improvement in security can make a big difference in our future. Warren Buffett, the world-renowned investor who is an advisor to NTI's Board of Directors, notes that: "If the chance of a weapon of mass destruction being used in a given year is 10 percent and the same probability persists for 50 years…the chance of getting through the 50 year period without a disaster is .51 percent." [roughly one-half of one percent]

If the chance can be reduced to one percent each year, there is a 60.5 percent chance of making it through 50 years.

This means that if we make it ten times harder for terrorists or nations to use a weapon of mass destruction in any given year, we can make it 120 times less likely that we will suffer from a use of these weapons for the next fifty years.

That's real leverage.

To combat the combined threats from terrorists and nuclear, biological and chemical weapons, a Global Partnership of nations – including every country that has something to secure or that can contribute to the cost of securing it – must join together...

The threats from nuclear, biological and chemical weapons are real, urgent and immediate. Unless we take steps now to secure these weapons and the materials used to make them wherever they exist, it is only a matter of time before a terrorist group or hostile state uses them to kill unthinkable numbers of innocent people.

Consider these facts:

Terrorists are seeking nuclear, biological and chemical weapons.

In 1999, terrorist Osama Bin Laden, said: "To seek to possess the weapons that could counter those of the infidels is a religious duty." The terrorists who planned and carried out the attacks on September 11th showed that there is no limit to the number of innocent lives they are willing to take. There is little doubt that terrorists with nuclear, biological and chemical weapons would use them.

Nuclear weapons materials are at risk around the world.

At least 150 tons of weapons-grade plutonium remain in the Russian weapons complex and more than 1,000 tons of highly enriched uranium is housed in inadequately secured Russian facilities. Together, this is enough material to build at least 60,000 nuclear weapons. Terrorist groups and rogue states have tried to exploit this situation.

The threat extends well beyond Russia and the former Soviet Union. There are over 130 nuclear research reactors and other facilities in more than 40 countries using highly enriched uranium – the raw material of nuclear terrorism. Some of it is secured by nothing more than an underpaid guard sitting inside a chain-link fence.

Bioterrorism is a growing threat.

The anthrax mail attacks showed us that the threat from biological weapons is real. Scientists who know how to produce these bioagents can be – and have been – recruited by terrorists and hostile nations. Laboratories with the capability of making these deadly materials do not have sufficient security standards. Our public health systems are inadequate – a biological attack could quickly overwhelm the medical and public health systems and limit our ability to contain an outbreak.

Millions of deadly chemical weapons rounds are poorly secured.

Chemical weapons have been used in a subway attack in Tokyo and have been tested by Al Qaeda terrorists operating in Afghanistan. In Russia, at the Shchuchye site alone, nearly 2 million rounds of chemical nerve agents – enough to kill everyone on earth a dozen times over – sit in decaying, poorly guarded buildings.

G8 10 PLUS 10 OVER 10

In June 2002, the Group of Eight (G8) leaders from Canada, France, Japan, Germany, Italy, Russia, the United Kingdom and the United States met in Canada and agreed to commit $20 billion over ten years "to prevent terrorists, or those that harbour them, from acquiring or developing nuclear, chemical, radiological and biological weapons; missiles; and related materials, equipment and technology." This G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction is based on a six-element program to:

1. Promote multilateral treaties that help prevent the spread of weapons, materials and know-how;
2. Account for and secure these items;
3. Promote physical protection of facilities;
4. Help detect, deter and interdict illicit trafficking;
5. Promote national export and transshipment controls; and
6. Manage and dispose of nuclear, biological and chemical weapons materials.

The establishment of the G8 Global Partnership and the six principles are important developments, and it is essential to build the necessary intellectual and political support in each country so this initial commitment is not crowded off the G8 action agenda.

The G8 governments must turn these principles into a clear set of priorities, establish a timeline to guide their work based on a risk-based analysis of the threats, and dramatically increase funding to reflect the risk that catastrophic terrorism presents to the health, economy and security of every nation.

Specifically, the G8 governments must establish:

- A plan and timeline for an urgent effort to secure the most vulnerable nuclear materials through short-term emergency upgrades – either by greater protection or consolidation or both.
- An agreement on how much money each country is committing and when.
- A top official in each government responsible for programs against catastrophic terrorism.
- A plan to convert research reactors that use highly enriched uranium and to secure the weapons-usable material at those sites.
- A plan with a timeline and cost estimates for blending down all the world's excess highly enriched uranium – storing what cannot be absorbed by commercial markets.
- A plan for expanding the G8 Partnership to include all nations with something to safeguard and something to contribute to safeguarding it.
- A plan for instituting global norms and standards for the handling of dangerous pathogens to prevent these materials from being controlled and used by terrorists.
- A plan for international standards for the physical protection of nuclear material. There is currently no international standard or requirement for the physical protection of nuclear material within a state.
- An agreement to take full advantage of the skill and experience of the International Atomic Energy Agency, the only international institution of global scope devoted to monitoring access to weapons-usable material. The IAEA's essential work is woefully underfunded.

Through a grant to the Center for Strategic and International Studies (CSIS) and other policy institutes from fifteen countries, NTI is now working to turn this G8 commitment from words to money and actions that will secure weapons and weapon materials. In January 2003, experts from security organizations on three continents who are participating in the NTI/CSIS project unveiled a detailed action agenda that provides a suggested road map for implementing the commitment made by G8 leaders at their June 2002 summit. The security organizations committed themselves to building the necessary political and public support to ensure international action on these urgent issues. This is the first time that experts from many nations have reached consensus on specific steps to secure, account for, and safely dispose of nuclear, chemical and biological weapons, agents, materials and infrastructure in Russia and the other former Soviet states.

Terrorists seeking the raw material of terrorism won't necessarily look where there is the most material; they will look where that material is the most vulnerable.

The priorities are clear.

To combat the combined threats from terrorists and nuclear, biological and chemical weapons, a Global Partnership of nations – including every country that has something to secure or that can contribute to the cost of securing it – must join together to:

- **Secure nuclear weapons and materials at their source** to deny terrorists access to their immense destructive power.
- **Improve global public health systems** and develop better vaccines, treatments and diagnostics to prevent and defend against bioterrorism.
- **Secure and destroy stockpiles of chemical and biological weapons.**

BUILDING A GLOBAL PARTNERSHIP AGAINST CATASTROPHIC TERRORISM

NTI is using its expertise, voice, influence and projects to help shape and build support for a Global Partnership Against Catastrophic Terrorism using nuclear, biological or chemical weapons. NTI envisions a Global Partnership that includes every nation that has something to safeguard or that can make a contribution to safeguarding materials or know-how elsewhere.

This effort has included convening leading experts (including NTI Board members Sam Nunn, U.S. Senator Richard G. Lugar and Dr. William J. Perry, as well as Ashton B. Carter of Harvard University and Dr. David Hamburg of Cornell University) to shape the concept; briefing the results at the highest levels of the U.S. and Russian governments; advancing the concept to opinion leaders and the government; and convening a conference in Moscow on the heels of the Bush-Putin summit in May 2002, to bring the issue to the attention and focus of high-level policymakers and policy experts in the United States and Russia.

In June 2002, the members of the Group of Eight industrialized nations took an important step in this direction by committing $20 billion over ten years to a Global Partnership Against the Spread of Weapons and Materials of Mass Destruction. We must find ways to expand this notion and create a partnership that includes all nations around the world.

The wherewithal for nuclear terrorism exists in scores of nations and in hundreds of individual buildings. While Russia's stocks of potentially vulnerable nuclear weapons material are the largest, sleeper cells of nuclear bomb-making potential exist throughout the world as a result of nuclear weapons programs, as a byproduct of nuclear power projects and in research reactors.

The Global Partnership must move quickly to **improve the physical security and protection of all nuclear weapons and materials**. Terrorists seeking the raw material of terrorism won't necessarily look where there is the most material; they will look where that material is the most vulnerable. Our goal must be to see that all nations work together to protect us all from this threat.

The ingredients of biological terrorism are also frighteningly available, since they are widespread and necessary parts of industrial and scientific research. There is no worldwide concerted, organized or efficient effort to safeguard them from misuse, to detect a biological attack in time for treatments to work, or to **research and deploy better protections and treatments against biological threats**.

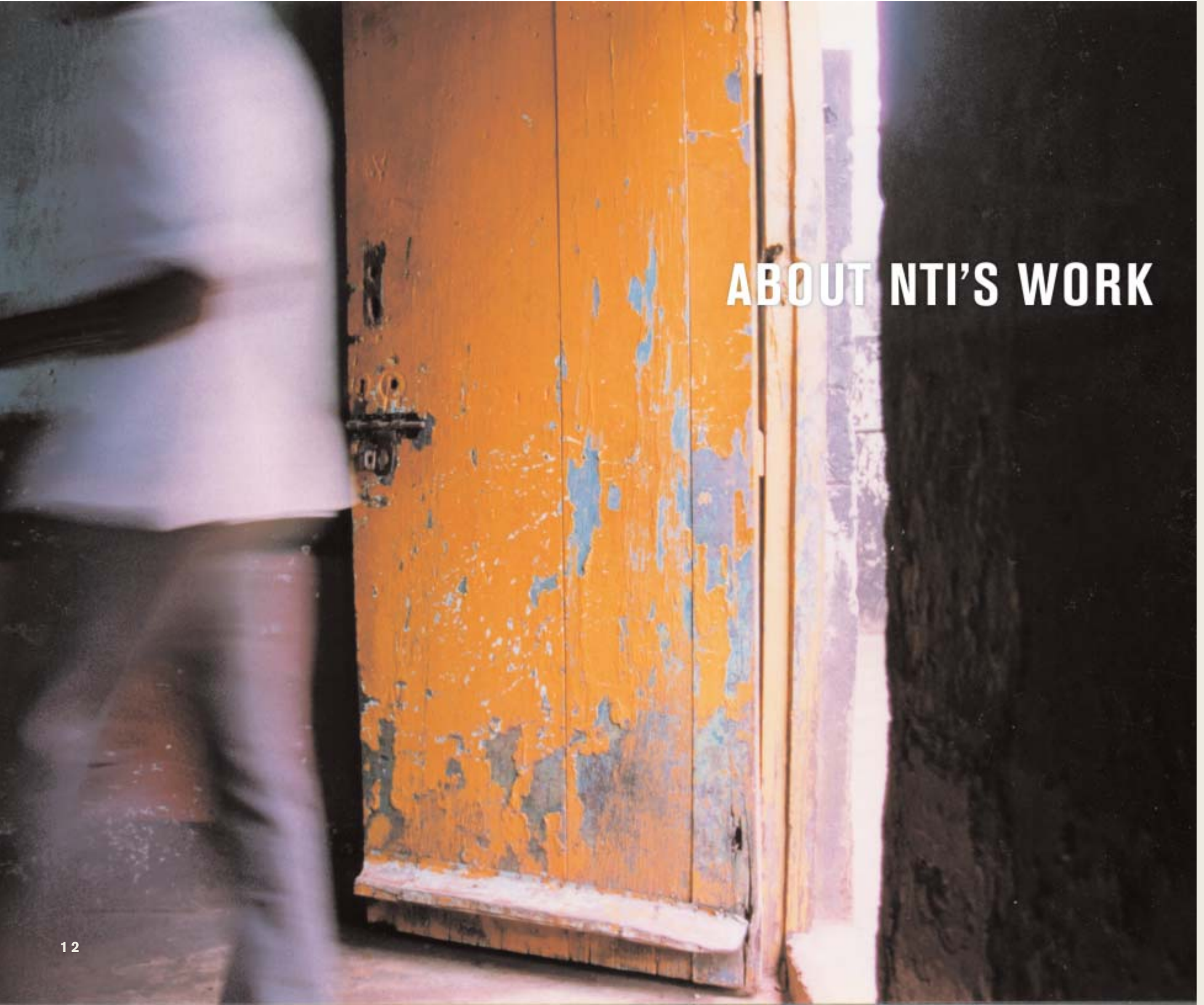
[LEFT TO RIGHT] **Bush-Putin Summit, November 2001**

NTI Conference in Moscow, May 2002

G8 opening session at Kananaskis, June 2002

To deny terrorists access to dangerous biological materials without hindering important medical research, the Global Partnership would **establish standards for safeguarding biological materials** in laboratories and medical practice. It would devise approaches for limiting the spread of biological weapons know-how and developing effective measures to prevent bioterrorism and minimize the effects of any potential attack. It would direct **more resources and attention to global infectious disease surveillance and prevention** – improving worldwide efforts in early detection and reporting of disease outbreaks and findings, and bringing forth an effective global response. Global public health systems must be strengthened and new treatments and vaccines developed.

