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MICROFINANCE AND CLIMATE CHANGE: CAN MFIs PROMOTE ENVIRONMENTAL SUSTAINABILITY?

AN ONLINE SPEAKER'S CORNER HOSTED BY DAN LUNDMARK AND FACILITATED BY JOAN HALL, ELIZABETH AND THOMAS ISRAEL, BETSY TEUSCH, BELA VORA, MANAB CHAKRABORTY, PAUL MOONJELY, AND PAUL THOMAS. THE FORUM WAS HOSTED ON WWW.MICROLINKS.ORG.



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DAY ONE

WELCOME TO SPEAKER'S CORNER 29

Post by: Dan Lundmark

Welcome to all of you joining us from many countries around the world. I am honored to host this forum and look forward to a lively dialogue as our facilitators guide us through the intersection of Microfinance and Climate Change, exploring the question: Can MFIs Promote Environmental Sustainability?

Joining us are our facilitators, including Joan Hall, Elizabeth Israel, Thomas B. Israel, Kathleen Robbins, Betsy Teutsch, and Bela Vora - and from three Indian MFIs -- Manab Chakraborty (MIMO Finance), Paul Moonjely (Wesco Credit), and Paul Thomas (ESAF). (link to read more about the facilitators)

We must also acknowledge the ongoing efforts of many others in this field already seeking to integrate sustainability solutions into microfinance, including SEWA, Grameen Shakti, GVEP, FMO, PlanetFinance, Asian Development Bank, Jacques Whitford, Foundation for Development Cooperation, and more recent efforts by Arc Finance, AED, Accion and MicroEnergy International with the Microfinance and Climate Change Working Group.

I will open this forum with a quote from a loan officer working in Chiapas, Mexico that I interviewed at a recent Microcredit Summit. She became concerned after observing her microfinance clients clear-cutting for firewood and other uses: "...I have a one-year old child, a baby girl. In Chiapas we have the Lacandona Jungle. As far as I know, maybe, when she gets to twenty years old, she will not see the jungle anymore. I have been in the jungle a month ago, and it was very, very sad. It was so sad. People don't understand the importance -- Mother Nature can live without us, but we cannot live without Mother Nature. We cannot live without water, we cannot live without trees. If humans go away, the plants will keep growing, the trees will keep growing. But not us. Without nature we are nothing. For me this is a very big, important thing."

Note- It is estimated that two-thirds of this 4,700,000-acre (19,000 km²) jungle has already been cut down. (see link "No quick solution to deforestation in lush Chiapas" <http://www.csmonitor.com/2002/0114/p7s1-woam.html>)

Our opening question for Day 1: What is the impact of microenterprise and microfinance clients on the natural environment? Share your experiences as we explore problems observed on the field and pose follow-up questions. Thank you for your participation – take it away!

Dan Lundmark, GreenMicrofinance Center

Post by: Koin Etuati

Hi facilitator,

Thank you for the question. I am from the Pacific region working with SOPAC and am currently implementing an RE project whereby a household is given a solar PV LED lighting system on micro credit. The impact of this activity is that people are planting more cash crops so they can sell their local produce to buy off the system. We make use of the renewable energy source (energy power) to improve living standard of rural and remote communities.

However our ability to offer the micro finance is limited due to unavailability of institutes in the Pacific or if they are available, there is limited knowledge on integrating the credit schemes with saving the environment. However this project is a demonstration on using the RE sources which are abundant in this part of the world.

Post by: Kathleen Robbins

Hi Koin,

I don't doubt you have a very limited selection of MFIs in SOPAC with the relatively sparse population. What about commercial banks? Many banks in developing countries have formed MFI subsidiaries?

Post by: Koin Etuati

The people use kerosene lanterns and bottled wick and bamboo lighting. While others use open fire (biomass) only for limited time so they are able to eat their meals at night.

Other resulting benefits are that a household, in particular women have more time to carry out household activities (such as baking food) making handicrafts (shell money in the Solomon Island) is important as well as more time for reading bibles and preparation for church (daily activity in some part of the communities). Children will have time to do study work at night as usually day time is used up for gardening and water fetching and cooking.

A lot of people (95% of rural population) in the Solomon Islands are still without lighting due to limited cash to purchase a solar panel or a battery and lights but have natural resources (cash crops) that they can utilize and sell to get money.

Establishing a specific micro finance institute with capital in these parts of the region will allow the increase use of solar power for the rural communities.

Post by: Claud Jan Marquez

Yes I agree sir. There are a lot of ways of doing it, but it has to be a win-win solution such as environment friendly technology but not compromising the entrepreneur /MFI clients' entrepreneurial activity

Post by: Stewart Craine

Hi Koin,

We are already selling some solar white LED desk lamps, and slightly larger kits, in the Solomon Islands, backed with some finance from the World Bank. We are currently developing linkages from these importer/distribution partners to any microfinance programs in the Solomons. Problem is, there aren't many. If you know of any active microfinance program in the Solomons, we'd be keen to have them look at the micro energy entrepreneur kits that we have developed. I think we can generate 50 micro energy entrepreneur jobs in the Solomons within a year - we already halved 5-10 jobs, and regular and increasing sales, indicating affordability for cash of these small systems (US\$20-50, or 4-12 months of kerosene).

Nearby, Buka Microfinance on Bougainville Island is also selling kits much faster than their capital can keep up with, already having reached hundreds of households without even any training from us. We've managed to visit them once, but we don't have the spare funds to train them or visit them more. They have access to almost half the islands' population, about 15,000 clients, so if there is anyone that can help with finance (US\$5,000-25,000) for Buka Microfinance to scale up, we'd love to hear from you. Small volumes of finance targeted at small, regional MFIs like this are often harder to raise than \$1 million.

Post by: Beth Rhyme

I agree that this is the core dilemma: microfinance is busy helping people to become less poor and that means consumption of more energy. This makes it incumbent upon microfinance institutions to assist their clients to move toward a more environmentally sustainable ways of developing, with an urgent focus on renewable energy and reducing deforestation. Most microfinance institutions do not see that as part of their job, however.

I recommend Tom Friedman's book, Flat, Hot and Crowded, which lays out some numbers regarding the effect of economic growth in the developing world on energy consumption. It is extremely scary, and you cannot take a look at his numbers without coming away with a sense of urgency and the need to think about this problem in a big way.

Microfinance institutions could do a lot through awareness raising among their clients, the way the Climate Project has done in the US, which educates people on the climate crisis. The problem is that you can't stop with awareness raising because people cannot easily change their energy habits - the system doesn't let them, and the market sends the wrong signals. So education has to go hand in hand with assistance in behavior change.

I would be interested in knowing where there is effective awareness raising and/or behavior change campaigns going on that involve MFIs.

Post by: Geert Schuite

My name is Geert Schuite. I work as a consultant at Triodos Facet in the Netherlands. In the past few years, we've been involved in several projects with microfinance institutions in various continents, in the field of social and environmental issues. An example I can give on effective awareness raising instruments for MFIs is the series of 'sector fact sheets' we've developed for FMO in the Netherlands. We use them in trainings and currently we're producing an electronic version. The fact sheets suggest that a loan/credit officer, when visiting a client, can observe certain things (potential risks), and then uses that observation to discuss these issues with the client, and make suggestions for improvement. Again, the fact sheets are part of a bigger idea of implementing a social and environmental management system, but it might be useful for this discussion to take a look at them. The sector fact sheets are being updated and adapted continuously, but some information about the training and the fact sheets can be found here:

<http://www.fmo.nl/smartsite.dws?id=531>

(if that doesn't work, here: <http://tblmicrofinance.com/EHSfactsheets.aspx>)

Good luck with this discussion! I'm very much impressed with the stories I read here. Since the environment is so fragile, and degradation is going so fast in some areas, we might have to work towards emergency support. Just like food aid, some areas need energy aid now. At the same time, we all must work on sustainable solutions. Not the people in Haiti or Tanzania or China or Mexico by themselves, but everybody at the same time. It's a thing we're in together, aren't we?

Post by: Grace Guerrero

Hello everybody, I am Grace Guerrero and I am writing from Ecuador, and working actually at Fideiciomiso Ecuatoriano de Cooperación para el Desarrollo and supporting small producers with a chain focus; according to my point of view, and having worked with microfinance over 10 years, small producers can cause small impacts over climate change, and there are productive chains that cause benefits in term of economics and environmental issues, I am talking about production of organic cocoa associated with other crops that preserve biodiversity, increase income to peasants and generate more value and employment.

Post by: Joern Helms

Dear All,

My name is Jörn Helms. I am currently working with a provincial Chinese bank. This bank is focused on Micro, Small and Medium Enterprises. This bank and I myself are clearly representatives of "commercial" microfinance. It still is a good thing to help small businesses and thus generate income opportunities for both entrepreneurs and their employees. The bank is very successful. Profitable, growing, innovative. That is all good. At the same time I see how our clients, due to lack of awareness, pollute and destroy the environment. Low technology, lack of waste management and maybe even a (too?) strong desire to earn more money. Also the rising prosperity level lifts the economic limitations and lets people turn into "heavy consumers" with big cars and too many plastic bags...

So it is the dilemma, that if you successfully fight poverty people become less environmentally sustainable. Poor people can not afford to waste resources, more prosperous ones will unfortunately do so. I am wondering now, how I can introduce the idea of protection of the natural resources and environment into our business model without compromising the for-profit nature of this bank. I have some ideas mostly in the direction of raising awareness, but I hope some of you can give me more good ideas that I could introduce here.

Thanks to you all in advance,

Jörn

Post by: Piyasena Rajapaksha Wijewardena

I am Wijewardena from Biomass [Dendro] energy promotion program in Sri Lanka

Microfinance scenario is very important as entering point to reach the under privilege community towards poverty reduction and rural entrepreneurship promotion while minimize impact of climate change. We understood that commercial model MFIs are reluctant to go for broader objectives. They are only worry about recovery status and earning capacities of the microenterprises.

Most of the credit programs are financing to their clients without exploring income generation projects and thus there is another burden come onto the poor's shoulders. Their stress is increasing due to debit weight and poverty level remains further.

Under privilege community in remote area is struggling with environment to have their basic need for just to survive. In this process they compel to harm natural resources. The remaining natural forests are placed under increasing pressure as the population keeps on growing and the market and profit oriented living pattern. One of the main causes of deforestation and forest degradation in the area is the poverty that is often associated with landlessness, poor land tenure system, continues drought effect, security level and the poor irrigation facilities. Shifting cultivation, excessive harvesting of forest products and the lack of awareness on correlation of natural forests with their lives are the other significant factors that have influenced the unprecedented deforestation. As a result of these trends, forest area has declined to critical level.

There may also be potential for microfinance to support community-based enterprise and infrastructure models, such as processing facilities or bio-gasifiers run on renewable energy, or community-scale dendro power plants. However, these financing needs are likely to be larger and longer-term and present a different set of challenges, especially as these relate to longer term financing from MFIs.

Innovation in the microfinance field focused on products that would help poor people increase their incomes and reduce vulnerability in the short term. Most of the experiments so far have focused on financing options to help low-income households acquire cleaner/renewable energy technologies such as biomass dendro energy promotion and wood fuel plantation with cash crops under alley cropping systems.

Since the economic and social structure is so inter-connected, the solution too has to be integrated. This means that there is no single formula for poverty reduction, rather it has to be an approach which address the various economic, social, religious, political factors existing in our society, which causes and perpetuate poverty. Access to relevant, timely Information and knowledge can do wonders to change the face of our poor in rural, isolated and under-privileged regions. This project provides reliable, affordable, economically viable, socially acceptable and the project has placed grater emphasis on increasing income of the rural community through productive use of natural resource in the area. We have hosted series of local level, regional level and national level workshops and awareness programs in order to outline the principal elements of the integrated approach towards sustainable renewable energy resource management. In this process there is huge demand for wood fuel and recently, the Government of Sri Lanka declared, Gliricidia sepium as the fourth main plantation crop in addition to three existing crops of tea, rubber and coconut. The development of fuel wood produced mainly from Gliricidia in the agro-based energy sector is providing the right encouragement for the country to meet its overall energy security. Soil fertility improvement by Gliricidia is the key for development of degraded soils and agriculture.

