LP Gas and Microfinance

A study into the applications of microfinance in LP Gas access projects
Acknowledgements

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Table of Contents

Executive Summary .......................................................... 3

Chapter 1 Introduction ...................................................... 6

Chapter 2 Financing and Microfinance Tools for LP Gas Market Development ......................................................... 9
  2.1 Finance and Developing Countries .................................. 9
  2.2 Microcredit .................................................................. 11
  2.3 Savings and Credit Cooperative Approaches ...................... 12
  2.4 Consumer Credit Approaches (e.g., Hire Purchase or Lay Away) .............................................................. 13

Chapter 3 Finance and the LP Gas Distribution Chain .............. 14
  3.1 LP Gas Distribution Chain and Issues Related to Finance .... 14
  3.2 “Microcredit” and “Mini-Credit” Approaches to Developing the Retailer ....................................................... 15

Chapter 4 Finance and the LP Gas Consumer Market .............. 17
  4.1 Increasing the Affordability of LP Gas .............................. 17
  4.2 Rural Consumers and the Choice of Microfinance Options ... 18
  4.3 Financing Productive Uses of LP Gas .............................. 19

Chapter 5 Starting A Microfinance Program for LP Gas .......... 20
  5.1 Pre-Requisites for Microfinance and LP Gas .................... 20
  5.2 LP Gas Finance Methodology and Player Roles ............... 22
  5.3 Identifying, Working with and Organising Loan Groups ...... 22
  5.4 Developing Loan Packages ......................................... 23
  5.5 The LP Gas Product Package and Delivery ..................... 25

Chapter 6 Case Studies: Success Stories and Lessons Learnt ........ 26
  6.1 Kenyan Case Study ...................................................... 26
  6.2 India Case Study .......................................................... 26
  6.3 Indonesia Case Study ...................................................... 27
  6.4 Sudan Case Study ......................................................... 28

References ........................................................................ 30

Key Contacts ...................................................................... 31

Glossary ........................................................................... 33
A Study into the Application and Use of Microfinance in LP Gas Projects
Executive Summary

Liquid Petroleum Gas (LP Gas) has an important role to play in providing clean, accessible and affordable energy to many areas of the developing world, particularly for meeting the cooking needs of households and commercial establishments. Many attributes make it an attractive alternative to traditional fuels. It is clean and safe, convenient and easy to use. Users can upgrade their appliances according to their purchasing power. For all but the poorest, LP Gas is affordable. In terms of its environmental and social impacts, LP Gas is superior to traditional biomass sources such as firewood, charcoal, crop residues and animal dung which currently represent 25% of all energy consumed in Africa, Asia and Latin America, and whose use constitutes a threat to the environment, both in terms of the forest cover and indoor air quality.

Various barriers prevent more widespread use of LP Gas in developing countries. In addition to poor awareness or lack of availability, two primary financial barriers impede market development:

- **Financial constraints to LP Gas consumers**: The upfront costs of acquiring the cylinders and appliances and the long-term cost of purchasing fuel. Though consumers already pay significant amounts for fuels, they often cannot afford investing in LP Gas cylinders and appliances.

- **Financial constraints to LP Gas retailers**: Rural-targeted businesses that could potentially provide LP Gas services to growing rural energy markets are unable to invest in retailing LP Gas cylinders, appliances and refilling equipment.

LP Gas companies can develop a considerable portion of their market through the use of finance to build their retailer and consumer base. Increasingly in developing countries, the microfinance sector is penetrating into low-income markets. Financial institution interests overlap with that of LP Gas promoters, as both sectors have long-term development interests, including safety, modernisation, environment and improvement of rural capacities.

Microfinance

This report explores how the various types of microfinance can help low-income groups to overcome the cost barriers associated with accessing LP Gas systems. Microfinance is distinguished from “commercial” finance in that it is concerned with small loan increments; it targets poor populations and has different approaches to loan management than conventional commercial finance.

Microfinance credit schemes can be divided into three general categories:

- **Microcredit**: Borrowers organized into closely-knit “social” groups, collectively guarantee each other’s loan principal, creating strong incentives for individuals to service their loans on time. Most microcredit activities involve relatively small amounts and are initially aimed at income generation in the informal sector.

- **Cooperative Credit**: This involves groups of employed people or farmers who organize their incomes jointly into cooperative banks or “credit unions”. Since income from salaries or crops is constant, cooperatives are able to offer their members multipurpose loans with limited need for security or guarantors.

- **Consumer Credit** (i.e. hire purchase). This type of loan is set up by sellers of consumer commodities (i.e. furniture, appliances, etc.) to provide a method by which consumers with verifiable sources of income can purchase such commodities. Consumer credit is managed on terms that are more commercial than micro and cooperative credit.

The table below briefly describes the types of microfinance and compares them according to the lending methodologies, the loan portfolios offered and their institutional structure.

Finance of the LP Gas Distribution Chain

Setting up an LP Gas delivery infrastructure requires investment on several levels. Complementary investments can create a synergy among the various players to ensure quicker returns for all. At the retail end of the business, there are a variety of opportunities for financing small-scale players to open up markets through microfinance. Donors and the private sector can cooperate with banking institutions to help finance the growth of LP Gas markets while they are making infrastructural investments (LP Gas storage facilities, filling plants, etc.).

Although LP Gas retail outlets are too large to be considered “microenterprises”, their setup is a crucial and necessary part of market development. Retail outlets require financing of a “medium” scale, which can potentially be paired with consumer microfinance...
A Study into the Application and Use of Microfinance in LP Gas Projects

### Finance of the LP Gas Consumer Market

The overall goal of any LP Gas microfinance program is to help consumers overcome the high initial costs of buying LP Gas cylinders and appliances. Microfinance is one of a number of tools for this task and it is not cost-free. LP Gas companies or finance groups will pay the costs of setting up finance programs, and pass these costs on to the consumer. Before deciding to implement a microfinance program for LP Gas, it is important to consider alternatives to developing the market through initiatives to lower consumer costs, including:

- **Business loans for potential businesses;**
- **Microfinance loans to encourage productive uses;**
- **Microfinance for LP Gas consumers to encourage household use.**

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• Heavy documentation  
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• Larger loan size  
• Loans collateralized  
• Longer payback periods  
• Low risk of delinquency | • Profit maximizing for shareholders  
• Created by central organisation  
• Centralised organisation and urban-focused |
| Microcredit (i.e. Grameen) | • Character-based  
• Less documentation  
• Loans serviced weekly or monthly  
• Peer monitoring replace collateral | • More loans  
• Smaller sized loans  
• No collateral  
• Short payback periods  
• Higher risk of delinquency | • Mainly non-profit institutional shareholders  
• Creation from NGO or as new entity  
• Decentralised small units with weak infrastructure |
| Cooperative Credit | • Member-based  
• Less documentation  
• Loans serviced monthly or quarterly | • More loans  
• Loan size vary depending on income  
• No collateral  
• Long payback periods  
• Low risk of delinquency | • Member-owned, Not profit oriented  
• Created by members of income group  
• Decentralised but often with strong central organisation |
| Consumer Credit | • Qualification-based  
• Less documentation  
• Loans serviced monthly | • More loans  
• Loan sized to purchase  
• Collateral is paycheck of borrower  
• Short payback period  
• Relatively high risk of delinquency | • Private company maximizing profits  
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rollouts. In fact, it would not make sense to start a consumer microfinance scheme if there is inadequate financing for retailers or depot set-up. A national LP Gas program working through local microfinance banking agencies could offer a variety of loans to stimulate the sector, including:

- **Business loans for potential businesses;**
- **Microfinance loans to encourage productive uses;** and
- **Microfinance for LP Gas consumers to encourage household use.**

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An LP Gas microfinance program must be designed from the ground up, by examining the consumption patterns of the intended market as well as the loan behavior. With this data, microfinance products and repayment options can be tailored to the demands of a particular community. A survey of the active credit institutions should be undertaken in the concerned region. The strength and capacity of a country's rural finance sector can be gauged by meeting with banking institutions, microfinance institutions (MFI) and national cooperative agencies.

