



Renewable energy microfinancing: oxymoron or reality?

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More microfinance institutions need to fund renewables – often the first step out of poverty, says Binu Parthan, deputy director general of the Renewable Energy and Energy Efficiency Partnership (REEEP).

Anita, who lives in Dehradun, a city in Northern India, works with her husband; she sews clothes and he sells them. She took her first loan for 5000 rupees (about US\$108) from microfinance organisation [Mimofinance](#) three years ago to increase the stock of clothes, and has borrowed more since. The loans helped her increase her earnings: now she and her husband together earn around 12000 rupees (US\$260) per month.

Meanwhile, sari weavers in Karnataka in the West of India were struggling to earn a living of 1000 rupees (US\$21) a month; frequent late deliveries of their products to customers meant cash flow was irregular, while an unreliable power supply meant they could not always do their work, which depended on intense concentration. When Selco, a company championing renewable energy in the region, arranged a special loan to fund solar lighting, cash was freed up for electricity.

The lanterns cost the equivalent of US\$54, but the weavers could not even afford the initial down payment of US\$7 required by the local village bank. Using [REEEP](#) funding, [SELCO](#) paid this deposit for 8 of the workers, all of whom were prepared to pay the monthly instalments that followed. The lights have made a big difference to their lives, word has spread round and it is likely that more weavers will come on board.

Microfinancing missing a key aspect?

Both these types of artisans benefited from the growing microfinance sector. But the second case is more unusual and the weavers not typical beneficiaries. SELCO works with financial institutions rather than being a lender itself; the deposit problem solved by REEEP might not have been solved otherwise – even by a microfinance institution (MFI) – many of whom do require down payments. But a more unusual aspect of the project is perhaps its focus on energy – a characteristic shared by few microfinance and related institutions, hundreds of which have sprung up over the last decade.

Microfinance is an umbrella term – ranging from the loan shark to reputable financial institutions (FIs) working closely with well-established ethical NGOs to lend small amounts (at most a few hundred dollars) to poor people.

The microfinance information exchange centre [The Mix Market](#), based in the USA, lists 1400 MFIs across the globe. Microfinance focused on purely environmentally friendly projects has also evolved, as Elizabeth Israel, a manager

at [Green Microfinance](#), another US organisation, remarks: “In the last few years we have seen a tremendous influx of interest.”

Most MFIs help entrepreneurs start up their own business. “Very few MFIs do much more than financial services – lending and insurance,” asserts Dr Russell deLucia, a founder of [S3IDF](#), an organisation that specialises in helping fund infrastructure for the poor.

It is certainly true that energy supply – the corner stone for high and low energy users – is often ignored by MFIs and FIs alike, even in those very countries where it is most lacking. No matter how skillful the dressmaker, nor how strong the demand for her clothes, her business will collapse should this supply – and her sewing machine - break down. Energy is often the bottom rung of the ladder leading away from poverty.

Saliya Ranasinghe, an expert working for the [Asian Development Bank](#), argues however that this is perhaps only true of those who are already in a position to aspire: “you definitely reach poor people with energy projects, but more the entrepreneurial poor,” he states, citing cases in which poor people’s lives have been transformed through new energy supplies – such as the light in front of a hotel which allowed the owner to sell products to passing traffic. Those who are destitute, he argues, will not be interested in energy issues. “At the bottom of the pyramid you don’t sell energy as a primary need,” he says.

Nevertheless the question remains: are Microfinance and other conventional FIs and MFIs, then, taking a superficial approach by ignoring energy?

Back to basics

There is certainly a strong case for prioritising infrastructure, renewable and efficient energy loans although of course, MFIs that focus on energy may be working in more rural areas where less infrastructure has been built. In rural areas, many square miles from the grid and usually home to some of the poorest people in developing countries, electricity supplies are essential to economic development, and renewable energy may be the most cost-effective and reliable option. “They can’t get out of the poverty trap without it,” states DeLucia.

While power supplies are more commonly available in cities, rapidly increasing populations and the accompanying resource pressures suggest that even better serviced areas will not be able to cope with demand using existing infrastructure.

At the same time, government subsidies or loans are not always the best source of funding energy – renewable or otherwise – as microfinance experts explain. “Civil servants and state owned institutions can meet their targets via lower middle class loans; they don’t want to go the extra mile and are very risk averse...who appraises a farmer with no land?” comments Ashis Sahu, Chief Operating Officer at SELCO.

Ranasinghe is more scathing still: “State funding is a disaster and it prevents the development of a commercial [solar] market,” he asserts. In most countries, he suggests that a commercial market has not emerged because the Government concerned does not consider marketing, after sales service or supply chain development and disturbs the playing field. “A government can play a facilitating role but it shouldn’t be in the market place – it doesn’t take a private sector approach,” he says, suggesting that a quick fix mentality is predominant among many politicians.

With the exception of the occasional grant, philanthropic involvement or donor like REEEP playing a facilitating start-up role, microfinance is, then, the main funding available to poor people for energy development because conventional banks do not lend such small amounts. Few poor people will think of applying to banks or indeed MFIs, let alone for energy supplies. MFIs in the Pacific islands – fewer in number than in India and Africa – are, like their clients, preoccupied with other issues.