The United States and Russia have over 90% of existing global chemical weapons stockpiles. Both nations have agreed to destroy these weapons and materials. Progress has been delayed by disputes over destruction technologies, lack of funding for destruction in Russia and bureaucratic obstacles. Security at many sites in Russia is dangerously weak. Furthermore, chemical weapons in the United States and Russia have exceeded their intended shelf-life and are vulnerable to leaking dangerous chemicals. **These chemical weapons and materials must be secured and destroyed as quickly as possible.**



ABOUT NTI'S WORK

NTI is focused on closing the gap between the global threats from nuclear, biological and chemical weapons and the global response to those threats, with a common ground agenda that brings together people with different ideological views to address the most immediate threats.

We take three approaches to our mission: using our voice to raise awareness and advocate solutions; undertaking direct action projects that demonstrate new ways to reduce threats; and fostering new thinking about these problems.

Since only governments have the financial resources and legal authority to carry out most threat reduction work, we know that what NTI can do to reduce these threats directly isn't enough – most important is what we can persuade others to do.

In our projects and activities, we focus on leverage. By combining our voice with direct action projects that show the way, we strive to encourage and convince governments and private organizations to invest additional resources or take additional actions that increase global security.

Our projects are focused on addressing significant high-risk situations involving weapons of mass destruction and weapons materials and finding opportunities to generate additional funding and inspire greater action for threat reduction. Current projects range from facilitating the elimination of nuclear weapons-grade highly enriched uranium at nuclear power and research reactors in Kazakhstan, to supporting Russian chemical weapons destruction, to engaging biotechnology and pharmaceutical industry leaders in the development of best practices and clear standards to reduce the potential for harmful application of biotechnology and reduce biological threats.

FUNDING PHILOSOPHY

The majority of NTI's awards support operational activities that NTI has a strong hand in developing. While NTI does not have a formal award-making cycle, we will consider unsolicited projects that:

- Address significant high-risk situations;
- Generate additional funding and leverage action for threat reduction; or otherwise
- Promote the core objectives of NTI.

All of NTI's activities are conducted with full transparency with the U.S. and other governments. As a general rule, we will not undertake activities that are inherently the responsibility of government, with the exception of educational efforts or demonstration projects designed to "show the way."

Our projects are focused on addressing significant high-risk situations involving weapons of mass destruction and weapons materials and finding opportunities to generate additional funding and inspire greater action for threat reduction.

COMMUNICATIONS AND EDUCATION PROGRAM

The Nuclear Threat Initiative was established in response to two central facts:

- Nuclear, biological and chemical weapons represent the world's single greatest threat.
- There is an increasingly dangerous gap between the global threat and the global response.

NTI seeks to help close that gap by taking direct action to reduce the threats and by encouraging others to take action to reduce the threats. It's this second mission – to be a catalyst for action – that is at the heart of NTI's communications and education program.

The focus of NTI's outreach and public education work is to:

- Increase the quality and accessibility of information about the threats from nuclear, biological and chemical weapons;
- Promote dialogue and common ground solutions to reduce imminent global dangers;
- Support new thinking and the development of new expertise to reduce the risk of use and prevent the spread of nuclear, biological and chemical weapons; and
- Take the debate on these issues beyond the small group of policymakers and experts who work on them into the mainstream public policy debate.

Increasing the quality and accessibility of information

NTI has commissioned two projects to track budgets and analyze the effectiveness of U.S. government programs to secure nuclear weapons and materials and to address the biological threats. The goal is to provide the public and policymakers with information about what is being done, to identify gaps and to determine what ought to be done to address these concerns.

WWW.NTI.ORG

To support greater public awareness of the gap between the threats and the global response, NTI has developed a website with a range of resources to give people access to the facts about the threats from nuclear, biological and chemical weapons, terrorism and related issues. Through our work with National Journal Group, the Center for Nonproliferation Studies at the Monterey Institute and Harvard's Managing the Atom Project, NTI's website offers daily news and in-depth resources to support a more informed and engaged public. Information resources are layered so you can learn a little or a lot about these issues.

Highlights of www.nti.org include:

- ***Global Security Newswire***, a free daily news service covering global developments related to nuclear, biological and chemical weapons issues. In addition to offering a comprehensive survey of the day's news from around the world, *Global Security Newswire* provides original coverage, including in-depth interviews and special reports. www.nti.org/gsn
- **Issue Briefs** that offer a short introduction and in-depth analysis on a wide range of international security issues, including topics such as "Iraq Dusty Agents and the Iraqi Chemical Weapons Program" and "Assessing the Threat of Mass-Casualty Bioterrorism." www.nti.org/issuebriefs

NTI's website offers daily news and in-depth resources to support a more informed and engaged public.

"We want to arm people with the facts so that these issues can be debated and understood far beyond the small circle of policy-makers and experts who work on them."
–Sam Nunn

- **Country Overviews and Profiles** with descriptions of the nuclear, biological and chemical weapons and missile programs of over 20 countries. www.nti.org/countries

- **Controlling Nuclear Warheads and Materials** that offers overviews of the global threat posed by inadequately managed nuclear weapons and materials; what is being done now to address that threat; and what should be done to prevent nuclear terrorism from ever occurring. It includes budgetary and legislative summaries and technical background; descriptions of the global threats; and detailed information on cooperative efforts underway across the entire spectrum of controlling nuclear warheads and materials. This section features an interactive budget database with complete budgets for each threat reduction program from 1992 to the present. www.nti.org/cnwm

- **Nonproliferation Databases** with the world's most comprehensive open-source information with current and archived material from various sources including trade journals, government and defense publications, periodicals and electronic news sources, academic journals, U.S. congressional testimony, conference proceedings, books, United Nations and International Atomic Energy Agency documents, correspondence from international advisors, unpublished papers and Internet sources. www.nti.org/db

- **Publications and source documents** published by both nongovernmental organizations and government bodies with full-text copies of, or links to, agreements, research papers and journal articles, congressional testimony, conference proceedings and white papers. www.nti.org/docs

- **WMD411**, an information resource on the threats from nuclear, biological and chemical weapons that explores a range of policy options to reduce these weapons threats, with a chronology of key events and a glossary explaining key terms. www.nti.org/wmd411

- **A Teacher's Toolkit**, designed for educators, includes sample syllabi and links to an educational web resources guide, a glossary of nonproliferation terms, and self-guided tutorials on key issues. www.nti.org/tt

- **General information about NTI available in both Russian and English** – including biographies of NTI Board Members and staff, NTI's mission and programs fact sheet, and a primer on the threats from weapons of mass destruction. www.nti.org/aboutnti

The website is updated daily with new information and resources, so bookmark the site at www.nti.org.

PROJECTS APPROVED OR ONGOING IN FISCAL YEAR 2002

Tracking U.S.-Russian Cooperative Nuclear Security

To track the progress and budgets of U.S.- Russian cooperative nuclear security programs with an annual report and website and make recommendations for accelerating the pace and effectiveness of this threat reduction work.

Project on Managing the Atom, Belfer Center for Science and International Affairs
John F. Kennedy School of Government, Harvard University
Cambridge, MA, USA
Up to $439,170

Tracking U.S. Government Efforts to Address Biological Threats

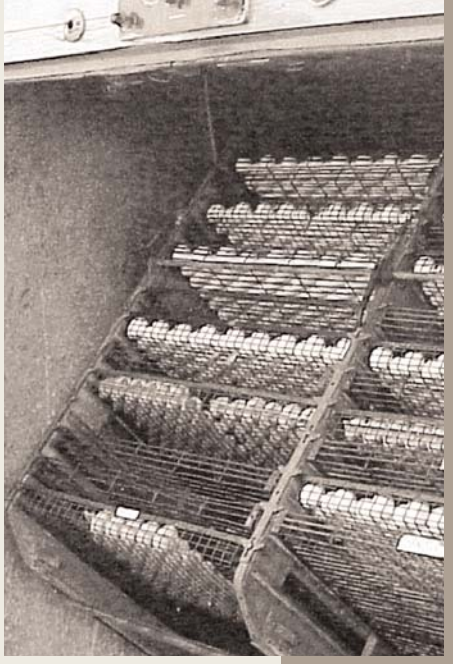
To analyze U.S. government work to address biological weapons threats, funding levels and the impact of this work and make recommendations for accelerating the pace and effectiveness of these threat reduction efforts.

Chemical and Biological Arms Control Institute
Washington, D.C., USA
Up to $389,716

Reducing the Threats from Weapons of Mass Destruction: Building a Global Coalition Against Catastrophic Terrorism

To support a conference in Moscow in May 2002, on the heels of the Bush-Putin summit to build support among Russian and U.S. policymakers and policy experts for the creation of a Global Partnership Against Catastrophic Terrorism.

NTI (with other partners)
Moscow, Russia
$300,000



In-Depth Coverage of Nuclear, Biological and Chemical Weapons on National Public Radio

To support in-depth reporting on the threats from nuclear, biological and chemical weapons and related security issues.

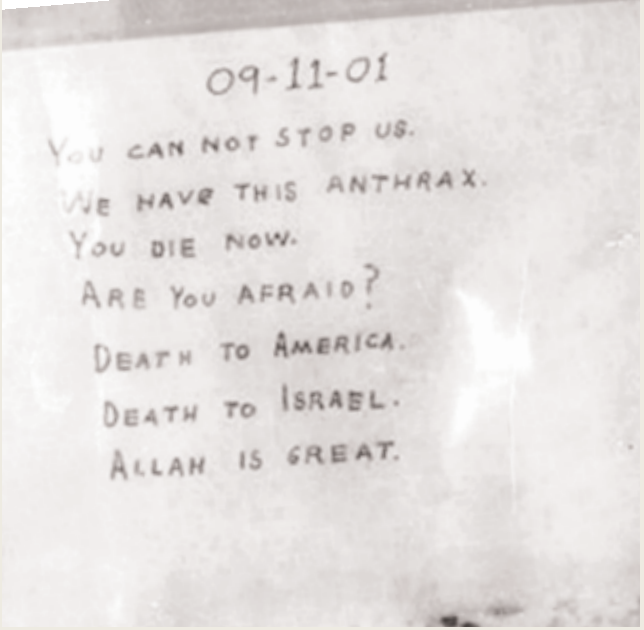
National Public Radio
Washington, D.C., USA
$100,000

[FROM TOP LEFT] **Nuclear materials shipping container**

Incubators at former bioweapons plant

Chemical munitions storage

"If we are to reduce the threats from nuclear, biological and chemical weapons, we need to raise public awareness and to inspire leadership and cooperation throughout the world."
–Ted Turner



[FROM TOP LEFT] **Victims of chemical attack in Halabja, Iraq**

Anthrax letter

Victim of Aum Shinrikyo subway attack, Tokyo, Japan

Nuclear bomb at Hiroshima

One-Stop Global Newsstand

To create a comprehensive, one-stop global newsstand – available exclusively on the NTI website – that provides original reporting and a comprehensive snapshot of the day's global news on nuclear, biological and chemical weapons, terrorism and missile issues.

National Journal Group, Inc.
Washington, D.C., USA
$2,515,043

On-line Research Center and Library

To develop for the NTI website, over a three-year period, a comprehensive research library with information, analysis and educational materials about the threats from nuclear, biological and chemical weapons. The library builds on the most comprehensive open-source nonproliferation databases in the world and brings together a range of expert opinion and analysis on these issues.

Monterey Institute of International Studies
Center for Nonproliferation Studies
Monterey, CA, USA
$2,400,000

Public Opinion Project

To conduct public opinion research on the threats from weapons of mass destruction.