As a business tool, LP Gas can help rural poor improve their livelihoods. A large portion of the informal sector is comprised of eating and drinking establishments, and gas appliances can develop small-scale teashops or restaurants into a much more profitable and attractive investments. LP Gas marketing programs should, therefore, investigate
how to target microenterprises and encourage new business opportunities. Specific LP Gas small-scale opportunities include: cookers and lamps in health clinics, small teashops, restaurants, refrigerators for bars, kiosks, sterilizers in clinics, water heaters in the hotel or food industry, or industrial driers and space heaters.

**Starting A Microfinance Program for LP Gas**

There is no “formula” for starting a microfinance activity. The methods will differ from region to region and company to company. Before starting up a “national” scale microfinance scheme, pre-testing a pilot finance program may be useful. There are funds available from development agencies or donors for this purpose which can co-finance private sector initiatives.

Before designing an LP Gas finance program, promoters need to ask if other aspects of the market are in place and they need to understand rural and household energy markets. Additionally, major supra-industry distribution issues must be resolved. Many of the most important issues have to do with safety, as trade in LP Gas must follow certain standards to ensure safe handling and use.

The status of the local finance sector and its spread into rural areas through MFIs should be investigated. MFIs are key partners, as they understand the complex finance environment on national and regional scales and are able to tailor loan products to local needs. In addition to overall economic trends, a microfinance program should incorporate basic banking tenets of the country and as well as national “rural development” investment methodology. Financial institutions should be surveyed to determine their spread into rural areas (number of branches, number of “rural” customers, existing portfolios, etc.) and the interest they have in new products.

The institutional set-up and capacity of the banking sector should be assessed, and the roles of each of the banking players should be ascertained. Any survey of potential partners would include:

- Commercial Banks
- Cooperative or Development Banks
- Microfinance Organisations
- Consumer Finance Agencies
- Rural Energy Funds (i.e. special funds set up to help rural groups gain access to energy)

In any microfinance initiative there are potentially three parties involved. These three groups must cooperate closely, but usually one party will take the lead in the activity:

- A **finance group** advances loans and earns income from interest and fees.
- A **company** supplies LP Gas cylinders, appliances and gas refills and supports agents involved in the distribution chain.
- **Rural groups** are the beneficiaries of LP Gas, and are active participants in the initiative through their loan organizations.

There are three steps in setting up an LP Gas finance scheme:

- Identify and organize one or more groups of loan customers.
- Provide customers with loans that are continuously offered.
- Provide and service LP Gas cylinders and appliances, and ensure that the LP Gas systems maintain a minimum safety and operational standard.
Chapter 1
Introduction

Liquid Petroleum Gas (LP Gas) has an important role to play as an energy supply in rural and peri-urban areas of the developing world - particularly for cooking needs of households and commercial establishments. Increasing access to modern energy such as LP Gas fits with the Millennium Development Goals to improve rural livelihoods. Moreover, LP Gas companies stand to develop a considerable portion of their market through the use of finance to build their retailer and consumer base. Increasingly, the finance sector is seeking to reach into rural and peri-urban areas and this interest overlaps with that of LP Gas promoters. In most countries, the finance sector has long-term development interests, which include safety, modernization, environment and build-up of rural capacities. Where possible, LP Gas promoters should seek to use the finance sector to expand their markets.

Today, in Africa, Asia and Latin America, more than 25% of all energy consumed comes from traditional biomass sources such as firewood, charcoal, crop residues and animal dung. Use of biomass has significant impacts on the environment, both in terms of the vegetation of the country concerned and indoor air quality. Indoor air pollution from particulates in smoke is a leading health problem among low-income women and children, particularly in Africa. Moreover reliance on charcoal and harvested fuelwood contributes to mounting problems of deforestation in countries that cannot afford to lose forest cover.

Reliance on biomass forces rural women and children to spend many hours each week collecting wood. Where biomass is scarce agricultural residues and animal dung are gathered; these poor quality fuels are better used to fertilise and build soil. Furthermore, biomass fuels often use inconvenient cooking devices that are time consuming and dangerous for children and the elderly.

LP Gas has a number of attributes that make it an attractive alternative to traditional fuels. It is clean and safe. It is convenient and easy to use and store. Consumers can upgrade their appliances according to their purchasing power. LP Gas is affordable for all but the most desperately poor (i.e. those earning less than $2 per day). It does not require major infrastructure investment, and thus LP Gas can play an important role in areas outside of national electric grids.

Figure 1. LP Gas use per capita in developing and developed countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Kilograms per capita per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>60</td>
</tr>
<tr>
<td>Thailand</td>
<td>50</td>
</tr>
<tr>
<td>Philippines</td>
<td>40</td>
</tr>
<tr>
<td>Japan</td>
<td>30</td>
</tr>
<tr>
<td>Indonesia</td>
<td>25</td>
</tr>
<tr>
<td>India</td>
<td>20</td>
</tr>
<tr>
<td>China</td>
<td>15</td>
</tr>
<tr>
<td>South Africa</td>
<td>10</td>
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<tr>
<td>Morocco</td>
<td>5</td>
</tr>
<tr>
<td>Egypt</td>
<td>3</td>
</tr>
<tr>
<td>Israel</td>
<td>1</td>
</tr>
<tr>
<td>Iraq</td>
<td>1</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>3</td>
</tr>
<tr>
<td>Turkey</td>
<td>2</td>
</tr>
<tr>
<td>Italy</td>
<td>1</td>
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<tr>
<td>Hungary</td>
<td>1</td>
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<tr>
<td>Germany</td>
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<td>France</td>
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<td>Colombia</td>
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<tr>
<td>Brazil</td>
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<tr>
<td>Chile</td>
<td>1</td>
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<tr>
<td>Mexico</td>
<td>1</td>
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<tr>
<td>Dominican Republic</td>
<td>1</td>
</tr>
<tr>
<td>USA</td>
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</table>

NB Domestic includes residential and commercial consumption in most published data.
Source: WILPGA, 2004
New developments in supply, particularly downsizing cylinders, and incorporating appliances (specifically cooking rings, lamps), and increased distribution channels have led to the widespread adoption of LP Gas even amongst the urban poor in many countries. However, as shown in Figure 1, LP Gas use is low in developing countries compared to developed countries. Annual per capita use of LP Gas in countries like France, the USA and Japan is over 30 kilograms per capita, while in most developing countries it is below 5 kilograms per capita.

