Microenergy Credits: Linking microfinance institutions to the carbon markets when they lend for clean energy

Latin American Regional Microcredit Summit

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Making clean energy part of every microentrepreneur's journey out of poverty

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Many microfinance clients suffer from a vicious cycle of energy poverty

- Recurring expenses
- Health impacts
  - Respiratory disease
  - Childbirth
  - Awareness
  - Burns
  - Water borne disease
- Gender impacts
- Education impacts

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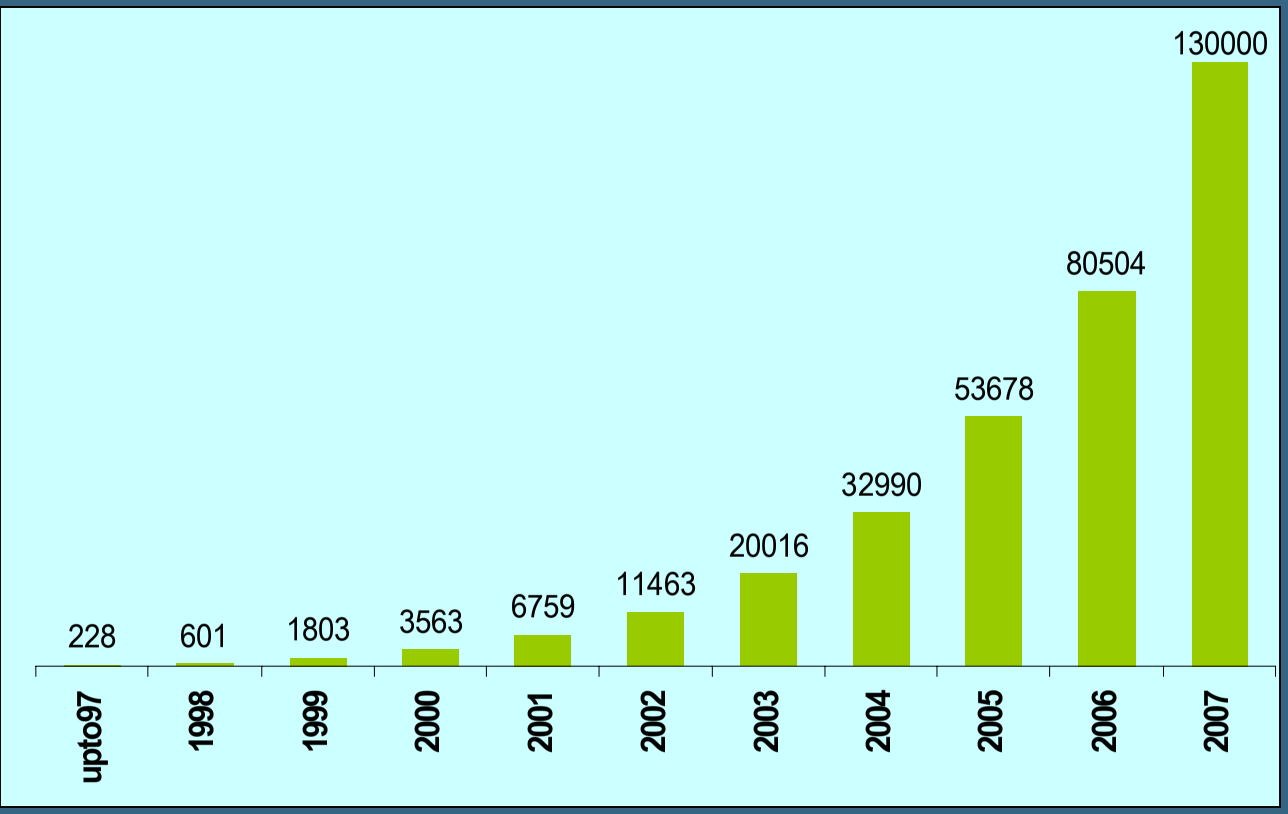
Microfinance can be a channel for clean energy alternatives
Example: Grameen Shakti

Cumulative Solar Lighting Systems Sold



Other products include Biogas digesters and Improved cookstoves

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MFIs can use carbon revenues from MEC to reduce the cost of clean energy to end users and to offset program costs

Carbon markets

MEC aggregates carbon credits

MFIs lend for clean energy products

Microentrepreneurs adopt clean energy

- Companies in Europe spent **180 Billion Dollars** on carbon credits in 2008
- But less than 1% of that was spent on renewable energy in developing countries
- High transaction costs make these projects unattractive

- MEC is an aggregator that tracks small clean energy investments and packages them for sale on the carbon markets

- **2.5 Billion people** live without access to modern energy
- They survive on traditional fuels which create over 600 Million tons of CO_2 emissions per year.