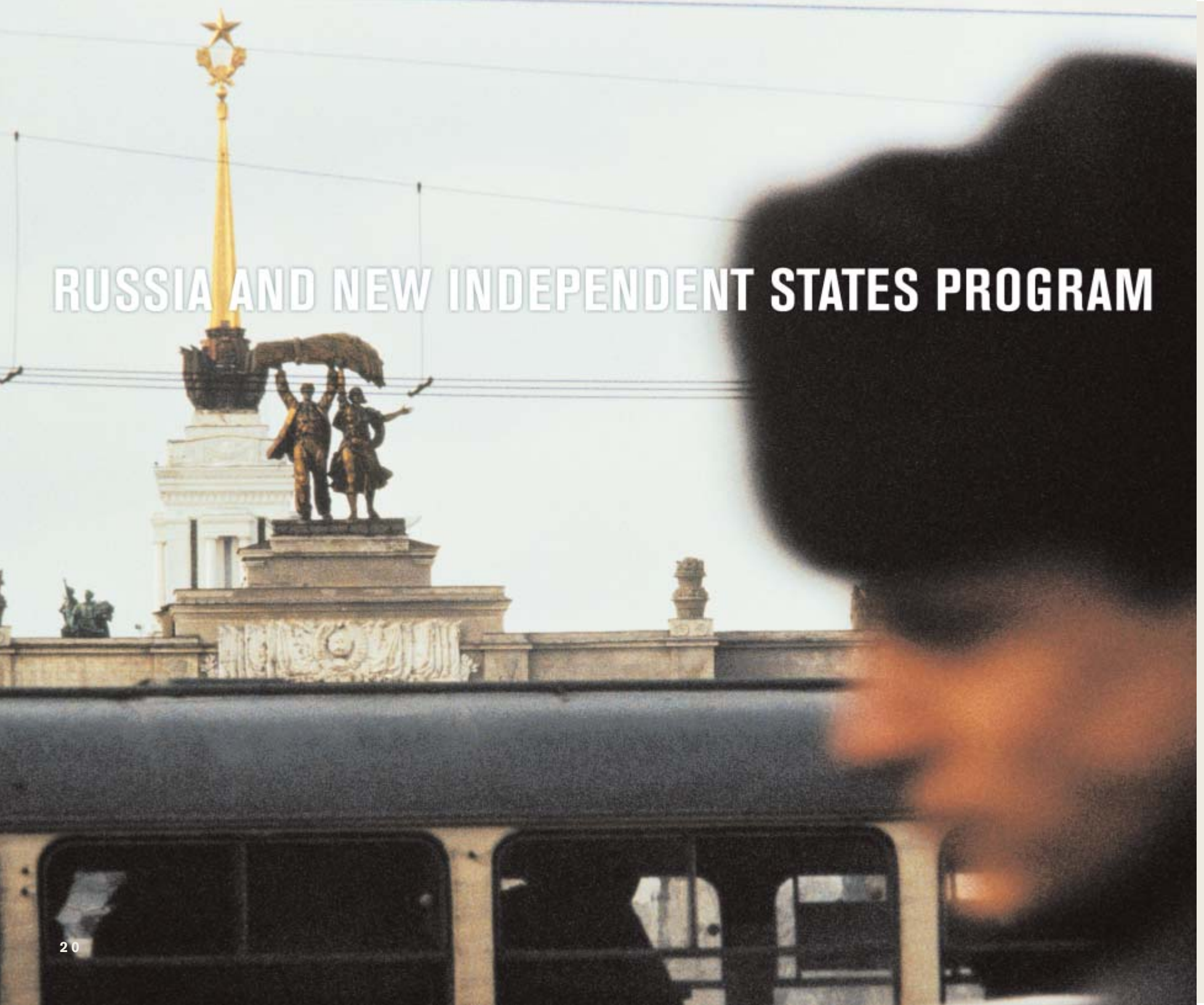
$350,000

EDUCATION AND TRAINING

Collaborative Education and Cooperative Security: A Joint Curriculum Project on Reducing the Nuclear Threat

To bring together Russian and American security experts to develop joint course materials that compare current nuclear security issues with the Cold War experience, examine risks associated with ongoing operational practices and explore new cooperative security arrangements to move from deterrence to reassurance.

School for International Security and World Politics at the Institute of U.S.A. and Canada Studies in Moscow (ISKRAN), Moscow, Russia; Center for International and Security Studies at Maryland (CISSM) at the School of Public Affairs, University of Maryland, College Park, MD, USA
Up to $712,597



RUSSIA AND NEW INDEPENDENT STATES PROGRAM

The Nature of the Threat

Ten years ago, the Soviet Union broke apart, leaving as its legacy approximately 30,000 nuclear warheads and enough highly enriched uranium and plutonium to make 60,000 more; 40,000 metric tons of chemical weapons; an elaborate bioweapons research apparatus, and tens of thousands of scientists who knew how to make weapons and missiles, but whose jobs were no longer assured.

The sudden collapse of the Soviet Union created a vulnerable supply of weapons, materials and know-how. The rise of global terrorists has created a new demand for these weapons and the willingness to use them. We may not be able to make terrorists less evil, but we must make them less powerful. We must keep them from acquiring nuclear weapons.

How difficult is it for terrorists to attack us with a nuclear weapon? That depends on how difficult we make it. If you analyze the terrorist path to a nuclear attack, it is clear that the most effective, least expensive way to prevent nuclear terrorism is to secure nuclear weapons and materials at the source. Acquiring weapons and materials is the hardest step for the terrorists to take, and the easiest step for us to stop. By contrast, every subsequent step in the process is easier for the terrorists to take, and harder for us to stop. Once they gain access to nuclear materials, they've completed the most difficult step – and our nightmare begins. That is why homeland security and the defense against catastrophic terrorism must begin with securing weapons and weapons materials in every country and every facility that has them. It is a challenge, but this work is finite and doable.

The largest stock of unsecured nuclear materials is in Russia and the new independent states. Over the last decade, sustained U.S. – Russian cooperative threat reduction efforts have made progress in securing some of the nuclear weapons and materials in Russia and the new independent states. Despite significant progress, we are only 37% of the way to completing our short-term goal of installing rapid security upgrades and 17% of the way to our longer-term goal of putting comprehensive security measures in place. That pace must be accelerated to protect us from this deadly threat. Much more needs to be done in terms of making this work a priority at the highest levels of governments, with the resources to support it.

And the threat extends well beyond Russia and the other former Soviet states. There are dozens of Soviet-era research reactors and other facilities across several countries using highly enriched uranium – the raw material of nuclear terrorism. Some of it is very poorly secured. There are at least two dozen such circumstances requiring immediate attention.

The United States and Russia have over 90% of existing global chemical weapons stockpiles. Both nations have agreed to destroy these weapons and materials. Progress has been delayed by disputes over destruction technologies, lack of funding for destruction in Russia and bureaucratic obstacles. Security at many sites in Russia is dangerously weak. Furthermore, chemical weapons in the United States and Russia have exceeded their intended shelf-life and are vulnerable to leaking dangerous chemicals.

The largest stock of unsecured nuclear materials is in Russia and the new independent states.

Acquiring weapons and materials is the hardest step for the terrorists to take, and the easiest step for us to stop.

Strategies for Threat Reduction

To prevent the spread of nuclear weapons, it is essential to dismantle weapons, secure material, eliminate infrastructure, and redirect know-how to peaceful pursuits. NTI's Russia/NIS programs are developed in partnership with host countries so that local approaches and perspectives are an inherent part of the projects, and they are focused on:

- Securing, consolidating and disposing of the essential elements of nuclear weapons: highly enriched uranium and weapon-grade plutonium. The relative ease of obtaining weapons designs and non-nuclear components makes control over nuclear materials our first line of defense for preventing terrorist groups or hostile forces from developing or obtaining nuclear weapons.
- Leveraging additional resources to address proliferation threats posed by nuclear, biological and chemical weapons and their associated materials, infrastructure and know-how.
- Improving U.S.-Russian cooperation on security goals.

Securing Vulnerable Nuclear Weapons Materials at Research Reactors

In 2002, NTI played a key role in *Project Vinca*, committing funds to catalyze this project that allowed the United States, Russia and Yugoslavia to remove two and a half nuclear bombs worth of vulnerable highly enriched uranium from a poorly secured research reactor near Belgrade, Yugoslavia. The bomb making material was removed from Belgrade in August 2002, and flown to Russia, where it is under tight security and will be converted into a non-weapons-useable form. Knowing of NTI's expressed concerns about vulnerable highly enriched uranium at research reactors and facilities, the U.S. Department of State approached NTI to provide a critical piece of funding for spent fuel management that the U.S. government was unable to pay for. U.S. Deputy Secretary of State Richard Armitage described NTI as "critical to and a major factor in bringing this important non-proliferation deal to closure."

Project Vinca showed that this work could be successfully done and is helping to spur attention to nuclear weapons materials at research reactors and facilities around the globe. U.S. government officials announced after *Project Vinca's* completion that it will undertake similar operations for as many as two dozen at-risk research reactors, and Russian Minister of Atomic Energy Alexander Rumyantsev stated that Russia is committed to increased cooperation with the U.S. to complete this work. The cooperation among the U.S. Department of State, the Russian Ministry of Atomic Energy and the government of Yugoslavia was critical to the project's success. *Project Vinca* vividly demonstrates how important it is to have the United States and Russia working as partners to address global threats.

Disposing of Vulnerable Bomb Materials in Kazakhstan

The Russia/NIS program is also working in Kazakhstan on a project to secure almost three metric tons of highly enriched uranium, which is enough material to make almost 30 nuclear weapons. The material was successfully transported from a vulnerable location on the Caspian Sea to Ust-Kamenogorsk, deep in the Kazakh steppe, for dilution to non-weapons-useable forms and use in nuclear power reactors.

Reemployment of Former Weapons Workers

In 2001, NTI launched a collaboration with the Russian Fund for Development of Conversion Companies (FDCC) to support reemployment of former weapons workers. The fund supports new and growing businesses in the closed nuclear city of Sarov, which is home to a closing nuclear weapons manufacturing plant and a shrinking nuclear weapons design institute. Primarily supported by local resources, the FDCC typically approves $2 million in loans each year, with an excellent payback rate. NTI's $1 million contribution builds on the FDCC's solid track record of investment, and supports a specific focus on job creation for workers from the two nuclear weapons facilities. This innovative approach complements a variety of other activities by the Russian and U.S. governments, and the private sector, to successfully manage the social and economic upheavals associated with the shrinkage of Russia's massive nuclear complex to a size commensurate with its current needs.

PROJECTS APPROVED OR ONGOING IN FISCAL YEAR 2002

Securing, Consolidating and Reducing Weapons-Usable Material

Removing Highly Enriched Uranium from Yugoslavia

To contribute to the removal of poorly secured highly enriched uranium from the Vinca Institute of Nuclear Sciences by supporting the decommissioning of its research reactor and management of remaining spent nuclear fuel.

International Atomic Energy Agency
Vienna, Austria
Up to $5,000,000

[FROM LEFT] **Highly enriched uranium (HEU) at Vinca, Yugoslavia**

HEU cargo inspection before take-off

HEU being removed from Yugoslavia

Accelerating Highly Enriched Uranium Blend-Down in Russia

To analyze options for accelerating the rate at which highly enriched uranium is transformed into safe forms for ultimate use in civilian power plants beyond the current rate of 30 metric tons per year to up to 60 metric tons per year.

Facilities and Institutes of Russian Ministry of Atomic Energy
Moscow, Russia
Up to $2,000,000

Consolidating and Blending Down Highly Enriched Uranium in Kazakhstan

To contribute to the consolidation and blend-down of all remaining highly enriched uranium in Kazakhstan, located at nuclear power and research reactors, so that it cannot be stolen or diverted to be used in nuclear weapons.

Institute of Nonproliferation, Almaty, Kazakhstan
Ulba Metallurgical Plant, Ust-Kamenogorsk, Kazakhstan
Up to $2,000,000

In Russia, at the Shchuchye site alone, nearly 2 million rounds of chemical nerve agents–enough to kill everyone on earth a dozen times over–sit in decaying, poorly guarded buildings.

Planning to Secure and Remove Highly Enriched Uranium from Soviet-Supplied Research Reactors

To evaluate security, safety, regulatory, transportation and cost issues associated with removing fresh and spent highly enriched uranium fuel from 24 poorly secured research reactors in 16 countries, and to develop a comprehensive plan to achieve it.

International Atomic Energy Agency
Vienna, Austria
Up to $260,000

Supporting Russian Chemical Weapons Destruction

To provide $1 million matched by an additional $2 million in new contributions toward high-priority infrastructure development for the Shchuchye Chemical Weapons Destruction Facility.

Russian Munitions Agency
Moscow, Russia
Up to $1,000,000

Removing Highly Enriched Uranium from Ukraine

To evaluate the feasibility, from an economic and a security perspective, of commercial purchase of 75 kilograms of excess highly enriched uranium, located at the Kharkiv Institute in Ukraine.

Edlow International Company
Washington, D.C., USA
$12,000

Leveraging Resources to Address WMD and Associated Materials, Infrastructure and Human Capital

Converting Russian Debt into Support for Nonproliferation Activities

To refine and promote options and mechanisms for transforming debt owed by Russia to Western governments and private lenders into resources for jointly defined nonproliferation projects in Russia, through bilateral or multilateral agreements to forgive a portion of Russian debt, the proceeds of which would be applied to specific projects to reduce nuclear, biological or chemical threats in Russia.

Battelle Memorial Institute, Pacific Northwest Division
Richland, WA, USA
$125,000 and $50,000

Strengthening the Global Partnership (formerly known as "European Cooperative Threat Reduction")

To develop a constituency among and beyond the Group of Eight leading industrial nations (G8) for threat reduction programs with Russia, focusing on their respective national security communities, through partnerships with nineteen security organizations from fifteen nations. This project promotes the effective and timely implementation of the G8 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction, agreed in June 2002, along with pledges totaling $20 billion in support to nonproliferation projects, initially in Russia, over the next decade.

Center for Strategic and International Studies
Washington, D.C., USA
$75,869 (concept development) and $3,208,508

Fund for Development of Conversion Companies

To contribute $1 million to an existing Russian loan fund, known as the Fund for Development of Conversion Companies, established to create permanent, commercially-viable civilian businesses in the closed nuclear city of Sarov.

Fund for Development of Conversion Companies
Sarov, Russia
Up to $1,000,000

Retraining Weapons Scientists in Nano- and Gigatechnologies

To support participation of weapons scientists and engineers in a training course on leading-edge technologies to enhance their employability by Western high-technology firms.