Project initiatives are operating in Anuradhapura, Trinkomalee, Ampara, Ba dulla, Puttlama, Wavuniyawa Districts targeting 20000 rural low income families. This integrated program is manly covered in following fields:

Social Mobilization

Environmental Microfinance

Rural Entrepreneurships

Gliricidia/Maize/Grains alley cropping for agro forestry

Establishing of wood fuel supply chain

Establishing of on grid biomass [Denedro] electricity mini plants

Dairy development and processing animal fodder

Promote land use policies and organic farming

Establish community public private partnership

Establishing of ICT-enabled Innovation Business incubator

This project provides reliable, affordable, economically viable, socially acceptable and environmentally sound energy service towards cleaner and greener Sri Lanka.

Post by: Justin Trezza

Hi Grace:

Thanks for your comments and I agree. Sustainable Harvest International has been working extensively with Mayan farmers in southern Belize to further develop sustainable techniques to growing cacao such as companion planting, agroforestry and biochar. Though the farmers we work with are not yet at the point of being certified organic (primarily due to financial restraints), they have taken all necessary measures to preserve the natural ecosystem and created a multi-storied forest.

Overall there is a lot of potential for MFIs to support sustainable grassroots farming in developing nations versus the traditional small business creation. Providing funds or seed capital for endeavors such as shade grown cacao or seed banks is one means, in addition to developing local organic markets and opportunities for small-scale producers.

Post by: Dan Lundmark

Joern, thank you for your question:

"So it is the dilemma, that if you successfully fight poverty people become less environmentally sustainable. Poor people can not afford to waste resources, more prosperous ones will unfortunately do so. I am wondering now, how I can introduce the idea of protection of the natural resources and environment into our business model without compromising the for-profit nature of this bank."

To those participants reading this, we each have an opportunity to respond in this forum! Reply to this email or visit the online forum and reply.

My initial thought is that the two goals of making a profit and environmental protection do not necessarily have to be in contention.

As Koin Etuati posted in this forum earlier, they finance clean energy solutions that meet a market demand -- meeting both goals -- making a profit and protecting the environment.

As Beth Rhyne noted in her response, helping clients become less poor is seen as a dilemma as they consume more energy. However, I see an opportunity for microfinance institutions to be intentional about what kind of energy is consumed. (for example, clean solar vs. deforestation for firewood).

So readers, this is your chance to post thoughts on how we can move microfinance toward being intentional on this issue. We invite you to Reply and share your thoughts.

Post by: Grace Guerrero

Hi Justin,

Thanks for your comments, we know the difficulties that farmers face in order to get their organic certification, organic production and commercialization upon fair trade terms need financial and non financial services all around the world; it is important that International Cooperation join National Efforts to support small producers upon this approach.

Post by: Joan Hall

Anecdotally, I'd have to say that in my experience it's the agricultural coops, who also provide savings and loans, who are very committed to educating their members about negative environment impact, and who are doing the most to change that. No wonder - these rural folks are the ones who see clearly how those negative impacts affect their livelihoods and well-being. It's not so clear in the urban areas. It's also true that in the rural areas there is more emphasis on renewable energy technologies, because many people are not on the grid, whereas in the urban areas people are already connected to the grid (legally or not). There's a conundrum there: from a private sector perspective, it would be more profitable to provide these urban folks with renewable energy technologies, due to economies of scale. But the demand is in the rural areas.

NB: In trying to bridge the gap between environmental practitioners and MF practitioners, we've learned to be careful with our vocabulary. In MF, "impact" is a good thing; in the environment, "impact" is a bad thing!

Post by: Justin Trezza

I think there are a variety of means of connecting the microfinance sector with the environmental, and mostly importantly having people think outside the box.

For example in rural parts of Nicaragua's south Atlantic region, you are finding individuals dedicating their lives to deforestation for the sake of carbon. What is needed is an alternative that is both lucrative and realistic - or rather how do we turn the problem into the solution.

In the case of the RAAS region of Nicaragua, individuals need to be offered options that illustrate how one can work with the current environment and improve their standard of living. One option is creating diverse agroforestry systems that incorporate cash crops like cacao and native species with biofuel potentials such as *Jatropha curcas*. The advantages to this system and crop in addition to generating income is that it can be used to prevent erosion and grows in almost any soil, including dry and saline soils.

The bottom line is looking at the present conditions and problems in the zone one is working in and conceptualizes solutions that fit into that scenario.

Maybe my/our approach is slightly different since we work more from the environmental angle; however I think at the end of the day MFIs and environmental organizations need to bring themselves together and visualize such solutions.

Post by: Betsy Teutsch

Jorn, well said. We affluent nations are profligate with resources. If the whole world's population consumes at the rate we do, we will need 11 earths, according to some studies.

However, your observation, "Poor people can not afford to waste resources" is true in so far as poor people have control. However, lack of funds results in people buying small, very expensive quantities of things. All the extra small quantity packaging adds to their expense and consumes resources also. This is an additional "surcharge" on the poor.

Post by: Claud Jan Marquez

I am Claud Jan Marquez from Philippines, project officer of Approtech Asia a network of NGOs that promote sharing, transfer and dissemination of green technologies for poverty reduction and climate change mitigation, To the question how can MFIs promote environmental sustainability? What are the impacts of microfinance clients to the environment?

1. We have been working with the Food Micro-Entrepreneurs (FME) for the several years already promoting improved cook stoves that significantly reduces fuel and CO and PM emission. FMEs are vulnerable when cooking fuel are becoming expensive, more and more are shifting from kerosene and LPG to charcoal as fuel for cooking. When charcoal is not sustainable and the cooking stoves are not fuel efficient the environment is at risk. More trees are being cut for charcoal, more CO emission and even the health of the FMEs are in danger.

2. Micro-Finance scheme that fits the FMEs profit pattern and income trend is vital for the sustainability of the project. Not all can afford to buy the stove in cash, because most of the FMEs have only enough in their pockets for their daily working capital and the profit they realize in their business are just enough for the daily needs of the family.

3. Cooking fuel represent almost 30% of the FMEs expenses. The savings they can realize from using the energy efficient stove can be invested back to their food business thereby improving their hygiene and sanitation practices, the effective management of their solid and wastewater waste. To note that, FMEs contribute a lot to the solid waste problem of the cities.

4. We are also doing kitchen improvement projects with FMEs partners together with the introduction of institutional stove for those businesses who need the technology....

In closing, MFI plays a great role in this era which our environment is at stake. Goals and objectives should not be only limited to providing loans and getting the highest repayment rate as possible but also looking at the projects and the businesses of the micro-finance clients to be financed. Whether it can help them improve their living...at the same time not compromising the environment.

A MISSING QUESTION? MF AS A SAFEGUARD AGAINST IMPACT OF CLIMATE CHANGE

Post by: Leila Seradj

I look forward to the next three days' discussions. I wonder, however, if there's another question that needs to be asked, in addition to the ones posed in this week's speaker's corner: how can microfinance provide safeguards for the livelihoods of those most vulnerable to the impact of climate change?

I wrote about this today for The Ladder, the blog of the Asset Building Program at the New America Foundation:

<http://www.newamerica.net/blog/asset-building/2008/climate-change-and-microfinance-its-not-easy-being-green-846>

Any thoughts or comments would be helpful and very welcome.

Post by: Dan Lundmark

Leila, your question is an important one: "how can microfinance provide safeguards for the livelihoods of those most vulnerable to the impact of climate change?"

Recent studies have shown that microfinance clients are already 'insulated' from larger financial instability because micro-entrepreneurs are operating closer to the informal sector. So in this sense market instability and financial shocks caused by climate change may affect microfinance clients less than others. However as micro-financed businesses grow and enter the larger economic environment it is possible their vulnerability to financial instability (fuel pricing and other shocks) is increased.

Post by: Heather Goldsworthy

What a great thread –

My name is Heather Goldsworthy - I am a doctoral student doing my dissertation on microfinance and sustainable environmental development from organizational, practitioner, and ecosystem perspectives.

I like Leila's question, and I'm curious what you all think about what challenges there are to making environmental sustainability a more obvious imperative for MFIs and their donors. This climate change "angle" seems an interesting one. We all know adding any new program/intervention to microlending has to be seen by donors and clients as serving their financial needs/goals over the short and long term. Would it be persuasive to make the argument that over the long term environmental degradation will likely compromise the ability of clients to repay their loans? Debt could theoretically lead clients to overexploit their ecosystems (to produce more to sell more to earn more), which leads to both environmental and organizational breakdown. Speaking as practitioners, do you think this would make the message 'hit home' a bit more?

Post by: Joan Hall

Yes, we'd like to see making environmental sustainability a more obvious imperative. The microfinance "industry" is moving towards systematic and concrete measurement of social performance indicators, and we hope that it's only a matter of time before they add the third bottom line - the environment. Training, policy work, donor due diligence that includes environmental questions, awareness raising at MF conferences and seminars, certifications for MFIs (linked to funding, hopefully), are just some ideas that have come up.

We've made the argument that long term environmental degradation will reduce people's ability to repay debt. We think it's a logical argument; unfortunately, there's very little research on it, and it's very contextual. IFPRI has done at least one study that indicated that credit for agricultural activities can help people farm better on the land that they have, rather than expanding onto marginal land and degrading that. I'd like to see more research on the issue.

I also think there are a lot of factors at play in whether there are positive impacts on the environment or negative ones, above and beyond the credit itself. As Beth said earlier, it's the way the system is set up.

Post by: Beth Rhyne

While I agree that social performance measurement should include environment, I am concerned that its inclusion will result in looking at this issue from a "compliance" perspective rather than sparking a search for opportunities to have a positive impact. For example, the Global Reporting Initiative, with a strong focus on environmental sustainability has Acleda Bank measuring how much paper it uses and how high its utility bills are. Reducing paper use is well and good, but Acleda might be able to find much better ways to save the environment. How can the tables be turned toward positive action?

Post by: Elizabeth Israel

GreenMicrofinance has put forward the following: **Generally Accepted Environmental Principles (GAEP) for Microfinance Institutions**. These principles were initially developed by the participants in 2004 during the cutting edge "Microenterprise and Environment" Conference in Valley Forge, Pennsylvania.

These environmental principles seem to be a good starting point for any MFI seeking to have a positive impact on the environment, especially if incorporated (or adapted) at the MFI Board level.

It might be of interest to some that as GreenMicrofinance tracks our on-line document library, we have had 1,824 "hits" on the [Guiding Principles](#), by far the most than any other document. We are developing an automatic sign-on for signatures - to add to the list of those who have already signed on!

Generally Accepted Environmental Principles (GAEP) for Microfinance Institutions

The environment is a sacred trust. The earth and all its life are interconnected and sacred.

Addressing the human spirit is essential. Environmental and human integrity are inextricably linked. Improving inner human quality results in improving the environment.

All microenterprises impact the environment. Do no harm. Eliminate or mitigate negative impacts. Seek positive impacts.

Protecting the environment is an opportunity. Environmental protection makes good economic sense.

Creating financially cost-effective solutions is vital.

Each person is responsible. Responsibility means personal ownership and action. Agencies should work with local, national and international governmental & agencies to promote sound environmental practices and policies. Agencies should help people understand why the environment is important to their lives. Donors and agencies should model good environmental behavior.

Benefits and costs are both short and long term. True costs include environmental and health costs. Agencies should identify, account for and mitigate environmental costs. Environmental benefits created should be recognized. Costs of creating environmental benefits should not be borne solely by MFIs or clients.

Creating partnerships is crucial. Partnership with stakeholders is the key to appropriate environmental protection in development.

Participation in project planning and decisions is for everyone. Participation must be inclusive, equal and fair.

Post by: Elizabeth Israel

I received this email in response to my posting GAEP - General Accepted Environmental Principles.

"The GAEP I didn't know existed until I read through this Forum.

There are so many options to provide an alternative source of energy to villages through microfinance and right now because of the lack of basic understanding and knowledge of options our MFIs are not really doing much about it.

What we need is some training on basics of RE & GAEP and then build on to help MFIs develop their own methodologies for RE lending to assist villages and individuals."

WHAT IMPACT DO COOKING TECHNIQUES/FUEL HAVE ON THE ENVIRONMENT? ON HEALTH?

Post by: Elizabeth Israel

In the rural village of Palpa Tansen, a small ancient hill station located about 12 hours by bus from Kathmandu, I lived with my family for 3 years. I came to know well the impact of smoke inhalation from cooking on biomass (cow dung, wood, and crop residue) on open fires in closed kitchens. Poor health and respiratory problems, especially for the young children and the women who breathed in the deadly toxins daily, were prevalent. I saw first hand the devastation of the surrounding land, stripped clean for cooking firewood.