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Who is doing it?

FINCA Uganda

XacBank Mongolia

Spandana India

Aryavart Gramin Bank India

"I was inspired by what you do. We shall definitely work with you." Ingrid Munroe, Jamii Bora
"Micro energy credits partnership will add a great value for MFI clients and Grameen Koota."
Suresh Krishna, Grameen Koota

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The role of partners

- EcoSecurities sells the carbon offsets to the carbon markets, companies and individuals

- EcoSecurities (LSE: ECO) purchases the carbon offsets aggregated by MEC, and securitizes them for the carbon markets

- MEC purchases carbon offsets from MFIs

Step 1: Carbon purchase agreement

- The agreement says that MEC will purchase the carbon offsets created when your MFI lends for clean energy
- It includes an estimate for the annual volume of carbon offset created by each product, and the dollar value of the project
- No upfront transaction costs or minimum project size, and no liability if the project does not expand as planned
- The agreement should be signed before the project starts

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Step 2: Clean energy product marketing

Best practices to successfully scale up a clean energy program include:

- Identify products that provide great value to your clients through market research, surveys and/or pilot tests
- Develop a business plan to justify upfront investments in project development including marketing activities
- Hire or allocate a dedicated project manager and energy officers
- Choose trustworthy suppliers
- Take advantage of technical assistance

More best practices:

- Engage women, and the community
- Support local job creation
- Create a robust quality assurance process

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Step 3: Receive carbon revenues

- Upon receipt of the sales data from the MFI, MEC will conduct the first audit
- Once the audit results are received, MEC will start making payments to the MFI on a semi-annual basis
- At any point the MFI can see its balance with MEC
- The MFI can use the carbon revenue for purposes such as:
  - Hiring a project manager or energy officers
  - Expanding marketing to reach more clients
  - Client education and awareness
  - Technical assistance
  - Lowering interest rates or principal costs
  - Funding on going customer service

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Step 4: Monitor the clean energy systems

- The carbon credit is renewable for every quarter of a year that the client continues to use the clean energy system.
- The MFI provides monitoring data indicating that the client continues to use the clean energy product
- MEC has developed an internet technology using mobile phones and GPS that is free to its MFI partners
- Monitoring is simple, and can be done by:
  - Loan officers
  - Energy officers
  - Energy suppliers
  - Local agents hired by the MFI

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Some sample clean energy products

Product	Description	Cost	Lifetime	Carbon Offset (tons over 5 yrs)	Payment/ System
Solar Light 50 W	5 Lights 4 hrs per day, tv and cell phone charger	$436	20 years	2.3*	$15*
Solar Light 100 W	7 lights 6 hrs per day, tv and cell phone charger	$773	20 years	4.9*	$32*
Efficient Stove	Reduces wood or charcoal consumption by 50%, efficient cooking	$30-$60	10 years	7.5*	$39*
Biogas Digester	Uses cattle or poultry manure to provide clean cooking gas, light and electricity	$ 448	15-20 years	14.7*	$76*

Future products include solar water heaters, tree planting, efficient boilers, efficient housing, cooking gas

***Based on data from Bangladesh and Uganda. Actual payments will vary.**

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Conclusions

- Simple energy products can **improve the quality of life** of microfinance clients
- Renewable energy is **affordable**; spending is close to what MFI clients already spend on kerosene, fuel wood and charcoal
- **Carbon revenues** are available to help your MFI bring these products to your clients
- MEC makes it **easy to implement** energy product lines

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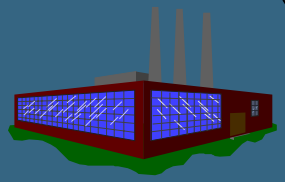
APPENDIX: HOW DO CARBON MARKETS WORK?

1. 174 nation states have signed the **Kyoto Protocol**

2. Industries are given emissions **allowances.** They must either reduce or purchase "**credits**" They purchased $180 B in 2008.

3. The **Clean Development Mechanism** allows carbon offsets generated in developing countries. $3 B were sold in 2007



4. Carbon offsets generated in the developing world can be sold and traded on **regulated exchanges**

5. In the **voluntary carbon markets** individuals and companies purchase carbon credits. $100 Million were sold in 2007

The Kyoto treaty recognizes the need to help developing countries to get on a different energy path as they make new investments

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