Motorola, Inc.
Moscow, Russia
$25,000

Improving U.S.– Russian Cooperation on Security Goals

Technical Nuclear Nonproliferation Workshop

To hold a technical workshop on nuclear nonproliferation in Moscow with the Russian Academy of Sciences to engage the Russian scientific community in strengthening U.S.-Russian cooperation on scientific and technical aspects of proliferation prevention and to help identify other opportunities for scientific and technical cooperation.

Russian Academy of Sciences
Moscow, Russia
$100,000

Cooperation on Counterterrorism

To initiate and expand a joint initiative between the U.S. National Academy of Sciences and the Russian Academy of Sciences with special focus on new efforts to collaborate on science and technology solutions for prevention, response and mitigation of catastrophic terrorism.

Russian Academy of Sciences, Moscow, Russia;
and National Academy of Sciences
Washington, D.C., USA
Up to $1,000,000

U.S.-Russian Nonproliferation Working Group

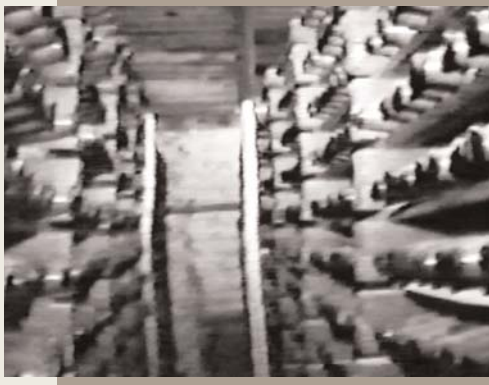
To establish U.S.-Russian working relationships, to reinvigorate the U.S.-Russian consensus on nonproliferation objectives and approaches, and to create and identify shared interests and cooperative strategies for preventing the spread of weapons of mass destruction.

Belfer Center for Science and International Affairs,
John F. Kennedy School of Government,
Harvard University
Cambridge, MA, USA
$45,000 (concept development) and $497,500

U.S.-Russian Dialogue on Strategic Issues

To develop practical, timely policy proposals for consideration by U.S. and Russian governments through a series of dialogues that brings officials from both countries together in neutral, informal settings to examine new and evolving issues related to arms control and nonproliferation.

Carnegie Endowment for International Peace
Washington, D.C., USA
Up to $492,424



Chemical munitions

Sen. Lugar demonstrates that chemical munitions fit in suitcase

Chemical munitions facility

BIOLOGICAL PROGRAM

The Nature of the Threat

Following the attacks of September 11th, and the lethal dissemination of anthrax through the mail, there has been deepening interest and concern regarding the threat of bioterrorism and its implications for national and international prevention, preparedness and response. Whether a relatively unsophisticated delivery system with a limited number of cases or a higher-tech, mass casualty attack, few today are complacent about the possible intentional use of a biological agent to cause extensive panic, disruption, disease and death.

The biological threat differs fundamentally from chemical or nuclear dangers. A biological event can unfold in a variety of ways. It might occur as a disease epidemic spread out in time and place – silent, ongoing and invisible – before authorities are even able to recognize that an attack has occurred. There may be few reliable numbers about how widespread the attack is and you may not know who initially released the pathogen, how much more they have, or where they are. Or, a biological attack can take form as a discrete and recognized attack, such as with the recent anthrax incidents where the biological agent even arrived with a note.

The potential destructive power of biological weapons is enormous, yet the opportunity for access to dangerous pathogens can be fairly routine and inexpensive. Moreover, the necessary knowledge and expertise to obtain or prepare bioweapons is increasingly available and the potential for exploitation is embedded in the very scientific and technological advances that also hold such promise for improving health and preventing disease.

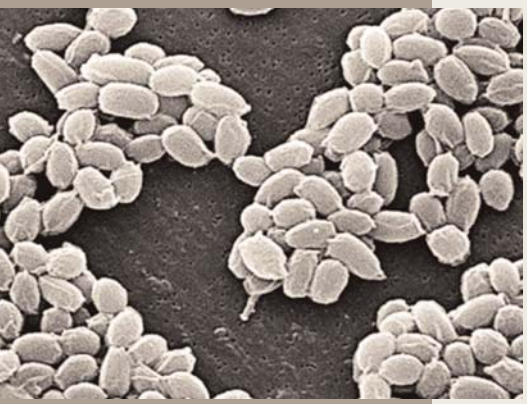
Strategies for Threat Reduction

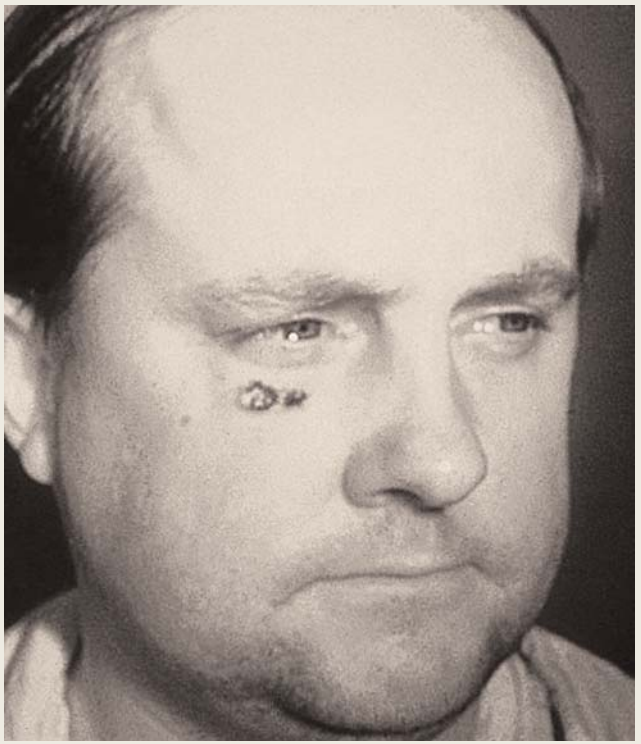
With close links to the realms of naturally occurring biological agents/disease and biomedical research, the bioweapons threat requires a different paradigm than one confined to the traditional national security agencies. The public health, medical and biotech communities must also be involved. Now, more than ever before, there is a crucial need for systematic and thoughtful examination of the nature of the bioweapons problem and corresponding opportunities for intervention.

A newfound appreciation of the magnitude of the threat, as well as the special challenges of bioterrorism, has led the U.S. government to target significant new resources to extend existing activities and develop important new policies and programs. This is essential, but only a first step. A great deal more must be done across the broad range of actions needed to address biological threats. And while much recent attention has focused on improved response to a biological attack, a comprehensive approach must take advantage of critical opportunities to address the full spectrum of prevention, preparedness, detection, response and mitigation of biological events.

NTI has commissioned a project with the Chemical and Biological Arms Control Institute to track and analyze U.S. government funding on bioterrorism related activities in an effort to better assess the question of critical needs, adequacy of funding and potential gaps with respect to the U.S. government response.

The bioweapons threat requires a different paradigm...the public health, medical and biotech communities must also be involved.





[TOP] **U.S. Chemical-Biological Incident Response Force**

[ABOVE] **Anthrax**

[RIGHT] **Cutaneous Anthrax**

NTI strives to bring new thinking and action to these challenges – as a funder, a convener and a connector in a diverse group of projects that are on the leading edge of critical endeavor in the biological threat realm.

NTI's work seeks to address the complex multi-faceted nature of the biological threat in general and the bioweapons threat in particular. This threat can emerge from many sources and involve human, plant and animal diseases. In order to meet the challenges posed by the biological threat, NTI has pursued activities in six key areas:

- Education, awareness and communication regarding the biological threat – *enhancing awareness of the nature and scope of the problem and identifying the kinds of approaches necessary to address them*.
- Reducing access to dangerous pathogens and encouraging standards for responsible research – *engaging the scientific community to improve security and safe handling, develop normative standards for research and transparency, prevent the development and proliferation of biological agents as weapons and participate in the creation of plans and safeguards to forestall their use*.
- Scientific cooperation and collaboration with the former Soviet Union – *redirecting the scientific skills and knowledge of former Soviet bioweaponeers, enhancing trust and transparency and producing beneficial pro-social scientific work in important public health areas of mutual concern.*
- Global disease surveillance, early detection and rapid response – *enabling rapid detection, investigation and early response to potential threats by strengthening worldwide surveillance capability and improving the sensitivity and connectivity of these efforts*.

- Partnerships among the public health, medical, agricultural, scientific, intelligence and law enforcement communities – *bringing these communities together in closer working relationships and improving data gathering, analysis, assessment of, and preparedness for, current and future threats*.

- Bioterrorism preparedness and consequence management – *addressing this urgent need with a multifaceted approach, more effectively engaging many disciplines, agencies and levels of government and the private sector, nationally and internationally*.

Science and Security

NTI has shaped and supported a number of innovative projects intended to strengthen biosecurity and reduce the threats surrounding the development, proliferation and use of biological agents as weapons. These activities offer new insight and understanding that can help shape current and future policy and action.

This work includes several related projects to engage the biomedical research community, including biotechnology and pharmaceutical industry leaders, to develop ideas to constrain the harmful use of biological research and development without unduly encumbering the pursuit of science for scholarly or beneficent ends. Another project seeks to obtain advice from specialists from the pharmaceutical and biotechnology industries about the development of strategies that might improve biological weapons monitoring and inspection protocols.

International scientific cooperation and collaboration with Russia and the new independent states represents another important component of these activities. Through a number of different efforts, NTI is providing new opportunities for former bioweapons scientists from those regions to enter the global scientific community, build new scientific enterprise, and, most importantly, to use their scientific skills and capabilities to undertake peaceful research that will improve the health and welfare of the public.

WHO-NTI GLOBAL EMERGENCY OUTBREAK RESPONSE FUND

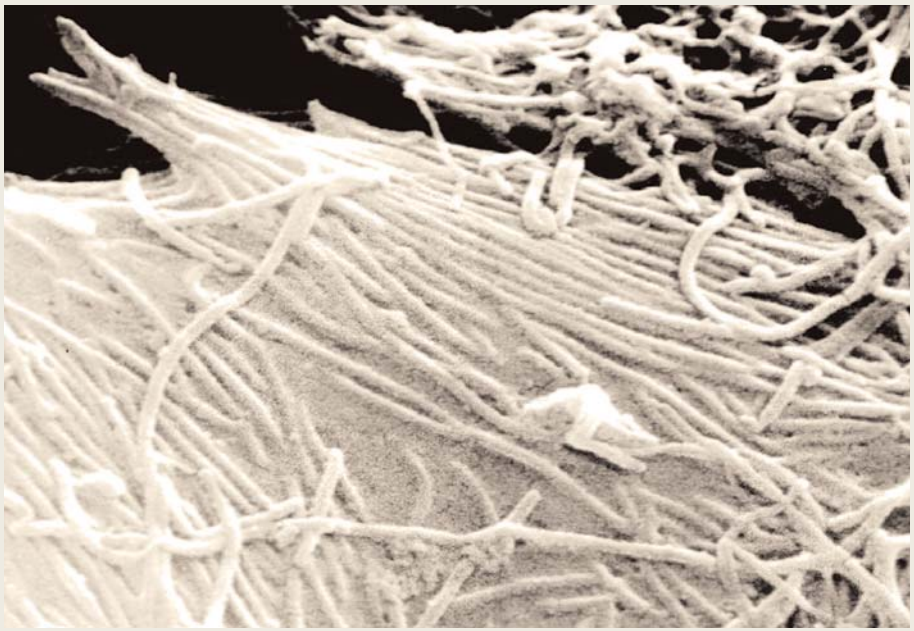
Since improved disease detection, surveillance and response are critical to addressing biological threats, NTI worked with the World Health Organization (WHO) to create the *WHO-NTI Global Emergency Outbreak Response Fund*, to ensure that teams can be on the ground within 24 hours of a detected infectious disease outbreak – wherever it occurs around the globe – whether naturally occurring or from the release of biological weapons.

- The WHO-NTI Fund assisted with the rapid mobilization of a response team to an outbreak of the highly-lethal Ebola virus in the Republic of Congo.

- The fund allowed for the swift procurement of vaccine and operational costs to respond to an outbreak of Yellow Fever in Senegal.

- The fund is supporting WHO response activities and coordination of international efforts to respond to Severe Acute Respiratory Syndrome, including mobilization of teams to Vietnam and China, establishment of technical working groups to address clinical issues and laboratory collaboration and field logistics.

- Since the fund was set up with a one-time grant from NTI that is being replenished from other sources, it is leveraging additional funds for rapid response, including donations from the governments of Norway and Belgium, the Bill and Melinda Gates Foundation and ECHO, the humanitarian aid office of the European Commission.



[LEFT TO RIGHT] **Disinfecting Ebola victim's body in Zaire**

The ebola virus

Strengthening Global Disease Surveillance, Outbreak Recognition and Response

NTI is supporting activities that delve deeply into the complex issues around infectious disease surveillance, early recognition and response. Working with critical public health institutions, we seek to support and fortify international ability to investigate and respond to infectious disease outbreaks worldwide.