GreenMicrofinance, in part, emerged from those early experiences as I sought to address 'energy poverty'. What are your experiences? What stories can you share with all of us that cooking fuel has on the environment? On the health of microentrepreneurs?

POST BY: NAV RAJ SIMKHADA

Dear all,

My name is Nav Raj Simkhada. I am currently working with MF project in Papua New Guinea. Let me share some of my experiences of promoting green MF in Nepal.

SNV and government supported bio-gas project has contributed substantially to reduce the rural people dependency on forest for fuel. Under the project the MFIs in Nepal get wholesale credit to lend to MF client for installing bio-gas. Bio-gas can use for cooking and light. I encourage the individual who are currently working with the project to share current status and statistic of the project.

2. IFAD supported lease hold forestry project handover the deteriorated forest to poorest family so that the family can use the forest land to raise their livelihood and protect the forest. The study has shown that quality of the forest has improved once the forest land is leased to the poorest families and people are also able to increase their income.

3. The solar PV project has helped to light up a lot of village in Nepal. The solar set help to reduce the dependency of people for kerosene lamp and fire wood to light up the house. Some of the donor and MFIs are promoting solar project in rural villages

4. Some MFIs and NGOs are working in the area of introducing improve fire-stove (locally called CHULO) which will consume less firewood and produce less smoke.

Thus there are a lot of good initiatives and success story to reduce the carbon, preserve forest and improve the health of MF client. But these initiatives are not incorporated as an activity of all MFIs. Moreover, MFIs needs technical and financial assistances to promote green microfinance, improve health of their client and bring positive change in climate change.

Post by: Betsy Teutsch

Hi Raj,

Thanks for writing in with a lot of good projects helping to improve the environment and the life of the MF clients.

I am interested to know more about bio-gas lighting. Can you describe that? Is it high quality light? What kind of lamps do you need?

Post by: Thomas B. Israel

Dear Navraj,

Without question, Mr. D Vidya Sagar, president of [SKG Sangha](#), is a world-renown expert on bio digester plants. You can read and watch video film about their work on their web site. Mr. Sagar and SKG have won many international awards.

SKG is working in 7 states of India. They are Andhra Pradesh, Karnataka, Kerala, Tamilnadu, West Bengal, Manipur, and Meghalaya. They are also now working internationally in Nepal, and will soon be consulting in Mauritius, with other requests to work in Ghana, Afghanistan, and Mexico.

To date, SKG has constructed about 60,000 bio digester plants in India. Based upon the demand within the seven Indian states in which SKG currently is working, they are not even meeting 5% of the current demand within those states, according to Mr. Sagar.

In terms of technological sophistication and service, SKG is among the finest biogas manufacturing organizations in Asia. They have acquired expertise in the installation of all types of bio digesters--from 1 cu. m. plants to 180 cu. m. of capacity.

As I understand it, SKG primarily uses the Deenbandhu design biogas plant. "Subject to proper quality control of construction and good routine maintenance, these plants have an average expected life of 20 to 25 years," writes Mr. Sagar.

Owners are expected to contribute from 10% to 20% of the cost of installation by providing in-kind labor and some materials, such as sand hauled from a nearby stream bed. In the instance of financing with micro credit, Mr. Sagar tells us that a four to five year loan would work well.

Mr. Sagar writes: "The availability of LPG in India is limited to urban areas. Nowadays it is difficult to get LPG for urban people. So, there is no chance of LPG for rural areas. ... The availability of firewood is also becoming scarce. So, an alternative fuel for cooking is a compulsion."

"I believe that most of the routine rural problems of the rural people can be addressed with our units," he told me in response to one of my questions. Vidya explained in more detail:

"Our units take care of the following needs of the rural family:

- a) Free from Indoor Air pollution
- b) Women empowerment
- c) Children's education
- d) Health
- e) Water conservation
- f) Management of solid waste of the rural areas
- g) Farmers suicides
- h) Food shortage
- i) Climate change
- j) Lighting
- k) Water management
- l) Rural employment
- j) Sanitation
- k) Sustainable agriculture"

I encourage you to visit Mr. Sagar's web site for more information. We hope that this posting is helpful.

Post by: Dan Lundmark

Koin Etuati, your work is an example of microfinance alleviating 'energy poverty', serving a need by providing a clean energy light source that people are willing to pay for.

(For more on energy poverty and renewables, see the Document section of this Speaker's Corner, and look for a paper entitled "The Role of Decentralized Renewable Energy Technologies in Adaptation to Climate Change in Developing Countries")

Koin, and others- what kind of fuel did your clients use before solar for household lighting? What other positive effects have you seen resulting from use of PV powered lighting? How would you like microfinance institutions to get more involved?

Post by: Nav Raj Simkhada

Dear Betsy Teutsch

Thanks for the reply. I am waiting my friends who work in bio-gas and others renewal energy to participate actively in the list serve discussion. Regarding your query, bio-gas is mostly used for cooking and solar power is used for light. The tube used to light from solar energy is as good as other electrical light. Solar pv can be also used to operate B/W TV.

If you are interested to know more about bio-gas, I will request my colleague to contact you or I will send you more information in early December when I go back to Nepal.

Post by: Piyasena Rajapaksha Wijewardena

Community initiative improved cooking stoves promotion program:

We are in process to introducing of 100,000 woods gas Stoves for domestic cooking among urban and rural Communities towards energy efficiency conservation practice in Sri Lanka.

Under Phase I, It is planned to dissemination of 50,000 wood gas stoves among rural community with the objective of saving 72,000 MT of wood fuel per year and planting of gliricidia in 1000 Hectares. Other balance 50,000 of wood gas stoves are distributed among L.P gas users with the objective of saving of 8100 Tones of LP. Gas amounting Rs 600M per year.

Special features:

1. Fuel wood Consumption per head can be reduced from 2.5kg to 0.5kg.
2. The L.P gas consumers can save at lease Rs 1000 per months
3. Total fuel wood requirement for 100,000 wood gas stoves is around 100MT per day.
4. 1000 Hectares of gliricidia can produce 100MT of wood fuel per day.
5. Annual saving of foreign currency is about Rs. 810M

Project initiative assistance and inadequate microfinance sources are highly needed to go ahead. So we look forwards to get assistant form donors and MFIs in order to achieve our prime targets. Brief description is attached

Post by: Koin Etuati

Dear Raj,

I am also interested in the biogas digester which is more affordable for women of the developing countries. The high costs of the biogas digester that have been constructed in the Pacific region is one of the continuous barriers for its uptake by other communities and households.

So I am interested if there is a way to allow for the transfer of the appropriate and affordable biogas digester so we can increase its uptake in this region. MFI can assist with creating a micro credit scheme that allow construction of an initial 10 biogas digester and if repayment is done, another 5 or 10 can be done.

Let us know how MFI can assist with the technology transfer and establishment of micro credit scheme for the biogas digester.

Post by: Justin Trezza

Dear Raj and Koin:

The cheapest biodigestors would be the bag design which vary in cost; however in Central America they've averaged about \$130/biodigester. This cost is for a 9m biodigester and locally produced stove. Unfortunately the only manual I have at present is in Spanish, but would be more than happy to translate it and distribute it.

Post by: Koin Etuati

Dear Justin,

Thanks for the offer to translate. I will be happy to look at the design and the manual itself. An 8 cubic meter biogas digester costs around 5,000FJD and that is why it can never reach the household level.

Post by: Koin Etuati

Dear Piaynesa,

Thank you very much for sharing the information on the wood gas stove. The introduction of new technologies in the Pacific region is very good as people can recognize its benefits. I am currently working on the use of solar cookers knowing its advantages and disadvantages (if it rains) and therefore the wood gas stove can complement the use of solar cookers. It is the technology transfer that we need to develop between the developing countries and I wish that we can further collaborate with the transfer of the wood gas stove. I agreed with all the impacts of this technology so we can introduce it in the region.

Post by: Nav Raj Simkhada

Dear Koin,

In Nepal a bio-gas plant cost about USD 100.00 to client. However this is subsidized cost, about 40% subsidy is provide by government/donor.

WHAT IMPACT IS THE CURRENT INCREASE IN THE PRICE OF FOOD AND FUEL ON MFI CLIENTS?**Post by: Betsy Teutsch**

We're interested to learn what you are doing to help your clients to meet food & fuel costs. How are your MFI clients coping with this situation? If you have any clients that already have obtained solar or bio-digester technology, are they fairing better?

Post by: Betsy Teutsch

What percentage of your MFI clients' budget goes to pay for food? And what percentage goes for fuel, would you estimate?

Post by: Claud Jan Marquez

Up to 30 % of the daily expenses of Food Micro-Entrepreneurs (FMEs) spent on cooking fuel, the rest are spend for ingredients, transportation utilities and other expenses for their business, the reason why oftentimes nutrition in the food they serve are not given to much priority.

Post by: Kathleen Robbins

In Haiti the rise in food prices lead to the fall of the government (the PM resigned) and four months of stagnation as the government struggle to find a new PM. When people are living on \$2 a day, spending 50-60% of their income already on food and basic food prices go up 100% it puts them over the edge.

Post by: Joseph Louis

That is a very interesting discussion going on here.

My name is Peter Louis, A small business owner in Haiti. We all know the problems Haiti is confronting right now. As far as MFIs , I have a company that want to sell energy product to the poorest people in Haiti, for example, I'm a distributor for solar water pumps system that can help the smallest farmer to grow crops 3 to 4 times a year. Now a system like that is maintenance free, works any where there is sunshine like Haiti. I have a lot of demanded for the product, but the farmers cannot afford the product. A typical pump may cost \$3500 without a well dig-up. Every MFI in the region told them they can only finance small businesses –or they max out @ \$1000. I have small solar lamps to replace Kerosene lamps; No MFIs want to finance them because is not a business venture. No MFIs are focused on energy financing there. Help see the end of the tunnel so I can help them in Haiti.

Post by: Elizabeth Israel

Thanks, Raj, for the response on Nepal. I am looking forward to returning to see the biogas projects, solar village initiatives, as well as the reforestation projects. I am hoping others will share their experiences in Nepal, as well as other parts of the world on their initiatives on "reducing carbon, preserving forests, and improving the health of the clients."

A couple of follow on questions:

What do MFIs need regarding technical and financial assistance to promote "green" microfinance?

What is the challenge of the MFIs in promoting solar projects in rural villages?

Did you encounter any problems with transporting the fire-stove chulos to villages?

Post by: Elizabeth Israel

Hi Peter,

I hope that maybe others can respond to your situation. What are the challenges for MFIs in financing micro-energy technologies?

HOW DO SMALL AND MICRO-ENTREPRENEURS IMPACT GLOBAL WARMING?

Post by: Kathleen Robbins

In Haiti, a land more mountainous as a percent of land than Switzerland, the only source of income and cooking energy for many is charcoal. Consequently, mountainsides on this tropical rainforest island are deforested to make charcoal, farmed for a year or two to grow corn, and then abandoned to erode with the water rushing down the mountainside to add to misery of the people living downstream.

Most re-forestation efforts ultimately fail because while successful in the short term providing jobs, when the funding ends and the consultants go home, the people are again without jobs so as soon as the trees are large enough, they are made into charcoal and the cycle continues. Today, 98%+ percent of the original forests are now barren land.

Post by: Claud Jan Marquez

Just an opinion,

Re-forestation alone could not answer the problem when charcoal making has long been a practiced and there is money on it, people in the community who had been involved in this activity will continue to do so as long as they see an opportunity to make money, and for their own household consumption.

What if promote and transfer of technologies. Technologies that could increase the recovery of charcoal from the traditional ways of doing it, thereby reducing the volume of trees being cut for charcoal--such as improved kiln with high recovery rate and produces high quality charcoal.

For sustainable charcoal making you don't actually need to cut the entire tree only the branches, simple saying educate the local people. ShareTechnology that utilizes abandoned biomass waste for making charcoal briquette rather than trees for charcoal.

DAY I SUMMARY

Post by: Kathleen Robbins

Well, it was a great first day and we have two more to go! Thanks to all of you who contributed and to Dan for his leadership.

I think it can be safely said that one of the simplest and yet most profound statements made today is that MFIs must search for "Solutions that fit the local conditions" whether it is solar, biofuels, cash crops or organic foods. One size does not fit all and yet a common, shared vision and goals go a long way to moving us in the direction of sustainability for all. As a starting point for this, I would refer the reader to Generally Accepted Environmental Principles (GAEP) developed in 2004 at a workshop co-hosted by GreenMicrofinance.

