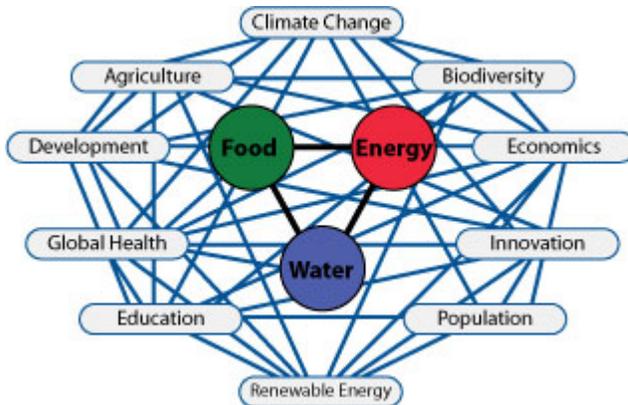


## AAAS 2012 Annual Meeting Theme

### Flattening the World: Building a Global Knowledge Society



The 21st century is shaping up to be a challenging one. The issues that face us are many: climate change, energy, agriculture, health, water, biodiversity and ecosystems, population growth, and economic development. They are both global in their scope and profoundly interconnected.

Growing the food—and feed and fiber and fuel—demanded by a still expanding and

increasingly affluent human population will require innovations not just in agriculture, but in water and land management, food processing and transportation, and many other areas such as international trade and regulatory policies. Energy drives our economies. How do we transition to energy sources that do not perturb our climate and use a disproportionate amount of the water we need for people and agriculture without taking an economic beating? Decimating what remains of the tropic's forests will as surely exacerbate climate change as it will reduce biodiversity and impact ecosystem services. What do the climatic warming trends well underway mean for agriculture, for public health, for the survival of our coastal cities? What does adaptation really entail?

It's one big thorny tangle: people, money, food, energy, health, water, land, climate, biodiversity. How do we as scientists, engineers, and policy-makers begin to think—and act—on a global scale to address such complicated, cross-cutting problems? How do we tackle the sheer complexity of global systems, be they economic, ecological, or educational? How do we begin to develop truly global models, and then solutions, through multinational collaborative efforts?

We live in an age of instant global communication, a time when collaborations between countries and continents have never been easier, at least from a technical standpoint. A stunning example is the Large Hadron Collider, the world's largest and highest-energy particle accelerator, which is being used by a multinational group of physicists to understand the fundamental building blocks and laws of nature, from subatomic to cosmic. Remote sensing technology enables the detailed observation of virtually every aspect of our planet's surface, subsurface, and climate. Stores of information and knowledge can be accessed from anywhere by anyone. Technology and the Internet are transforming education. Learning is, in principle, available to everyone everywhere.

The focus of the 2012 meeting, then, is on using the power of electronic communications and information resources to tackle the complex problems of the 21st century on a global scale through international, multidisciplinary efforts. We have a model already in the scale and scope of the Intergovernmental Panel on Climate Change (IPCC). But that's just the beginning. The interconnections among, for example, climate change, agriculture, and health are as yet poorly understood; predictive modeling is in its infancy.

The ability to approach global problems through global collaborations depends on an educated populace and on substantial scientific and technological sophistication throughout the world. Thus building the global knowledge society depends on advancing education and research, the engines of the knowledge society, everywhere. This task is facilitated, but not accomplished, by the existence of electronically accessible open educational resources. There remain limitations of language and culture, of poverty and access.