

# SCIENCE, POLICY AND SOCIETY

AAAS helps to direct the benefits of science to society by reaching out to government policymakers through a prestigious top-level forum and yearly fellowships that place scientists and engineers at federal agencies. The association also works with the criminal justice system and leaders in the religious community, and speaks out to uphold a universal right to the benefits of scientific advances. AAAS provides objective scientific expertise to help monitor and protect human rights and to build quality science and technology programs nationally and internationally.



*The King Abdulaziz City for Science and Technology, Saudi Arabia's national science agency, is working with AAAS and others to develop a knowledge economy.*

## PROMOTING RESEARCH COMPETITIVENESS

The AAAS Research Competitiveness Program (RCP) provides expert advice to organizations engaging in science and technology activities around the world. In 2011, RCP completed 31 projects, conducting work for 15 different states and territories, one federal agency, the European Commission and the Kingdom of Saudi Arabia.

Turki bin Saud bin Mohammad Al Saud, of the Saudi national science agency, explained his organization's satisfaction with AAAS as Saudi Arabia set out to reinvigorate its science sector by shaping a research grant competition based on tough, independent peer review: "We have established a certain level of quality that everyone appreciates," Turki said, "and it is helping to turn around the research capability in the kingdom."

## 36TH ANNUAL AAAS FORUM ON S&T POLICY

Science and policy leaders at the 2011 AAAS Forum on Science and Technology Policy stressed the importance of fostering innovation in the United States as a crucial economic driver. At the same time, Forum speakers warned that uneven commitment to innovation, such as neglecting efforts to improve science education could impede science and technology initiatives.



Speaker John P. Holdren, White House science and technology adviser, said President Barack Obama remains committed to maintaining the United States' science leadership. He listed proposed funding increases to federal agencies that do the kind of basic research seen as fundamental to innovation. Holdren warned, however, that overall budget-cutting will present challenges to science and technology in the years ahead.

The 2011 Forum was attended by some 500 top U.S. and foreign representatives from academia, government, industry and major scientific and engineering societies. Forum speakers tackled topics such as how the science community should plan for changing U.S. demographics, lessons to be learned from the tsunami-triggered accident at the Fukushima Daiichi facility in Japan, the health implications



*The 2011-2012 class of AAAS Science and Technology Policy Fellows includes more than 250 scientists and engineers assigned to share their expertise with Congress and executive branch agencies and departments.*

of the 2010 Deepwater Horizon oil spill, an inside view of the HIV/AIDS crisis and response, and effectively communicating science in a rapidly changing media culture.

### **S&T POLICY FELLOWS FORGE AHEAD**

This year's group of AAAS Science and Policy Fellows was the largest ever, with more than 250 scientists and engineer participants. The fellows worked in Congress and executive branch agencies and departments, providing their scientific expertise while learning firsthand about the workings of government and policy. Participating agencies included the State Department and the Environmental Protection Agency, which have both hit a 30-year milestone in their hosting of fellows.

The 2011 fellows brought the total number of participants to some 2,400, and past fellows continue to demonstrate the program's value and impact. In July 2011, the State Department named E. William Colglazier as adviser on science and technology. His introduction to science policy occurred in 1976, when he became a Congressional Science Fellow for AAAS in the office of Congressman George Brown.

### **FORENSICS, HUMAN RIGHTS AND CRIMINAL LAW**

DNA analysis has helped win the freedom of nearly 300 people wrongly convicted of crimes, but with such evidence only available in 5-10% of the crimes that make it to court, scientific research is needed to improve other forensic

tools. "There is a huge opportunity to improve the reliability of non-DNA forensic tools," said forensic policy specialist Sarah Chu at a meeting of the AAAS Science and Human Rights Coalition, a network of scientific and engineering organizations involved in human rights issues.

At the same July 2011 meeting, Joe Cecil, scientific and technical evidence director at the Federal Judicial Center, said scientific organizations have an "affirmative obligation" to help improve the quality of forensics by providing scientific rigor, analytic techniques and methodologies.