Another of the threads raised the apparent dilemma that as people become more prosperous they naturally consume more energy and resources. And it is here that the opportunity lies to introduce clean energy production and environmental sustainability if this is part of the MFIs vision and is interwoven into its social performance goals. As part of the answer to this dilemma, one contributor suggested Thomas Friedman's new book, Hot, Flat and Crowded which I can also recommend. The first half is about the reasons why it is in all our best interest to act and then he goes into the opportunities for solutions that this problem has created.

There was a great discussion on the effect of environmental degradation on MFI clients and their ability to repay. It was noted that while there is a large amount of antidotal evidence, there have been very few scholarly studies. There was also a very telling question, "Does anyone of an effective awareness raising and/or behavior change program?" To this question I would refer the reader to the 'fact sheets' provided by Triodos, one of which is their 'Social and Environmental Field Guide for Micro Finance Institutes'.

Finally, there was a discussion about the impact of the current worldwide financial instability and its potential impact on MFI clients. I'm not sure this was fully developed as I can see several ways in which the ability of MFIs to raise adequate financial resources to serve their clients might be effected.

Please join us again tomorrow as we continue to wrestle with these and other critical questions of our time.

"It is not the answer that enlightens, but the question." Eugene Ionesco

DAY TWO

WELCOME TO SPEAKER'S CORNER 29

Post by: Joan Hall

Greetings, Everyone, and welcome to Day 2 of the Speaker's Corner on Microfinance and Climate Change. The conversation so far has been very stimulating. We've heard from people from different parts of the world and from different perspectives. We invite all of you to keep the dialogue going, and for those of you who haven't participated yet, please jump in!

Our opening question for today is:

What is the role of the MFI Board of Directors in promoting environmental sustainability?

Let us know what you think.

HOW CAN MFIS PROMOTE ENVIRONMENTAL SUSTAINABILITY WHILE REDUCING POVERTY?

Post by: Dan Lundmark

What a great first day -- thanks to each of you who have posted so far!

The topic for Day 2: How can MFIs promote environmental sustainability while still meeting their 'core mission' of reducing poverty?

Yesterday it was noted that these dual goals can be in conflict with one another, as reducing poverty generally increases energy consumption, resulting in environmental degradation. However, if this increased energy consumption consists of clean energy sources, the net impact could be a win-win in terms of both environmental sustainability and poverty reduction.

To achieve both of these goals, some have suggested microfinance institutions should self-regulate through voluntary compliance with environmental principles, while others recommend more formal policies and industry regulation. In the paper 'Environmental Protection and Microenterprise Development in the Developing World' Mark D. Wenner, Norman Wright, and Abhishek Lal write:

"On the one hand, avoiding environmental regulation may maximize short-term income and employment growth, but at an expensive long-term cost to the natural environment and future economic sustainability. On the other hand, overly strict environmental regulation may have a positive effect on the environment but also hamper the formalization and growth of the microenterprise sector and its ability to reduce poverty. In short, policymakers must either ignore the environmental consequences of microenterprise activities in an effort to promote short-term growth or craft cost-effective and practical mitigation strategies."

As we have seen from recent posts here, some microfinance institutions are discovering cost-effective strategies that reduce poverty and promote environmental sustainability at the same time by financing clean energy solutions. Let's continue to share stories and advance the knowledge of what is working and what may work for others. I look forward to reading all of your contributions!

Thank you to all our participants, as well as our facilitators. Today Kathleen Robbins, Joan Hall, and Thomas B. Israel will be posting additional questions as we continue on this topic. Post away!

Post by: Stewart Craine

Dear All,

This Day 2 topic is close to my heart, having consumed the last 10 years of my life. I am a renewable energy engineer, but saw microfinance in action in 1999-2001 in Nepal. In 2005, Harry Andrews and I co-founded Barefoot Power, to help 1 million people gain access to electricity, and where possible, using renewable energy and efficient lighting, but more importantly, creating access to an essential tool to escape poverty - electricity. Power generation is a major cause of global warming, and the last 2 Nobel Peace prizes indicate that poverty eradication and sustainable energy are probably 2 of the most important challenges we face. Barefoot Powers' mission to try and deliver solutions for both problems simultaneously.

Renewable energy, like many environmentally sustainable options, costs more than least-cost power like coal and gas, but we are beginning to feel and monetize the environmental impacts we have so far ignored. The playing field is beginning to level. Coal power can cost as little as \$0.02/kWh, while renewable energy costs \$0.05-\$0.50/kWh (hydro-wind-biomass-solar/others). You and I are paying about \$0.10/kWh for power. We estimate around 30% of all microfinance clients lack electricity access, and make up about 10% of the 1.6 billion people who are using kerosene lighting. Kerosene lighting costs about \$5/kWh - 50 times what you and I pay, and up to 10 times more expensive than solar energy. Even adding energy storage (a battery) to solar energy keeps the cost down to \$1/kWh, 5 times cheaper than 300 million households burning \$10-30 billion/year in kerosene lamps (300 million x \$1/week on average = \$15 billion/year).

Microfinance is about reducing poverty. Increasing income is one way, and using electricity to run tools instead of human labour is one way of helping this to happen. However, decrease wasteful expenditure is often overlooked, and identifying instances where the poor pay a "poverty premium" for essential services will lead to win-win opportunities. Clearly, we aren't going to pay more for our electricity by putting a solar panel on our house tomorrow. Present the economics of a \$5-20 solar/rechargeable lamp to a poor person, who receives 2% of the service we enjoy for each dollar spent, and the 3-6 month payback will look very attractive. This theory is being seen in practice in markets across many countries where we work. \$10-30 billion of wasted cash expenditure can stop being burned, and be invested in household assets. Each year, these assets can be built upon. A 1 year \$25-250 microfinance energy loan for 1-10W solar/rechargeable home lighting kits can reduce costs to \$0.60/week, which is what many of the poor pay on kerosene now. Many of our customers don't even need the loan, they just buy for cash, and this allows finance to be directed to micro energy entrepreneurs instead. It will take far, far less capital to finance 1 million micro energy entrepreneurs than 300 million households, and if the entrepreneur sells! one home lighting kit per day, they will reach those 300 million households in 1 year.

Mobile phones are another example of where micro-infrastructure (or incremental infrastructure) costs were shared with the customer. The private sector invested in the towers, but the customers bought the handsets. Environmental sustainable solutions are most likely to work when 1) a poverty premium has been identified (and a large one!), 2) <1 year paybacks on investments are possible for the customer to invest in it, and hence 3) the expenditure of tens millions of people are mobilized towards building the new service. Often, it can actually lead to a one-size-fits-all approach - the basic Nokia phone model doesn't change much between the dozens of countries it's sold in. Solar lights won't change much either. Village Phone ladies and other ICT applications in microfinance show us micro infrastructure can play a huge role in poverty alleviation, so there is little reason to think that micro energy applications won't be equally as attractive for MFIs to support (lighting, agro-processing, even transport). However, first we need to redesign technologies used in these highly centralized industries to allow the 3 steps above to occur, and allow highly decentralized industries (like microfinance) to fill the gaps that the current markets are missing, and reduce the cost of essential services for the poor. These gaps are huge, and can be filled by more sustainable solutions than the past has offered. Billions of investment dollars are required, but many of those billion can come from the poor, but only if they are offered affordable alternatives and the option to choose, by people who believe in massive scale solutions. People in the microfinance sector obviously have this belief, which is a pleasure to see - people in energy, engineering and investment often do not, are far more conservative and are reluctant to put dreams of a poverty-free future into action.

If anyone would like to partner with us to deliver electricity to those who need it most, I am more than happy to hear from you.

Post by: Dan Lundmark

Stewart, thanks for your thoughtful post. From your comment:

"Microfinance is about reducing poverty. Increasing income is one way, and using electricity to run tools instead of human labour is one way of helping this to happen. However, decrease wasteful expenditure is often overlooked, and identifying instances where the poor pay a 'poverty premium' for essential services will lead to win-win opportunities."

Your example stood out for me -- replacing kerosene lighting with clean solar, using microfinance to reach clients at a price point that is competitive or even a cost savings, in addition to the environmental and health benefits.

What other "win-win" opportunities exist in this space?

I am sure others here in this forum can share their own ideas here. Now is your opportunity to post a Reply and share your response!

Post by: Stewart Craine

We think the decentralization of agro-processing, specifically coconut oil in the copra industry, has a lot of potential. Due to high transport prices, many villages in the Pacific, and probably in the Philippines, no longer make copra (dried coconut meat) to bring in large bags to sell to the centralized mills, or intermediate depots. It's a hard job to begin with, and with rising transport prices, there's not much left in ones' pocket afterwards.

An alternative is to use a 2-3 kW biomass gasifier to make electricity from coconut shell, which can run a dehusking machine, hammer mill and oil expeller, while husks and/or waste gasifier heat are used to dry the meat prior to expelling the oil. An alternative can be to run a diesel engine on the coconut oil output - 2 ways to get the power going that one needs. Instead of ending up with a \$10 20kg bag of copra and spending \$5 going to and from market to sell it and netting \$5, 20kg of coconut oil may be worth \$15-20, so net income can double or triple to \$10-15 per load. In fact, many boats in Papua New Guinea are being converted to run on coconut oil, so a coastal village may be able to sell the oil from where they are, or to nearby villages to run "diesel" generators to provide lighting services.

The entry point for clean, renewable energy can be at the daytime energy need level as well as nighttime lighting level, and 1 year paybacks can be achieved if utilization of the investment is high. A \$10,000-\$20,000 micro oil expelling plant will only cost about 20% of the annual 1st year costs, 80% of the cost will be the coconuts. However, microfinance works at the individual level - we need not-so-microfinance like www.myc4.com, which helped our partner get started in solar trading in Uganda with EU10,000 in 2 months from 109 European individuals during the time that the shipment moved from China to Uganda - real time financing! It is often entrepreneurs in these "larger" scale businesses that can help generate jobs or selling opportunities for individuals. In the case of coconut oil, it would result in the rehabilitation of the most remote plantations that currently generate no income for nearby villages, creating income where before there was none, as well as a reduction in power of big mill owners, and traders, over the price received by rural farmers. These benefits of decentralized agro-processing are probably replicable for crops other than coconut as well, but mini industries will need mini-finance, not micro-finance, so the fit is not as natural for MFIs compared to environmental solutions designed for individuals instead of communities/groups.

Key question - do MFIs want to make group loans for co-operatively owned mini-industries, or larger loans to individuals like MyC4, and move into bulk loan processing or mini-finance? If so, more environmental, community-benefiting projects can and will happen. If not, if the focus remains narrowly on individuals and don't scale up, possible interventions reduce in number, and stay high in terms of the cost of service provided (e.g. an individual hand press for coconut oil is available, but depends on manual labour, whereas a village-level electrical oil expeller is more efficient and will result in lower cost oil, a better business case and higher profits). So far, from a service provider's viewpoint, we don't see interest from MFIs to give mini-finance, nor from investors/donors - i.e. a financing gap at \$5-50k, that groups like MyC4 are trying to fill.

Post by: Anton van Elteren

Dear All,

Please allow me a brief introduction. I work at FMO, the Netherlands Development Finance Company, and am the coordinator of a program to support our (micro) financial institution clients worldwide in terms of dealing with environmental and social issues.

I fully agree with Beth's argument on the Acleda reporting. The main impacts (negative and positive, environmental and social) a (micro) financial institution can have indeed is through the clients it is financing, not its internal environmental and social performance. And although the individual negative impacts of MFI clients could be deemed small, for the people working in bad environmental situations, or working with hazardous substances or machines, these could be threatening for their health. Furthermore, as also reasoned below, some forms of degradation will threaten long-term living conditions. Next to that, we are talking large numbers - cumulative impacts.

Exactly for these reasons, F! MO has developed a very practical methodology specifically targeted at minimizing the environmental and social negative impacts (risks) of microfinance. Basically, for each microfinance client sector the 3 or 4 main environmental or social risks are identified, together with simple and practical suggestions on how to mitigate those. And although of course there are still many dilemmas to face, we hope that MFIs will at least become aware of the risks, but also of the added value that they can bring.

The idea is that this E&S risk management approach is included in a very practical way in the MFI's financing cycle, and that MFI loan officers can use this guidance in their day-to-day assessment of clients. Many MFIs have already taken courses on this, and are working on pilot projects and implementation.

