



September 20, 2010

Developing Nations to Get Clean-Burning Stoves

By **JOHN M. BRODER**

WASHINGTON — Nearly three billion people in the developing world cook their meals on [primitive indoor stoves](#) fueled by crop waste, wood, [coal](#) and dung. Every year, according to the [United Nations](#), smoke from these stoves kills 1.9 million people, mostly women and children, from lung and heart diseases and low birth weight.

The stoves also contribute to [global warming](#) as a result of the millions of tons of soot they spew into the atmosphere and the deforestation caused by cutting down trees to fuel them.

On Tuesday, Secretary of State [Hillary Rodham Clinton](#) is expected to announce a significant commitment to a group working to address the problem, with a goal of providing 100 million clean-burning stoves to villages in Africa, Asia and South America by 2020. The United States is providing about \$50 million in seed money over five years for the project, known as the [Global Alliance for Clean Cookstoves](#).

More than a dozen other partners, including governments, multilateral organizations and corporate sponsors, are to contribute an additional \$10 million or more.

Mrs. Clinton called the problem of indoor pollution from primitive cookstoves a “cross-cutting issue” that affects health, the environment and women’s status in much of the world. “That’s what makes it such a good subject for a coordinated approach of governments, aid organizations and the private sector,” she said in a telephone interview on Monday.

She acknowledged that the American government’s contribution of \$50 million was a modest commitment for a problem with enormous implications for billions of people worldwide.

“Like anything,” she said, “we have to start somewhere.”

Mrs. Clinton is to make the announcement at the annual aid conference sponsored by the [Clinton Global Initiative](#), former President [Bill Clinton](#)’s health, development and environmental organization. She will be joined by [Lisa P. Jackson](#), administrator of the [Environmental Protection Agency](#), and officials from a number of partner groups, including the

United Nations Foundation.

Although the toxic smoke from the primitive stoves is one of the leading environmental causes of death and disease, and perhaps the second biggest contributor to global warming, after the industrial use of fossil fuels, it has long been neglected by governments and private aid organizations.

The [World Health Organization](#) says that indoor air pollution caused by such cooking methods is the fourth greatest health risk factor in developing countries, after unclean water and sanitation, unsafe sex and undernourishment. The gathering of fuel is mainly done by women and children, millions of whom are exposed daily to dangers in conflict-torn regions. The need to forage for fuel also keeps millions of children out of school.

Although researchers have been aware of the [health and environmental risks](#) caused by carbon-belching indoor cookstoves for decades, there has been little focus on replacing them until recently, and it is not clear that the alliance's high-profile initiative can pay the intended quick dividends. An estimated 500 million households depend on burning biomass for cooking and heating, some in the remotest places on earth, and it will not be easy to reach them with affordable and acceptable alternatives.

Even if the alliance's goal were fully met, it would address no more than a fifth of the problem, according to its sponsors.

Stoves that are coming on the market for as little as \$20 are 50 percent more efficient than current cooking methods, which are often simply open fires or crude clay domes, backers of the project say. A \$100 model can capture 95 percent of the harmful emissions while burning far less fuel to produce the same amount of energy.

Reid Detchon, vice president for energy and climate at the United Nations Foundation, one of the founding partners of the alliance, said that the plan was not simply to use donations to buy millions of new stoves and ship them out to the developing world.

Rather, he said, the group hopes to create an entrepreneurial model in which small companies manufacture or buy the stoves close to their markets, taking into account local fuel choices, food consumption patterns and methods of cooking. This microproject model is expected to provide business opportunities for women while reducing the fuel-gathering burden of women and children around the world.

“The idea is how to create a thriving global industry in cookstoves, driven by consumers' desire to have these products at a price they can afford,” Mr. Detchon said.

“These stoves don’t have a long lifetime,” he said. “To produce low cost and high volume, you’ll have to replace them relatively frequently, perhaps every two, three or five years. You’ll need a supply chain and business model that delivers them, not on a one-time basis, but as a continuing enterprise.”