The problem of increasing LP Gas use among rural and peri-urban populations is not simply one of poverty. Studies show that significant portions of rural communities can afford LP Gas (and other types of energy) if they are available and priced in a manner that meets the spending patterns of consumers. Creating awareness, placing the equipment on the market and making appropriate financial packages available are all crucial elements of market development.

Three primary categories of barriers prevent LP Gas from becoming available to low-income groups:

• **Financial.** Though consumers in developing countries already pay significant amounts for fuels (see Figure 2) over time, they often cannot afford to invest in LP Gas cylinders and appliances. Depending on country and region, there are a number of ways to lower LP Gas prices, including reducing taxes on cylinders and appliances, and LP Gas.

• **Availability.** Networks to supply LP Gas must be in place in order for households to have access. There is a limit to the distance that cylinders can be transported for refilling. In many countries, basic infrastructure to import, distribute and deliver LP Gas to rural consumers is not in place.

• **Knowledge and Awareness.** Consumers must be aware of the LP Gas product and convinced of its positive qualities (and its safety) before they will make a purchase. The poor tend to be conservative in their buying habits, and it takes considerable efforts to change old behavior.

The upfront cost of LP Gas equipment (and particularly cooking appliances) is a significant barrier to market expansion. There are two dimensions to this problem. On the one hand, rural families cannot afford to acquire LP Gas cylinders and appliances. On the other, for potential small-scale LP Gas retailers, who are crucial players in the market expansion, the cost of setting up businesses distributing LP Gas is prohibitive. A number of new developments have been made for retailing LP Gas. Putting these in place in rural distribution areas will have a major effect on accelerating LP Gas use in rural areas.

Rural and peri-urban consumers, including households and small commercial establishments, pay significant amounts of money for fuels (kerosene, charcoal) over time. Often these costs are more than annualized costs of using LP Gas. Still, the same consumers cannot afford the up front costs of investing in LP Gas appliances or cylinders without innovative financing mechanisms. Where ‘hire-purchase’ companies are in place (Kenya, South Africa, Zimbabwe), high value rural energy equipment (including solar home systems, battery electric systems, kerosene and LP Gas refrigerators, etc.) has made significant impacts amongst these consumers.

Rural-targeted businesses that could potentially provide LP Gas services to a growing rural energy markets also face financial constraints. The costs of setting up an LP Gas business i.e. purchasing LP Gas Cylinders, appliances and refilling equipment present insurmountable barriers to retailers that would otherwise be key players in the development of the LP Gas industry.

Microfinance can provide the credit to help low-income consumers to overcome the high cost barriers associated with accessing or retailing LP Gas systems. Credit allows consumers or commercial groups to

![Figure 2: Poor people spend proportionally more for energy](image)

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2 Statistical Review of Global LP Gas, 2004. WLPGA. Note that this figure includes domestic and industrial consumption. Nevertheless, the figures provide a good overall view of LP Gas usage in the country.
purchase LP Gas cylinders and appliances according to their normal expenditure patterns. In short, it allows them to avoid high “one-time” and “upfront” expenditures that would often be a barrier to LP Gas use.

Traditionally, low-income populations have not had access to the same type of credit as the formal sector. Rural and peri-urban poor lack the “collateral” or “security” assets (e.g., title deed to land, other collateral assets such as buildings, houses or securities) and guarantors, that most banks require in order to secure loans. This does not mean they are credit-unworthy. The Grameen Bank of Bangladesh (and others) has amply demonstrated that the poor are able to repay loans and, at the same time, utilize such small loans to dramatically improve their lives.

The daily costs of purchasing kerosene, charcoal and other fuels are a burden to the poor.
Chapter 2
Microfinance Tools for LP Gas Market Development

Microfinance offers a unique opportunity to combine genuine humanitarian aid for the rural poor with good opportunities for trade and investment. The purpose of this document is to describe how microfinance can be used to build LP Gas markets in developing countries. There are many different “variations” of microfinance, and their applicability varies from country to country. Indeed, microfinance has a long history, and some of the important achievements in “cooperative banking” in the developed world from the last 200 years are very similar and relevant to what is now called microfinance in emerging markets.

This section describes a portfolio of finance tools that are applicable in developing countries, in particular microcredit, cooperative credit and consumer credit. It presents the pros and cons of each type of finance as well as the features of each type of credit that make it attractive for a given purpose.

2.1 Finance and Developing Countries
Finance plays a crucial role in rural development, and in the set up of any type of infrastructure, be it roads, water supply, electricity or LP Gas distribution. Historically, in developing countries “infrastructure” finance was the preserve of multilateral and bilateral banks (e.g. the World Bank group) that awarded loans directly to Governments or large banking groups that financed the private sector to implement “projects”. As far as “development” was concerned, finance for those outside the “formal” sector was often overlooked. The problem with financing rural communities was that they did not fit the requirements of the “conventional” finance sector.

Some countries attempted to tackle this in the developing world in the 1950s, and in post-colonial Africa. The US and Canada, in particular, made continued efforts, to develop savings and credit cooperatives in many countries in Sub-Saharan Africa. The World Union of Savings and Credit Unions (WUSCO), with support from its members in the US, Canada, The Netherlands, the United Kingdom, continues to lead the way in the development of rural credit and savings co-operatives throughout the developing world.

As the emphasis in rural development shifted to a more people-oriented, poverty alleviation approach after the 1980s, credit and finance opportunities for rural groups were developed. There was ample success in building agricultural cooperatives, which were often developed with integrated projects in major cash crop sectors such as rice, tea, coffee or maize. In this process, savings and credit cooperatives were created to enable farmers and civil servants to have access to loans, much as they do in the developed world. At the same time, the “informal” sector, was seen to be an illegal, underground economy “divorced” from the formal economy and a problem to be dealt with rather than an important part of the developing economy.

During the 1990s, development agencies and donors recognized the contribution of the informal sector to national livelihoods and economies. Indeed the informal economy contains key manufacturers, retailers and service industries, and often employs far more people than the formal sector. Planners increasingly began to consider how to support the informal sector, soon rechristened the “microenterprise” sector. Major donors, led by the Canadians, the Swedes, the Danes, the Dutch and the US developed microfinance and credit programmes from the middle of the 1980s onwards. Later, the larger multilateral organisations, such as the World Bank, the European Commission, various regional development banks (including the African Development Bank through its other regional banks such as the East African Development Bank, the Development Bank for Southern Africa) and even commercial banks with support from the development credit agencies such as the German KfW, the Dutch FMO, began to reconsider how finance could be used to support the informal sector.

Microfinance is distinguished from “commercial” finance by several considerations, even though many commercial finance agencies are now venturing into microfinance. First, microfinance deals in small loan

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3 For the purposes of this publication, microfinance encompasses a wide range of financial interventions that can be used to help low-income people overcome financial barriers that prevent them from improving their lives and livelihoods.

4 The beginnings of the cooperative movement in many developed countries were informal and small scale, like that of the Grameen Bank in the 1970s.
increments, usually far smaller than the smallest commercial loans. Secondly, microfinance is largely concerned with poor and rural populations that live in areas that are beyond the reach of urban-based commercial banks. Thirdly, microfinance has different approaches to loan applications, loan security and default enforcement than conventional commercial banks.