All tools are available in four languages to everyone for free at <http://www.fmo.nl/smartsite.dws?id=531>. Any feedback, positive and negative, is appreciated. I hope this is part of an answer to the day 2 question: How can MFIs promote environmental sustainability while still meeting their 'core mission' of reducing poverty?

But we realize this E&S risk mitigation approach is again only one part of the full sustainability spectrum an (M)FI is facing. I hope that in the near future, we can extend this methodology to include practical suggestions on the sustainable opportunities side - and all the ideas that are coming up through this Speaker's Corner are certainly inspirational to that! So similarly to the dedicated risk management approach, it should be possible to bundle these suggestions and come up with some practical guidance for MFIs to maximize the sustainable opportunities impacts!

FMO is certainly willing to cooperate with others to realize this, by consolidating the results of this Speaker's Corner.

Finally, in my humble opinion, to make the GRI really work for (micro) financial institutions, such sector specific supplement should include

- 1) Negative environmental and social impacts resulting from the portfolio that is financed, and what an (M)FI does to mitigate that;
- 2) Positive social impacts - for this the CGAP social performance indicators could well be used (maybe make them a bit more generic towards FIs other than MF);
- 3) Positive opportunities pursued by the (M)FI in terms of energy efficiency, sustainable energy sources, etc.;
- 4) And of course, the internal environmental and social performance of the FI should not be forgotten (practice what you preach!), but this is already part of the GRI.

In this way, an MFI should be able to come up with some form of reporting that serves many, if not all interested parties.

And so, MFIs can indeed show their triple bottom line sustainability!

Looking forward to further postings, kind regards, Anton van Elteren

Post by: Dan Lundmark

Dear all:

This discussion has been very useful, particularly the ideas and information provided by Stewart Craine and Anton Van Elteren

We need more, and, specific examples of how environmental concerns have been addressed in microfinance projects. Indeed the primary goal of these projects is alleviation of poverty, but a consideration of the environment is important firstly for the health of the people and secondly for the sustainability of enterprises especially when the enterprises are dependent upon local land, soil, water and biological resources.

We at ATREE (<http://www.atree.org>) try to address environmental issues right from the start by first anticipating the negative environmental effects and then by continuous adaptive management of various programs that includes monitoring of progress towards economic, social and environmental goals. Data about environmental parameters before the initiation of the projects are required so that these data can be compared with data after the interventions have had their desired economic and social effects. Implementing such monitoring programs is a challenge even for a knowledge based organization such as ATREE. It is particularly difficult for small developmental organizations engaged in micro-finance. Large micro-finance and developmental organizations need to develop some cost effective protocols and models for small groups. Anton van Elteren provides some useful suggestions, but we all might benefit from a more focused discussion of this particular sub-topic.

Post by: Ann Marie Torres

I am Ann Marie Torres, Manager of Microfinance Eco-Enterprise Promotion (MEEP) Program of the Foundation for a Sustainable Society, Inc (FSSI). FSSI is a Philippine-based development resource institution promoting enterprises with triple-bottom line (3BL) agenda: economic viability, positive social impact and ecological soundness.

In 2006, FSSI launched its "Greening the MF Sector" Project to its MFI-partners under the MEEP Program to improve and strengthen their environmental performance, as well as their MSE/Clients.

Why MFIs and MSEs:

1. MFIs have an environmental impact as a result of their day to day operation
2. MFIs can influence their clients, the MSEs since they provide loans and savings services that finances the business,
3. MSEs number. 80% of enterprises in the country are under this category. Considering the number/volume of transactions per day, these MSEs use so many resources and generate so much waste.
4. Most MSEs are still dependent on nature for raw materials

For the Greening Project, FSSI developed 4 Modules focusing on increasing awareness of MFI-partners on Global, Philippine and local community environmental situation and the significant impact of their operation (office-based) and their borrower/MSEs.

We are also providing capacity-building/technical assistance on Environmental Management System (EMS) and Environmental Management Accounting (EMA) to assist MFI-partners to improve their environmental performance by having a more energy and material efficient conduct of business. We have also developed incentive mechanism to further stimulate our partners to go-Green.

FSSI has established partnership with EMS practitioners, Department of Science and Technology (DOST) and other institutions in the implementation of Greening Project.

In FSSI, we are also implementing our own EMS. Two of our partner-MFIs have already launched their own EMS and have reviewed their pre-loan orientation to include topic on environment protection.

We can also have positive environmental impact. We can help save the Earth from further damage. We have to engage everyone, we live on one planet only. And we can't continue our business without it.

For more information on FSSI's "Greening the MF Sector" Project, pls check our website- www.fssi.com.ph

Post by: Sarath Fernando

1. How can NGO funding can get a maximum return on beneficiary activities using private sector approach?
2. As per my experience, microfinance can play a big roll on solid waste management in an environmental friendly manner. Do you agree with me?

BIOGAS UNITS**Post by: Sam Grant**

My name is Sam Grant and I am currently working at XacBank in Mongolia. We are in the process of creating our green product policy. I have read that GreenMicrofinance has helped establish biogas units in Nepal. I have looked into the viability of small biogas units for Mongolia. It is very cold here and I was wondering if the areas in Nepal where you built biogas units were also cold. Everything that I have read says that temperatures below 16 degrees Celsius greatly impair methane production. Mongolia has lots of animal waste but I am worried that the cold climate will make biogas too expensive. Your thoughts?

Post by: Thomas B. Israel

Dear Sam,

Thank you for your question.

We at GreenMicrofinance Center are not bio digester experts and we do not construct these facilities. One of the world's foremost experts is Mr. D Vidya Sagar, President of SKG Sangha. More information about his work can be found on this site.

We are working in every way we can to support his work.

Post by: Justin Trezza

Sam:

In your case, I'd recommend more permanent biodigesters versus what we've implemented. Since we work in the tropics, we've used simplified polyethylene biodigesters or bags; however I'd recommend more masonry style biodigesters where the heat and temperature can be better controlled. Since we have little experience with these I'd recommend a book by David William House "The Complete Biogas Handbook" - <http://www.completebiogas.com/>.

With biogas and/or anaerobic digestion, the micro organisms and bacteria will do all the work as long as oxygen is absent and you maintain a constant temperature. The cryophilic bacteria work best between 10 degrees Celsius and 20, whereas the mesophylic between 30 and 40. Please note however that the methanogenic bacteria are temperature sensitive and any fluctuations of more than 5 degrees Celsius in a day can cause them to stop working. Another solution is to create a greenhouse like environment over the biodigestor to provide heat.

Hope that helps.

ORGANIC FARMING & SOLID WASTE

Post by: Sarath Fernando

In Sri Lanka most of our rural farmers are using chemical fertilizer for cultivation. At present they use 400% more than recommended quantity. Reason behind that is over usage of chemical has been polluted soil and ground water. Final result is that cost of production has gone up and quality has gone down. Therefore most of the farmers are leaving cultivation and work as laborers.

We have did some trail using solid waste and produce organic matter. Using organic matter we enrich with other natural material and produce high quality organic fertilizer. We did some organic farming trial with farmers and achieved remarkable results.

For the protection of nature and environment from solid waste, we can utilize same to produce organic fertilizer. At the same time we have to convert farmers for organic farming. This is not an easy task due to mind set of the farmers about organic fertilizer.

I would like to get the same experience in the organic field how has it.

What way we can get some assistance to implement this project in a medium scale

Please help us to protect environment and uplift the living condition of the poor farmers

Post by: Thomas B. Israel

Dear Sarath,

Check out my post from Day 1, and more importantly check out the information on this site about SKG Sangha, one of the leading bio digester organizations in the world. They are located in India.

Post by: Grace Guerrero

There is such a big hot potato in the use of COPs (Persistent Organic Pollutants, one of these the chemical fertilizers that are not permitted in the Estocolm convention, the problem is to much bigger if we consider the actual world crisis of food security. The effects of such unsustainable agricultural approach is deforestation, intensive agriculture that exhaust lands, water problems, between others, that are totally related to Climate Change

¿What can MFI do to solve this problem? First be conscious about the problem and the social responsibility that have in the issue, so

it is important to promote sustainable agricultural investments around the world, second, it may be interesting to invest in initiatives that are working and are encouraged to minimize the impacts of climate change: organic production, sustainable handicrafts production, and others.

WHAT ARE THE CHALLENGES FOR AN MFI IN SCALING UP A CLEAN ENERGY INITIATIVE?

Post by: Elizabeth Israel

Wesco Credit in Kerala, India, has already installed 350 family-size biogas units, as well as commercial-style plants. They are now planning to scale up its biogas initiative. Over the next year, they intend to install 1,200 residential biogas units, 1,000 family-size units and 200 units to be used in rural farms. They plan to install 50 institutional biogas plants supplying fuel to hospitals, parish halls, and apartment complexes. Wesco Credit has experience in eco-friendly housing based on their experience with the tsunami and will continue to build another 500 homes.

What are the challenges facing Wesco, and other MFIs, as they plan to scale up clean energy initiatives? How do they adequately service the biogas plants? How do they maintain high quality? What are your experiences?

We hope you will join in!

HOW DOES AN MFI DISTINGUISH BETWEEN A 'CONSUMER' LOAN AND A 'PRODUCTIVE' LOAN? WHY IS THAT DISTINCTION IMPORTANT WHEN CONSIDERING ENVIRONMENTALLY SUSTAINABLE LENDING?

Post by: Kathleen Robbins

When I was in Haiti, I saw children studying in the evening under the security light at the local MFI building. Most of these were children of this same MFI and so the dilemma for the MFI was should they give a 'consumer' loan for a full solar house package (\$500) that may take years to payback or leave the children studying by candle light? Fortunately there is another solution, the new LED solar lamps that are selling in the \$20 range. How does your MFI handle this dilemma?

APPLYING PRACTICAL AGRICULTURAL ACTIVITIES TO MITIGATE THE IMPACT OF GLOBAL WARMING AND CLIMATE CHANGE ON AGRICULTURAL PRODUCTION

Post by: Raanan Katzir

My name is Raanan Katzir. Living in Israel.

Director of Sustainable Agriculture Consulting Group (SACOG)

I am dealing with doing consultancies, university and farmers lecturing and participating on international conferences.

I would like to refer to the need of applying practical agricultural activities to mitigate the impact of Global Warming and climate change on agricultural production.

Global Warming effects agriculture in the following aspects:

- Reducing amount of rain in some regions and as result causing draught and desertification.
- Increasing temperature, raising water evaporation and transpiration, causing increase need of water to agricultural crops.
- Draught is reducing yields and quality.
- Global warming increases the incidents of forest fires and ground vegetation cover resulting soil and wind erosion.
- Climate change is causing crops features changes in certain northern areas.
- Climate change in some regions increases the occurrence of weather storms and floods, resulting destroying of crops.

The above mentioned inflicts requires Regional Research and Development (R&D), project to generate appropriate knowledge and technologies are needed. There is a need to emphasize on farmers training and efficient agricultural extension service.

We have to focus on the following activities:

Developing conventional and unconventional water resources as rain water harvesting, water reservoirs, recycling sewage water, transferring water from other regions, desalinization.

Establishing controlled irrigation systems.

Using saving water methods as drip irrigation.

Using précised methods as fertigation (irrigation incorporates with fertilizers application).

Developing agriculture in arid zones.

Soil conservation activities.

Reforestation.

Emphasizing on special crops as high biomass crops for energy

Developing through genetics crop resistance to draught.

Using saline water for salt tolerant crops.

Mitigating heat stress to animal husbandry by introducing appropriate technologies.

As a result of global warming and weather change, small, medium and large farmers are affected but the most suffering are the small poor farmers, missing knowledge, technologies and has no access to finance.

Micro financing is needed to small farmers, mostly in the developing countries to improve infrastructure, adopt knowledge and technologies to reduce the impact of climate change and increase agricultural production and safety.

Post by: Thomas B. Israel

Hello, Raanan,

Thank you for an informative posting. I have several questions.

[1] Based on your extensive experience, how can MFIs and SHGs improve their support of the small farmer?

[2] From your observations, what methods, materials, and ancillary support do such MFIs require to more successfully meet the needs of the village farmers?

QUICK POLL

Post by: Dan Lundmark

Quick Poll: What type of loan use makes up your microfinance loan portfolio?

It is known that some percentage of microfinance loans are used like consumer credit cards as micro-entrepreneurs "make ends meet". How do MFIs verify or track this? What is your rough estimate:

100% of loan is invested in a productive microenterprise

75% productive use, 25% consumer/personal/household use

50% productive, 50% consumer

25% productive, 75% consumer

0% productive, 100% consumer

Reply to post your response, and feel free to leave a comment along with the numbers, thank you!