Among the other founding partners of the alliance are the Shell Foundation, the Morgan Stanley Foundation, the World Health Organization, the United Nations Environment Program, the United Nations High Commissioner for Refugees and the governments of Germany, Norway and the Netherlands.

Aside from the State Department and the E.P.A., participating United States agencies include the Departments of Energy and Health and Human Services.

Indoor pollution

Silent and deadly

Smoke from cooking stoves kills poor people

Sep 23rd 2010 | NEW YORK



Over to you, Hillary

AFTER vaccines and bed nets, could the humble cooking stove be the next big idea to save millions of lives in poor countries? Hillary Clinton, America's secretary of state, hopes so. She was marking the launch on September 21st of a new alliance that aims to raise \$250m to supply clean stoves to 100m poor households by 2020. It is headed by the United Nations Foundation, a charity. Among its backers are governments (chiefly America, which has put up an initial \$50m), charities (the Shell Foundation) and private firms (Morgan Stanley, an investment bank).

Around two billion people have no access to modern energy, and a billion have it only sporadically. The smoky stoves that many of them use, the World Health Organisation reckons, produce particulate pollution that causes around 2m premature deaths a year. Makeshift cookers also catch fire easily, maiming and killing. And lives are not the only things wasted. Women and girls in rural villages lose time and energy walking around collecting dirty solid fuels, ranging from crop waste to cow dung (better used as fertiliser).

The appeal of a stove that produces more heat, more cleanly and with less fuel is clear. But Kirk Smith, a stove specialist at the University of California at Berkeley, points out that most efforts to promote cleaner stoves have flopped. Too much emphasis has gone on technology and talking to people at the top, too little to consulting the women who actually do the cooking. When subsidies run out, the schemes have faltered, with stoves left unused or broken.

Why might it be different this time? Wouter Deelder of Dalberg, a development consultancy, says that stoves have improved in everything from the materials used to the design of chimneys. Even so, the new stoves can cost \$30 or more. Greater efficiency means they pay for themselves in a few months, but the price is still prohibitive for people living on a few dollars a week. Moreover, technology that works well in the laboratory may fail in the field, where fuels, cooking practices and even the shapes of vessels vary widely.

Last month the Indian government and the X Prize Foundation, a charity that organises incentive prizes, launched a global competition to develop a cheap, clean-burning stove. Gauri Singh of the Indian renewable energy ministry says she wants a stove with a "high-tech heart" that can be tweaked for local conditions.

Another lesson of past failures, says Daniel Kammen, who runs the World Bank's clean-energy programmes, is the need for better data about how stoves are actually used. That is increasingly possible, because cheap sensors can be embedded in stoves. At Berkeley, Mr Smith's team is working with Vodafone, a mobile-phone company, on a wireless gadget that allows researchers on motorcycles to download the data from stoves. Some in the alliance also hope to tap the money available to curb greenhouse-gas emissions.

But the best reason for hope may lie in the new-found awareness of market forces among governments and the UN crowd. Pressed on this point, Mrs Clinton says emphatically that the new stoves "must not be given away". As with anti malarial bed nets, she argues, charging a little makes people value and use them properly.

That will come as good news to the small army of entrepreneurs in the developing world now coming up with novel business models to sell and service the cooking stoves. One such innovator is Suraj Wahab of Toyola, a start-up selling some 60,000 stoves a year in Ghana by offering micro-credit. His advice to the new UN coalition is "please don't offer handouts and don't give away stoves."

International

The Global Alliance for Clean Cookstoves is a public-private initiative to save lives, improve livelihoods, empower women, and combat climate change by creating a thriving global market for clean and efficient household cooking solutions.

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Release: Secretary Clinton Announces Global Alliance for Clean Cookstoves

BY: Patrick Hughes TAGS: CGI DATE: September 26, 2010



Photo credit: Clinton Global Initiative

New York, NY (September 21, 2010) – U.S. Secretary of State Hillary Rodham Clinton announced today the formation of the *Global Alliance for Clean Cookstoves*, a more than \$60 million dollar public-private partnership to save lives, improve livelihoods, empower women and combat climate change by creating a thriving global market for clean and efficient household cooking solutions. Exposure to smoke from traditional stoves and open fires – the primary means of cooking and heating for 3 billion people in developing countries – causes almost 2 million deaths annually, with women and young children affected most. That is a life lost every 16 seconds.

