CEIHD
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Support for High-Quality International Offsets with Co-benefits in a California Cap-and-Trade Program

Climate change is a global issue requiring international cooperation. Developed countries are responsible for the vast majority of historical greenhouse pollutant (GHP) emissions, or, natural debt[1], and consumption and demand for manufactured goods in developed countries contributes to growing GHP emissions in developing countries. Two-thirds of global CO_2 emissions this century are expected to come from currently developing countries, however, and thus climate stabilization requires large-scale commitments in both developing and developed countries, probably for much lower rates of growth in the former and steep reductions in the latter. At the same time, developing countries have many other needs for development, which confines their ability to take on major climate commitments today in spite of having many highly cost-effective mitigation opportunities. International offsets are a means to bridge the gap by applying a portion of developed-country mitigation resources to projects in developing countries that provide emissions reductions at reasonable cost but also assist developing countries to meet development goals.

International Offset Co-benefits

Addressing climate change and development goals in tandem creates a win-win situation that cost-effectively reduces GHP emissions while providing significant social, environmental, and health co-benefits[2] to under-resourced populations. For example, increasing combustion efficiency and switching to renewable fuels for household cooking in India and China will provide health and development benefits from reduced air pollution exposures and lower fuel costs to households; at the same time, reducing emissions of black carbon and other greenhouse-related pollutants. Black carbon, in particular, is emerging as a "low-hanging fruit" for rapid and cost-effective climate mitigation[3]. Additionally, reducing emissions in China decreases the extent of the 'Brown Cloud' that crosses the Pacific Ocean and affects California air quality[4]. Finally, communities receiving offset revenues can invest them in education, health care, gender equality, good governance, and other programs that are not directly part of the climate mitigation intervention.

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[1] Patz, J.A. et al. (2007) Climate Change and Global Health: Quantifying a Growing Ethical Crisis. *EcoHealth* 4, 397–405

[2] Smith, K.R and Haigler, E. (2008) Co-Benefits of Climate Mitigation and Health Protection in Energy Systems: Scoping Methods. *Annual Review of Public Health* 29:11–25

[3] Elisabeth Rosenthal, "Third-World Stove Soot Is Target in Climate Fight", *New York Times*, April 15, 2009. http://www.nytimes.com/2009/04/16/science/earth/16degrees.html

[4] Polakovic, G. "Asia's Wind-Borne Pollution a Hazardous Export to U.S" *Los Angeles Times*. April 26, 2002 http://capita.wustl.edu/Asia-FarEast/Reports/Asia%27s%20Wind-Borne%20Pollution%20a%20Hazardous%20Export%20to%20U_S%20LATimes.htm

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Demonstration Project: Biomass Gasifier Stoves in Shanxi, China

CEIHD is developing an emissions reduction project in Shanxi, China, which will replace coal consumption for household cooking and heating in traditional stoves with renewable biomass crop residues in low emissions stoves. Approximately 80% of households in China rely on solid fuels such as coal and biomass for a large portion of their household energy. This practice results in respiratory illnesses that are annually responsible for over 380,000 premature deaths and loss of 3,200,000 Disability Adjusted Life Years[5]. Cooking and heating with inefficient stoves also contributes significantly to GHP emissions and environmental degradation. Additionally, household coal use results in endemic fluorosis and arsenic poisoning in some of the poorest rural areas of China[6].

To address these problems, CEIHD is working with Chinese partners to disseminate a proven technology - improved biomass gasifier stoves - using carbon finance as a sustainable business model for large-scale dissemination. The technology is sound and meets the needs of end users, but the high sales price of these stoves, and a lack of consumer awareness remain barriers to wide-scale dissemination and adoption. To overcome these barriers, carbon revenues will fund direct stove subsidies as well as social marketing campaigns.

There is an opportunity to create real, high-quality emission reductions, and to achieve real social, environmental and health co-benefits in poor communities, through the inclusion of international offsets in a California Cap-and-Trade Program. Climate change mitigation with social co-benefits can be best achieved by the following:

- Acceptance of international offsets from the highest quality standards (both compliance and compliance-based voluntary programs such as Voluntary Gold Standard). Offsets could be allowed from projects created with certain methodologies which are generally accepted as having strong social co-benefits and/or are typically smaller scale.
- Allowance for project-based approaches in less developed countries, in sectors such as efficient cookstoves and solar lighting where a sectoral approach is not feasible, and in projects with positive climate change externalities such as reductions in Black Carbon.

[5] World Health Organization. *Indoor Air Pollution: National Burden of Disease Estimates.* France, 2007
[6] Zhang, J. and Smith, K.R. (2007) Household Air Pollution from Coal and Biomass Fuels in China: Measurements, Health Impacts, and Interventions

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- Valuing of basic social principals in international offset eligibility criteria and including advantageous provisions for credits generated by projects meeting stringent social development standards.

We are eager to continue supporting ARB in crafting meaningful and effective international offset policy and look forward to continued progress.

Sincerely,

Evan Haigler

Evan Haigler
Executive Director, CEIHD

8/25/09