2012 Winner of the $100,000 Lemelson-MIT Award for Global Innovation
Ashok Gadgil – Inventing for a Better World

Compact Fluorescent Lamps

**Problem:** In developing countries, electricity is subsidized below cost for most households, undercutting their incentive to purchase energy efficient compact fluorescent lamps (CFLs)

**Solution:** Utility-sponsored programs for residential CFLs

**Impact:**
- Reduces costs and carbon emissions, improves electric supply and energy efficiency
- Estimated participants now more than 100M

**Used in:** Algeria, Argentina, Belize, Bolivia, Chile, China, Costa Rica, Cote d’Ivoire, Cuba, Czech Republic, Dominican Republic, Egypt, El Salvador, Guatemala, Honduras, Hungary, India, Iraq, Jordan, Kuwait, Latvia, Lebanon, Mexico, Morocco, Nicaragua, Nigeria, Palestine, Panama, Paraguay, Peru, Philippines, Poland, Russia, South Africa, Sudan, Thailand, Tonga, Tunisia, UAE, Uruguay, Vietnam, and Yemen

UV Waterworks

**Problem:** In 1993, an outbreak of Bengal Cholera killed more than 10,000 people and infected drinking water in India

**Invention:** UV Waterworks – an affordable and inexpensive technology – uses UV light to disinfect drinking water for about 2 cents per 10 liters

**Impact:**
- Provides clean drinking water to more than 5 million daily
- Annually avoids 1,000 statistical deaths of young children from diarrheal diseases

**Used in:** India, Liberia, Nigeria, the Philippines and Ghana with expansion plans for Bangladesh

Berkeley-Darfur Stove

**Problem:** 80% of displaced persons in Darfur are female and walk up to 7 hours, 3-5 times per week in search of firewood – making them vulnerable to violence

**Invention:** Berkeley-Darfur Stove – a fuel-efficient and cost-effective stove

**Impact:**
- Saves 55% of fuel compared to traditional stoves
- 20,000 stoves produced since 2005, helping 125,000 women and their dependents in Darfur with improved safety and cost savings

**Used in:** Darfur with expansion plans for Ethiopia