Announced during the Secretary’s remarks at the Clinton Global Initiative forum, the Alliance’s goal is for 100 million homes to adopt clean and efficient stoves and fuels by 2020. The Alliance, led by the United Nations Foundation, will bring together leading foundations, non-profit organizations, academic institutions, corporate leaders, governments and UN agencies to help overcome current barriers and stimulate a thriving global market for clean cookstoves.

“Today we can finally envision a future in which open fires and dirty stoves are replaced by clean, efficient and affordable stoves and fuels all over the world – stoves that still cost as little as \$25,” said Secretary of State Hillary Rodham Clinton. “By upgrading these dirty stoves, millions of lives could be saved and improved. Clean stoves could be as transformative as bed nets or vaccines.”

Cookstove smoke contributes to a range of chronic illnesses and acute health impacts such as early childhood pneumonia, emphysema, lung cancer, bronchitis, cardiovascular disease and low birth weight.

The smoke from inefficient stoves continues to contribute to global climate change by producing harmful greenhouse gas emissions such as carbon dioxide and methane, and aerosols such as black carbon. Reliance on biomass for cooking and heating also increases pressure on local natural resources and forces women and children to spend many hours each week collecting firewood – an especially dangerous task for women and girls in refugee camps and conflict zones.

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The use of efficient cookstoves can dramatically reduce fuel consumption and exposure to harmful smoke. Recent scientific evidence confirms that the greater the emissions reductions, the greater the health benefits. More efficient stoves also reduce the time people (usually women and girls) have to spend collecting fuel, and since stoves last for several years, the accumulated savings in time and cost can be invested back into families, communities and economies.

The reductions in emissions achieved by clean cookstoves have the potential to create revenues from carbon credits. Stove companies can use this revenue to reduce stove prices or expand into new markets. More broadly, the entire clean cookstove supply-chain should be a source of economic opportunity and job creation at the local level.

To achieve its '100 by 20' goal, the Alliance will establish industry standards; spur innovative financing mechanisms; champion the cause across the donor and development communities; develop indoor air quality guidelines; address global tax and tariff barriers; field test clean stoves and fuels; and develop research roadmaps across key sectors such as health, climate, technology and fuels.

A thriving global industry for clean cooking solutions will provide a range of long-term benefits for the entire world – from improving global health to combating climate change.

To learn more about the Alliance please visit www.cleancookstoves.org. For more information contact John Anthony at janthony@unfoundation.org or by phone at 202.277.2103.

Alliance Founding Partners

United Nations Foundation, Shell Foundation, U.S. Environmental Protection Agency, U.S. Department of State, World Health Organization (WHO), German Federal Ministry for Economic Cooperation and Development, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH, Morgan Stanley, UN-Energy, World Food Programme, UN Environment Programme (UNEP), UN Industrial Development Organization, U.S. Agency for International Development (USAID), U.S. Department of Energy, U.S. Department of Health and Human Services (National Institutes of Health, and Centers for Disease Control & Prevention), UN High Commissioner for Refugees, SNV: Netherlands Development Organisation, Shell, Government of Peru, Government of Norway.

Partner Quotes

“Energy is the essential enabler of the Millennium Development Goals,” said **United Nations Foundation** President Timothy E. Wirth. “Broader access to electricity and modern fuels doesn’t just provide light or move machinery. It powers education, health care, and prosperity, and through sustainable technologies, such as solar panels and clean and efficient cookstoves, lives are saved and our environment protected. “Cooking a meal shouldn’t be hazardous to your health,” Wirth added. “Cookstoves that reduce fuel consumption and operate cleanly will save lives, prevent disease, provide more time for women and girls to devote to schooling and earn money and reduce environmental degradation. That addresses almost all of the MDGs. The impressive set of partners who have joined the Alliance for Clean Cookstoves collectively have the expertise and resources to clear the way for comprehensive adoption of clean cooking technologies and fuels.”

