How Biogas Can Save Lives

BIOGAS: THE WAY TO CLEAN UP INDOOR AIR POLLUTION

In March 2014, the World Health Organization (WHO) published a report showing that health risks from (indoor) air pollution are far greater than previously thought or understood, particularly in terms of heart disease and strokes, but also the already proven acute lower respiratory infection (ALRI), chronic obstructive pulmonary disease (COPD) and lung cancer. WHO estimates that indoor air pollution is linked to approximately 4.3 million deaths in 2012 from illnesses caused by the inefficient use of solid fuels such as firewood, charcoal, and coal in stoves for cooking and heating. This is in addition to health complaints such as upper respiratory infection, otitis media, asthma, cancer of the nasopharynx and larynx, tuberculosis, prenatal mortality, low birth weight and eye irritation that impairs vision, which are likewise related to indoor air pollution. The report also examines the more far-reaching impacts of burning solid fuels in traditional cookstoves, such as climate (deforestation and CO2 emissions) and work-related injuries (chopping/gathering wood).

The ‘killer stove’ that burns charcoal, coal and firewood is used in approximately 3 billion homes worldwide. Its smoke contains large amounts of hazardous pollutants - including black carbon particles, a short-lived climate change pollutant. Exposure to these pollutants when cooking on traditional cookstoves is by far the highest in developing countries. By way of comparison, indoor air pollution is responsible for more casualties than malaria and HIV/Aids combined. These diseases caused 700,000 and 1.6 million deaths respectively in 2012, a far cry from the 4.3 billion cited by the WHO for indoor air pollution. However, despite these figures, indoor air pollution has not received as much attention as other diseases in the developing world. Over the last decade, significant financial resources from the global health community have been mobilised to tackle developing world health problems, but spending on prevention and control of indoor air pollution was not among the primary goals of expenditure on clean fuels.

“Few risks have a greater impact on global health today than air pollution; the evidence signals the need for concerted action to clean up the air we all breathe.”

Dr Maria Neira, Director of WHO’s Department for Public Health
BIOGAS: THE SOLUTION FOR INDOOR AIR POLLUTION

Research done in China, India, and various African countries shows that one of the most effective solutions for health risks of indoor cooking in developing countries is to provide a clean, safe alternative to polluting fuels. Biogas is that solution. Since 2009, Hivos, in partnership with SNV, has introduced biogas digester technology in Africa and South East Asia through its market-based Biogas Programme, improving the lives of thousands of people. Research shows that cooking on biogas is over 90 percent cleaner than wood and coal, which is why the Hivos and SNV Biogas Programme is not solely about providing rural households with energy, but also improving their health and the environment they inhabit, and freeing women and children from the time-consuming (and literally backbreaking) task of gathering wood for fuel.

HIVOS LOOKING FOR RESULT-BASED FINANCE

So far, the Africa Biogas Partnership Programme (ABPP) has been responsible for 38,000 digesters installed in Ethiopia, Kenya, Tanzania, Uganda and Burkina Faso. An additional 12,000 digesters have been installed in Indonesia. In 2014, the first programme in Latin America started in Nicaragua with a target to install 6,000 digesters in five years. The digesters constructed under these programmes are high quality with an estimated lifetime of 20 years, requiring little maintenance.

By 2018, Hivos and SNV aim to install an additional 100,000 digesters through its African Biogas Programme. This second phase builds on its previous success and aims to scale up the production and use of biodigesters to create its own commercial market with Hivos and SNV-trained local organisations, specialised masons, biogas start-ups and end-users. The usage rates of these biogas digesters will be monitored and verified by third parties in accordance with the most rigorous carbon standard regulations. Similar biogas programmes are being rolled out in Asia and Latin America.

MAKE IT HAPPEN

To reach these goals, the project needs to invest in sector development and market development. However, not all households have the starting capital to purchase a biogas digester. That is why extra funding is essential to scale up our biogas programme. Research shows that health savings are approximately $150 per biogas digester, so an investment of just $150 per biogas digester can open the way towards a better and healthier life for an entire rural family.

Hivos welcomes partners interested in supporting the health benefits of reduced indoor air pollution by investing in its biogas programmes through a result-based finance mechanism.