In concert with the World Health Organization (WHO), NTI has created an emergency outbreak response fund to ensure rapid deployment of teams on site following detection of an infectious disease outbreak – wherever it occurs around the globe – whether naturally occurring or from the release of biological weapons. Initial outbreak detection will be greatly enhanced through another collaboration with WHO.

By funding the development and integration of Russian, Spanish, Arabic, French and Chinese language software into the Global Public Health Information Network (GPHIN), NTI will greatly strengthen and extend the computer-based data collection and analysis capabilities of this important system for gathering and assessing reports of potential public health significance. GPHIN has already demonstrated tremendous value in the recognition of outbreaks that require further investigation and response.

Work with the Centers for Disease Control has led to the establishment of an international field epidemiology training program to enhance the public health workforce and lab capabilities needed for improved disease surveillance and response.

Building New Partnerships

NTI is playing a pivotal role in bringing together the historically disparate communities of intelligence, law enforcement, science, public health and agriculture – bridging the gaps between these and others that must be fully engaged as partners. NTI has helped to extend leadership and action in the important area of agricultural terrorism, as well as the enhancement of food system biosecurity. We have brought private-sector leadership to the broader issues of bioterrorism preparedness and consequence management, both in the U.S. and transnationally.

NTI has made the most of opportunities to collaborate with other foundations and not-for-profit organizations, reinforcing support for critical programs and working to ensure that resources are maximally leveraged.

PROJECTS APPROVED OR ONGOING IN FISCAL YEAR 2002

Increasing Education, Awareness and Communication

AAAS-NTI Fellowships in Global Security

To support biomedical/public health experts to work on national security issues in U.S. government through one-year fellowship programs.

American Association for the Advancement of Science
Washington, D.C., USA
Up to $1,261,763

World Medical Association Bioterrorism Meeting

To support the annual meeting of the World Medical Association in 2002, focusing on the role of medical professionals in addressing the threat of biological weapons.

World Medical Association, Inc.
Chicago, IL, USA
Up to $160,000

Engaging the Scientific Community to Reduce Access to Dangerous Pathogens and Establish Normative Standards

Biological Weapons Monitoring and Inspection Strategy Development

To facilitate the input of specialists from the U.S. pharmaceutical and biotechnology industries to the development of strategies that might be applicable to U.S. biological weapons nonproliferation policies (particularly those concerning the Biological and Toxins Weapons Convention).

The Henry L. Stimson Center
Washington, D.C., USA
Up to $310,720

Man with virulent smallpox

The smallpox virus

Inoculating against smallpox

Establishment of a Bioindustry Standards Organization

To engage biotechnology industry leaders in the development of normative standards to reduce potential proliferation of dangerous pathogens, techniques and knowledge, and in the possible establishment of a new bioindustry organization for monitoring these standards.

International Institute for Strategic Studies, London, England; and the Chemical and Biological Arms Control Institute Washington, D.C., USA

Up to $650,291

Bioscience Community Self-Governance

To explore strategies to constrain intentionally malevolent applications of biological research and development without unduly encumbering the pursuit of science for scholarly or beneficent ends.

The Johns Hopkins Center for Civilian Biodefense Strategies

Baltimore, MD, USA

Up to $1,750,000

Biotechnology Nonproliferation

To review and examine biotechnology oversight practices and institutional arrangements for the research community to guard against the destructive application of biotechnology.

National Academy of Sciences (in conjunction with the Sloan Foundation)

Washington, D.C., USA

Up to $420,970

International Scientific Cooperation and Collaboration with the Former Soviet Union (FSU)

Integrating Scientists into the International Research Community

To fund twenty scientists from the former Soviet bioweapons program to attend a variety of highly respected research conferences that bring together top scientists to present and discuss cutting-edge scientific research and ideas, supporting further integration of FSU scientists into the international research community.

Gordon Research Conferences

West Kingston, RI, USA

Up to $80,000

Hepatitis Vaccine Manufacturing Feasibility Study

To determine the feasibility of commercially manufacturing Hepatitis A, Hepatitis B, and Hepatitis A/B vaccines at a new vaccine production facility at VECTOR in Novosibirsk, Russia, involving Russian professionals previously engaged in biological weapons work. The project includes the preparation of a preliminary business plan designed to attract commercial investors for building a new vaccine production facility at VECTOR.

State Research Center of Virology and Biotechnology (VECTOR), Novosibirsk, Russia, and the High Technology Foundation/Gorbachev Project, Moscow, Russia

$250,000

Pokrov Biologics Plant

Leveraging the Peaceful Conversion of Former Biowarfare Institutes

To solicit the participation of Western pharmaceutical companies in research collaboration with former Soviet bioweaponeers, enhancing the understanding necessary to underpin governmental support of 'brain-drain' prevention programs.

The Henry L. Stimson Center
Washington, D.C., USA
Up to $762,965

Brucellosis Vaccine Research

To develop new vaccine, employing former Soviet bioweapons scientists and contributing to the management of this disease that threatens domestic and wild animal populations in the U.S. and throughout the world.

All-Russian Research Veterinarian Institute in Kazan, Russia
(in conjunction with U.S. Department of Defense)
$550,000

Anti-Plague System Assessment

To examine the anti-plague system of the FSU regarding biosecurity and proliferation of biological agents, and the conversion potential of the system for broader public health and bioterrorism surveillance, with particular emphasis on institutes in Uzbekistan, Kazakhstan and Georgia, serving as proof of concept for institute-level analyses, and demonstrating the utility of this approach for future nonproliferation and conversion efforts elsewhere.

Kazakh Institute for Research on Plague Control, Kazakhstan,
and Monterey Institute for International Studies
Monterey, CA, USA
Up to $750,000

Reducing the Likelihood of Leakage of Bioweapons-related Materials and Expertise

To present a five to ten year vision of a biological research and production environment in Russia that reduces the likelihood of the outflow of BW-related materials and expertise from Russian facilities to hostile states and terrorist groups.

National Academy of Sciences
Washington, D.C., USA
Up to $200,000

The potential destructive power of biological weapons is enormous, yet the opportunity for access to dangerous pathogens can be fairly routine and inexpensive.

Russian scientist uses skills for gene sequencing

Enhancing Global Infectious Disease Surveillance, Detection and Response

Global Emergency Outbreak Response Fund

To support rapid emergency response to infectious disease outbreaks. Fund to be replenished by WHO through solicitation of contributions from donor countries both during and following an outbreak.

The World Health Organization (WHO)
Geneva, Switzerland
$500,000

India Field Epidemiology Training

To develop a cadre of Indian field epidemiologists proficient in identifying, investigating and controlling infectious disease threats, including those caused by existing and potential agents of bioterrorism. The program will be established in Chennai, India, modeled after the Epidemic Intelligence Service of the U.S. Centers for Disease Control and Prevention, and will serve as an anchor for broader regional surveillance efforts and programs.

CDC Foundation
Atlanta, GA, USA
$350,000

Global Public Health Intelligence Network

To develop and integrate Russian, Spanish, Arabic, French and Chinese language translation software into the Global Public Health Intelligence Network, which gathers reports of public health significance from global electronic media and uses human review and computerized text mining to filter, organize and classify this information. It is the single most important mechanism for identifying events of potential international public health importance for the World Health Organization (WHO) and has triggered more than 50 percent of the outbreak investigations conducted by WHO.

Health Canada
Ottawa, Ontario, Canada
$350,000

Building New Partnerships Among the Public Health/Medical/Science and Intelligence/Law Enforcement Communities

Biological and Agricultural Anti-Terrorism Partnership

To establish a dialogue among public health, agriculture, intelligence and law enforcement professionals on how to meet biological and agricultural terrorist threats, providing a sorely needed forum for discussion among the leaders of four professions key to meeting these threats.

ANSER Institute for Homeland Security
Arlington, VA, USA
$500,000

Furthering Bioterrorism Preparedness and Consequence Management

Public Health Framework for Bioterrorism Preparedness

To bring representatives from the U.S. public health community together to discuss how to strengthen the capacity of the U.S. public health system to respond to bioterrorism, with particular attention to strengthening responses to infectious disease outbreaks.

Representatives from the Public Health and Bio Science Communities
Up to $38,500

Enhancing Food System Biosecurity

To facilitate national food system biosecurity leadership, plan for national food system information sharing and analysis for government and industry officials, offer food biosecurity training in order to strengthen the ability of the farm-to-table food system to prevent, detect, and respond to bioterrorist attacks.

University of Minnesota Center for Infectious Disease Research and Policy
Minneapolis, MN, USA
$500,000

Regional Bioterrorism Needs Assessment

To define the critical elements needed to prepare for and prevent bioterrorism and other biological threats to public health and safety, and those issues and problems that are most in need of additional governmental and private resources and expertise.

New England Collaborative for Public Health Preparedness
Boston, MA, USA
$25,000

Transatlantic Biodefense

To initiate a long-term international working group that will develop sustained collaborative effort between U.S. and European bioterrorism preparedness and response experts as part of the Johns Hopkins Transatlantic Synergies: Building Bridges for Biodefense project.

The Johns Hopkins Center for Civilian Biodefense Strategies
Baltimore, MD, USA
Up to $25,000

NTI is supporting activities concerning infectious disease surveillance, early recognition and response.

REGIONAL PROGRAM

The Nature of the Threat

While technologically advanced countries remain a potential source for weapons of mass destruction programs, the most acute and destabilizing threats from weapons of mass destruction in the 21st century are likely to arise in – and possibly spread from – the Middle East and Asia. In one or more of those regions:

- State-controlled weapons of mass destruction and missile programs are increasing in number and gaining momentum;
- Terrorist organizations are establishing their cells and seeking to procure the wherewithal for weapons that can inflict mass casualties;
- Illicit cargoes containing ingredients for weapons of mass destruction programs can enter ports and cross borders undetected;
- Small but dangerous inventories of weapons of mass destruction usable materials are stored in the absence of accountability and physical protection measures that meet international standards; and
- Long-standing disputes and non-conventional weapons aspirations combine to increase the likelihood that nuclear, biological and chemical weapons will be used.

On the **Korean Peninsula**, recent tensions continue to escalate. In October 2002, North Korea confirmed U.S. intelligence reports that it had a clandestine enriched uranium weapons program in violation of the Nuclear Nonproliferation Treaty. In December 2002, Pyongyang escalated nuclear tensions by a rapid series of actions which lifted the freeze on its plutonium-based nuclear weapons program, avowed its intention to withdraw from the Nuclear Nonproliferation Treaty (the first nation to do so in the thirty-four year history of the treaty) and expelled International Atomic Energy Agency (IAEA) inspectors who had been monitoring the freeze under the Agreed Framework of October 1994.

In **South Asia**, the risk of use of a nuclear weapon, either intentionally, or by accident, is high. In 1998, India and Pakistan tested nuclear weapons within weeks of each other. These two countries that have fought three wars continue to build nuclear arsenals that have serious implications on both regional and global scales. Neither country is believed to have advanced warning or safety systems.

One of the most volatile regions of the world, the **Middle East** is racked with disputes over religion, culture, land and water. With the proliferation of weapons of mass destruction in the region, these disputes have already brought about the use of chemical weapons, and there is a great deal of concern that weapons of mass destruction will be used again. There is also increasing evidence that states in the region, such as Iran, are seeking to develop nuclear weapons capabilities.

Strategies for Threat Reduction

Unlike threat reduction efforts in Russia and other states of the former Soviet Union (where a substantial track record of effective cooperation already exists), international experience – especially on the part of non-governmental institutions – in seeking to reduce tensions and avert weapons of mass destruction threats in the Middle East, South Asia and Northeast Asia is limited.

NTI's regional program focuses on promoting the expansion of the Global Partnership Against the

Long-standing disputes and non-conventional weapons aspirations combine to increase the likelihood that nuclear, biological and chemical weapons will be used.

The most acute and destabilizing threats from weapons of mass destruction in the 21st century are likely to arise in the Middle East and Asia.

Spread of Weapons and Materials of Mass Destruction announced at the June 2002 G8 Summit beyond the U.S., Russia and Europe and into the Middle East, South Asia and Northeast Asia. In addition, NTI is seeking to strengthen the international organizations whose programs and effectiveness are essential to nuclear, chemical and biological threat reduction efforts, such as the IAEA and the World Health Organization.

As NTI builds its programs in the regional area, it will also focus on developing confidence building measures, facilitating strategic dialogue and raising public awareness to reduce the threats from nuclear, biological and chemical weapons.

Securing Vulnerable Nuclear Materials and Strengthening the IAEA

To further the ability of states to secure vulnerable nuclear materials, NTI contributed $1.15 million to the International Atomic Energy Agency (IAEA) in Vienna, Austria to support its program for improving physical security of nuclear sites worldwide. NTI's initial investment was used as a challenge grant to leverage additional resources into the IAEA's Nuclear Security Fund. U.S. Secretary of Energy Spencer Abraham announced a matching contribution from the U.S. Department of Energy, and the NTI contribution has leveraged a total of $11 million in additional funding for the Agency's Nuclear Security Fund from governments around the world for a total of $12.15 million. The IAEA has also received a substantial amount of in-kind contributions from member states to support this work, such as experts to assist other states, assistance with hosting training courses and development of technical guidance.

