

# Scaling Clean Energy to One Million Homes



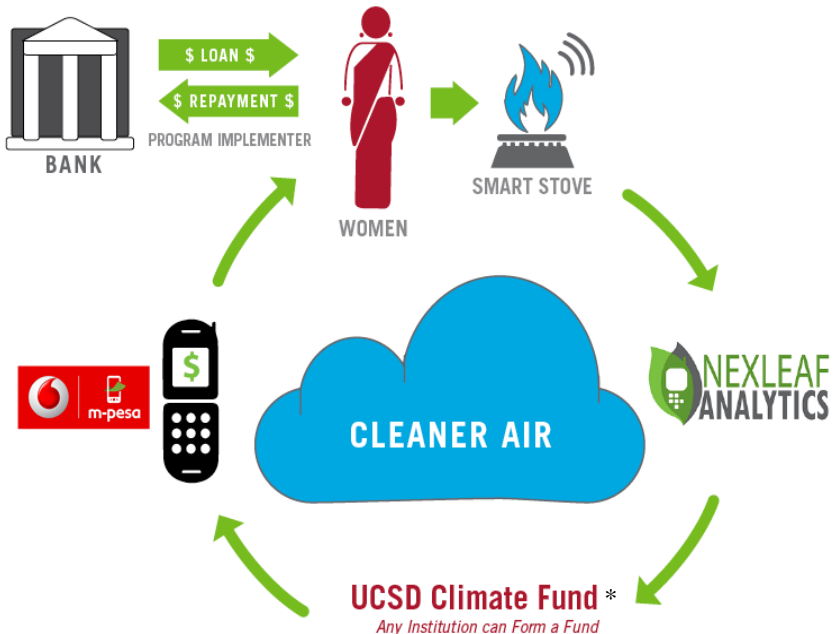
## Sensor-Enabled Climate Financing: Clean Cookstove Implementations Driven by Real-Time Data

### The Problem:

Every day, 3 billion people rely on burning biomass inside their homes to cook and to provide light and heat. Exposure to the resulting household smoke kills millions and contributes significantly to global climate change. **Clean cookstoves** can save lives and the planet, but efforts to get traditional cookstove users to switch often fail.

### Our Solution:

**Sensor-Enabled Climate Financing (SCF)** brings together cutting-edge climate science, rugged StoveTrace sensors, and market-based mechanisms to engage rural women, make clean cooking affordable, and scale up clean energy access for the poorest 3 billion. In October 2016, the SCF method was published in the peer-reviewed journal *Nature Climate Change*<sup>1</sup>.



**Nexleaf's StoveTrace platform** displays exactly by how much women are adopting improved cookstoves. Each woman then receives **usage-based payments** from a climate mitigation fund directly to her mobile phone.

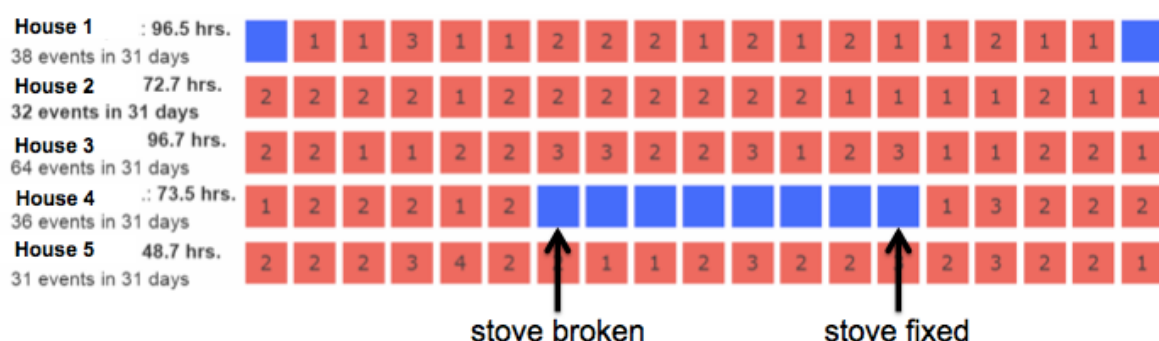
<sup>1</sup> Ramanathan et al. (in press). Wireless Sensors Linked with Climate Financing for Globally Affordable Clean Cooking. *Nature Climate Change*.

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## Lessons from the Data:





Clean cookstove success hinges on **sustained adoption**. That's why **Nexleaf monitors both the improved stoves and the traditional mud stoves with our StoveTrace sensors**. Here's what the data from our current project in Odisha reveals:

- **User-Friendly Stoves Matter:** One clean cookstove model is currently showing **100% adoption** (0% usage of the traditional stove). We plan to scale with this technology and work to **make usable stoves cleaner**.
- **After-Sales Stove Service Is Crucial:** If cooking in a household drops off abruptly, that means **stove maintenance** might be required. And a visit from a community member armed with usage data is an effective way to **encourage low users**.



- **Mobile Payments Are Powerful:** Climate Credit Payments are now being made direct to each woman's mobile phone with Vodafone mPesa. Based on previous work, we believe this is another reason we're currently seeing **100% adoption**.

## Funding Opportunities

	<b>Implement Sensor-Enabled Climate Financing</b>	Bring this solution to 100, 500, or 5,000 rural homes to improve health outcomes and reduce indoor air pollution.
	<b>Develop a Stove Marketplace for Cleaner, Usable Stove</b>	Support the development and field testing of better, cleaner cookstoves for increased adoption.
	<b>Building a Sustainable, Data-Driven Climate Market</b>	Purchase Climate Credits to support the program and reduce global climate change.
	<b>Research and Development Innovations at Nexleaf</b>	Fund the development of the next generation of sensors incorporating Bluetooth and low-cost monitoring technologies.

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