

# Preliminary Thoughts on the Implications of Global Climate Change for Microfinance

Paul Rippey and Elisabeth Rhyne

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Scientists – and, increasingly, politicians, business leaders, and the general public – are convinced that global climate change is a crisis that will touch practically every other human enterprise. Climate change presents such a threat to all nations and people that it may become the defining event of the 21<sup>st</sup> Century, the one against which all other activities will be measured.

The *Stern Review of the Economics of Climate Change*<sup>1</sup> estimated that we have no more than ten to fifteen years to stabilize and begin to reduce carbon dioxide (CO<sub>2</sub>) levels in the atmosphere, failing which, there are likely to be highly adverse effects that will touch nearly everyone. Those effects include massive loss of arable land to drought, accelerating species loss, increasingly severe weather anomalies, new invasive human diseases, and sea level rises. Stern reports that, according to one estimate, 200 million people may become permanently displaced by rising sea levels, floods, and droughts by 2050. Most of those changes will fall hardest on the low income people our industry aims to reach with financial services.

This crisis challenges the microfinance industry to examine and address the implications of climate change in all areas of endeavor, especially our work in bringing financial services to the poor. We present these preliminary thoughts, hoping that they will inspire much more profound reflection, and, soon, action.

## Impact of Climate Change on Microfinance Customers

Developing countries, and particularly their poorest residents, presently contribute relatively little to the build-up of greenhouse gasses, but are unfortunately among those most likely to be

adversely effected by climate change, for at least four reasons:

1. Poor countries cannot afford the expensive investments, like sea walls and irrigation systems, which will be necessary to mitigate the impact of climate change.
2. The economies of most poor countries depend on agriculture, which is highly sensitive to climate change<sup>2</sup>.
3. Poorer countries have weaker developed public health systems to deal with the expected epidemics of new and resurgent diseases.
4. Soil moisture and therefore crop yields are projected to drop most rapidly in tropical and subtropical regions.

Microfinance is not usually considered to be one of the key players in addressing the global warming challenge — unlike, for example the transportation and energy sectors. However, on investigation, the extensive networks of MFIs, branch offices, field workers and customers will be implicated in climate change issues to a surprising extent. As good corporate citizens, MFIs can and should take actions, including awareness-raising among their clients, advocacy with policy makers, and modeling of climate-conscious practices in their own businesses. These actions require a minimum of effort and can begin immediately on a large scale. We encourage all participants in microfinance to develop and implement their own climate-crisis “good citizen” agenda.

<sup>1</sup> *The Stern Review: The Economics of Climate Change*, prepared for the British Government by a team directed by Nicholas Stern, and widely available on the internet.

<sup>2</sup> One concrete, startling example: the Intergovernmental Panel on Climate Change, widely considered the definitive source of information on global warming, predicts global temperatures will rise between 1.8 and 5.4 degrees C on average by the end of the century; an increase of just two degrees would reduce the land available for coffee production in Uganda by more than 90%. Coffee is the principal export of Uganda, and provides income to tens of thousands of small farmers.

Closer to the core business of microfinance, we consider here two arenas for action which involve the financing of the economic activities of the poor. The first of these — Financing Good Energy Choices by Microfinance Clients — is relevant for all developing nations, and for both urban and rural settings. The second – Aggregating Carbon Trading - is potentially relevant in particular for the poorest countries and for rural areas.

## Financing Good Energy Choices by Microfinance Clients

Because the primary cause of climate change is the burning of fossil fuels that provide the vast majority of the world's energy, addressing climate change requires a major global shift in energy usage during the coming decades. At the same time, people in developing countries, especially the low income people of those countries, are seeking better lives. Their quest for higher standards of living means bigger houses, with electric lights, indoor plumbing, hot water, and possibly even air conditioning. Many people in emerging market countries dream of owning a car. Businesses seek to become more productive through the use of power tools.

Developing country residents might think that progress on climate change will thwart their aspirations, but we take a more hopeful view. Just as many developing countries moved directly to mobile phones and were able to leap over the now obsolescent land lines, they can also avoid repeating many of the problems that richer countries encountered as they industrialized, particularly wasteful, expensive and polluting energy use.