Post by: Dale Lampe

In Afghanistan self-reported figures are about 4% for the sector with a commercial bank comprising 98% of this total. The estimate based on conversations with various stakeholders is that it is generally in the 5-10% range of use for consumer credit/consumption. Of course the Murabaha loans have far less likelihood of being used for consumption as do the Ijara (leasing) loans. Money is fungible, so it all depends on how one measures it.

Post by: Dan Lundmark

Dale, thanks for your thoughts.

When considering environmentally sustainable lending, some clean energy loans that may be negatively viewed as a 'consumer' loan (household lighting, biogas cook stoves, etc) could in fact have long-term productivity benefits for micro-entrepreneurs (e.g. better health and time savings), in addition to positive environmental impacts.

This may justify a larger consumer credit/consumption percentage of an MFI loan portfolio, for loans with specific social / health / environmental benefits.

(does anyone know of studies to support this line of thinking?)

DAY 2 SUMMARY: POVERTY ALLEVIATION AND ENVIRONMENTAL CONCERNS

Post by: Betsy Teutsch

Day 2 Summary:

How can MFIs promote environmental sustainability while still meeting their 'core mission' of reducing poverty?

The story of our online forum today is the older model of seeing the environment and poverty reduction in conflict - with an emphasis on microbusinesses alleviating poverty, environmental stewardship was seen as adding an unaffordable cost, mirroring the developed world's business model of extracting resources without concern for the effect. At this point in time, global awareness that climate change caused by human activity is radically expanding, and the costs to the planet of environmental degradation are becoming more apparent. The challenge now is to move from "Either/Or" (being environmentally responsible OR maximally profitable) to "Both/And" - achieving both environmental benefits AND profitability.

Our participants have answered the question by showing "Both/And" in two different ways. One is to utilize expanded and cheaper ways of accessing green energy through clean energy technologies which lower costs. The second direction is to produce food and other commodities using organic, sustainable techniques which actually add value.

In the area of clean energy, for example, Stewart Craine of Barefoot Power points out "power generation is a major cause of global warming [by burning coal, a fossil fuel], and the last 2 Nobel Peace prizes indicate that poverty eradication and sustainable energy are probably 2 of the most important challenges we face." Barefoot Powers' mission is to deliver solutions for both problems simultaneously. By replacing kerosene lighting (which costs about \$5/kWh - 50 times what Westerners pay, and up to 10 times more expensive than solar energy) with inexpensive solar lamps, clients SAVE MONEY. Lowering overhead is another way to increase profitability, and once paid for, solar lamps eliminate the need for continual outlay of cash for fuel. Kathleen Robbins reports the lower price point of small lamps gives the MFI more flexibility in dealing with consumer loans. An additional benefit of solar lamps is that they reduce carbon emissions, increasingly seen as a financial asset. Others point out the benefits of biodigesters, another way of harnessing nature to increase productivity. Letting biodigesters "do their thing" solves problems (disposal of polluting solid waste) as well as creating solutions and value (clean fuel for cooking).

Seranth Fernando in Sri Lanka shares an agricultural win-win with great results from experiments in new organic farming habits and techniques. Formally degraded soils which required excessive, expensive, polluting fertilizer inputs are yielding better results by using reprocessed solid waste as organic fertilizer, improving the living environment from contamination while enriching the soil for organic farming.

"For the protection of nature and environment from solid waste, we can utilize same to produce organic fertilizer. At the same time we have to convert farmers for organic farming. This is not an easy task due to mind set of the farmers about organic fertilizer. Please help us to protect [our] environment and uplift the living condition of the poor farmers." Grace Guerrero also believes

organic food production is an area for MFIs to get involved in, as well as Fair Trade sustainable handicrafts production. In these cases, sustainable practices are value-added to the end product. Justin Trezza states, "Overall there is a lot of potential for MFIs to support sustainable grassroots farming in developing nations versus the traditional small business creation. Providing funds or seed capital for endeavors such as shade grown cacao or seed banks is one means, in addition to developing local organic markets and opportunities for small-scale producers."

Mr. Kamaljit S. Bawa of ATREE.org, points out that microbusiness owners must tend the environment for many reasons, especially if their business depends on natural resources which must be replenished; letting these natural assets be degraded is ultimately an unwise business move. "Indeed the primary goal of these projects is alleviation of poverty, but a consideration of the environment is important firstly for the health of the people and secondly for the sustainability of enterprises especially when the enterprises are dependent upon local land, soil , water and biological resources."

Stay tuned for Day 3 when we will discuss the eco-concerns of funders and investors! Thanks for your participation both as readers and contributors!

DAY THREE

HOW OFTEN DO YOU HEAR AN INVESTOR OR DONOR EXPRESS INTEREST IN AN MFI'S ENVIRONMENTAL SUSTAINABILITY EFFORTS?

Post by: Bela Vora

I think investors tend to compartmentalize their passions for social good. So those involved in MFI lending may be concerned about the environment but not actively involved in sustainability efforts and vice versa. It takes a bigger vision to include both.

Post by: Grace Guerrero

Bela, that is a difficult question, probably, donors or investors must establish new priorities in their portfolio due to the big changes that we are experienced all around the world. Climate Change is a big problem that must concern everyone, public-private-actors that has social responsibility with humanity.

We (small non industrialized countries) can do very little with mitigation efforts to Climate Change, we must invest more in adaptation, in risk prevention, in disaster prevention, CO2 markets are far away from our real possibilities, so in terms of politics and in term of MFI politics, it is a social responsibility to invest in sustainable production, and the role of donors and investors is to support those efforts.

Thanks a lot for make us think about those transcendental issues,

WHAT IS THE ROLE OF DONORS AND INVESTORS IN ENSURING ENVIRONMENTAL SUSTAINABILITY OF AN MFI AND THEIR CLIENTS?

Post by: Dan Lundmark

Our last day! I look forward to reading your amazing stories and responding to dialogue as we continue with today's topic: What is the role of donors and investors in ensuring environmental sustainability of an MFI and their clients?

Over several years of filming interviews with loan officers and visiting sustainable projects in Africa, Asia, and Latin America, I have come to realize how everyone in microfinance is deeply passionate about poverty alleviation. However, new challenges of rising food and energy costs are creating unexpected pressure on microfinance programs, but also present a window of opportunity.

Energy cost increases have turned everyone's attention to the environment, and donors and investors place a premium on "green" returns. Institutions can offer carbon offset projects with health and literacy 'co-benefits', for example. Think 'carbon with a face'. What is your experience with donors and investors? Share your real-world stories and ideas!

Today Elizabeth Israel, Kathleen Robbins, and Bela Vora will be posting additional questions and follow up on this topic as we respond to your posts. Click Reply to share your thoughts!

Post by: David Sonne

Hi everyone. I am David D. Sonne. I'm the founder and president of Kunming Evenstar Consulting Company and Kunming Heaven's Bounty Agricultural Company, through which I am running a number of development projects in China. We are mainly working along the Burma border, in the Golden Triangle region. These mountain villages are some of the poorest in China. Through the local village councils, we learned that many of these villages have a per capita annual income of \$100, with many of them making as low as \$30/year.

Our first step in addressing these problems is to provide villagers with water. Only about 300 of the 700 villages in the county where we are working have access to potable water. For the other 400 villages, this means that members of each family, generally women and children, are required to walk up to four hours each day to secure water for the daily needs of their family. This exhausting and time-consuming task still only gives them enough water for drinking and for cooking, so they are still unable to bathe, raise live-stock, or grow sufficient crops to make a good living. Furthermore, the water they are accessing is contaminated by human and animal waste as well as garbage and chemicals. This means that they are required to boil all the water they use, yet they still face

high risk of contracting water-borne illnesses such as diarrhea, which are the second greatest cause of death among children worldwide. Water-borne illnesses and parasites also cause poor health, malnutrition, and stunted growth. According to the UN, unclean water is the largest cause of illness worldwide and two million deaths result from unclean water each year. Providing access to clean water will:

- Reduce the amount of time that families must spend each day collecting water
- Reduce illness and death that result from unclean water
- Enable families to improve their diet by growing more crops and livestock to eat
- Allow families to increase their incomes by growing more crops and livestock to sell

A study of the women in one of these villages revealed that 100 percent had venereal diseases. This was reduced by 50 percent just by washing before sex. But many families don't even know how to bathe, because they have never had water and have not showered before. Therefore, when a water project is done, each family in the village must go through training where they learn:

- Sanitation
- Bathing before sex
- Using anti-bacterial medicine

The training is done on an individual basis, with women teaching women and men teaching men, so that they do not feel too uncomfortable talking about these topics. The training is about two hours, but to train a whole village takes about two weeks.

Water is only the first step in what we do though. I will get into our micro-credit and solar projects in another post.

Post by: David Sonne

We also do some simple solar water heater projects. One costs about \$300, and is enough to heat the water for a whole building (my friend has a 6-floor building with 4 apartments per floor heated by one unit). This saves the villagers several hours per day that they would have to collect firewood, so now they can go to school or rest or grow crops during that time. It's also saving the old-growth forests, where we work, from deforestation. And it also saves families from the bad health effects of cook-smoke in their houses. Also, families can now have enough hot water to shower, so it's reduced venereal diseases from 100% down to 50%.

Solar water heater projects are generally done in conjunction with a water project, or in a village that already has access to water. Villagers, generally women and children, spend several hours per day collecting wood to use in cooking, boiling water, and heating. This is a major contributing factor to deforestation worldwide. Also, inhalation of cooking smoke over prolonged periods of time is one of the major causes of death among children worldwide. A solar water heater solves this problem by heating water using the sun's energy instead of using wood or other non-renewable energy sources.

A solar water heater is mounted on the rooftop of a house. There is a water tank from which the water passes through a series of pipes where they are exposed to sunlight, which heats the water to a scalding temperature that is enough to kill most bacteria in the water. If clean water from a reservoir is used to fill the solar water heater, the heated water can be used directly in bathing, cooking, or in making tea, and doesn't even need to be heated. This will save hours of time each day for villagers who no longer have to search for wood, and it will also protect the environment from the devastation caused by deforestation.

One solar water heater costs \$300, but each family will cover half of the cost themselves. So the cost of a project like this is directly related to the number of participating families in the village, at a cost of \$150 per family. Families are not required to participate in the project, but generally every family in a village participates in the project. Solar water heater projects are ideally done in combination with a water project, because the clean water from the reservoir can be heated in the solar water heater and then used directly without the need for additional heating on the stove.

Oh, and I forgot to list my contact info in my last email. You can email me at ds1188@hotmail.com, or call me in the US at (215) 253-4491 or call me in China at +86-15011304531. Or add me in Skype at flammiferstill

Post by: David Sonne

We are also running biogas projects. Biogas projects use the waste from animals to produce methane gas, which can be used in cooking and heating. Because a biogas project requires a minimal amount of animal waste and most villagers are too poor to raise enough livestock, biogas projects are best done in conjunction with an animal husbandry project.

Poor farmers, especially women and children, spend hours of time each day collecting wood for cooking food, boiling water, and heating their homes. This is a major contributing factor to deforestation worldwide. Also, inhalation of cooking smoke over prolonged periods of time is one of the major causes of death among children worldwide. Biogas projects enable villagers to harness the gas that is emitted during decomposition of animal waste to meet their fuel needs. This frees villagers from the tiresome daily chore of collecting wood, it protects indigenous forests from unnecessary damage, and it saves families from the toxic smoke of wood-fires. In addition, access to cooking gas allows families to more easily boil water and cook their food, reducing their chances of getting sick from dirty water or uncooked food.

Post by: Paul Moonjely

The investors and donors may take steps to initiate proper monitoring mechanisms to ensure the environment sustainability of the projects and programmes initiated by the groups or individuals working with the MFIs. Moreover the Environment impact assessment tools could be introduced and proper training should be given to the MFI in applying the tools.

It would be good if the projects have an environment education in focus and moreover the projects like Biogas, solar, vermiculturing and the like could be linked with the carbon offset projects. WVSE experiences is that all the biogas projects are linked with the carbon credit programme and this has given added value to the environmental friendly initiative of WVSE and more people come forward to undertake similar projects in the area.

This has also been linked with the slurry management which is has really boosted the interests of the farmer community to go for sustainable agriculture. People today become more conscious about the food habits and this contributes largely to the promotion of health among the people in an age when health is an expensive item. The environment focus will lead to multiple impacts at the end of the day.