In general, small-scale credit schemes applicable to LP Gas promoters can be divided into three general categories, as arranged below in the following sections. However, note that the definitions are not “static” and that there is much overlap in microfinance:

- **Microcredit** involves the organization of borrowers into closely knit “social” groups. Groups collectively guarantee each other’s loan principal, creating strong incentives for individuals to service their loans conscientiously. Most microcredit activities involve relatively small amounts and are initially aimed at income generation in the informal sector.

- **Cooperative Credit** involves groups of employed people or farmers who organize their incomes jointly into cooperative banks or “credit unions”. Since income from salaries or crops is constant, cooperatives are able to offer their members multipurpose loans without an overwhelming need for security or guarantors.

- **Consumer Credit/Finance (e.g. hire purchase, lay-away, etc.):** This type of loan is set up by sellers of consumer commodities (i.e. furniture, appliances, etc.) to provide a method by which people with verifiable sources of income can purchase such commodities. The risks to the loan providers are quite high and consequently loans are managed on terms that are more commercial than micro and cooperative credit.

These credit types provide rural areas with greater access to services, be they energy, shelter, health, education or food. For this reason, many aid programs seek to include microfinance among their offerings. Indeed, the United Nations General Assembly has noted that microfinance programs “have proved to be an effective tool in freeing people from poverty and have helped increased their participation in the economic and political processes of society.” The General Assembly has further designated year 2005 as the International Year of Microcredit.

### Table 1: Types of Microfinance Compared

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Table 1 briefly describes the types of finance covered in this study and compares their lending methodologies, loan portfolios offered and institutional structure.

2.2 Microcredit

As defined by the Grameen Foundation, USA: “Microcredit is a proven anti-poverty strategy that centers around providing tiny loans, often under $100, to very poor women, for the purpose of allowing them to earn additional income by investing in the establishment or expansion of “micro-businesses” such as raising livestock, food-processing, tailoring and hundreds of other enterprises.”

Alternatively, from the point of view of lenders, “Microcredit is a lending practice that allows lenders to manage the risk and costs of lending to very small borrowers who are dependent on income from self-employment or business ownership.”

Although the approach of organizing poor people into guarantee and savings groups was popularized by the Grameen Bank (see box), microcredit has been widely used in developing countries in Asia, Africa and Latin America. For example, in Bolivia, in 2002, almost $240 million was made available to 150,000 people through microcredit practices. In the Philippines, hundreds of thousands of rural poor have had their lives transformed by microcredit.

Microcredit approaches are often catalysed by development agencies or NGOs. For example, the Kenya Rural Enterprise Programme (K-REP) began its activities as a donor-funded NGO and much later became a registered Bank. Agencies are often developed as specific vehicles to assist rural (and urban) poor to gain access to the small amounts of capital they need to conduct business, and to encourage them to save as part of their day to day business practices.

In general, microcredit loans are small and provided for business purposes. The first loans offered by a MFI would typically be less than $100 or even $50. They have short repayment periods (a few months) and relatively high interest rates (though this depends on the country). Loan repayments are strict and group-enforced. Often, group savings are used as a guarantee fund against defaulting. The main microcredit customers “and indeed those who not only gain the most from it but are best able to make it profitable, are women.” Thus, credit programs strategically target women, as they often have restricted access to the labour market and they are more credit-constrained than men.

The History of Grameen Bank

“Grameen” means “rural” or “village” in Bangla language. The Grameen Bank was launched in 1976 by Professor Muhammad Yunus, of the University of Chittagong's Rural Economics Program. At the time, his group was investigating the feasibility of credit delivery systems to provide banking services for the rural poor. The study resulted in the Grameen Bank Project, which had the following objectives:

- extend banking facilities to the poor;
- eliminate the exploitation of the poor by money lenders;
- create opportunities for self-employment for the unemployed in rural Bangladesh;
- bring the disadvantaged, and particularly women from the poorest households, into an organizational design which they can understand and manage by themselves; and
- reverse the vicious circle of “low-income, low saving & low investment”, into virtuous circle of “low-income, injection of credit, investment, more income, more savings, more investment, more income”.

The initial work of the University demonstrated the potential of microcredit in Jobra (a village adjacent to Chittagong University) and some of the neighboring villages in the late 70's. With the sponsorship of Bangladesh's central bank and support of the nationalized commercial banks, the project was extended to Tangail district (a district north of Dhaka, the capital city) in 1979. Following success in Tangail, the project was extended to several other districts in the country. In October 1983, the Grameen Bank Project was transformed into an independent bank by government legislation.

The key condition of the Grameen success was that no individual from a lending group was allowed to borrow again if the group loan defaulted. Hence, lending groups short-listed borrowers carefully using local information, avoiding need to consult the Bank. Since the average Grameen Bank loan group is made up of

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1 Source: Grameen Foundation, USA
2 Source: Micro-finance: An Emerging Market within Emerging Markets
3 An OECD report notes the very considerable benefits from providing credit to women since “a predominant share of income earned by women is ploughed back into human resource development (i.e. food, health and education for children).”
only five individuals, this creates strong bonds of trust and responsibility within each group. Although the final loan approval remains with the bank itself, part of the burden is shifted to the borrowers themselves who have ample information about each other to base their decisions on.

Today the Grameen Bank is owned by the rural poor whom it serves (Borrowers of the Bank own 90% of its shares, while the Government owns the remaining 10%). Ninety-five percent of the borrowers are women; this gender aspect of the Grameen Bank is key to its success in achieving repayment rates of over 97% among borrowers.

2.3 Savings and Credit Cooperative Approaches
Commenced in the United Kingdom in the 19th century, the Cooperative Bank was the world’s first cooperative. It was established as a movement and by the end of the 19th Century, it had over 5 million members in the United Kingdom, and throughout what was to become the British Commonwealth. The Cooperative Bank is still one of the leading supporters of credit and savings co-operatives throughout the world. The cooperative provides everything from consumer finance to savings institutions to its members.

In Great Britain and the Commonwealth, local cooperatives have been federated into national wholesale and retail distributive enterprises and a large proportion of the population has membership. The Movement spread across a number of sectors.

Worldwide, there are cooperatives in agriculture, insurance, banking, and even rural electrification. For developing countries, cooperatives provide a model by which farmers can come together to, on one hand, access inputs at lower costs and, on the other hand, form credit unions that can offer loans to members, allowing them to live off their seasonal incomes the whole year. In most countries, there are cooperative unions for employees in all sectors, including farming, teaching, banking and nursing.

Members of a Savings and Credit Cooperative (SACCOs) use their credit unions to access loans of all types. For example, as mentioned above, farmers pay for the fertilizers and pesticides with loans from their cooperative group. Moreover, they use SACCO loans to pay for school fees, house payments, consumer purchases and a myriad of other needs. Unlike traditional bank loans, a member of a SACCO does not need collateral for a loan because his income is secured through the cooperative. SACCOs are owned and controlled by their members.

Unlike most participants of microcredit groups, SACCO members already have sources of income, whether it is from agriculture, trade or salary. Worldwide, and especially in the Commonwealth, there are hundreds of millions of SACCO members.

Loans provided by SACCOs tend to be on favourable terms to members (they have long repayment periods and relatively low interest rates). Because SACCOs do not regulate their members, loans offered are not restricted in purpose and are often used for consumer purchases.
2.4 Consumer Credit Approaches (e.g., Hire Purchase or Lay Away)

Consumer credit includes approaches whereby vendors of durable consumer goods provide credit to the buyer for the expressed purpose of purchasing the product. For example, in developed countries, the seller of a car or computer often offers dedicated credit for the purchase of their products to buyers after conducting a background check of the buyer.

