About AAAS On-call Scientists

1,350 volunteer scientists, engineers and health professionals

Located in 68 countries:
- Albania
- Argentina
- Australia
- Austria
- Azerbaijan
- Belgium
- Bosnia and Herzegovina
- Brazil
- Burkina Faso
- Canada
- China
- Colombia
- Croatia
- Denmark
- Dominica
- Ecuador
- Ethiopia
- France
- Georgia
- Germany
- Ghana
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Israel
- Italy
- Japan
- Jordan
- Kenya
- Kyrgyzstan
- Lebanon
- Malaysia
- Mexico
- Mongolia
- Morocco
- Nepal
- Netherlands
- New Zealand
- Nigeria
- Norway
- Pakistan
- Peru
- Philippines
- Portugal
- Qatar
- Romania
- Russia
- Serbia
- Singapore
- South Africa
- South Korea
- Spain
- Switzerland
- Sudan
- Sweden
- Taiwan
- Tanzania
- Togo
- Turkey
- Uganda
- Ukraine
- United Kingdom
- USA

Speaking 55 different languages:

In life, physical, social and behavioral sciences:
- 345 biologists
- 270 health scientists
- 240 chemists
- 239 psychologists
- 187 engineers
- 136 forensic scientists
- 116 environmental scientists
- 105 social scientists
- 100 statisticians
- 81 physicists
- 38 geologists
A Successful History of Service

The AAAS On-call Scientists initiative connects scientists, engineers and health professionals with human rights organizations that are in need of technical expertise. Since its launch in 2008, On-call Scientists has grown into an international network of 1,200 professionals who stand ready to volunteer their time and knowledge to contribute to lifesaving and transformative human rights efforts. Around the world and in the United States, members of On-call Scientists promote, monitor and protect human rights.

Human rights organizations rely on the scientific knowledge, tools and methods of On-call Scientists to enhance human rights monitoring, reporting, research, documentation, technical training and litigation. Human rights practitioners and the communities they work with benefit from volunteer scientists’ knowledge in reviewing technical reports, answering questions about evidence or methodology and assisting in survey design. Scientists, engineers and health professionals also analyze research findings and adapt new technologies to meet the specific needs of human rights organizations.

“Human Rights Watch’s effectiveness depends on its reputation for accuracy, 100% of the time. When it came to investigating chemical weapon attacks in Syria, we needed expertise on which we could rely. [Keith Ward] was a perfect match, bringing extensive experience and expertise in identifying the symptoms associated with chemical weapon attacks.”

Peter Bouckaert, director of emergencies
HUMAN RIGHTS WATCH

CASE STUDY

ORGANIZATION:
Human Rights Watch

HUMAN RIGHTS CONCERN:
Chemical weapons attacks in Syria

ON-CALL SCIENTISTS REPRESENTATIVE:
Keith B. Ward, biophysicist

SUPPORT:
Ward reviewed videos and photos from alleged attacks to assess their veracity and specific types of chemical agents used.

IMPACT:
Ward’s advice is cited in several Human Rights Watch reports on the conflict in Syria. These reports documenting the unlawful use of chemical weapons against civilians have influenced international policy and may be used in the future to hold perpetrators accountable.

HUMAN RIGHTS WATCH
On-call Scientists and Its Capabilities

The first On-call Scientists projects provided one-time consultations on research plans and policy proposals. Today, On-call Scientists has the depth and breadth of experience to build multidisciplinary teams and advisory panels for human rights organizations.

On-call Scientists includes expert volunteers from all scientific fields and disciplines. They contribute their time and expertise to the challenges faced by organizations that promote, monitor and protect human rights throughout the world.

On-call Scientists:
- Partners with organizations to apply scientific knowledge and tools to document human rights violations.
- Trains human rights workers to apply appropriate research methods and technologies.
- Assists community members to answer questions about scientific findings and assess knowledge gaps.
- Creates data management tools that allow human rights organizations to conduct more powerful analyses.

“Without the data, you’re just another person with an opinion.”
Mary Gray, mathematician
ON-CALL SCIENTISTS VOLUNTEER

CASE STUDY

ORGANIZATION:
Environmental Defender Law Center

HUMAN RIGHTS CONCERN:
Proposed dam in Mexico would flood a historic town and displace all its residents

ON-CALL SCIENTISTS VOLUNTEER:
Teunis op ten Noort, water resources engineer

SUPPORT:
Op ten Noort prepared reports for courts, and met with community leaders and judicial authorities to explain the technical issues.

