



Accelerating Development through Science, Technology and Innovation in the Fiscal Year 2012 Budget

Historically, investments in science and technology have had a profound impact on development. Innovations in biotechnology have led to new vaccines and crop strains, advances in mobile communications have been harnessed to improve health and extend services such as banking to rural and underserved communities, and research in behavioral and social science has improved our understanding of what works.

The U.S. Government is a global leader in science, technology and innovation, and can leverage significant assets, including an annual Federal investment of \$148 billion in research and development and an “innovation ecosystem” that includes world-class research universities, leading global technology firms across many sectors, entrepreneurs, and a strong investment community. The President’s fiscal year (FY) 2012 Budget seeks to employ these assets to identify and scale-up potentially game-changing innovations to solve long-standing development challenges, particularly those that stymie progress in global health, food security and climate change.

In FY 2012, in support of the President’s Global Development Policy, the State Department and the U.S. Agency for International Development (USAID) will enhance the use of science, technology, and innovation to achieve global development goals. As our lead development agency, USAID will also work with other Federal agencies to ensure that innovations from research and development investments that aim primarily at solving domestic problems are identified and utilized to further U.S. global development efforts when relevant.

To maximize the impact of Federal investments in research and development and increase the impact of science, technology and innovation within U.S. development activities, the President’s FY 2012 Budget includes support for the State Department and USAID to do the following:

Grand Challenges for Development: USAID is formulating a set of Grand Challenges for Development to address long-standing development challenges by focusing the U.S. Government and international community on specific, critical barriers and employing new approaches such as:

- **Prizes to Inspire New Solutions and Solvers:** Prize-based challenges, awarded through a competitive procurement process, to provide a high-profile approach to problem solving. The program would reward success and create an ecosystem of new solutions and solvers.
- **Better Use of New and Existing Breakthroughs:** A virtual system modeled on NASA’s Innovation Marketplace to connect development officers in the field with science and technology solutions to development challenges and enable sharing of those solutions globally.
- **High Risk, High Reward Research:** USAID grants to help identify and develop the next generation of breakthrough technologies through high-risk, high-reward applied research. Successful ideas would be scaled up through USAID programs or the private sector.

Strategic Investments for Rapid Innovation: USAID would leverage private sector models and partnerships to invest resources strategically in promising new ideas. Activities would include:

- Development Innovation Fund: Borrowing from the venture capital model, a fund to support exceptional ideas that address core challenges at three stages: pilot innovations, impact evaluations, and projects scaled across three countries to reach 75 million beneficiaries.
- Development Credit Authority: Complementary credit instruments to support innovation. For example, a guarantee might be used in lieu of an equity-like grant to increase financing for agriculture businesses or replicate tested innovations that haven't expanded due to perceived risk.
- Tapping the Communications Technology Revolution: By investing in new platforms like mobile phones, USAID would help leapfrog traditional barriers—for example, mobile-phone applications to monitor corruption, increase program accountability, and improve health.

Global Science Envoys: Following on President Obama's 2009 speech in Cairo, the State Department would continue the U.S. Science Envoy Program to facilitate international engagement by highly respected American scientists. Emblematic of U.S. global engagement in science and technology, the aim is to build bridges and identify opportunities for sustained cooperation and lasting international partnerships.

Collaborative Research and Training: USAID and the State Department would help strengthen the capacity of developing countries to address their own problems through cooperative science and training, and engage Federal science agencies and academia around shared scientific challenges.

- Leverage Federal R&D Investments: Work with the National Science Foundation and other federal science agencies to identify shared research questions, enable participation of non-U.S. researchers, support scientific capacity building, and encourage knowledge dissemination.
- Research in Priority Areas: USAID would work with agency and non-governmental partners to implement strategic research plans for key Administration development efforts in global health, food security, and climate change. These plans will focus on new technologies and approaches.
- Intergovernmental Panel on Climate Change/Group on Earth Observations: With other federal agencies, the State Department would continue to support crucial research and assessment on the causes and impacts of climate change carried out by these United Nations specialized agencies.
- Dissemination of Renewable Energy Technologies: The State Department would promote wider adoption of renewable energy and energy efficiency technologies by supporting global bodies engaged in technology promotion and harmonization of related policies and standards.

USAID as a Global Technical Leader: USAID would restore its world-class technical and innovative capacity.

- New Tools: USAID would create an agency-wide GeoCenter to enable more sophisticated analysis of development programs, including improving design, execution, monitoring, evaluation, and data sharing. The agency would also increase staff access to scientific literature and conferences.
- Cutting-Edge Expertise: USAID can enhance technical capacity through Senior Technical Career positions, recruiting scientists to build technical expertise, and bringing Innovation Fellows from academia and the private sector to help develop, test, and scale innovations.

**State Department and USAID:
Investments to Leverage Science, Technology and Innovation for Global Development**

	FY 2012 Request (millions)
<u>Total: State and USAID</u>	<u>333</u>
USAID	322
USAID Forward	52
Development Innovation Ventures	30
S&T Excellence	22
Feed the Future R&D	135
Global Health Initiative R&D	74
Global Climate Change R&D	22
SERVIR	18
Consultative Group on International Agricultural Research (CGIAR)	4
FEWSNet	17
Global Engagement	21
Regional Centers of Excellence	16
International Science Partnerships	4
S&T Training for Women	1
USAID Operating Expenses	2
Science, Technology, and Innovation	2
State	11
Global Engagement, Centers of Excellence	8
Global Muslim Science Partnerships	1
Climate Change	2
State Operations	1
Jefferson Science Fellows Program	1