



Alcoa Foundation Advancing Sustainability Research: *Innovative Partnerships for Actionable Solutions*

Alcoa Foundation Advancing Sustainability Research: Innovative Partnerships for Actionable Solutions is a two-year US \$4 million investment to research today's most pressing regional environmental challenges in Australia, Brazil, Canada, China, Russia, Europe and the U.S. The research will be used to improve practices for communities and corporations and inform policy and standards. The goal is to enable some of the most innovative researchers in 10 different targeted sustainability fields to engage with experts and their regions and local communities to develop actionable solutions that can be shared around the world. The initiative is managed by Alcoa Foundation and administered by the Institute of International Education.

Fields of Study

The research will support key regional challenges, including:

- Natural resource management
- Materials science and engineering
- Sustainable design
- Energy and environmental economics

Outcomes

The signature program aims to produce:

- Actionable solutions driven by research.
- Access to larger networks of sustainability researchers and organizations.
- Timely development for the next generation of researchers and practitioners.

Alcoa Foundation

Alcoa Foundation is one of the largest corporate foundations in the U.S., with assets of approximately US\$436 million. Founded more than 50 years ago, Alcoa Foundation has invested more than US\$530 million since 1952. In 2010, Alcoa Foundation contributed nearly US\$20 million to nonprofit organizations throughout the world, focusing on promoting environmental stewardship, enabling economic and social sustainability, and preparing tomorrow's leaders through education and learning. The work of Alcoa Foundation is further enhanced by Alcoa's thousands of employee volunteers, who in 2010 gave more than 720,000 service hours. Through the company's signature Month of Service (October) program, Alcoa employees share their energy, passion and purpose to make a difference in our communities. In 2010, a record 49 percent of Alcoans took part in nearly 1,000 Month of Service events across 24 countries, reaching 59,000 children, serving 17,000 meals, planting 16,000 trees and supporting 3,000 nonprofit organizations. For more information about Alcoa Foundation, please access www.alcoa.com/foundation.

Contact

For more information, please visit www.iie.org/AdvancingSustainability or contact the administrative partner:

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Partners

The initiative will support 10 research projects across five continents.

Australia	<p><i>Toward Sustainable Landscapes: Phosphorous Management to Protect Wetlands</i></p> <ul style="list-style-type: none"> - Greening Australia & University of Western Australia • Reducing fertilizer run-off through innovative use of vegetation to absorb excess nutrients. <p><i>Towards Sustainable Landscapes: Harnessing Bioenergy Markets to Build Resilient Landscapes</i></p> <ul style="list-style-type: none"> - Greening Australia, The University of Adelaide & CSIRO Ecosystem Sciences • Developing bioenergy markets through introduction of diverse native species bioenergy crops. These crops can be used to produce fuel as well as biochar – a type of charcoal which can sequester carbon in the earth for thousands of years.
Brazil	<p><i>Mangrove Environmental Education and Research</i></p> <ul style="list-style-type: none"> - University of São Paulo • Environmental education and research focused on mangroves in Itapissuma, Pernambuco, Brazil.
Canada	<p><i>Improved Environmental Footprint Methodology for Life Cycle Assessment</i></p> <ul style="list-style-type: none"> - École Polytechnique de Montréal • Developing a novel Life Cycle Impact Assessment methodology which will extend current modeling capabilities beyond merely regional impact. The environmental burden of supply chains and consumption patterns will be assessable in the context of a global economy.
China	<p><i>Voluntary Emissions Reduction and NGO Participation in China</i></p> <ul style="list-style-type: none"> - China Center for International Economic Exchanges & Tsinghua University • Analyzing the development of voluntary emissions reduction and NGO participation in China in order to make recommendations on how to build a comprehensive climate system in China on par with international standards. <p><i>Chinese Public Policy: Promoting a Low-Carbon Economy</i></p> <ul style="list-style-type: none"> - China Center for International Economic Exchanges • Analyzing energy consumption and the discharge of carbon in China’s economic development, as well as the policy instruments used by developed countries to promote their low-carbon economic development. This research will be used to propose a path of development for a low-carbon economy in China.
Europe	<p><i>Advanced Research in Energy and Environmental Economics</i></p> <ul style="list-style-type: none"> - University of Vigo & Economics for Energy • Improving knowledge of specific energy issues from an economic perspective. These issues include: security of energy supply; analysis of demand; technological innovation; design and effects of public policies; long-term analysis of supply and demand.
Russia	<p><i>Responsible Water Resources Management for Sustainable Development</i></p> <ul style="list-style-type: none"> - Fund for Sustainable Development, Institute of Water Problems & Educational Center for Ecology and Safety • Researching oily industrial wastewater management in Russia, including best practices; modernization of technologies; minimization of oily wastewater impact on the environment; and public education about water pollution.
USA	<p><i>Lightweight Metal-Based Vehicle Structures: Innovative Design and Agile Manufacture</i></p> <ul style="list-style-type: none"> - The Ohio State University – Institute for Materials Research • Developing new design and manufacturing technologies that reduce raw materials and manufacturing costs for the use of light metals in vehicle construction.
Global	<p><i>SMART: New Mobility Solutions for Beijing and Detroit</i></p> <ul style="list-style-type: none"> - University of Michigan Transportation Research Institute & Taubman College of Architecture and Urban Planning • Understanding and applying whole systems approaches and innovations that provide more connected and sustainable transportation options in Beijing and Detroit.