

AARON A. SALZBERG, PHD



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PROFILE

Accomplished scientist/diplomat/manager with 20+ years in developing and leading innovative responses to some of the world's most complex and pressing scientific, foreign policy and development challenges. Recognized global expert on water policy, transboundary water, and the water-energy-food-climate nexus and a global leader in shaping the international community's response to water and sanitation challenges. Trusted interlocutor with exceptional diplomatic/political acumen who has successfully inspired change and institutional reform both domestically and internationally.

HIGHLIGHTS OF ACHIEVEMENTS

During my tenure as the Department of State's Special Coordinator for Water, U.S. Development Assistance for drinking water and sanitation increased more than 10-fold in countries of significant need. More than 10 million people received improved access to safe drinking water and sanitation during this period.

Global Leadership and Advocacy: Raised the priority of water and sanitation issues internationally and strengthened global efforts to address these challenges.

- Negotiated major international agreements that established global norms and practices, and promoted integrated development and management of water resources for economic growth including, the G8 Action Plan on Water, the 12th and 13th Sessions of the UN Commission on Sustainable Development, and the Declarations of the 2nd, 3rd, 4th, 5th, 6th and 7th World Water Forum; and the water and sanitation elements of the Johannesburg Plan of Implementation and the 2030 Agenda for Sustainable Development.
- Shaped the strategic vision of key organizations/initiatives on water and sanitation including the African Minister's Council on Water, the Global Water Partnership, the International Hydropower Association, Sanitation and Water for All, the Stockholm International Water Institute, the UN Secretary General's Advisory Board for Water and Sanitation, and the World Water Council.
- Provided policy guidance related to water and sanitation matters/issues to UN Agencies, International Financial Institutions, and regional and global inter-governmental processes including the African Union, ASEAN, APEC, G7, OAS, OECD, and OSCE. Promoted reforms within the UN system to strengthen its response capacity (e.g., UN Water).
- Chaired, moderated and participated in global discussions on water cooperation, local capital mobilization, and the water-energy-food nexus. (e.g., Co-chaired the Ministerial roundtable on Transboundary water, Peace and Security at the 7th World Water Forum).
- Delivered testimony to Senate/Congressional committees and briefed legislative staff to defend the Administrations' approach to water and sanitation issues, including hydropower.
- Engaged directly with developing countries to strengthen national and regional capacity to address critical water challenges and build the political will for cooperation on shared waters.

Partnership Development: Created partnerships that strengthened global efforts, leveraged U.S. support and mobilized resources.

- Led the creation and launch of the U.S. Water Partnership (USWP) - a U.S. based public/private partnership to mobilize U.S. knowledge, expertise and resources to improve global water security, particularly in developing countries. Launched by former Secretary of State Hilary Clinton, the USWP now includes more than 100 partners who have mobilized more than \$1 billion for water and sanitation activities world-wide. The Executive Committee of the USWP is co-chaired by former Secretary of State's Colin Powell and Madeline Albright.

- Launched the Global Alliance for Water Security which, for the first time, brought together major donor countries' senior officials from both the development and foreign affairs ministries to promote cooperative approaches to reducing tensions over shared waters in diplomatically sensitive regions. A form of this group continues to meet on the margins of World Water Week more than fifteen years later.
- Negotiated MOU's with key strategic partners (both government and non-government) to leverage their unique capacities to improve global water security.
- Created the Shared Waters Program, a multi-donor platform for facilitating cooperation in regions where water is, or may become, a source of conflict.
- Established "H2info" – a knowledge portal for sharing U.S.-based knowledge on water and sanitation with the developing world.

Management and Institutional Change: Built U.S. commitment and strengthened U.S. capacity to address global water and sanitation challenges.

- Led the development of the first U.S. government-wide Global Water Strategy (<https://www.state.gov/e/oes/rls/rpts/globalwaterstrategy/index.htm>).
- Lead advisor to five Secretaries of State on drinking water and sanitation, water resources management, and transboundary water issues. Provided policy advice to U.S. Agency heads and other senior officials across the U.S. government including the White House. Guidance to U.S. legislators led to the Senator Paul Simon Water for the Poor Act of 2005, which established water as a U.S. foreign policy / foreign assistance priority for the United States.
- Managed more than \$10 million in Economic Support Funds on project activities related to building political awareness, expanding access to safe drinking water and sanitation, supporting the development of country strategies and plans, addressing the water-food-energy-climate/environment nexus, and resolving conflicts over shared waters.
- Founded and grew the Water Division within the Department of State. Developed and mentored staff that have attained senior positions in government, academia, and intergovernmental organizations, including the World Bank.
- Successfully argued for institutional reforms within the U.S. Agency for International Development that led to the creation of USAID's Water Office and the development of the Agency's first Water and Development Strategy.

