

**Technology Development for the Bottom of the Economic Pyramid: Lessons Learned from Drinking Water Treatment, Fuel-Efficient Cookstoves, and Energy Efficient Lights**

**Ashok Gadgil**

**Lawrence Berkeley National Laboratory and  
University of California at Berkeley**

**Seminar on September 6, 2015 at 11:00 am in 2004 Black  
Seminar host: Mark Bryden**

**Abstract**

Directed development of new technologies to solve specific problems in the developing world is a daunting task. Developing countries can be a wasteland littered with failed technologies sent there with much goodwill and effort from the industrial countries. Drawing on my team's and my experience, I present our thoughts about some key questions for the technology designer or developer: How might one go about it? What works and what doesn't? What key common lessons can one draw from an examination of select successes and failures?

Dr. **Ashok Gadgil** has a doctorate in physics from UC Berkeley. He is Deputy for Science and Technology for the Energy Technology Area of Lawrence Berkeley National Laboratory, and a Professor of Civil and Environmental Engineering at UC Berkeley. He has substantial experience in technical, economic, and policy research on energy efficiency and its implementation — particularly in developing countries. For example, the utility-sponsored compact fluorescent lamp leasing programs that he pioneered are being successfully implemented by utilities in several east-European and developing countries. He has several patents and inventions to his credit, among them the "UV Waterworks," a technology to inexpensively disinfect drinking water in the developing countries, for which he received the Discover Award, as well as the Popular Science award for "Best of What is New". In recent years, he has worked on ways to inexpensively remove arsenic from Bangladesh drinking water, and on fuel-efficient stoves for Darfur. Among recent honors, Prof. Gadgil is elected a member of the National Academy of Engineering, recipient of the Zayed Future Energy Prize, and the Lemelson-MIT Lifetime Award for Innovation.

***This seminar counts towards the ME 600 seminar requirement for Mechanical Engineering graduate students.***

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