

THE UNIVERSITY OF CHICAGO  
AND  
DELHI DIALOGUE COMMISSION

2015 Urban Labs Innovation Challenge: Delhi



Request for Letters of Interest

December 1, 2015



#### KEY FACTS

Who: DDC, UChicago Urban Labs, EPIC-India

What: Innovation Challenge for potentially high-impact, scalable interventions to improve Delhi's environment

Next steps: Submit brief (up to three pages) letter of interest to [urbanlabsdelhi@uchicago.edu](mailto:urbanlabsdelhi@uchicago.edu) by **Tuesday, March 15, 2016**



#### OVERVIEW

##### Project Goal

Delhi's rapid urbanization is a key driver of economic prosperity. But with unprecedented growth comes formidable energy and environment related challenges – including air pollution, which is a leading public health challenge. Delhi is one of the most polluted cities in the world. In 2014, the level of particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>) in Delhi far exceeded the national ambient air quality standards. The dangerously high levels of particulate matter put citizens' health at risk and especially affects the elderly, children and people with respiratory problems. In addition to air pollution, other energy and environmental challenges in Delhi include water quality, energy efficiency, and adapting to climate change.

Delhi and cities around the world have responded to these challenges of urbanization by initiating a wide range of new programs and policies. While some progress has been made, much work remains.

Solving these problems requires the marriage of innovation, careful economic design, appropriate technologies and strategic collaboration. There are no silver bullets, and no one-size that fits all. Moreover, efforts to reduce environmental pollution and resolve energy challenges require local solutions.

To find innovative ways to meet these challenges, the University of Chicago, in partnership with the Delhi government, is seeking proposals for potentially high-impact, scalable interventions to be funded, implemented, and evaluated through the Urban Labs Innovation Challenge: Delhi. The purpose of this innovation challenge is to harness the power of rigorous, scientific research and innovative programs and policy to identify new strategies for addressing the most pressing environmental and energy challenges in Delhi.

#### About Urban Labs and EPIC-India

The UChicago Urban Labs were established to create knowledge to address fundamental urban challenges and to work with policy makers and practitioners to improve the human condition in cities worldwide. The Urban Labs seek to evaluate the most promising policies and programs across the domains of crime, education, poverty, health, and energy & environment; to generate gold-standard evidence about what works and why; and to support policy makers and practitioners to scale up promising solutions that can have a significant positive impact on human lives. Specifically, the Energy & Environment Lab, which is leading the Innovation Challenge in Delhi, focuses on identifying and testing ways to meet future energy needs essential for urban economic growth, through practical and efficient public policies that limit environmental and social damages.

The Energy and Environment Lab works in close collaboration with the Energy Policy Institute housed at the University of Chicago's Center in Delhi (EPIC-India), which conducts robust research across a wide range of topics relating to sustainable growth. Specifically, EPIC-India is focused on conducting cutting-edge research to test new approaches for expanding energy access and achieving low-cost reductions in pollution. Most of the research is conducted in collaboration and consultation with Ministries of the Government of India and State governments. These innovative collaborations are already successfully identifying solutions to India's energy challenges and influencing policy.

The Energy & Environment Lab and the Energy Policy Institute at Chicago are led by Michael Greenstone, Ph.D., the Milton Friedman Professor of Economics. Anant Sudarshan, Ph.D., is the executive director of EPIC-India.

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#### THE INNOVATION CHALLENGE

The Energy & Environment Lab at the University of Chicago Urban Labs and EPIC-India are joining with the Delhi Dialogue Commission to launch this innovation challenge to tap grassroots creativity and expertise to identify innovative promising ideas to meet future energy needs while confronting the high air and water pollution.

The winning ideas will be tested in Delhi by a team of University of Chicago researchers in close collaboration with policymakers from the Delhi government. If successful, the ideas could become policy solutions the government could implement at a large scale, and may provide an important model for other cities to follow.

The innovation challenge will generate evidence on what works, for whom, and why, while demonstrably improving the quality of Delhi's environment. Urban Labs and EPIC-India's researchers will use rigorous scientific methods to assess the impact of selected programs, and the evidence will then inform large-scale intervention efforts across Delhi and other cities.

Organizations, agencies, students and researchers across India with promising programs or interventions that could improve energy and environmental outcomes are invited to submit short letters of interest.

Although letters of interest are invited from across India, this Innovation Challenge seeks promising ideas that can be implemented in the city of Delhi.

**Grantees will work with University of Chicago researchers to structure their interventions as randomized controlled trials or using closely equivalent rigorous evaluation designs**, and the University researchers will also work with each grantee to design an implementation and evaluation plan.

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#### PROVEN SUCCESS: RESEARCH AND INTERVENTION



The Gujarat Pollution Control Board and the University of Chicago partnered to reduce pollution

We know this model of building field-tested policy solutions works because we have already seen results.

For example, in Gujarat, University of Chicago researchers worked with the state pollution control board to improve the environmental auditing system. The Gujarat system, like many auditing systems worldwide in sectors from financial services to hospitals, is based on third-party audits. Previously, firms chose and paid their auditors directly. There was also no mechanism to scrutinize the quality of auditors' reports. As a result, auditors that reported the truth were unlikely to be hired, especially by highly polluting firms that did not wish to be noticed.