CAREER HISTORY

DIRECTOR, THE WATER INSTITUTE AT UNC

JUNE 1, 2019 TO PRESENT

University of North Carolina, the Gillings School of Public Health, Chapel Hill

The Water Institute at UNC is a platform for mobilizing the expertise, knowledge, and resources from across the University and beyond to strengthen global water security and address the world's most challenging water and sanitation problems. The institute focuses on developing the evidence to inform policy and practice.

Major responsibilities:

- Lead the development scientific and research programs related to drinking water and sanitation; environmental health; environmental peace and security; monitoring and evaluation; and water security and climate change.
- Strengthen academic programming and student facilities across the University on water and sanitation.
- Manage the UNC Water and Health Conference – the largest annual international conference on water and health.
- Represent the Institute, the Gillings School, and the University in outreach and fund-raising events.
- Engage within the United States and internationally to advance policies and programs that improve water security.
- Serve on the University of North Carolina's Sustainability Committee.

SPECIAL COORDINATOR FOR WATER AND CHIEF, WATER DIVISION **SEPTEMBER 2007 TO PRESENT**
(GS-0130-15, Supervisory Foreign Affairs Officer – since September 2012)
(GS-0130-15, Foreign Affairs Officer – since September 2007)
U.S. Department of State, Washington DC

Led the development and implementation of U.S. foreign policy on drinking water and sanitation, water resources management, and transboundary waters. First person to hold the title of “Special Coordinator for Water.” Major responsibilities:

- Directed the Department of State’s long-term planning and strategic goal setting on water and sanitation.
- Managed team responsible for providing policy guidance on all aspects of water and sanitation issues including water, peace and security; water and climate; hydropower; and the human right to water. Manage the preparation of U.S. policy positions for Ministerial-level international meetings and conferences. Draft position papers, negotiating instructions and communications to foreign governments; anticipate potential policy problems and their impacts; ensure recommendations achieve institutional goals and objectives; and appraise the political viability of options, alternatives and approaches for senior policy officials.
- Served as the primary point of contact for the United States with other governments and international partners on water and sanitation including UN Agencies, International Financial Institutions, national governments and regional intergovernmental organizations.
- Lead coordination on international water and sanitation issues across the United States government. Build U.S. government consensus for policies, programs and initiatives.
- Served as the lead negotiator in various multilateral fora on water and sanitation issues on behalf of the United States.
- Lead research on emerging issues that could impact overall goals and objectives.
- Make recommendations on significant program and policy issues affecting the State Department’s Bureau of Oceans and International Environmental and Scientific Affairs; determine which projects or programs should be initiated, curtailed or ended; and budget for the appropriate financial and staff resources to accomplish the projects.
- Manage staff. Set priorities based upon workload and abilities. Plan and assign work to be accomplished, provide advice and council, interview and select candidates for positions, make recommendations/selections on promotions, hear and resolve complaints from employees, identify developmental and training needs for employees, find ways to improve production or increase quality of work. Ensure reasonable equity among subordinates concerning performance standards, rating techniques and assessment of subordinates.

ADVISOR ON WATER **AUGUST 2001 TO SEPTEMBER 2007**
(GS-00130-14, Foreign Affairs Officer)
U.S. Department of State, Washington DC

Served as policy advisor on drinking water and sanitation, water resources management, and transboundary water issues. Researched and prepared U.S. policy positions; drafted position papers, negotiating instructions and communications to foreign governments. Supported the engagement of senior U.S. government officials in international events related to water.

- Developed a transboundary water program at the U.S. Department of State.
- Launched global initiatives to expand point of use systems for treating and safely storing water at the household level and demonstrate the use of water safety plans for guiding water investments.
- Negotiated a Memorandum of Understanding between the United States and Japan, signed at the World Summit on Sustainable Development, which led to co-investments in several countries.