NTI's funding also enabled the IAEA to hire several new nuclear security experts, as well as support funding for travel to nuclear sites around the world – effectively doubling the capability of the IAEA's physical security program. The funding also supported IAEA visits to member states to provide advice and review the progress in implementation of physical protection systems. In addition, the IAEA conducted multiple workshops and training programs on physical protection involving dozens of states.

Easing Tensions in South Asia

Participation by India and Pakistan in the Global Partnership would help secure their weapons and materials from potential terrorists, but reducing the threat of intentional (state) use of nuclear weapons must be addressed by other means. NTI is working to foster the development of risk reduction measures for both governments to consider through ongoing and future projects.

Confidence Building in the Middle East

NTI is working to promote cross border cooperation in responding to biological, chemical and nuclear accidents and attacks as a first step in building the channels for dialogue on weapons of mass destruction threats among the states of the Middle East.

PROJECTS APPROVED OR ONGOING IN FISCAL YEAR 2002

Strengthening International Organizations

Strengthen IAEA Programs to Secure Vulnerable Nuclear Material

To support the expansion of the International Atomic Energy Agency (IAEA) programs to secure vulnerable nuclear materials worldwide and to support IAEA's

ability to leverage additional financial contributions for this program. Since NTI's initial $1.15 million commitment to the IAEA, $11 million in additional commitments have been made by several nations to the IAEA's Nuclear Security Fund for a total of $12.15 million.
International Atomic Energy Agency
Vienna, Austria
$1,150,000

North East Asia

North Korea Track II Dialogue

To support continuing research on key issues of concern with North Korea: the North Korean missile program; conventional force reductions; and incentives to eliminate nuclear and missile infrastructure.
The Preventive Defense Project of Stanford and Harvard Universities
Cambridge, MA and Stanford, CA, USA
$50,000

South Asia

Nuclear Installation Security Project

To initiate U.S.-Indian cooperation on upgrading physical security for civilian nuclear facilities, with a workshop in 2003 with key Indian and American experts and officials, as well as the International Atomic Energy Agency.
Belfer Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University
Cambridge, MA, USA
$221,000

Reducing Nuclear Dangers in South Asia Project

To sponsor two international workshops with experts from India, Pakistan and the U.S. to examine pathways to nuclear escalation in South Asia and to develop measures to prevent those scenarios from occurring. The project will develop risk reduction measures that will be shared with leaders in India and Pakistan for their consideration for implementation.
The Henry L. Stimson Center
Washington, D.C., USA
$501,674

Middle East

Middle East Confidence Building Project

To foster cross-border cooperation in responding to nuclear, biological and chemical attacks or accidents by engaging prominent regional experts in national security, emergency management, civil defense and public health – both government officials and non-governmental specialists – from Egypt, Iran, Israel, Jordan, Kuwait, Lebanon, Morocco, Oman, the Palestinian Authority, Saudi Arabia and Turkey.
Search for Common Ground
Washington, D.C., USA
$555,000

International Workshops on Iraq's Residual Nuclear Weapons Capability and Nonproliferation

To enable Russian and Middle Eastern participants to attend the Nixon Center's workshops in London. The aim of the workshops is to examine the implications of regime change in Iraq on the future security interests and concerns of the country with a particular emphasis on understanding the incentives for, and preventing continuation of, Iraqi weapons of mass destruction programs.
The Nixon Center
Washington, D.C., USA
Up to $50,000

Vinalon acetate rectifiers in North Korea

Survivor of chemical attack in Halabja, Iraq

Highly enriched uranium (HEU)

Nuclear test in Pakistan

UNITED STATES PROGRAM

The Nature of the Threat

Today, the majority of U.S. and Russian strategic nuclear missiles deployed on land and at sea are ready to fire at a moment's notice – in essentially the same posture as two decades ago at the height of the Cold War. The doctrines and practices underlying these forces remain virtually the same as they were during the Cold War. Yet the relationship between the two countries, as well as the geopolitical context of that relationship, has changed fundamentally.

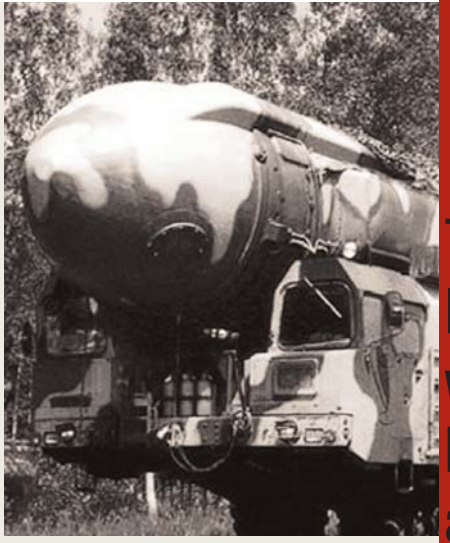
Russia's weakened economic condition and degraded warning systems, coupled with the large nuclear rapid strike potential of the United States, is moving Russia toward a force posture that is more reliant on "launch-on-warning" and more prone to accidents and miscalculations. Rather than strengthening our security, these large, high alert missile forces now pose a significant security risk to both nations of accidental or unauthorized nuclear launch.

This risk was tolerated during the Cold War because of the perceived deterrent benefit of maintaining thousands of nuclear weapons ready to fire on command. Over the last decade, however, the risk has grown while the security rationale for accepting this risk has all but disappeared. Today, these risks are no longer necessary, nor acceptable.

The Treaty of Moscow, recently agreed to by both the United States and Russia, requires both parties to reduce their deployed strategic nuclear weapons to a range of 1,700 - 2,200 weapons by the year 2012. It does not however, address the nuclear safety issues created by keeping a large number of missiles deployed on high alert. Even after the Treaty is fully imple-

Presidents Putin and Bush sign Moscow Treaty

U.S. Minuteman III



Russian SS-25

mented a decade from now, both the U.S. and Russia can keep their remaining weapons in a quick launch status, deployed much the same as they are today, and have been since the 1960's.

Strategies for Threat Reduction

The United States and Russia must find ways to move beyond the "high alert" status of our missile forces, and expand decision time in both countries to reduce toward zero the risk of a catastrophic mistake from too little information and too little time.

In 2001-2002, NTI commissioned a study by RAND to help generate new thinking about options for the operational force posture of U.S. and Russian forces that could give each President more nuclear decision-making time and help protect against accidental launch. The report confirms the increased threat of accidental or unauthorized nuclear launch and identifies alternatives for reducing these unnecessary risks and bringing nuclear postures more in line with the much-improved political relations between the two countries. The report develops a phased approach for improving nuclear safety and U.S.-Russian relations. The report, which will be released in 2003, will help provide a much-needed basis for discussion and debate about the essential changes required in both the U.S. and Russian nuclear forces to strengthen our collective security.

What is also clear, however, is that bold and determined Presidential leadership in both the United States and Russia is required to bring about any significant changes in our nuclear force structures. This means new thinking about how to speed the pace of change to our nuclear forces by both the U.S. and Russia without losing the transparency and verifiability that can provide stability and confidence to both sides as they move forward.

In the year ahead, NTI will seek to develop new options for U.S. force structure that increase leadership decision time and reduce the risks of accidental and unauthorized launch. We will also work to foster and inform a serious debate on reducing this unnecessary risk.

The U.S. and Russia must find ways to move beyond the "high-alert" status of our missile forces, and expand decision time in both countries to reduce toward zero the risk of a catastrophic mistake from too little information and too little time.

BOARD OF DIRECTORS

NTI's Board of Directors guides the overall philosophy and direction of the organization. The NTI Board Members share the common goal of taking action to reduce the gap between the global threats and the global response and bring broad vision and experience to this important mission.

Not Shown: U.S. Senator Pete V. Domenici, Ambassador Vladimir P. Lukin, Professor Amartya Sen, Rt. Hon. Professor Shirley Williams

R.E. (TED) TURNER

Ted Turner, co-chairman of the Nuclear Threat Initiative, is the founder of CNN, the world's first live, in-depth, around-the-clock news television network. Mr. Turner spent nearly 30 years building Turner Broadcasting System into one of the nation's largest media conglomerates. The company merged with Time Warner in 1996.

Mr. Turner began his career as an account executive for Turner Advertising Company, later to become Turner Broadcasting System. He bought his first television station in 1970 and later purchased Major League Baseball's Atlanta Braves. Mr. Turner pioneered the "superstation" concept, transmitting a station's signal to cable systems nationwide via satellite.

He founded the cable channels TNT, Cartoon Network and Turner Classic Movies, a 24-hour commercial-free network. He expanded Turner Broadcasting's news division with the creation of CNNRadio, CNN Airport Network and a 24-hour sports network.

A philanthropist and supporter of a number of humanitarian causes, Mr. Turner founded the United Nations Foundation and the Goodwill Games, an international, world-class, quadrennial, multi-sport competition. Mr. Turner is the recipient of numerous honorary degrees, industry awards and civic honors, including being named Time magazine's 1991 Man of the Year and Cable and Broadcasting's Man of the Century in 1999.

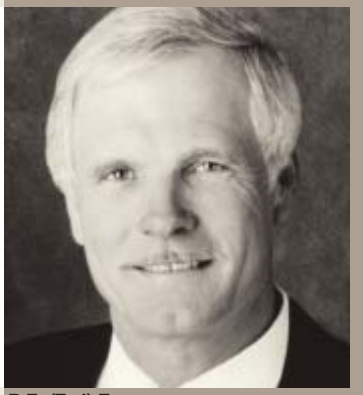
SAM NUNN

Sam Nunn is co-chairman and chief executive officer of the Nuclear Threat Initiative. He is also a senior partner in the law firm of King & Spalding. He served as a United States Senator from Georgia for 24 years (1972-1996).

Senator Nunn attended Georgia Tech, Emory University and Emory Law School, where he graduated with honors in 1962. After active duty service in the U.S. Coast Guard, he served six years in the U.S. Coast Guard Reserve. He first entered politics as a member of the Georgia House of Representatives in 1968.

During his tenure in the U.S. Senate, Senator Nunn served as chairman of the Senate Armed Services Committee and the Permanent Subcommittee on Investigations. He also served on the Intelligence and Small Business Committees. His legislative achievements include the landmark Department of Defense Reorganization Act, drafted with the late Senator Barry Goldwater, and the "Nunn-Lugar" Cooperative Threat Reduction Program, which provides assistance to Russia and the former Soviet republics for securing and destroying their excess nuclear, biological and chemical weapons.

In addition to his work with NTI, Senator Nunn has continued his service in the public policy arena as a distinguished professor in the Sam Nunn School of International Affairs at Georgia Tech and as chairman of the board of the Center for Strategic and International Studies in Washington, D.C.



R.E. (Ted) Turner

Sam Nunn

Charles B. Curtis

U.S. Senator Pete V. Domenici

CHARLES B. CURTIS

Charles B. Curtis is the president and chief operating officer of the Nuclear Threat Initiative. Previously, Mr. Curtis served as the executive vice president and chief operating officer of the United Nations Foundation (UNF).

Before joining UNF, Mr. Curtis was a partner in Hogan & Hartson, a Washington based law firm with fifteen domestic and international offices. Mr. Curtis served as Under Secretary and, later, Deputy Secretary of the U.S. Department of Energy from February 1994 to May 1997. He was chief operating officer of the Department and, among other duties, had direct programmatic responsibility for all of the Department's energy, science, technology and national security programs.

Mr. Curtis is a lawyer with over 15 years practice experience and more than 18 years in government service. He was a founding partner of the Washington law firm, Van Ness Feldman. Mr. Curtis served as Chairman of the Federal Energy Regulatory Commission from 1977 to 1981 and has held positions on the staff of the U.S. House of Representatives, the U.S. Treasury Department, and the Securities and Exchange Commission. He is a current member of the Council on Foreign Relations.

U.S. SENATOR PETE V. DOMENICI

U.S. Senator Pete V. Domenici (R-New Mexico) is a strong proponent for creating and sustaining programs focused on reducing the threats from weapons of mass destruction.

As chairman of the Senate Energy and Natural Resources Committee and the Senate Energy and Water Development Appropriations Subcommittee, he has promoted legislation to bolster U.S. efforts to prevent the proliferation of nuclear weapons and the components to build such weapons. He has worked in support of the evolving mission of the U.S. national laboratories and other high technology research facilities.

Senator Domenici supports greater U.S. energy independence, encouraging the development of the domestic oil and natural gas industries, while calling for a reduction in the country's reliance on foreign sources of energy. He has led national efforts to assure that nuclear energy, which now provides over one-fifth of our nation's electricity, remains a strong option for clean, reliable production. A 25-year veteran of the Senate Budget Committee, Senator Domenici is also recognized as one of the nation's foremost experts on the federal budget.