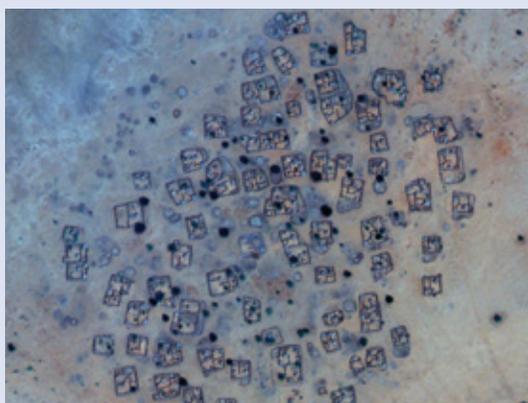
The AAAS Scientific Responsibility, Human Rights and Law Program co-sponsored a Neuroscience and the Law webinar series exploring issues such as the use of neuroscience to determine whether a defendant is competent to stand trial, and continued a series of seminars in which leading researchers educate judges about the latest advances in neuroscience.

### **PROMOTING SCIENCE-RELIGION DIALOGUE**

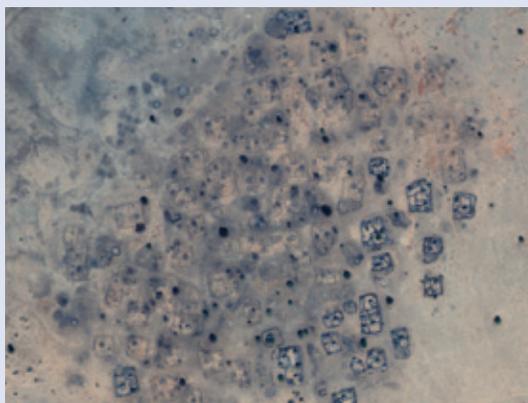
The association broadly seeks to promote constructive discourse on issues at the intersection of science and society. Toward that end, the AAAS Dialogue on Science, Ethics and Religion (DoSER) hosted packed audiences at two symposia at the AAAS Annual Meeting. One explored the topic of engagement between evangelical Christians and scientists, drawing on new models of positive discourse around issues

### SCIENCE IN THE SERVICE OF HUMAN RIGHTS

These two images show Negeha, South Darfur, on 13 January 2010, and 24 December 2010. In the lower image, AAAS satellite-image analysis determined that structures in the community had been destroyed, corroborating accounts of widespread destruction resulting in the displacement of a population of 7,000. In addition to monitoring the situation in South Darfur, the AAAS Scientific Responsibility, Human Rights, and the Law program has provided analysis of satellite images of a destructive oil spill in Nigeria, among other activities involving science and human rights.



13 January 2010



24 December 2010

such as climate change in order to invite further interaction. The second symposium presented a discussion of the theological implications of finding life on other planets.

DoSER also co-hosted panel discussions at AAAS, as well as at the American Academy of Religion and Society of Biblical Literature annual conference, the world's largest meeting

for religious scholars. Panelists including scientists, clergy, seminary professors, students and administrators drew a standing-room-only crowd with the exploration of how to incorporate cutting-edge science into theological education.

### TESTIFYING ON PEOPLE'S RIGHT TO SCIENCE

The benefits of scientific progress could include improved access to agricultural innovation, AAAS experts suggested in testimony before the Inter-American Commission on Human Rights. In her testimony, Jessica Wyndham, associate director of the AAAS Scientific Responsibility, Human Rights and Law Program, listed five elements of the right to the benefits of scientific progress: a focus on the needs of "marginalized and vulnerable" populations; creation of a participatory environment, including strong science education; enhanced international cooperation and assistance in science; protection against abuses caused by the use or the misuse of science and technology; and recognition that scientific freedom is essential.



*Jessica Wyndham and Mark Frankel, associate director and director of the AAAS Scientific Responsibility, Human Rights and Law Program, testified before the Inter-American Commission on Human Rights on the universal right to the benefits of scientific progress.*