PHYSICAL SCIENCES ADMIN OFFICER **SEPTEMBER 1998 TO AUGUST 2001**
(GS-001301-13 since August 1999)
(GS-001301-12 since September 1998)
U.S. Department of State, Washington DC

Served as an American Association for the Advancement of Science Diplomacy Fellow in the Bureau of Oceans and International Environmental and Scientific Affairs' Office of Policy Coordination and Initiatives. Coordinated the development and implementation of U.S. foreign policy on a broad range of science, environment and sustainable development issues.

- Developed a strategy for the United States engagement in negotiations on the Cartagena Protocol on Biosafety (drafted in 2000).
- Drafted plan to strengthen the scientific and technical capacity of the Department of State.
- Worked with team to develop the U.S. approach to the World Summit on Sustainable Development.
- Launched first water and conflict program at the U.S. Department of State.

ADDITIONAL EXPERIENCE

SPACECRAFT ANALYST / PROGRAM MANAGER **1986-1992**
Naval Center for Space and Technology, Washington DC

Designed and supervised test programs to ensure survivability of spacecraft and spacecraft hardware to launch and ascent environments.

- Developed stochastic model for predicting vibro-acoustic and pyrotechnic shock levels for spacecraft hardware.
- Provided design managed vibro-acoustic testing of multi-million dollar spacecraft hardware.
- Worked on major launch systems (including the Space Shuttle, Titan IV, and Delta) to assess launch environments.

MEDIATOR **1996-1998**
Harvard Law School Mediation Program, Cambridge MA

Co and solo mediated more than 40 land-lord/tenant, commercial, and interpersonal disputes in the Trial Court of East Suffolk County, Quincy MA. Supervised and trained mediation teams.

PRESIDENT **1995-1998**
Tutoring Plus, Cambridge MA

Led the development of non-profit dedicated to supporting the academic and social growth of children from low income families in Cambridge, MA. Hired and supervised staff; raised funds; strengthened program development; and instituted policies/programs to ensure financial solvency and growth.

EDUCATION

PHD IN GENETIC TOXICOLOGY **1998**
Massachusetts Institute of Technology, Cambridge MA
 Research demonstrated that the dynamic structural properties of deoxyribonucleic acid (DNA) could influence the reactivity of DNA with exogenous compounds. Dissertation: "DNA Target Selection by Calicheamicin"

MS IN TECHNOLOGY AND PUBLIC POLICY **1998**
Massachusetts Institute of Technology, Cambridge MA
 Coursework covered systems analysis, macro/micro economics, science policy, risk analysis, ethics and law. Research explored legal instruments for regulating cancer-causing compounds. Dissertation: "Statutory Structure and the Regulation of Carcinogens: Goals versus Rules"

MS AND BS IN AEROSPACE ENGINEERING **1986 AND 1983**
University of Maryland, College Park MD
 Established the composite materials laboratory at the University of Maryland and developed a novel approach for manufacturing composite blade spars with anisotropic properties. Dissertation:

“Experimental Identification of Stiffness Coupling Terms in Composite Box Beams Manufactures by Thermal Expansion”

AWARDS AND HONORS

- **Named to the WMO Scientific and Research Board, 2019**
- **Named to the Scientific and Planning Committee for World Water Week, 2019**
- **Global Fellow at the Woodrow Wilson Center, 2019**
- **Superior Honor Award, U.S. Department of State (2016, 2010, 2006, 1999)**
- **President’s Award, U.S. Water Alliance (declined) (2013)**
- **Frank E. Loy Award for Environmental Diplomacy, U.S. Department of State (awarded by Secretary of State Hilary Clinton) (2010)**
- **Meritorious Honor Award, U.S. Department of State (2017, 2006, 2001, 1999)**
- **American Association for the Advancement of Science Diplomacy Fellowship, (1998-99)**
- **American Association for Cancer Research Young Investigator’s Award**
- **Alan Berman Research Publication Award, Naval Research Laboratory (For the paper judged to be the most outstanding publication of the year within the division of Spacecraft Engineering at the National Center for Space & Technology) (1993)**
- **Outstanding Performance Award, Naval Center for Space and Technology (1990, 1989, 1988)**
- **United States Army Rotorcraft Fellow, United States Army (1985-87)**
- **Quality Step Increase, U.S. Department of State (2018)**

SELECTED INVITED SPEECHES, PRESENTATIONS, MEDIA INTERVIEWS

Key topics include: water security, the water-food-energy nexus, water and conflict, water and climate change, water and sustainable development, U.S. foreign policy on water and sanitation issues.