SUSAN EISENHOWER

Susan Eisenhower, president of The Eisenhower Institute, is best known for her work on U.S.-Russian relations and international security issues. Co-founder of the Center for Political and Strategic Studies, Ms. Eisenhower joined the institute as Chief Executive Officer when the two organizations combined programs.

In the spring of 2000, Ms. Eisenhower was appointed by the U.S. Secretary of Energy to a blue ribbon task force, the Baker-Cutler Commission, to evaluate U.S.-funded nonproliferation programs in Russia and since that time she has also served as an advisor to another DOE study. She also serves as an academic fellow of the International Peace and Security program of the Carnegie Corporation of New York. Ms. Eisenhower has received three honorary doctorates and a number of other awards for her work in U.S.-Russian relations.

Ms. Eisenhower has spent over fifteen years of her career on foreign policy issues, though she came to the field from the business community. A onetime consultant to IBM, American Express and Loral Space Systems, she was appointed in 1998 to the National Academy of Sciences' standing committee on international security and arms control.

Ms. Eisenhower is an author of two bestseller books: "Breaking Free" and "Mrs. Ike." She has edited three collected volumes on regional security issues, and written hundreds of op-eds and articles on foreign policy for major newspapers and other national publications. In addition to her membership on NTI's board, Ms. Eisenhower serves on a number of boards of corporations, private foundations and educational institutions.

AMBASSADOR ROLF EKEUS

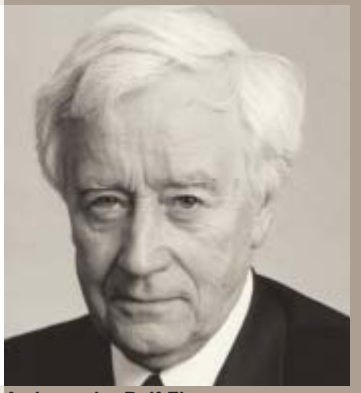
Ambassador Rolf Ekeus serves as chairman of the board of the Stockholm International Peace Research Institute. He has filled a number of diplomatic posts, including Swedish ambassador to the United States and head of the United Nations Special Commission on Iraq.

In the summer of 2001, Ambassador Ekeus was appointed high commissioner on national minorities by the Organization for Security and Cooperation in Europe (OSCE). In October 2000, the Swedish government appointed him as a special commissioner and asked him to carry out two delicate investigations. One was to analyze and assess Sweden's security policy during the Cold War. The second was to investigate the political and military handling of foreign submarine intrusions into Swedish territorial waters from 1980 until the present.

Ambassador Ekeus has spent the last two decades working on international nonproliferation issues. From 1991 to 1997 he served as executive chairman of the United Nations Special Commission on Iraq. In that post, he was responsible for work to eliminate the Iraqi infrastructure for nuclear and other weapons of mass destruction. He also served as ambassador and head of the Swedish delegation to the Conference on Security and Cooperation in Europe and as chairman on the Chemical Weapons Convention. He was a member of the Advisory Board on Disarmament of the Secretary General of the United Nations, the Canberra Commission on Nuclear Weapons and the Tokyo Forum on Disarmament.

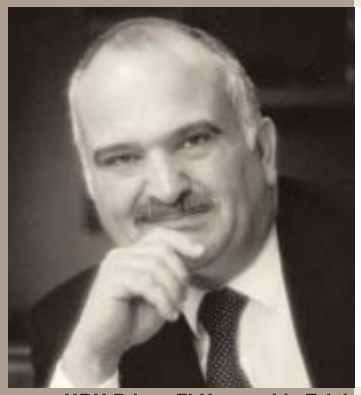
His work in this field was recognized with the Waterler Peace Price from the Carnegie Foundation in 1997.

Susan Eisenhower



Ambassador Rolf Ekeus

General Eugene E. Habiger



HRH Prince El Hassan bin Talal

GENERAL EUGENE E. HABIGER

General Eugene E. Habiger USAF (Ret.) has over 35 years of experience in national security and nuclear operations. He is currently the president and chief executive officer of the San Antonio Water System where he is responsible for general operations and strategic long-range planning.

Prior to joining the San Antonio Water System, General Habiger was the U.S. Department of Energy's Director of Security and Emergency Operations. In this role he oversaw all security functions, including safeguards and security policy, cyber-security, critical infrastructure protection, foreign visits and assignments and emergency operations functions.

General Habiger also served as Commander in Chief of the U.S. Strategic Command, and was responsible for all U.S. Air Force and U.S. Navy strategic nuclear forces. During his tenure, he established an unprecedented military-to-military relationship with his Russian counterpart.

A command pilot with more than 5,000 flying hours, primarily in bomber aircraft, General Habiger flew 150 combat missions during the Vietnam War. General Habiger also serves on the board of the Armed Services YMCA and the Fischer House Foundation of San Antonio.

HRH PRINCE EL HASSAN BIN TALAL

A pluralist, believing in consensus and respect for others, His Royal Highness Prince El Hassan bin Talal believes in societies in which all groups of people can live, work and function in freedom and with dignity. This goal has been the moving force behind his interest and involvement in humanitarian and interfaith issues, with particular emphasis on the human dimension of conflicts.

His Royal Highness has initiated, founded and is actively involved in a number of Jordanian and international institutes and committees. He co-chaired the Independent Commission on International Humanitarian Issues in 1983 and is currently Chairman of the Arab Thought Forum, President of the Club of Rome, Moderator of the World Conference for the World Intellectual Property Organization, Founding Member, Vice Chairman of the Foundation for Interreligious and Intercultural Research and Dialogue (Geneva) and Member of the Board of Trustees of the International Crisis Group.

His Royal Highness is the author of six books: "A Study on Jerusalem" (1979); "Palestinian Self-Determination" (1981); "Search for Peace" (1984) and "Christianity in the Arab World" (1994); "Continuity, Innovation and Change: Selected Essays" (2001) and joint author of "To Be a Muslim" in the Italian and French languages (2001).

DR. ANDREI KOKOSHIN

Dr. Andrei Kokoshin is a scientist, scholar and author and is a deputy of the Russian Duma. He is a former First Deputy Minister of Defense in Russia as well as a former member of Russia's Security Council.

From 1994 to 1997, Dr. Kokoshin served with former U.S. Defense Secretary Bill Perry as co-chairman of the Russian-American Committee on Defense Industry Conversion. He is world-renowned as an expert in Russian high-tech industries and often speaks for the technologically advanced sectors of the economy. Since 2000, he has served as vice chairman of the Committee on Industry, Construction and High Technologies of the Duma and is also the Chairman of Expert Councils for biotechnologies and information technologies. In 2003 he was elected to the post of chairman of the Committee for the Commonwealth of Independent States' Affairs and Relations with Compatriots of the Russian State Duma.

Dr. Kokoshin is a member of the Russian Academy of Natural Sciences and served as the acting vice president of that body from 1998-1999. In 2000, he was appointed chairman of the Russian National Council for the Development of Education.

He holds an engineering degree in radioelectronics and a doctorate in political science. Dr. Kokoshin is the author of 12 books on international security, political and military affairs and defense industry policy.

U.S. SENATOR RICHARD G. LUGAR

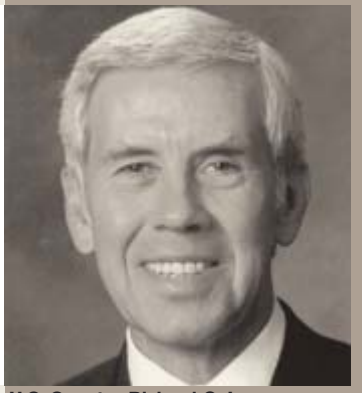
U.S. Senator Richard G. Lugar (R-Indiana) is chairman of the Senate Foreign Relations Committee and a well-known leader in national security issues. A proponent of free trade and economic growth, Senator Lugar was elected to the U.S. Senate in 1976 and in 2000 won his third consecutive victory by a two-thirds majority.

Senator Lugar has been instrumental in Senate ratification of treaties that reduce the world's use, production and stockpiling of nuclear, chemical and biological weapons. In 1991, he forged a bipartisan partnership with then-Senate Armed Services Chairman Sam Nunn to destroy weapons of mass destruction in the former Soviet Union. To date, the Nunn-Lugar program has deactivated more than 6,000 nuclear warheads that were once aimed at the United States.

As chairman of the Agriculture Committee, Senator Lugar built bipartisan support for 1996 federal farm program reforms, ending 1930s era federal production controls. He initiated a biofuels research program to help decrease U.S. dependency on foreign oil, and led initiatives to streamline the U.S. Department of Agriculture, reform the food stamp program and preserve the federal school lunch program.

Senator Lugar has received numerous awards including Guardian of Small Business, the Spirit of Enterprise, Watchdog of the Treasury, and 34 honorary doctorate degrees. He manages his family's 604-acre Marion County corn, soybean and tree farm. Before entering public life, he helped run the family's food machinery manufacturing business in Indianapolis.

Dr. Andrei Kokoshin



U.S. Senator Richard G. Lugar

Ambassador Vladimir P. Lukin

Dr. Jessica Tuchman Mathews

AMBASSADOR VLADIMIR P. LUKIN

Ambassador Vladimir P. Lukin is a former Russian Ambassador to the United States and serves as the deputy chairman of the Russian Duma as a member of the Yabloko, a democratic party, which he co-founded in 1993. He previously served as the chairman of the Duma's Foreign Affairs Committee.

Born in the Siberian city of Omsk, Ambassador Lukin is a long-time specialist in U.S.-Soviet/Russian strategic arms control issues. He is a graduate of the Moscow Pedagogical Institute and received his PhD in History from the Institute of the World Economy and International Relations of the Academy of Sciences of the United Soviet Socialist Republics (USSR). Ambassador Lukin was a member of the editorial board of the international journal "World Review" in Prague but was recalled to the USSR in 1968 for protesting the Soviet invasion of Czechoslovakia.

From 1969 to 1987 Ambassador Lukin was a Research Fellow at the Institute of U.S. and Canadian Studies of the Academy of Sciences of the USSR. He then served in the Foreign Ministry of the USSR as a Deputy Head of the Foreign Policy Analysis and Prognosis Department until 1990 when he was elected as a People's Deputy of the Supreme Soviet of the Russian Socialist Federal Soviet Republic (RSFSR). There he served as a chairman of the Supreme Soviet Committee on International Affairs and Foreign Economic Relations.

Ambassador Lukin is the author of books and numerous articles on various issues of international relations and Russian foreign policy. He speaks French, Spanish and English and is married with two sons.

DR. JESSICA TUCHMAN MATHEWS

Dr. Jessica Tuchman Mathews is president of the Carnegie Endowment for International Peace, an international research organization with offices in Washington and Moscow. Dr. Mathews, who holds a PhD in molecular biology, has held positions in the executive and legislative branches, in management and research in the nonprofit arena and in journalism.

She was a senior fellow at the Council on Foreign Relations from 1993 to 1997 and served as director of the Council's Washington program. During that time her Foreign Affairs article, "Power Shift," was chosen by the editors as one of the most influential in the journal's 75 years.

From 1982 to 1993, Dr. Mathews was founding vice president and director of Research of the World Resources Institute, an internationally known center for policy research on environmental and natural resource management issues.

She served on the editorial board of *The Washington Post* from 1980 to 1982, covering energy, environment, science, technology, health and arms control issues. Later, she became a weekly columnist for *The Washington Post*.

From 1977 to 1979, she was director of the Office of Global Issues of the National Security Council, covering nuclear proliferation, conventional arms sales policy, chemical and biological warfare, and human rights. In 1993, she returned to government as deputy to the Under Secretary of State for Global Affairs.

JUDGE HISASHI OWADA

Judge Hisashi Owada was appointed to the International Court of Justice in The Hague in early 2003. Before being appointed to this post, he served as president of the Japan Institute of International Affairs, advisor to the Minister for Foreign Affairs of Japan, senior advisor to the President of the World Bank and professor of law and organization at Waseda University Graduate School in Japan.

One of his country's most respected diplomats, Judge Owada previously served as Vice Minister for Foreign Affairs, Permanent Representative of Japan to the Organization for Economic Cooperation and Development in Paris and as Permanent Representative of Japan to the United Nations in New York.

In the academic field as a professor of international law and organization, Judge Owada has taught at Tokyo University since 1963, and at the law schools of Harvard University, Columbia University and New York University. He is a *membre* of the *Institut de Droit International.* Judge Owada is the author of numerous writings on international, legal and political affairs.

DR. WILLIAM J. PERRY

Dr. William J. Perry currently serves as the Michael and Barbara Berberian Professor at Stanford University, with a joint appointment in the School of Engineering and the Institute for International Studies. He is also a senior fellow at the Hoover Institute and co-director of the Preventive Defense Project, a research collaboration of Stanford and Harvard Universities.