Post by: Thomas B. Israel

We must see to believe. And we must help others to see what we have seen.

The promulgation of the Guiding Principles at a GreenMicrofinance international conference four years ago [mentioned elsewhere in this forum, and available for download on this USAID Micro Links site], is not a "to-do" list that was posted on some bulletin board by a faceless moderator.

No, these Guiding Principles are informed by the stories of the voiceless, which resonated deeply in the minds and hearts of those practitioner-story-tellers who gathered together night after night during the conference; inspired, and giving voice to simple and stirring stories of desperate need and unimaginable suffering, along with the environmental degradation that often accompanies such marginal existence. Hammered out in long, late-night sessions, the Guiding Principles inform our collective vision of what we all wish for! our world, and for those we love in our homes and in our distant villages.

Thus, we must all become story-tellers for the voiceless. Here is one such story from India:

K Paul Thomas is the founder and Executive Director of Evangelical Social Action Forum (ESAF) a National Development Organization based in Trichur. ESAF serves about 250,000 clients-most of whom live in rural villages in Kerala. But Paul is a visionary who also is the brain behind various community-based entities.

For example, Elizabeth and I visited a biogas plant in Trichur, which is operated by five men who are organized as a small business enterprise. On one side of the biogas plant is a kindergarten, sited on a wooded lot with a shady, fenced playground. On the other side is situated a 5-story, neighborhood apartment building.

These men, who for much of their lives worked manually crushing rock into ! gravel for road construction, now operate a financially profitable bio -digester plant. Every day they push their carts through the town, collecting the trash from seven hotels. Returning with their valuable collectibles to the biogas plant, they separate and process all of the trash. Nothing is wasted. The food waste,

itself, goes into the biogas digester. Through the miracle of anaerobic bacterial action, out comes methane, which is piped to the kindergarten and to the apartment building.

As I stomped through and around the piles of trash and garbage, listening to their explanations [through an ESAF translator], I became aware of how proud these men are of their contribution to their community and to the welfare of their families. Just before we left, inspiration struck. I asked the worker-owners to stand together for an on-site photo. They were delighted to instantly see the result via the wonderful digital technology of photography. Mine was an intentional act to honor their work.

We must not *just* lend our voices to the voiceless. We must take their stories with us wherever we go. There are millions and millions of stories. We must never stop telling them. The world must hear and see the voiceless speaking to us all.

Post by: Elizabeth Israel

On Behalf of Manab Chakraborty, Mimo Finance...

The donors can promote environmental sustainability in a number of ways:

- a) Make sure that activities funded by them does not adversely impact the environment. Some of the traditional tools for environmental impact analysis such as environmental impact analysis etc. should be more rigorously and sincerely applied at project level.
- b) Support initiatives which reverse, restore, and augment environmental sustainability. For this the best place to start is at policy level. The critical areas which should be examined are energy, water, and land because they affect the lives of millions of people. Ecologically fragile areas such as mountains, deserts, and coastal areas are quite sensitive to environmental change, hence require special attention.
- c) The donors are generally influenced by seasonal trends in development. One! year flavor may be gender, next year it may move to climate change. The donors require serious long term plans for resource raising, allocation, and deployment. Most donors are governed by short term gains. Unfortunately, environmental benefits particularly through regeneration and restoration yield results after long gestation. I think climate change interventions aimed at reducing CO₂ or other GHG gases will require long term funding, which most donors are just not ready.
- d) There is a serious issue of who should bear the cost of environmental sustainability. Local communities find it difficult to cope with long gestation projects, hence, we all end up with populist short term interventions such as afforestation, fixing energy efficient appliances and so on.
- e) There will be need for sharply designed subsidies to make transition between short term expectation and long term gestation. The role of the donor/investor is to bring the gap. For instance to promote application of energy efficient devices, one might think of providing interest subsidy to clients till sufficient demand for new technologies is generated.
- f) Any donor intervention should spell out exit options right at the beginning of the project. This aspect is generally not well handled.

Post by: David Sonne

I just checked the discussions, and I can't find my posting on our animal husbandry projects, so I'm going to put it up again.

Our water projects are basically setting a village up to be able to do an animal husbandry micro-credit project. According to the local government, the best way to help villagers in every area of need is to help them increase their incomes, because with increased incomes, they can resolve their problems themselves. Poor villagers do not want to be in poverty, and if they had the means to get education or to improve their living situation, they certainly would. But first, they don't have the money to even start improve their situation, and second, if they had money, they are still lacking in knowledge about how to improve their lives. Animal husbandry projects both give the villagers the needed capital to improve their incomes, but also the necessary training to successfully manage the loan in a way that will not only enable them to pay the ! loan back, but also to make a profit in the short-run, and even more profit in the long-run.

In an animal husbandry project, each villager is given a two-year loan of \$300. In the first year, they can pay half of the loan back and make some profit. In the second year, they pay the remainder of the loan off. In addition, peasants will be able to eat one to two pigs per year. Villagers often do not have meat in their diet otherwise. The pig house is designed with a drain for urine to go out so that the conditions are sanitary and the pigs don't get sick. Therefore they are able to grow faster and larger. After making the loan payment for the year, they can still earn \$63 each year. After the second year, everything they make will be profit. Some villagers manage the pigs better than others, and some raise sows to give birth to their own piglets, so some villagers will make more profit than others.

At the beginning of the project, each villager who registers for the loan goes through a 15 day training where they learn:

- What time of the year to buy
- How to make cheaper and more nutritious feed
- How to grow fast-growing grass to make the pig feed
- How to immunize piglets
- How to see if their pig is sick
- How to treat pig sicknesses
- How to manage the raising of the pig (how often to clean the pen, etc.)
- How to build a large, sanitary, and cost-effective pig-pen
- When to sell in order to get the highest price (during Chinese New Year)

Animal husbandry projects are actually a form of micro-credit project. Because the amount paid to each villager is a loan, the returned income can be used to expand the work into other areas and help new families to start raising livestock. Participating farmers are charged six percent interest per year. Half of the interest is paid to the local government to cover their costs involved in overseeing the project, for which the government has to file a financial accounting report. The other half of the interest covers the implementing costs (office expense, travel costs, training, etc.).

Banks also charge around six percent interest, but banks do not believe they can manage such small loans and still be profitable, so villagers generally cannot access credit from traditional banks. Micro-credit institutions however, generally charge nine to 12 percent interest because they believe this is necessary to cover the higher costs incurred from having to oversee such small loans. So this project is offering credit to farmers who would not be able to access credit through a bank, but it is offering the credit at similar rates to banks.

We have a number of other projects that can be run as micro-credit, but the pig market in China has been very profitable these past few years, so we have been focusing there for the time being. However, over the next couple years, the market for pork is expected to drop off, and the cost of feed is going up, so pigs will become less viable.

We also have done a test-run for a microscopic insect that grows on brush trees on steep mountainsides that would not be able to grow much else. The insect slowly devours the tree as it spreads across the bark. The insects completely sap the life of the tree by the fifth year, and the trees need to be replanted. But the insects produce a maroon-colored crust as they eat the tree, and this material can be broken off of the tree and sold to factories for making paints and dyes. This project can easily be done as a micro-credit project.

We have also been growing a rare species of orchid in green houses under precisely controlled climatic conditions. As an aerophyte plant, these flowers absorb their nutrients from the air rather than from the soil, so they are tricky to grow and humans have not been able to get them to reproduce artificially. Therefore, we have been producing our saplings through tissue culturing. We currently have about 20 acres of greenhouses of cloned saplings of this species, but we also have other species with less stringent growth requirements and we could adapt this project to be a micro-credit project where villagers can grow the other species in their houses.

I also helped a friend with a cattle project, which has been very successful. We imported Australian bulls to mate with the local cows. Local cattle usually weigh 150-200 kg. But just the first generation of offspring will be double to triple the original size of the local cows. By the third generation, they can be up to 1,000 kg. We give one bull to each village, with the agreement that they

castrate their local bulls and sell the offspring back to us. One bull can mate with over 100 cows each year, so a low investment can make a major impact in villagers' lives in a sustainable way. We are currently looking to expand this project into other areas.

Post by: Toms Thomas

Friends

This is a very important question and we appreciate the one who raised it. It is in fact true that the donor and investor have a very critical role in ensuring environmental sustainability. However it requires a change in the perception of the rating mechanisms available globally on micro finance effects. It should include the concerns relate to environment sustainability in to the ratings. The financiers should include environment friendly products as important indicators while evaluating the impact of the MDFIs on a larger scale and rating them. Some direction in this line is already on and I am sure that in the days to come the financiers would take the environmental issue as an important component of evaluating the success of credit programs. ESAF follow an integrated strategy with a micro finance plus slogan. This has both an environmental angle along with its scope to reach out to the most marginalized. MF sector need to push this strategy! of integrated financing where environment concern is of primary importance in MF operations. We are privileged to have donors who are concerned of a credit plus with an environmental effect.

WHAT ARE THE 'KEY COMPONENTS' OF AN EFFECTIVE MFI ENVIRONMENTAL SUSTAINABILITY PROGRAM?

Post by: Elizabeth Israel

In 2006, GreenMicrofinance co-hosted the GreenMicrofinance-Wharton Roundtable on [*Microfinance and the Environment: Setting the Research and Policy Agenda*](#). Bob Christen, now with the [Bill & Melinda Gates Foundation](#) and then former Director of the [Boulder Microfinance Training Program](#), stated in his opening address at the Roundtable:

"In the early years of microfinance we just checked the box that we were not doing any harm to the environment. Today, we are much more sophisticated. We need to know what activities we should and should not be funding. Whether accepted by the masses or not, microfinance is affecting the issue of environment and degradation. There is a clear link between environment and microfinance....As we continue to focus on the poorest, we cannot escape the environmental angle. We must take a "do not harm" perspective."

Working with GreenMicrofinance, it has been quite amazing to see the dramatic shift in the conversation since then and now - 2 years - which is very focused on climate change, clean energy, and rising fuel costs - moving way beyond the 'do not harm' perspective. With this in mind, please share your thoughts on "key components" of an effective MFI environmental sustainability program.

Post by: Piyasena Rajapaksha Wijewardena

The key component of an effective MFI environmental sustainable programme

Agricultural development and environmental protection are closely intertwined. The reliance of agriculture, forestry and fisheries on natural resources means that they can create beneficial and detrimental environmental outcomes. Improvements in agricultural and forestry practices can thus have beneficial impacts at multiple levels.

This strategy seeks to draw innovative systems that ensure local gains to battling the global environmental problems of climate change and biodiversity conservation. Innovations are sought in the following areas: (i) development and production of sustainable bio energy; (ii) methods to scale up payments to ecosystem services; (iii) increased local incentives and benefits to the poor in payment for environmental services schemes; (iv) enhancement of community-level adaptation to climate change in rural areas; (v) reducing the contribution of agriculture and fisheries to greenhouse gases; and (vi) sustainable use and promotion of biodiversity at the local level. This focus recognizes and highlights the particular difficulties that poor land use face in adopting improved land management practices. These constraints involve poor access to technology development processes and to agricultural information, poor bargaining power in markets and for public services, and extreme household resource constraints.

Most of the experiments so far have focused on financing options to help low-income households acquire cleaner/renewable energy technologies such as gasfire, improved stoves and bio-digesters.

Other initiatives, such as the partnership between MFI and NGO, seek to meet the energy needs of self-employed individuals and microenterprises for processing, agriculture and other livelihoods. In one case, the Public Private Community Partnership (PPPC) finances the acquisition of the technology package especially designed by the resource institutions to help low-income groups.

Principal project components:

1. Identification of target community those who are closely involving in natural resource consumption and agricultural field or victims.
2. Conducting of social mobilization programme towards community motivation and capacity building including technology transferring
3. Establishing of group interaction exercises and saving habit.
4. Identification of potential livelihood support programme and partnership promotion
5. Coordinate with associated green investors for investment opportunities for rural industries
6. Strengthening of support service and market promotion
7. Creation! of forward sale contracts and MF operation
8. Establishing of community initiative monitoring and evaluation mechanism

Project to be designed to develop a boarder perspective through PPCP by linking the resources available in the private and public sectors and to strengthen the community level institutions by harnessing the potentials existing in the divisions. These partnerships focus on promoting rural investment and economic opportunities by tapping into the production capabilities of the rural communities, linking them to existing capital resources of the private sector and by exploiting existing market potentials.