- National Executive Leadership Seminar (2018, 2017, 2016, 2015, 2014)
- National Defense University (2018, 2017, 2016, 2015, 2014)
- Congressional and Senate Staff briefings (2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010)
- Woodrow Wilson Center (2018, 2018, 2010)
- George Washington University Elliot School of International Affairs (2017, 2016, 2015, 2014, 2010)
- CNA Military Advisory Board (2016)
- National Military Education School (2016)
- World Bank Water Week (2015)
- World Water Forum (2015, 2012)
- U.S. National Security Council (2015, 2012)
- National Assembly of Vietnam (2015)
- Stimson Center on International Studies (2015)
- Rotary International (2015)
- National Geospatial Agency (2014)
- American University (2014, 2013)
- Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations, House of Representatives (2013)
- Asian American Forum (2013)
- U.S. Institute of Peace (2013)
- Atlantic Council (2012)
- Missouri State University (2012)
- American Geophysical Union (2012)
- Senator Tom Lantos Human Rights Commission, House of Representatives (2011)

- Corporate Council on Africa (2011)
- United States African Command (2011)
- Subcommittee on Water and Power; Senate Committee on Energy and Natural Resources (2011)
- African Ministers Council on Water (2011); African Water Week (2010)
- International Hydropower Association (2011)
- University of Wisconsin Institute of World Affairs (2010)
- U.S. Army War College (2010)
- Irrigation Association (2010)
- Keenan Institute (2010)
- American Association for the Advancement of Science (2009);
- American Water Resources Association (2009)
- John's Hopkins School of Advanced International Studies (2009)
- United States Southern Command (2008)
- Massachusetts Institute of Technology (2005)
- National Association of Water Companies (2005)
- Columbia University School of International and Public Affairs (2004)
- Foreign Policy Association (Tulsa 2005; Williamsburg 2005)
- National Academy of Sciences Water and Science Technology Board (2004)
- United Nations Association (2003)
- World Water Week (2014, 2013, 2012)

Media Interviews with Al Jazeera, National Geographic, New York Times, OOSKA News, Washington Post and other local news outlets.

SELECTED PUBLICATIONS

Does not include articles, papers, speeches or other products written for senior U.S. government officials between 1998 and 2016.

Bio-chemistry	<p>Salzberg, A.A., and Dedon, P. "DNA Bending is a determinant of calicheamicin target recognition," <i>Biochemistry</i> 39: 7605-7612, 2000</p> <p>Salzberg, A. and Dedon, P. "An improved method for the rapid assessment of DNA bending by small molecules," <i>Journal of Biomolecular Structure & Dynamics</i> 15(2):277-84, 1997.</p> <p>Salzberg, A., Mathur, P., and Dedon, P. "The intrinsic flexibility and drug-induced bending of calicheamicin DNA targets," in B. Meunier (eds.), <i>NATO Workshop: DNA Cleavers and Chemotherapy of Cancer or Viral Diseases</i>, Kluwer Academic Publishers, Dordrecht, 1996.</p> <p>Yu, L., Salzberg, A., Dedon, P. "New Insights into Calicheamicin-DNA Interaction Derived from a Model Nucleosome System," <i>Bioorganic and Medicinal Chemistry</i>, 3(6):729-741, 1995.</p>
Engineering	<p>Haughton, J and Salzberg, A., "Combined high level acoustic and mechanical vibration testing and analysis," paper presented at the <i>Proceedings of the 8th International Modal Analysis Conference</i>, 1990.</p> <p>Salzberg, A "Validation of LACE spacecraft vibroacoustic prediction model," <i>J. Environmental Sciences</i>, 32, 1989, ppp.53-59.</p>
Ethics	<p>Salzberg, A. "Informed discussion / Formal authority," in B. Shrag (ed.), <i>Research Ethics" Fifteen cases and commentaries</i>, 1, Association for Practical and Professional Ethics, Bloomington, 1997.</p>

Salzberg, A. "Commentary on 'The social responsibilities of biological scientists'," *Journal of Science and Engineering Ethics* 1, 3, 1997, pp. 149-152.