Dr. Perry was the 19th Secretary of Defense for the United States, serving from February 1994 to January 1997. As Secretary of Defense, he was instrumental in implementing and strengthening the Nunn-Lugar Cooperative Threat Reduction Program. He also served as Deputy Secretary of Defense (1993 – 1994) and Under Deputy Secretary of Defense for Research and Engineering (1977-1981).

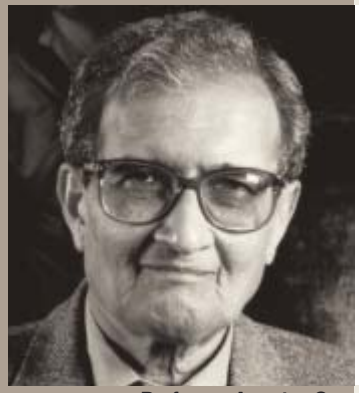
Dr. Perry has extensive business experience and currently serves on the board of several high-tech companies and is chairman of Global Technology Partners. He is a member of the National Academy of Engineering and a fellow of the American Academy of Arts and Sciences.

Dr. Perry has received numerous awards and decorations from U.S. and foreign governments, non-governmental organizations and the military, including the Presidential Medal of Freedom in 1997.

Judge Hisashi Owada

Dr. William J. Perry

Dr. Nafis Sadik



Professor Amartya Sen

DR. NAFIS SADIK

Dr. Nafis Sadik has consistently called attention to the importance of addressing the needs of women directly in making and carrying out development policy. From April 1987 to December 2000, Dr. Sadik served as Executive Director of the United Nations Population Fund (UNFPA), with the rank of Under Secretary General. When she was appointed to UNFPA as Executive Director in 1987, she became the first woman to head one of the United Nations' major voluntarily-funded programs. Immediately following her retirement from UNFPA in 2000, Dr. Sadik was appointed as Special Adviser to the United Nations Secretary-General, where she continues to work on gender, population and development issues.

Dr. Sadik came to the United Nations after a distinguished career in Pakistan, where she served as Director-General of the Central Family Planning Council. Since beginning her career as a physician in 1954, Dr. Sadik has taken on a number of increasingly challenging leadership roles in the family planning field. She first served as a civilian medical officer in charge of women's and children's wards in various Pakistani armed forces hospitals before directing hospitals and eventually heading the Planning and Training Division, the government agency charged with national family planning program.

Dr. Sadik was educated at Loreto College, Calcutta; received her doctor of medicine degree from Dow Medical College, Karachi; and completed further studies at Johns Hopkins University. She is the recipient of numerous international awards and honors for her contributions to improving the health of women and children of the global community.

PROFESSOR AMARTYA SEN

Professor Amartya Sen is a world-renowned economist, scholar, philosopher and author. He has done groundbreaking research in a number of areas, including the influence of economics on war and peace. Awarded the "Bharat Ratna," the highest honor given by the President of India, Dr. Sen's work in economics has also been recognized with a Nobel Prize.

Dr. Sen currently is Master of Trinity College at Cambridge University and Lamont University Professor Emeritus at Harvard University. Before joining Harvard in 1987, he was the Drummond Professor of Political Economy at Oxford University and a Fellow of All Souls College. Prior to that he was Professor of Economics at Delhi University and at the London School of Economics.

Dr. Sen has researched and written books in a number of wide-ranging fields, including economics, philosophy, decision theory and social choice theory. His work has ranged over welfare economics, theory of measurement, development economics, moral and political philosophy and the economics of peace and war. Harvard University Press will publish his next two-volume book, "Rationality, Freedom and Justice," next year. Dr. Sen's books have been translated into many languages, and include "Collective Choice and Social Welfare," "On Economic Inequality," "Poverty and Famines," "Choice, Welfare and Measurement," "Resources, Values and Development," "On Ethics and Economics," "The Standard of Living," "Inequality Reexamined" and "Development as Freedom."

Born in Santiniketan, India in 1933, Dr. Sen studied at Presidency College in Calcutta, India and at Trinity College, Cambridge. He is an Indian citizen.

RT. HON. PROFESSOR SHIRLEY WILLIAMS

Rt. Hon. Professor Shirley Williams is leader of the Liberal Democrats in the House of Lords and is heavily involved in the current debate over how to reform the upper house. She began her career as a journalist for the *Daily Mirror* and the *Financial Times* and in 1960 became Secretary of the Fabien Society. Earlier in her career, she was a member of Parliament in the House of Commons and served as a Labour cabinet minister of Education and Science.

Outside her career in government, Baroness Williams served as public service professor of elective politics from 1988-2000 at the John F. Kennedy School of Government at Harvard University. She lectured at numerous universities including Princeton University, University of California at Berkeley and Cambridge University. She is a member of the Council on Foreign Relations and serves on several other Boards including the Moscow School of Political Studies and the International Crisis Group.

Baroness Williams holds eleven honorary doctorates from British, Belgian and U.S. universities. She received a BA in philosophy, politics and economics from Somerville College, where she also received an MA, and attended Columbia University on a Fulbright Scholarship.

PROFESSOR FUJIA YANG

Professor Fujia Yang, academician of the Chinese Academy of Sciences, is an internationally renowned nuclear physicist who currently serves as the sixth Chancellor of the University of Nottingham, one of the United Kingdom's leading research universities, and the vice chairman of the Chinese Association for Science & Technology.

Born in Shanghai, Professor Yang graduated from Fudan University in 1958 with a degree in physics. He went from his initial appointment as a teaching assistant, to a Professorial Chair in Physics, to the Presidency of the University of Fudan from 1993-1999. He served as director of the Shanghai Institute of Nuclear Research of the Chinese Academy of Sciences from 1987-2001, was chairman of the Shanghai Science and Technology Association from 1992-1996, and was the founding president of the Association of University Presidents of China from 1997-1999.

Dr. Yang's work has taken him to positions around the globe, including visiting professorships at the Neils Bohr Institute in Copenhagen, Denmark; State University of New York at Stony Brook, USA; Rutgers University, New Jersey, USA; and Tokyo University, Japan.

Professor Yang served as a council member representing China on the Association of East Asia Research Universities, was a member of the International Association of University Presidents and of the Association of University Presidents of the Pacific Rim. He holds honorary degrees from Soka University, Tokyo, Japan; the State University of New York; the University of Hong Kong; the University of Nottingham; and the University of Connecticut.

Rt. Hon. Professor Shirley Williams

Professor Fujia Yang

Advisor to the Board of Directors

WARREN E. BUFFETT

Warren E. Buffett

Warren E. Buffett, who has been concerned about the threats from weapons of mass destruction for four decades, serves as an Advisor to NTI's Board of Directors.

Mr. Buffett is chairman of the board and chief executive officer of Berkshire Hathaway Inc., a holding company owning subsidiaries engaged in a number of diverse business activities and controlled by him since 1965. Berkshire Hathaway Inc.'s business activities include the underwriting of property and casualty insurance and a wide variety of manufacturing, retailing and service companies.

Mr. Buffett started out as an investment salesman and securities analyst, and early in his career, he created his own investment partnership. He rapidly emerged as an innovative businessman with simple but sound investment principles and is now recognized as the world's greatest investor.

Mr. Buffett also serves as a director of The Coca-Cola Company and The Washington Post Company, and is a life trustee of Grinnell College and The Urban Institute.

Known for his superior ability at math and off the cuff number crunching, Mr. Buffett attended the Woodrow Wilson High School in Washington D.C., the Wharton School of Business at University of Pennsylvania, and in 1950 received his B.S. from the University of Nebraska. He earned his M.S. in Economics from Columbia University in 1951.

Tatiana G. Nikolenko, Program Manager, Biological Programs in Russia, Moscow Office

Prior to joining NTI, Ms. Nikolenko worked as a senior project manager at the International Science and Technology Center (ISTC) Headquarters where she ran the Russian/NIS biological programs and served as coordinator for U.S. public health programs in Russia and the NIS. Ms. Nikolenko received her degree in Biomechanics from Moscow State University. She has authored three books.

Major Robert E. Schultz, USAF (Ret.), Program Officer, Russia/NIS Programs

Major Schultz joined NTI after a military career in strategic nuclear operations and strategic offensive arms threat reduction. He brings extensive program implementation experience from the U.S. Department of Defense's Cooperative Threat Reduction program where he was involved in disposition of Russian strategic missiles. He also served as a Minuteman ICBM Flight Commander and as an Operations Planner on the Strategic Air Command's Airborne Command Post "Looking Glass."

Jay Thompson, Research Associate, Russia/NIS Programs

Mr. Thompson came to NTI from the U.S. Department of State, where he served as a political officer in the Bureau of European Affairs. Mr. Thompson recently completed extensive language training in Russian and Slovak. Prior to working at the State Department, Mr. Thompson was a research assistant at the Senate Armed Services Committee.

Jennifer Wethey, Program Officer, Communications

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Sonya Vekstein, CPA, Chief Financial Officer

Before coming to NTI, Sonya Vekstein was chief financial officer at the International Republican Institute, a non-profit organization promoting democracy worldwide, where she worked to improve accounting processes and internal controls. Ms. Vekstein is a Certified Public Accountant and a member of the American Institute of Certified Public Accountants.

Robert E. Berls, Jr., PhD, Senior Advisor for Russia/NIS Programs, Director of the Moscow Office

Dr. Berls brings to NTI a background in Soviet/Russian energy and nuclear weapons issues. As a colonel in the U.S. Air Force, he served as air attaché at the U.S. Embassy in the 1980s. During the first Clinton Administration he was special assistant to the Secretary of Energy for Russia/NIS Programs. Most recently he was vice president for business development and government relations for a U.S. oil company.

Dmitry G. Borisov, PhD, Program Manager, Nuclear Programs in Russia, Moscow Office

Mr. Borisov joined NTI from ALFA-Bank, PLC where he was Deputy Chief of the Department of Nuclear Facilities Banking Projects. Previously, he worked as a Chief Expert and Acting Chief of U.S.-Russian Federation (R.F.) Affairs Division of the Department for International Relations of the R.F. Ministry of Atomic Energy and as Executive Director for Nuclear Liability and Industrial Safety for the East-European Insurance Company. Dr. Borisov holds a PhD in Plasma Physics Theory from the Kurchatov Institute and a Diploma in Physics from Moscow State University, Lomonosov.

Lisa K. Cutler, Director of Programs and Outreach, Communications Program

Prior to joining NTI, Ms. Cutler directed external communications for the National Nuclear Security Administration. She has also held senior communications positions at the U.S. Department of Energy and the Department of Labor and was press secretary to former U.S. Senators John Glenn and Harris Wofford.

Asha M. George, DrPH, MSPH, Senior Program Officer, Biological Programs

Prior to joining NTI, Dr. George was director of emergency preparedness and response at the Association of Public Health Laboratories, where she focused on biological and chemical terrorism issues and director of the National Coalition for Adult Immunization. She is a member of a number of counter and anti-terrorism groups, task forces and consortia. Dr. George was a military intelligence officer and paratrooper in the U.S. Army and served in Operations Desert Shield and Storm.

Catherine O'Brien Gwin, Director of Communications

Ms. Gwin comes to NTI from the law firm of King & Spalding, where she served as former Senator Sam Nunn's director of communications and public policy. She previously served as Senator Nunn's press secretary in the U.S. Senate and the spokesperson for the Senate Armed Services Committee.

Diane G. Hauslein, Director of Administrative Operations

Ms. Hauslein joined NTI following a 21-year career in the field of legal management - including finance, human resources, facilities/equipment management, technology and marketing. Most recently, Ms. Hauslein served as the Director of Administration for the Washington, D.C. office of the international law firm of Dillon, Hall & Lungershausen, LLC, which was co-managed by James Hall, former Chairman of the National Transportation Safety Board.

Tatiana G. Nikolenko, Program Manager, Biological Programs in Russia, Moscow Office

Prior to joining NTI, Ms. Nikolenko worked as a senior project manager at the International Science and Technology Center (ISTC) Headquarters where she ran the Russian/NIS biological programs and served as coordinator for U.S. public health programs in Russia and the NIS. Ms. Nikolenko received her degree in Biomechanics from Moscow State University. She has authored three books.

Major Robert E. Schultz, USAF (Ret.), Program Officer, Russia/NIS Programs

Major Schultz joined NTI after a military career in strategic nuclear operations and strategic offensive arms threat reduction. He brings extensive program implementation experience from the U.S. Department of Defense's Cooperative Threat Reduction program where he was involved in disposition of Russian strategic missiles. He also served as a Minuteman ICBM Flight Commander and as an Operations Planner on the Strategic Air Command's Airborne Command Post "Looking Glass."

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A small improvement in security can make a big difference.

Warren Buffett, an advisor to NTI's Board of Directors, notes that:

- "If the chance of a weapon of mass destruction being used in a given year is 10 percent and the same probability persists for 50 years… the chance of getting through the 50 year period without a disaster is .51 percent." [roughly one-half of one percent]


9-11-01 24H
5:45:13
We must act now.
5:53:41 09-11-01 24HR

We must act now.