Consumer credit is product-oriented and therefore set up by the seller for the specific purpose of increasing sales of the product to larger groups of people. A company may arrange with a commercial bank to provide the loans (and conduct consumer background checks) or it may arrange the finance with its own capital.

In developing countries, a successful variant of this approach is hire purchase. Shops sell consumer goods such as furniture, appliances, farming implements, and other durables using a rent-to-own or hire purchase methodology. To qualify for the arrangement, the consumer must have some type of security, most often a fixed income from which the hire-purchase company can deduct payments on a regular basis. This works well with civil servants, teachers, plantation workers and health workers in rural areas. This usually involves a signed agreement between vendors, the buyers and employers.

Hire purchase agreements entail a high risk on the part of the vendor. For this reason, they usually charge comparatively high interest rates. As well, repayment periods are short. Consumers often end up paying two or three times the normal cost of the good. However, the approach has proved successful because it enables consumers to spread the cost of large expenses (i.e. weddings, holidays) over the entire year. A classic example of this is the hire purchase companies that provide goods to Johannesburg-based miners when they return home to their families in Mozambique once per year.

Using this approach, an LP Gas company might use its own funds to set up a consumer finance program for LP Gas cylinders and appliances (see Indonesia case study). It would run this program using interest and fees from the loan program itself, or through support from the margin on the LP Gas cylinder and gas sales. However, such programs are extremely capital intensive, and difficult in countries where the cost of setting up LP Gas infrastructure is already high.

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8 The term “hire purchase” is widespread in Anglophone countries, while “lay away” is popular in Latin America, the Philippines and other countries that have had close contact with the USA.
Chapter 3
Finance and the LP Gas Distribution Chain

Understanding the structure and operation of LP Gas distribution networks is necessary when developing finance strategies for LP Gas consumers and traders at various levels. This chapter describes how small-scale financing can be used to develop the distribution chain of LP Gas products.

3.1 LP Gas Distribution Chain and Issues Related to Finance

More than 200 million tonnes of LP Gas are consumed worldwide each year, steadily increasing at 5% per year over the last decade. The sophisticated infrastructure that delivers LP Gas from the oil wellhead to the households is illustrated in Figure 3 (this is a simplification). The delivery process is divided into “upstream” activities, the drilling and extraction of petroleum products and “downstream” activities, the distribution and delivery of LP Gas to consumers. This section is chiefly concerned with activities in the “downstream” side and the financing opportunities therein.

Figure 3: LP Gas distribution chain (simplified)

Setting up an LP Gas delivery infrastructure requires investment on a number of levels. Figure 4 provides an overview of the various levels of finance, possible supporting financiers and the actors involved.

3.1.1 The Wholesale Level

The investment needed for a national LP Gas refining, storage and transport infrastructure was traditionally a responsibility of national companies. In increasingly liberalized markets, international companies, private national and local companies ensure investments.

LP Gas filling plants and the delivery infrastructure (that transports the cylinder from the plant to the retailers) require further investments, however distant they are from the filling plant. This function is also fulfilled by international companies, or large local companies, with the support of commercial and multilateral banking agencies.

Statistical Review of Global LP Gas 2004. WLPGA.

Setting up LP Gas outlets is a crucial and necessary part of market development.
3.1.2 The Retail Level
Retail markets can be developed using a variety of approaches, the large diversity of the LP Gas retail infrastructure serving as an indication of the potential of innovative finance mechanisms.

Common LP Gas retailing methods are listed below:

- **Retail Depots of Dealers.** For larger companies, a common method of reaching consumers is to use retail depots in large market concentrations. These are exclusive for one company.

- **Petrol Stations,** acting as retail outlets for LP Gas products. In such case, LP Gas companies provide franchises with established procedures for selling LP Gas cylinders and products according to established business models.

- **Retail or Wholesale Shops.** Shops, ranging from general stores to hardware stores and energy suppliers.

- **Hire Purchase Shops.** Like retail and wholesale shops, hire purchase shops offer LP Gas as part of their product offering.

- **Home Delivery.** These agencies deliver, service and install cylinders and appliances directly to the consumer.

3.2 “Microcredit” and “Mini-Credit” Approaches to Developing the Retailer
The rollout and financial support of retailers must be integrated with any consumer microfinance program being undertaken. There are numerous opportunities for donors and the private sector to cooperate with banking institutions to help finance the growth of LP Gas markets while making infrastructural investments (i.e. in LP Gas storage facilities, etc.).

The amounts required to set up an LP Gas business are too large to be considered as a microfinance loan. For example, the amount required by a retail shop (or petrol station) to finance a small display of LP Gas cylinders and appliances would be in excess of US$ 1500. The cost of establishing a small filling station with tank would be between $3000 and $5000 (see Table 2). Furthermore, sales and handling of LP Gas cylinders are not informal sector activities. Any outlet selling LP Gas and appliances would be required to meet the...
basic worldwide safety requirements and would have to have some fairly sophisticated equipment and management processes in place.

Despite the fact that they are not “microenterprises”, setting up LP Gas outlets is a crucial and necessary part of the market development. Retail outlets for LP Gas require financing of a “medium” scale of between $5,000 and $20,000 each. Intermediate support for retail outlets (i.e. of the type described below or in the box), could potentially be paired with microfinance rollouts. In fact, it would not make sense to start a microfinance initiative without adequate financing for retailers and depots.

The roll-out of a number of retail LP Gas outlets or franchises might be jointly financed by an equity partner (for example, a national LP Gas company), an entrepreneur and a donor agency or multilateral agency whose objective is to increase access to LP Gas.

In another scenario, a national LP Gas program working through local microfinance banking agencies could offer a variety of loans to stimulate the sector, including:

- Business loans for potential businesses interested in becoming involved in LP Gas in strategic and underserved areas (loans of $3,000 to $20,000)
- Microfinance loans to encourage productive businesses to take up the use of LP Gas (i.e. $500-1000)
- Microfinance for LP Gas consumers to overcome initial costs of cylinder and appliances (i.e. $50-$200)

<table>
<thead>
<tr>
<th>Table 2: LP Gas Infrastructure Development Costs</th>
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</thead>
<tbody>
<tr>
<td>Item</td>
</tr>
<tr>
<td>Adding cylinder filling capacity to an existing facility</td>
</tr>
<tr>
<td>Small LP Gas road tanker</td>
</tr>
<tr>
<td>Storage tank (at end user site)</td>
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</tbody>
</table>
Although the poorest in developing countries cannot afford LP Gas, hundreds of millions of consumers and small businesses in rural and peri-urban areas would use LP Gas if it were available to them. For this to occur, the financial obstacles that prevent LP Gas from becoming available need to be removed.

This chapter looks at the relationships between LP Gas companies, consumers and the microfinance options that are available to them for purchasing LP Gas systems. It explores the objectives of microfinance, the issues involved in setting up microfinance systems and the benefits of microfinance to consumers, LP Gas distributors and society as a whole.