IMPACT:
Court orders regarding the height of the dam have been upheld. For now, the town has been spared.

“Without the data, you’re just another person with an opinion.”
Mary Gray, mathematician
ON-CALL SCIENTISTS VOLUNTEER

“In our work, there is often a dispute about the extent and nature of harms, and it is critical to translate information from a bunch of numbers and reports to something everyone can understand. Being able to call on an expert with years and years of training is like a gift from heaven.”
Lewis Gordon, executive director
ENVIRONMENTAL DEFENDER LAW CENTER
On-call Scientists and the AAAS Mission

The On-call Scientists initiative encourages the engagement of scientists, engineers and health professionals in human rights efforts. It raises awareness within the human rights community of the specific tools, expertise and resources that On-call Scientists experts can deliver.

On-call Scientists supported 23 different surveys:
- Investigating human rights violations experienced by Syrian refugees.
- Documenting gender-based violence against older people displaced by conflict in Sudan, Afghanistan and Iraq.
- Understanding attitudes towards post-conflict justice in Mali.
- Documenting experiences of homeless persons across the United States.
- Assessing the effectiveness of cybersecurity training for human rights defenders in the Middle East and Latin America.
- Measuring the impact of human rights education for high school students in Washington, D.C.

On-call Scientists provided empirical evidence for projects that:
- Document and expose war crimes.
- Identify and depict institutionalized gender and racial discrimination.
- Overturn wrongful convictions.
- Provide asylum for political refugees.
- Develop warning systems to prevent mass atrocities.
- Propose solutions to address environmental injustices.
- Measure the impacts of human rights reforms.

On-call Scientists trained human rights practitioners to:
- Recognize indicators of trauma and develop trauma-centered workplace practices.
- Responsibly collect and manage sensitive data.
- Discuss environmental impacts with policymakers.

**CASE STUDY**

**ORGANIZATION:** Amnesty International

**HUMAN RIGHTS CONCERN:** Deaths during military detention in Giwa, Nigeria

**ON-CALL SCIENTISTS VOLUNTEER:** Tal Simmons, forensic anthropologist

**SUPPORT:** Simmons examined photos and video of bodies to determine the length of time since death, gender and age of the individuals, and their overall physical condition.

**IMPACT:** Amnesty International issued a report including Simmons’ evaluation along with satellite imagery of possible mass graves and witness reports. After the report was published, the Nigerian government transferred some of the prisoners to a prison with better conditions.
Envisioning a Strong Future

Positive outcomes and word of mouth continue to increase awareness of the contributions of On-call Scientists, leading to new opportunities to partner with human rights organizations.

The On-call Scientists initiative is developing new ways to connect human rights practitioners with the full range of scientific expertise through workshops, webinars and podcasts.

The success of this ambitious, unique initiative is due to the expertise of On-call Scientists and its commitment to advancing human rights. Collectively, the initiative’s volunteers’ sound research and hard work have established a positive reputation within the human rights community.

Thank you to the first 1,200 participants in the On-call Scientists initiative!

“It’s a great way to translate the science as well as the transferrable skills that we develop as Ph.D.s.”

Tiffany Griffin, social psychologist
ON-CALL SCIENTISTS VOLUNTEER

“This program really connects you to the larger world.”

Anne Middaugh, forensic psychologist
ON-CALL SCIENTISTS VOLUNTEER

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CASE STUDY

ORGANIZATION:
Maryland Legal Aid Bureau Human Rights Project

HUMAN RIGHTS CONCERN:
Discriminatory evictions by rent courts

ON-CALL SCIENTISTS VOLUNTEER:
Arthur Kendall, social psychologist and statistician

SUPPORT:
Kendall developed a survey tool to collect and analyze 1,380 randomly selected Rent Court cases.

IMPACT:
MDLAB released Human Rights in Maryland’s Rent Courts: A Statistical Study, and is working with the Maryland judiciary to address the report’s findings.

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Since 2008:

- **606** volunteer matches
- **197** projects
- **112** human rights organizations
- **27** groups have hosted multiple projects

**Types of assistance provided: 197 projects**

- **23** Other environmental research and analysis
- **24** Social science research
- **34** Review and analyze environmental impact assessments
- **10** Other
- **10** Data management
- **7** Economic analysis
- **7** Health impacts
- **25** Forensic analysis
- **29** Support for scientists' human rights
- **23** Survey methods, design, analysis
- **5** Training for staff

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