“For ten years we have been helping to deliver market-based solutions to selling clean cookstoves in India, China, Central America and Africa. The sector has made great progress. However, if we are going to dramatically reduce harmful cooking smoke we need the global community to make this a priority,” said **Shell Foundation** Director Chris West. “Stove manufacturers face numerous barriers to successfully selling clean cookstoves at scale – and just like any infant industry they need support to address those barriers. That is why we helped co-found the Global Alliance and remain an active supporter.”

“EPA is proud to partner with the State Department, our Administration colleagues, the United Nations Foundation, and the other Alliance partners to address one of the greatest environmental health risks facing the international community today, said Lisa P. Jackson, **Environmental Protection Agency** Administrator. “As a first step in this new partnership, EPA will invest \$6 million over the next five years to enhance efforts at stove testing and evaluation, cookstove design innovation and assessments of health benefits. For more than eight years, EPA has been a leader in this field, and we will bring our expertise, our lessons learned and our global network to launching and leading the Global Alliance for Clean Cookstoves.”

“Given our long track record of supporting pediatric health initiatives and our commitment to protecting the environment, we are very proud to be a Founding Partner of the Global Alliance for Clean Cookstoves,” said Tom Nides, Chief Operating Officer of **Morgan Stanley**. “We look forward to committing our intellectual capital to this effort and working with our Alliance partners to address this pressing issue in the months and years ahead.”

“WHO is wholeheartedly joining in and supporting the work of the cookstoves alliance as it has the potential to halve childhood pneumonia mortality and dramatically improve the health of women through reducing lung cancer and disabling respiratory disease,” said Dr Maria Neira, **World Health Organization** Director for the Department of Public Health and Environment. “Less time required for cooking and collecting wood can free women for education and other health enhancing

activities. WHO will contribute to achieving this change, through helping countries identify technologies and strategies that can yield the best health impact and by supporting systematic monitoring of health benefits from different approaches and technologies. WHO sees this as a key initiative to address the 2 million premature deaths a year due to this smoke pollution, by cleaning up indoor air.”

“Over the next two years, WFP aims to reach 6 million people, providing safe stoves and other initiatives that help to protect the environment and reduce the risk of violence to women who would otherwise have to go in search of firewood,” said Josette Sheeran, Executive Director of the **UN World Food Programme**. The Global Alliance for Clean Cookstoves will help us to reach millions more.”

Achim Steiner, UN Under-Secretary General and Executive Director, **UN Environment Programme**, said: “UNEP and partners have 10 years experience in assisting developing country entrepreneurs establish clean energy businesses including those making and marketing alternative and efficient cook stoves. This new alliance is an opportunity to rapidly scale-up such initiatives, potentially delivering dramatic health and wider social and environmental benefits including green jobs, reductions in deforestation and cuts in emissions of black carbon—a pollutant now making a significant contribution to current climate change.”

“The environment, renewable energy, and improved welfare of women and children are clearly defined SNV strategic concerns and each of our projects around the world is undertaken with them in consideration, said Dirk Elsen Chief Executive Officer of **SNV: Netherlands Development Organisation**. “Therefore, we are very excited about joining the Global Alliance for Clean Cookstoves, whose mission and goals fit in perfectly with these SNV strategic priorities. As a Founding Partner in the Alliance, we intend to take an active role in helping define standards, encourage research, and set the vision for the global deployment of improved cookstoves. Participating in the Alliance’s launch at the 2010 Clinton Global Initiative is a terrific opportunity for SNV to help promote the Alliance’s vision and begin sharing our expertise in bio-energy implementation with our co- Founding Partners and other CGI attendees.”

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OVERVIEW



The Problem

Exposure to smoke from traditional cookstoves and open fires causes 1.9 million premature deaths annually.

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THE ALLIANCE



The Global Alliance for Clean Cookstoves

A new public-private initiative to promote clean and efficient household cooking.

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