### 4.1 Increasing the Affordability of LP Gas

In many developing countries, there are ready cash markets, but consumers do not purchase because of seasonal or intermittent income flows, risks of over indebtedness – as well as lack of awareness. It is crucial that local promoters understand how their potential rural customers obtain credit. The overall goal of any LP Gas microfinance initiative is to help consumers overcome the first costs of buying LP Gas cylinders and appliances. Nevertheless, there are a number of tools to reduce this first cost barrier, and microfinance is only one. Microfinance is not cost-free to the consumer or distributor; the costs of setting up a microcredit scheme must be paid by the LP Gas company (or finance group) and then passed on to the consumer. Therefore, before deciding to implement a microfinance program for LP Gas, it is important to consider alternatives to developing the market through initiatives that lower consumer costs.

Studies of LP Gas consumers to assess their energy expenditures and borrowing behavior can provide a basis for designing LP Gas promotion and financing strategies. They can be used to estimate the size of the cash and credit markets and to develop distribution lines.

#### 4.1.1 Incremental Development of the LP Gas Cash Market

Unlike other products, LP Gas is uniquely suited to enable consumers to build up their use incrementally. Small gas cylinders have greatly increased LP Gas affordability. A user can start with an appliance and a small cylinder and later add more components. For many, this can be done on a cash basis without any financial assistance at all. Smaller systems can greatly decrease the burden of those who cannot afford purchase larger systems.

#### 4.1.2 Smaller Sized LP Gas Cylinders

In many countries, particularly in Africa, the introduction of smaller sized gas cylinders has opened up the market for LP Gas. Simply put, the number of people who can afford lower cost 6 and 3 kilogram cylinders is several orders of magnitude higher than number that can afford larger cylinders.

It is not feasible to include general pricing information in this report due to the wide difference in LP Gas and equipment costs between countries (which is influenced by subsidy and taxes). However, for the consumer a smaller system of 6kg is approximately
30% less expensive to refill than a 12kg cylinder, which can make a difference with regards to affordability. Similarly, the equipment can be adjusted to fit the needs and purchasing power of low-income people.

4.1.3 Reduction of LP Gas Fuel and Appliance Taxes
The price structure of LP Gas is made up of the cost of equipment, the cost of fuels, costs of setting up, managing and transporting equipment and the tax/levy costs. Tax costs often make up a significant part of these costs. For example, in Kenya, LP Gas cylinders are levied a 51% duty.

4.2 Rural Consumers and the Choice of Microfinance Options
Section 2.1 provides a basic introduction to the different types of microfinance. An LP Gas microfinance program must be designed from the ground up, meaning that it must start by examining the spending habits and patterns of the intended market as well as their loan behavior. Using this information, it is possible to tailor microfinance products and repayment options to the varying needs of a particular community.

In most communities, there is a tradition of lending. In some cases, there are “moneylenders” who occupy this role. In others, women’s groups use “merry-go-round” revolving loan groups. Perhaps there are traditional groups that provide a seasonal lending role. The history of lending within a market provides important clues to what microfinance strategies will work in that market.

At some point, decisions need to be made: (i) whether to use microfinance; and (ii) what type of microfinance to develop.

Choosing not to use microfinance as an initial approach may be a wise decision in regions where the infrastructure of microfinance is not well developed. In such cases, promoters would best focus their efforts on developing the cash market, and on awareness and availability issues. Credit can be re-examined as a tool at a later stage.

The second question can be answered by examining the success of microfinance and consumer credit in the country. A survey of the active credit institutions may be helpful. In any given country, there are a variety of lending organizations. Some countries have much stronger banking institutions than others. It is important to meet with banking institutions, MFIs and the national cooperative agencies to ascertain the strength of a country’s rural finance sector. The numbers of loans, the size of the loans issued, the

Table 3: Choosing Microfinance Methodologies

<table>
<thead>
<tr>
<th>Type of Micro Finance</th>
<th>Situations which Favor Use of Loan Type</th>
<th>Situations which Mitigate Against Loan Type</th>
</tr>
</thead>
</table>
| Commercial or "Traditional" Finance | • Well-organised, competitive finance sector.  
• Commercial banks have strong ties to rural areas. | • Commercial banks not interested in rural or low income markets. |
| Micro Credit (i.e. Grameen) | • Potential for income generation from LP Gas activities  
• Borrower is taking second or third loan | • Poor development of microcredit infrastructure  
• Laws prevent use of microcredit for consumer purchases |
| Cooperative Credit | • Strong civil service credit unions or cash crop sector (i.e. tea, horticulture).  
• Strong links between SACCOs and oil industry | • Lack of cooperative movement in country  
• Poor management of SACCO's |
| Consumer Credit | • Active hire purchase companies in the country  
• Rural/peri-urban class of farmers/civil servants whose salaries can be tapped  
• LP Gas company able to manage consumer finance internally | • Lack of experience with consumer credit.  
• Lack of middle class group that can utilize consumer credit services. |

10 WLPGA is developing a guidebook that will help members to lobby Governments and industry about the benefits of LP Gas, and about the need for constructive policies, legislative environment and tax/duty structures. Information about the guide can be found on the WLPGA website.
default rates (i.e. percentage of loans not paid back on time) and the number of people who are members of cooperatives or organized microcredit groups indicate the potential of microfinance in the given country or region. During this survey process, LP Gas promoters may be able to identify microfinance partners with whom they can cooperate and develop the best microfinance options. Table 3 provides an overview of situations where a given microfinance scheme might be likely to work.

4.3 Financing Productive Uses of LP Gas

Microfinance and particularly microcredit is often associated with helping poor clients develop income-generating activities. Pioneer agencies such as the Grameen Bank in Bangladesh, CARD Rural Bank in the Philippines, and Kenya Rural Enterprise Programme (K-REP) were set up to help poor people start small businesses. Small loans, combined with some business skills assistance, helped the clients of Grameen and K-REP to build up the money management skills and discipline necessary to run a small business. Borrowers had to use the loans intelligently in their own business, and then pay them back over fairly short periods. In fact, a large portion of those who start with small loans, build up their business with subsequent larger and larger loans.

There is considerable discussion of the merits of utilizing microcredit loans for “consumptive” purposes (i.e. buying consumer goods). A loan that helps a poor person start or maintain a business contributes to the long-term well being of that person. However, a loan used for the purpose of buying, say, a solar lighting system or LP Gas cooking set, might not be seen by some as a good investment for a poor person. In fact, in some countries the banking laws intentionally restrict microfinance to provide loans for “productive” or “income-generating” purposes only and not consumptive purposes.

Nevertheless, there are many who view such restrictions with scepticism. First, since poor people tend to base their businesses in their homes, improvements in the house (i.e. lights or better cooking devices) are likely to improve the business climate of the household. Secondly, it is hard to draw the line between “productive” and “consumptive” purposes; an LP Gas stove might free up enough of a woman’s time to enable her to run a business or lights might enable her to plan at night. Thirdly, if the person is able to repay the loan, shouldn’t they decide the loan’s purpose themselves?

For the above reasons, cooperative loans and consumer loans (see Chapter 2) might be better suited than microcredit for the development of LP Gas markets. Cooperative loans are less restrictive and consumer loans are targeted specifically at financing products.

Still, as a business tool, LP Gas can help rural poor improve their livelihoods. A large portion of the informal sector is made up of eating establishments, and many of these use expensive, inefficient and poor quality fuels. Gas cookers and refrigerators can help make a small-scale teashop or restaurant into much more profitable and attractive investments. LP Gas marketing programs should, therefore, investigate how they might help rural and peri-urban business opportunities.