HOW SHOULD THE EFFECTIVENESS OF AN MFI'S ENVIRONMENTAL SUSTAINABILITY PROGRAM BE MEASURED?

Post by: Kathleen Robbins

The concern was raised on Day 1 that if sustainability is added to Social Performance Monitoring for a MFI that it might become a numbers game and not measure the really important issues. When considering clean energy and sustainability, what do you feel are the really important 'key factors' that should be used to measure program effectiveness?

Post by: Paul Thomas

Dear Friends

First of all my sincere apology for not being very active for the past few days in the discussion because I have been too busy past couple of days though I sincerely wanted to take part in this very important discussion. However let me tell you that I have been closely following the discussions and is quite impressed by the rich contributions made by the community to the very important issue environment friendly micro finance. I do appreciate green micro finance and USAID for initiating this discussion and wish that it should continue beyond the three days and we could probably launch a forum of interested people who could contribute regularly to this very important issue. The invitation to be in the speaker corner has been a great honor for me and I thank green micro finance for inviting me.

Major issues in Micro Finance and Environment and energy

Yes coming to a few of issues addressed through the discussion forum I would like to share the experiences of ESAF. We do believe that Micro Finance sector as such has a great potential to promote green energy solutions. More over the issues like

- Environment friendly financing
- Products
- Larger inclusion in the Energy provision

- Mainstreaming conventional energy
- Promoting eco friendly energy options etc..

Finance as we all have shared is an important constraint for the very grass root people to take up alternative energy solutions. Developing and promoting alternative energy products and developing appropriate financial schemes could take up the issue of equity in energy provision across the world.

Energy, micro finance and environment protection has a linear relationship. These three go hand in hand and effective alternative energy promotion could address the various environmental issues and could

Energy and Local Environment

MFI's are often in better position to promote environment friendly energy products since most of them have a strong association with the community. Capitalizing the MFI's community social capital could facilitate a faster promotion of environment friendly financial products.

Alternative Energy Micro Finance and Health

Yes I strongly believe that the promotion of environment friendly energy products could have a very strong potential in promoting good health. The type of the cooking equipment and the fuel has a very important association with the health status of the community.

Environment friendly products - The challenge of affordability

Alternative micro finance products linking with the environment has a cost element. It is important to think on the appropriate financing mechanisms to promote the cost effective products. Appropriate subsidy tapping at the national and international level could better the penetration rate of the environment friendly financial and energy products to the neediest areas.

Penetrating on a larger scale the Environment friendly products

This requires a clear and defined international effort by the MFI's and we believe that environment promotion along with keeping up the financial indicators is a big challenge. Though the MF sector as such is transforming on these lines it requires a significant effort from the MFI to move away from the conventional finance provision to a dynamic and challenging products that facilitate clean and livable environment promotion.

Use of fire wood – Equity in public Subsidies – Environment promotion

Even in this century irrespective of the financial capacity fire wood is the main source of energy for many and the public subsidies in the energy largely reach the elite population. The bottom line poor are hardly benefited through the government subsidies and there is a need to make the public energy policies more appropriate to the energy needs of the poor. We did a survey in Kerala and found that many use firewood as the major source of energy.

ESAF Experiences

ESAF has been in to promotion of environment friendly financial services for quite a long time. We have a range of environment friendly financial products. We also have a separate department that looks in to the environmental issues and related it to micro finance initiatives.

Bio Energy is a thrust area of ESAF and ESAF promote Mini Bio gas and community bio gas plants. We link the energy promotion with the environment protection through promoting appropriate energy option at the local level that suits best to the local situations and have the best links to the environment.

PRERANA handicrafts of ESAF, Amruth Herbal division of ESAF, Micro Energy partnership with GMF and other like minded institutions have been landmark strategies of the organization in making the financial services environment friendly financial services. Partnership on a larger scale and keeping on the current discussion live could take on the initiatives in environment friendly financing further. Reaching the poor at large with environment friendly products is a challenge and I strongly believe that we together could make a significant difference in the whole sector. The discussion at this stage would help ESAF in coming up with the

best road map to reach our goal of serving poor along with making earth the best place to live for all and even for the generations to come.

I hope these thoughts are helpful. I am so sorry for this delayed response.

Post by: Toms Thomas

Friends

A similar issue is the issue related to financing of various environment related financial products. Who would pay for it??? Does subsidy an answer? If then what could be the amount or the ideal ratio?? Can some of you share your experiences?

DAY 3 SUMMARY

Post by: Bela Vora

One of the major questions discussed on Day 3 was - What is the role of donors and investors in ensuring environmental sustainability of an MFI and their clients?

Many areas came up - including need for donors or investors to establish new priorities in their portfolio, proper monitoring mechanisms so donors can ensure that activities funded by them do not adversely impact the environment and more. A strong case was made for supporting initiatives which reverse, restore, and augment environmental sustainability at the policy level. Introduction of impact and risk assessment tools and training MFIs is seen as critical. Of course the Energy cost increases have turned everyone's attention to the environment, and donors and investors place a premium on "green" returns. There is therefore a need to link these projects to the carbon development mechanism which may spark more interest in environmental friendly projects. There was concern that this may be a seasonal interest instead of a long term commitment on the part of investors.

A question was raised about whether subsidies are the answer to financing of environment related products. Local communities cannot bear the cost and therefore focus on short term projects instead of more beneficial long term ones that requires higher initial investment. An interesting comment was to urge donors to spell out exit options right at the beginning of the project.

There was definitely a need to formalize the impact assessment. One way to do that would be to measuring the impact of MFIs – including environment sustainability in the ratings right along with the reach, costs, efficiency and other factors. There has been a significant shift from just checking the environment friendly box to evaluating and deliberate selection of environmentally sustainable projects.

There was an emotional call to give a voice to simple and stirring stories of desperate need and unimaginable suffering which I am sure resonated with participants. Therefore the need to collectively create and follow guiding principles as an example for the socially responsible investors, producers and users alike to adopt and improvise.

There was some continuation on the Day 2 questions related to the key components of an effective MFI environmental sustainable program.

Agricultural development and environmental protection are closely intertwined as key components and another identified was methods to scale up payments. It would only work if there was a community level adaptation and had the potential to support livelihood. MFIs are often in better position to promote environment friendly energy products since most of them have a strong association with the community. Capitalizing the MFI's community social capital could facilitate a faster promotion of environment friendly financial products. Reaching the poor at large with environment friendly products is a challenge and I strongly believe that together we could make a significant difference in the whole sector. And a pleasure to end this Day 3 summary on this note!

Thank You

Post by: Betsy Teutsch

Thanks to all who participated. We will draft a summary of all 3 days of discussion in the next few days and will post it through MicroLinks as well as on www.GreenMicrofinance.org

We are inspired by and grateful for all your contributions!

Post by: Thomas B. Israel

The Opposite of a Great Truth is Also True

What an interesting and stimulating three days! I suspect that many of us will revisit the rich content of these pages in the days ahead.

There is a book on my shelves wherein a psychologist writes that the human environment is not like the weather—"something that just happens."

Niels Bohr, the gifted Danish nuclear and theoretical physicist, wrote about his father's great maxim, in which he teaches his son the difference between trivial truths and great truths. The opposite of a trivial truth is plainly false, he taught young Niels. The opposite of a great truth is also true.

You have been involved in this forum because you know that weather does not just happen any more! After decades of debate, we in the west acknowledge the calamity of our ignorance and our carelessness. Yet our actions to make course corrections, especially in America, have been impotent.

An awful and transcendent bond emerges among us—the calamitous suffering of our dying planet and its peoples. We reflect on the horrible truth that approximately 34,000 of the world's *children die each day from starvation* and related causes (United Nations, www.un.org). We reflect on the unavoidable conclusion that our very planet is dying.

Human capacity to change is rich with potential beyond our imagining. Will enough of us respond in time?

MORE OPPORTUNITY TO CONTRIBUTE!

Post by: Bela Vora

Thank you to all those involved in the discussion, as participants as well as observers. Tomorrow there will be a summary of the entire topic of Microfinance and Climate Change and the forum will remain open through Friday and the weekend to allow people to post their final messages.

Dear Cheer

Thank you very much for your response and interest on wood gas stoves technology and introduction process.

We fully agreed with you to transfer this wood gas technology as well as to introduce it in the region towards greener and cleaner world. We would also like to exchange solar technology and introduce solar cookers in our country. In this process we should have closer relationship and understanding on these issues in order to build a strong partnership.

Please contact us with more details.

Post by: David Whitfield

Hi all, Elizabeth,

I am trying to catch up on reading the past posts in order to be able to contribute something worthwhile.

I will introduce myself in a coming mail, but your post triggered my memory, Wasn't there some "Guiding Principles" drawn up and signed by many of the participants and the International Microfinance and Environment Seminar held at Eastern University in 2004? Would it be appropriate to post them?

Post by: Elizabeth Israel

Hi David,

The "Guiding Principles" (drawn up and signed by many of the participants at the 2004 Microenterprise and Environment Conference) under **Generally Accepted Environmental Principles (GAEP) for Microfinance Institutions** under the Documents section. GreenMicrofinance adopted them and renamed them for MFIs. They are listed in this thread.

The original document is posted on GMf's site under [2004 Microenterprise and Environment Conferences](#) with the original signatories. Your name is still there!

THANK YOU - AND STAY IN TOUCH WITH MICROLINKS

Post by: Anna Van der Heijden

Dear Participants,

This Speaker's Corner is over, though as Bela mentioned, a summary will be posted tomorrow, and the forum will remain open for everyone to post their final messages over the weekend.

Over the last three days, 193 participants from 43 countries participated in this discussion, together contributing 95 messages on a topic that is important to you all. On behalf of the microLINKS team and USAID, I want to thank the forum host and discussion panel from GreenMicrofinance -- Dan Lundmark, Joan Hall, Elizabeth Israel, Thomas B. Israel, Kathleen Robbins, Betsy Teutsch, and Bela Vora -- for guiding this discussion to make it the most useful for you. We hope you were able to learn, share, and make new connections, and that this forum will strengthen the work you do.

You can continue to visit this Speaker's Corner page, www.microlinks.org/sc/greenmicrofinance, to read previous postings and download resources shared by all participants. A compilation document combining all postings will also be posted on this page in the next two weeks.

If you are interested in future Speaker's Corners or other microLINKS activities and resources, please do sign up for our monthly newsletter Connections, at www.microlinks.org/connections.

Thank you again for your participation.

Post by: Anna Van der Heijden

Hi Everyone,

Just a correction on the link to our newsletter, it's www.microlinks.org/connections. Or simply visit the home page and use the Newsletter subscription option on the right-hand side. www.microlinks.org.

Post by: Faruque Ahmed

Dear Elizabeth Israel,

Thanks for good initiatives.

It is impressive to learn more about your success.

Post by: Elizabeth Israel

Thank you for your kind words, Faruque.

The "Microfinance and Climate Change" Forum has been a collaborative effort of many and we appreciate everyone's contribution.

On behalf of the GreenMicrofinance team we thank Anna Van der Heijden and Melissa Arnold from microLINKS, both of whom provided our team with terrific backup support – and to Dan (Lundmark), for his role as our moderator.

We will continue this dialogue on [GreenMicrofinance](#) website. We invite you to join in.

It was the thoughtful input from so many that made the Forum a success. The summaries provide overviews, but the following are a few comments worth noting from our three Indian microfinance Forum Co-facilitators, Manab Chakraborty, Fr. Paul Moonjely, and Paul Thomas! .

The investors and donors may take steps to initiate proper monitoring mechanisms to ensure the environment sustainability of the projects and programs initiated by the groups or individuals working with the MFIs.

* Fr. Paul Moonjely, Executive Director, [Wesco Credit](#)

Finance as we all have shared is an important constraint for the very grass root people to take up alternative energy solutions. Developing and promoting alternative energy products and developing appropriate financial schemes could take up the issue of equity in energy provision across the world.

* Paul Thomas, Director, [Evangelical Social Action Forum](#)

The donors can promote environmental sustainability in a number of ways. Make sure that activities funded by them do not adversely impact the environment. Some of the traditional tools for environmental impact analysis such as environmental impact analysis etc. should be more rigorously and sincerely applied at project level. Support initiatives which reverse, restore, and augment environmental sustainability. For this the best place to start is at policy level.

* Manab Chakraborty, CEO, [Mimo Finance](#)

Let us all continue to "harness the power of clean energy to microfinance".

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