“In the Pacific islands, hardly anyone knows about renewable energy – and it’s not even on the MFIs’ agenda – they hardly understand it,” remarks Luse Kinivuwai of the [Foundation for Development Co-operation \(FDC\) in Fiji](#). Using REEEP funding, FDC is carrying out field surveys and trying to assess the potential microfinance models in these countries, all of which are hooked on kerosene. In Fiji and neighbouring Pacific islands, as in many places in the early days of clean energy microfinance, one of their tasks is to drag this issue into the broad light of day.

It is a task of persuasion and communication, qualities that often appear to be absent in most ordinary lenders. In her work Kinivuwai and her colleagues have tried to show villagers in person the value of using lower cost, healthier, emissions-free solar appliances and emphasise their affordability and reliability, if properly managed, in an age of rising fossil fuel prices and energy security concerns. As DeLucia explains, many MFIs and similar organisations provide the backup and expertise about the business that an ordinary lender would not offer: “we think the poor need knowhow and technology as well as finance and therefore we do business development services, unlike most [micro]finance institutions,” he states.

Getting onto the first rung

Yet while the poor may be persuaded to borrow, they need help to get up the ladder that stands between them and full ownership of their micro renewable energy supply and beyond that, hopefully, greater prosperity. In the months following the 2008 banking crash, it has become a standing joke among microfinance commentators that the poor are more creditworthy than the rich.

In fact, few poor people can pay back their debts or come up with the first upfront charge without a well thought through support mechanism. REEEP, alongside many of the companies and NGOs it funds, adds value and new skills to typical microfinance business to address credit risks among poor people, not least to ensure the lenders get back the money they put in.

In Kenya, [IT Power](#) manages this risk partly through close personal contact. “MFIs are aware of which renewable energy technologies can work in various country localities. This makes it easy for them to decisively give the matching financial support through loans to the deserving cases thus reducing the risks,” says Maurice Mulinge, a consultant with the company.

But as in many countries, the company fully understands, and also relies on, social support and peer pressure groups among rural villagers. “These groups are very common in rural setups and the group members are responsible for each other. If a member defaults in loan repayment then it is the responsibility of the group chair to make the follow ups. In other words the group members are the guarantees to the loanee” states Mulinge. Kinivuwai envisages the likelihood of a similar system going ahead in Fiji and Western Samoa: “we could create a village system where they purchase renewable energy as a village and we work out a collective repayment system,” she says.

The better the system, the more likely the project will be successful and copied elsewhere, with local variations. However, it is also possible to charge an upfront fee for the installation and wiring charge – as in the SELCO case – and then remove the equipment if the borrower defaults. Alternatively, the borrowers sign an agreement that should they default, the solar panels or similar installations will be removed and sold elsewhere at a lower rate.

Other smart ideas have been put into practice. For example, a REEEP project in the South Pacific run by [SOPAC](#) worked by providing growers with a solar PV LED lighting system. Strapped for cash, the communities are paying back the cost of the system over a two year period or less by handing crops directly to a middleman who pays the solar company. In Kenya, IT Power has developed another technique: “MFIs have recently been offered a partial credit guarantee from the major lending banks,” says Mulinge. In one case, one of these banks offered an 80% guarantee. IT Power has also been supporting the local MFIs with energy investment expertise and this has improved decision making when MFIs give out the loans.

However, the collective responsibility technique appears to work particularly well in some African countries and the Indian subcontinent. “Traditional FIs don’t have a group method of lending – a guarantee that others will help. In India, there is peer pressure to pay,” explains Ashis Sahu.

Linking clean development and microfinance

Of all the tools for bypassing fossil fuels used thus far, the most well known has missed the small, rural communities that typically benefit from microfinance for energy; that, of course, is the [Clean Development Mechanism \(CDM\)](#).

In China, the [CDM is being applied to larger projects](#). But overall, it is true to say that most MFIs, whether in China or elsewhere, are not yet aware of the new doors about to open to carbon finance via the new programmatic CDM (PCDM), whose first registration is due in late 2009. PCDM allows project bundling. “The advantage of programmatic CDM is that you can combine an indefinite number of small activities similar or identical in nature under one umbrella,” says Daniele Violetti, Secretary to the CDM Executive Board. Projects in the pipeline include lightbulb replacement, solar water heating and efficient stoves. MFIs could benefit. If they bundle projects together, they will be able to access finance. “However, the way the relationship between the two works will vary from country to country,” says Violetti, adding that new methodologies could be added to the current permitted set.

“This could be used to foster and promote more energy development in rural households usually out of reach of carbon finance,” comments Carolyn Neufeld, Senior Project Manager at [KfW Bankengruppe](#) in Germany, which runs a carbon fund and is developing ten such projects, including a group of household anaerobic digestion units. She views it as a potentially powerful tool. “It could be used to soften the microfinance loan or to guarantee an upfront payment,” she suggests, adding that an MFI could manage the CDM programme of activities too: “It makes sense not to have too many actors and to keep the process lean,” she says.

[Grameen Bank](#) in Bangladesh is one of the few that have already embarked on this project. PCDM is a development could become a major stimulus to microfinance worldwide.

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