Small-scale business opportunities for LP Gas

- LP Gas cookers and lamps in small teashops, restaurants, etc.
- LP Gas refrigerators for bars, kiosks, health clinics, etc.
- LP Gas sterilizers in clinics
- Water heating in the hotel or food industry
- Drying (grain, fruits, other products)
- Space heating for housing and industry purposes (i.e. poultry raising)
- Kilning for pottery
- Small LP Gas generator

11 For example, the Philippines or Morocco.
Chapter 5
Starting a Microfinance Program for LP Gas

This section provides a practical guide to setting up and implementing a microcredit program for LP Gas. It is based on field experience from setting up microcredit programs. There is no “formula” for starting a microfinance scheme. The methods will differ from region to region and company to company.

Before starting up a “national” scale microfinance scheme, pre-testing a pilot finance program may be useful. Funds are available from development agencies or donors for this purpose which can co-finance private sector initiatives.

Note that, excluding consumer finance, microfinance is not usually “product-based”. Microfinance is about helping rural people access finance for their own priorities be they income generation, shelter, basic needs, health, education or energy. MFIs may be hesitant to develop a loan program around specific consumer products. They are in the business of making loans, not selling products, and they are unlikely to have expertise about products.

5.1 Pre-Requisites for Microfinance and LP Gas

Microfinance can help address some of the price barriers (see Chapter 1) that prevent consumers from accessing LP Gas.

5.1.1 Is the Market Ready for LP Gas?

Before designing an LP Gas finance program, promoters need to ask if other aspects of the market are in place. Although this seems obvious, market study of rural areas is often overlooked. Rural and peri-urban energy markets in developing countries require an approach that builds access, awareness and affordability at the same time. There are three fundamental questions that need to be answered:

- What is the extent of the demand for LP Gas? This must be quantified and divided into categories (household, restaurant, service, etc.).
- What is the level of LP Gas awareness? Does the general population want LP Gas? The scope and type of promotion activities will come from the answers to these questions.
- Is an LP Gas delivery system in place? As mentioned before, setting up retail delivery agencies may complement consumer microfinance activities.

5.1.2 National LP Gas Distribution Issues

Obviously, before microfinance is used to expand LP Gas access to rural areas, major supra-industry distribution issues must be resolved. These are often

<table>
<thead>
<tr>
<th>Finance Questions</th>
<th>Energy (Technical) Questions</th>
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</thead>
<tbody>
<tr>
<td>What are regular incomes and ability to pay?</td>
<td>What are current energy use and expenditure patterns?</td>
</tr>
<tr>
<td>What types of credit infrastructure is in place?</td>
<td>What are the energy need priorities?</td>
</tr>
<tr>
<td>What is the maximum size of loan that can be offered to the target group?</td>
<td>How are households dispersed, and what are the types of houses?</td>
</tr>
<tr>
<td>How are existing loan groups organized?</td>
<td>What size(s) LP Gas system can best meet the needs of this group?</td>
</tr>
<tr>
<td>What repayment periods, interest rates, and monthly payments do loan groups expect?</td>
<td>What is the history of energy and LP Gas systems in the target area?</td>
</tr>
<tr>
<td>Do individuals in the group have a history of receiving loans and/or saving?</td>
<td>Will LP Gas provide the type of energy that consumers desire?</td>
</tr>
<tr>
<td>What is the community’s record in terms of repaying or defaulting on loans?</td>
<td>Are the end-users likely to follow guidelines (i.e. safety procedures) recommended by the promoters?</td>
</tr>
<tr>
<td></td>
<td>To what degree must end-users be educated about LP Gas?</td>
</tr>
<tr>
<td></td>
<td>Is there a capability to install, service, and maintain LP Gas systems?</td>
</tr>
<tr>
<td></td>
<td>Is there likely to be a grid extension to the target area?</td>
</tr>
</tbody>
</table>
resolved at a national level by policies and/or laws enacted by Government. Many of the most important issues have to do with safety, as trade in LP Gas must follow strict standards to ensure safe handling and usage.

- **Legal issues.** National LP Gas legislation must be in place to ensure that standard practices are followed along the entire distribution networks. Such legislation regulates those that fill, transport and handle LP Gas and LP Gas cylinders and also ensures that consumer installations are safely done.

- **Standards issues.** Strong sets of standards must be in place for consumer equipment, retail sites and refilling centres. Some countries have standardized the types of regulators and cylinders that can be used by consumers.

- **Cylinder ownership practice and handling issues.** In some countries consumers “own” their cylinder and have it refilled. In other countries, the company owns the cylinder, the consumer pays a nominal deposit fee for the use of the cylinder and it is exchanged when refilled, maintenance being the responsibility of the company. There are safety and financing issues that will be affected by the ownership structure.

### 5.1.3 Finance and Microfinance Sector Issues

Before designing a microfinance program, the status of the local finance sector and its penetration into rural areas through MFIs should be investigated. One reason for working closely with MFIs is that they understand the complex finance environment on national and regional scales and are able to tailor loan products to meet these needs.

As outlined below, a number of general economic conditions affect microfinance program design and their viability. (If, for example, the international price of the country’s primary export commodity has halved, then the microfinance potential in that sector would have to be reviewed.)

- Stability of Overall Economy
- Inflation/Stability of Currency
- Interest rates
- Risk of drought/upheaval
- Commodity prices (coffee, copper, etc.)
- Donors/Investment Climate
- Investment policy

In addition to overall economic trends, a microfinance program needs to consider basic banking tenets of the country and how “rural development” projects are carried out on a national scale. In some countries, market principles dominate, in others there is more of a “command economy” approach, especially when it comes to microfinance and rural investments.

The institutional set-up and capacity of the banking sector should be assessed, and the roles of each of the banking players should be ascertained. Of course, there is a need to look carefully at banking regulations. Are there rules that restrict or impose boundaries on the various banking groups, especially in rural areas? For example, are the practices of microcredit NGOs restricted? Are there rural energy funds available?

Any survey of potential partners would include the following:

- Commercial Banks
- Cooperative or Development Banks
- Microfinance Organisations
- Consumer Finance Agencies
- Rural Energy Funds (these are special funds set up nationally to help rural groups gain access to energy)

As banks are surveyed, it is important to consider their activities in rural areas (number of branches, number of “rural” customers, existing portfolios, etc.) and the priority or interest they have in new products.
Finally, it is important to consider customer loan preferences and lending behavior. Rural consumers are often conservative and averse to "new" practices (especially finance) and therefore it is crucial to understand their views on potential loan programs.

5.2 LP Gas Finance Methodology and Player Roles

Once it has been decided that microfinance is appropriate, it is necessary to identify the players and define their roles. In the system outlined herein, there are three parties involved:

- A **finance group** advances loans and earns income from interest and fees.
- A **company** supplies the LP Gas cylinders, appliances and gas refills and supports agents involved in the distribution chain.
- **Rural groups** are the beneficiaries of LP Gas sets, and are active participants in the initiative through their loan organizations.