As a starting point, consider that many of the clients of microfinance use inefficient energy sources. The poorest use wood, and as they become better off, they move to charcoal, which consumes five times more wood to give the same amount of heat. Many have no access to their country's power grid, and where they do have access, they have frequent interruptions in service. Changing their energy sources can make an immediate difference to them and lay the groundwork for the growth of renewable energy in those locations. There are some products that can be manufactured by small and perhaps micro businesses that can reduce carbon emissions. These include solar water heaters, improved cook-stoves, and infrastructure for low-head hydropower. Assistance to these industries,

including financing, could encourage the use of alternative energy sources.

We have begun to examine the fledgling renewable energy industry in Uganda, in which some microfinance institutions participate. Challenges abound at every step in the supply chain: demand, manufacture, distribution, installation, maintenance, and finance. For example, many rural clients would like to install solar systems to light their houses, but the urban-based suppliers of solar systems find it too costly to travel to one client's home at a time. Microfinance and enterprise development organizations have potentially relevant experience in addressing such supply chain obstacles.

## Carbon Trading Aggregation

Carbon trading is a mechanism through which polluters bumping against their regulatory limits for carbon emission can be allowed to continue to emit greenhouse gasses on the condition that they invest in carbon reduction programs elsewhere. Carbon trading is carried out through two parallel networks, voluntary and compulsory. Voluntary trading, for companies and individuals, is run through NGOs, and these are already active on a small scale in Africa. Compulsory reductions through the European Union's Emissions Trading Scheme require rigorous certification of outputs (how many trees, of what species, were planted, and where); proof of 'additionality' (that it would not have happened without the credits); and long-term protection of tree lots. Despite the certification challenge, some sort of carbon trading mechanism is essential to large-scale reduction of greenhouse gasses. Many long-term preferred carbon trading partners are in the developing world, not only because there is a need and desire for the revenue that will come through carbon trading, but also because many developing nations have climatic conditions particularly well-suited for growing plants which will absorb carbon quickly.

However, much of the fertile land in Africa and other poor regions is in the hands of large numbers of small holders, and other factors make it difficult to attain the kind of scale in carbon trading in the developing world that is necessary:

- First, it is notoriously difficult and expensive to work in countries with poor infrastructure and, often, many languages.
- Second, carbon trading will require dealing with large numbers of small financial

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transactions, as peasants receive loans to plant trees, and payments as the trees grow.

- Finally, reliable carbon trading partners will have to produce credible quantitative and analytical reports, for distant partners, over multi-year periods.

Astute readers will have noticed that these are the same challenges that microfinance institutions have already faced and largely overcome over the last few decades. Larger MFIs are among the institutions in poor countries that have the professionalism, human resources, scale, networks, credibility, and understanding of the double bottom line to qualify for credits under the Emissions Trading Scheme.<sup>3</sup> Microfinance institutions could intermediate between the suppliers of financing who want to offset their emissions, and the low income clients who have the potential to provide a piece of the solution.

These suggestions are too preliminary to be taken as a guide to action. They are designed rather to

stimulate creative thought and sustained, serious investigations. The ability of any one action to make a significant difference in slowing climate change, or in mitigating its effects, is modest. The solutions to climate change have been described as, not a silver bullet, but rather **silver buckshot**: numerous small actions which, taken together, will produce positive results.

No field of human endeavor can afford the luxury of ignoring global climate change. Where there is a commitment to confront this issue, where climate and environmental issues are placed at the top of the list of strategic objectives, then opportunities for effective action will continue to present themselves. The alternative to making these issues a priority is failure — not simply for our various initiatives, but for humanity.

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*This article is an op-ed by Paul Rippey, DFID Financial Sector Deepening Uganda Project and Elisabeth Rhyne, Accion International, expressing their personal opinions.*

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<sup>3</sup> Another example shows how existing networks can be used to gain scale in carbon trading. TreeTalk, a Ugandan NGO, piggy-backed on a network working in HIV-AIDS education for school children, and distributed tree seeds through the same channels that are used to disseminate information about adolescent sexuality. TreeTalk used this mechanism to plant a quarter million trees from March to December 2006, and expects to expand that number significantly in coming years.