The researchers partnered with the state pollution control board to design a pilot experiment that increased auditor independence. In the pilot group of nearly 500 plants, the researchers randomly assigned some firms to maintain the status quo audit system and others to come under a new scheme where auditors were randomly assigned to plants, paid from a common pool, and had some of their field work independently double-checked. The double-checking enabled the researchers to compare audit reports to the true underlying pollution levels at industrial plants. **The pilot reforms reduced pollution emissions by 28 percent, and were recently officially adopted by the Gujarat government.**

This is the type of result we hope to continue to foster through the Urban Labs Innovation Challenge in Delhi.

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#### PROGRAM DETAILS

##### Request for Letters of Interest

For the Innovation Challenge, we seek letters of interest (LOIs) from citizens, organizations, agencies, and groups across India that describe a promising strategy aimed at solving Delhi's urgent energy and environmental problems. Ideas are solicited in broad area of energy and environment, with special attention to these focus areas: 1) reduce air pollution; 2) improve access to clean and reliable energy and energy efficiency; 3) facilitate decentralized energy solutions; 4) encourage water conservation; 5) provide drinking water and sanitation solutions; and/or 6) reduce disruptive climate change or help better adaptation to climate change.

A subset of applicants will be asked to submit a full proposal. Of those, one or more grantees will be selected to receive funding of **up to Rs. 2 crore** for up to two years. **This request for letters of interest is not a commitment to fund any program.**



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#### APPLICANT REQUIREMENTS AND INSTRUCTIONS

To be considered for the Innovation Challenge, all applicants, in their letters of interest, will be required to:

- Present a clear description of the problem the intervention seeks to address. Include any relevant data to support the magnitude and scope of the problem and likely demand for the intervention.
- Describe the proposed intervention.
- Discuss how the intervention will address the problem and have transformational impact. Please include any supporting research or evidence.
- Include a methodology to evaluate the impact of the proposed intervention. Please describe the necessary data and method of data collection that shall be required to conduct such an evaluation.
- Designate a "lead" applicant that will submit the letter of interest (in cases where multiple individuals, organizations and/or agencies are collaborating, the lead applicant must meet applicant requirements listed below).
- Include a list of agencies and organizations that would partner in the intervention (if applicable).
- Incorporate an estimated project timeline.

- Include an estimate of the overall annual project cost to conduct the intervention. This should not include the cost of the evaluation, and should not assume funding from the Innovation Challenge in excess of Rs. 2 crore over two years
- If the project would benefit from implementation assistance from the Delhi government, please include details on the specific nature of the assistance that is needed.

Applicants must:

- Demonstrate that they have the capacity to implement the proposed intervention.
- Be willing to work with the University of Chicago to structure the intervention so that it can be rigorously evaluated.

It is strongly suggested that organizational applicants:

- Have been in existence for at least two years, and
- If invited to submit a full proposal, produce audited financial reports for the last two years.

Letters of interest should not exceed three single-spaced pages, including budget and timeline, and should be submitted to [urbanlabsdelhi@uchicago.edu](mailto:urbanlabsdelhi@uchicago.edu). More information can be found at [urbanlabsdelhi.uchicago.in](http://urbanlabsdelhi.uchicago.in).

If an application is selected to submit a full proposal, the applicant(s) will be expected to work with the University of Chicago and the Delhi Dialogue Commission to determine the size of the expected eligible population for the proposed program, and to develop a plan for allocating services across eligible populations or neighborhoods.

#### Advisory Committee

An advisory committee comprised of civic leaders, funders, policy makers, and experts in the field of energy and environment will participate in proposal review, and may offer expertise and advice as applicants move from the LOI phase to the full proposal phase. Final decisions will be made by a selection committee comprised of University of Chicago and Delhi Dialogue Commission representatives.

#### Timeline

Applicants will be notified via email and letter on **April 29, 2016**, about whether they have been selected to submit a full proposal.

October 23, 2015	UChicago and DDC announce partnership; website launched
December 1, 2015	Launch of Innovation Challenge; Request for letters of interest announced
March 15, 2016	Short letter of interest due
April 29, 2016	Full proposals invited
June 30, 2016	Full proposal due from selected applicants
Summer 2016	Winners announced

Contact us at [urbanlabsdelhi@uchicago.edu](mailto:urbanlabsdelhi@uchicago.edu), or visit us at [urbanlabsdelhi.uchicago.in](http://urbanlabsdelhi.uchicago.in).

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#### Notes

1 Data on the levels of particulate matter in Delhi: [http://delhi.gov.in/wps/wcm/connect/DoIT\\_Planning/planning/economic+survey+of+delhi/economic+survey+of+delhi+2014++2015](http://delhi.gov.in/wps/wcm/connect/DoIT_Planning/planning/economic+survey+of+delhi/economic+survey+of+delhi+2014++2015) [Chapter 8: Environmental Concerns]

2 Figures around EPIC-India's project on improving the environmental auditing system in Gujarat: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2294736](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2294736)