These three groups must cooperate closely, but usually one party will take the lead in the activity. In the case of microcredit type loans, the rural groups are usually self-motivated and organized with assistance from the MFI. On the other hand, in the case of consumer credit, the LP Gas company would be likely to organize loans, possibly with the assistance of a finance group. In another scenario (i.e. in the case of a Savings and Credit Cooperative), rural groups may come together for a specific type of loan requirement; for example education or even LP Gas packages.

Essentially, there are three steps in setting up an LP Gas finance initiative. First, the initiative must find and organize one or more groups of loan customers. Secondly, it must provide customers with loans that are continuously offered. Thirdly, it must provide and service LP Gas cylinders and appliances, and insure that the LP Gas systems have a minimum safety and operational standard. The steps are outlined below and discussed in more detail (see Table 5).

5.3 Identifying, Working with and Organising Loan Groups

Although rural people are highly motivated and willing to organise in loan groups for the purpose of starting microenterprises (i.e. in the Grameen example), they are less likely to organize themselves into groups for the specific purpose of purchasing LP Gas appliances and cylinders. Instead, consumers are likely to apply individually on a one-off basis for loans to procure consumer items (as they do for automobiles, household appliances or computers). Therefore, the task of organizing loan groups will fall to:

(i) The LP Gas company interested in expanding into a sectoral or regional market; and/or

(ii) An associated finance company or cooperative that is interested in gaining the finance business.

LP Gas market studies of consumers in target regions provide an excellent tool to identify groups that are most likely to buy LP Gas devices. For example, a market study might indicate that teachers, or certain cash crop farmers, have the income, desire and numbers to make a finance project among that group of interest. Once the target market is identified, then they can be approached and organized through a variety of ways, depending on their borrowing habits and the finance tools available in the region.

Once an LP Gas promotion group has identified a target market, it could do any of the following to set up a loan program:
• It could present the LP Gas product to cooperative groups to which many of the target group belong, and develop a finance agreement with the cooperative group. This would involve presentations by the LP Gas sales agents to cooperative member meetings or umbrella groups.

• It could approach a MFI to market an LP Gas loan package among active groups in the target regions.

• Between itself and an interested finance group, an LP Gas company could develop a loan package for its products. Applications for the loan could be offered at the retail points of sale of the LP Gas company. These would be forwarded for approval to the loan company.

• A finance group could approach the employers of a large group of people (i.e. a sugar company) and offer consumer finance to the group that would be deducted from their monthly salaries. The LP Gas company would then market directly to the employees, who would sign up for the program.

• An LP Gas company could develop a dedicated consumer finance scheme where it offers both the LP Gas cylinders and appliance packages and loans for them. (See Indonesian case study)

In all of the above, there is a need for a clear procedure and for strong legal agreements between all parties.

LP Gas loan programs should be built on infrastructure and capacity of existing microfinance institutions. Existing networks and contacts within loan group should be exploited. Information linkages of loan groups can be used to promote LP Gas to the community through the strong organizational framework of MFIs and cooperatives.

5.4 Developing Loan Packages

Selection among microfinancing options will be done based on the results of market research and the microfinance experience within the country (see Section 4.2).

As outlined earlier, there are three basic approaches to developing loans:

• Cooperative credit using established SACCOs in the target region

• Microcredit using MFIs to establish loan groups in the target region

• Consumer credit using funds from the LP Gas company itself or from other banking sources

5.4.1 Structuring Loan Packages

Once the methodology is chosen, it will be necessary to develop a loan package. Of course, the loan package will largely be determined by the choice of loan methodology, as outlined in the table below. Each loan package will have its own characteristics:

• Loan qualification procedure. This all-important paper work needs to collect all of the vital information about the consumer, sort out non-qualifying consumers and bind the consumer to a contract. In many cases, applications can be part of LP Gas promotion efforts.

• Loan security. Few rural people would be willing to give up the title deeds to their property (which is often their only tangible asset) as a security for consumer product. It is therefore crucial that a security system is developed that is realistic, but also affordable by the consumer. The equipment itself is the ultimate security, but LP Gas cylinders can easily be moved.

• Repayment period and interest rate. The repayment period is the time it takes the loan to mature. The interest is the amount that the consumer must pay over and above the principle of the loan. The repayment period and interest rate are set by the lending organisation and depend on the risk that the lender is taking, the income streams of the consumers, and the local finance conditions.

• Loan management, default insurance and enforcement. The management of the loan portfolio and the enforcement of defaults must fall solidly upon a qualified finance organisation, or a section of the LP Gas company that is set up for the purpose. These tasks must be designed into the loan contract, and agreed upon by the loan group in advance.

When local groups are involved (i.e. SACCOs and MFI loan groups) there is a need to consult closely with the groups and reach a firm consensus about the characteristics of the loans being offered. This process may be laborious and time consuming, as getting all of the involved people together is not easy (i.e. SACCOs may only have general meetings twice per year). But nevertheless, loans will not work if the participating group does not agree to the terms.

5.4.2 Sourcing Loan Funds

Sourcing finance to cover the cost of microcredit initiatives is critical issue facing the LP Gas industry, potential credit groups and any group involved in the finance of LP Gas packages. The investment costs of
developing an LP Gas industry before rural outreach is considered are significant:

- importing or refining LP Gases,
- transporting bulk LP Gas,
- storing LP Gas in bulk depots,
- manufacturing cylinders,
- setting up LP Gas filling plants,
- setting up retail shops and delivery networks and
- promoting and generating awareness about LP Gas.

Given the costs of the above infrastructure, it is easy to see why LP Gas industries focus first on urban markets, rather than what they perceive as “risky” rural and peri-urban markets. Nevertheless, there will be a need for investment to enable better access to disadvantaged segments of the rural and peri-urban markets. Although companies can build financing strategies on a totally commercial basis, there is simultaneously a need for donors, development agencies and Governments to work together to develop strategies that build access among disadvantaged communities.

One strategy is for LP Gas distributors to set up their own consumer credit lines and finance with or without donor support. In Indonesia, Sudimara, a solar electric system company, successfully financed and installed tens of thousand of solar electric lighting systems in remote parts of the country, earning as much from the financing of the systems as it did from the sales of equipment.12 (See also the Indonesian LP Gas case study, managed along similar lines).

Another potential method to finance the development of rural credit for LP Gas is for multilateral banks (World Bank, IFC) and donors (GEF, etc.) to underwrite loans to credit agencies (these would be offered to the appropriate body in each country). In return for gaining access to such new markets, LP Gas companies would agree to finance the investment costs of setting up awareness and delivery infrastructure. In such cases, risks could be shared between microfinance institutions, donors and energy providers in an equitable manner.

Multilateral agencies may also want to enter into partnerships with LP Gas companies in the development of market infrastructure. Positive experience in the development of PV, micro-hydro and biogas markets (i.e. in Sri Lanka and Nepal) can be utilized by the LP Gas industry.

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12 This program, which was GEF supported, faltered when the Indonesian rupee collapsed in the late 90’s.
In any case, the risks and costs of setting up markets must be shared. The superior energy service offered by LP Gas is not a luxury. In the face of dwindling forest resources, smoke-related health problems among women and children, and lack of basic energy services among the poor, providing access to modern cooking appliances and fuels is a priority. A balance between affordability for consumers and risk-return for LP Gas and finance companies can be reached, especially if there is assistance from the donor community in the development of viable pilots. Once LP Gas companies have models by which they can build markets, they will, increasingly, be able to finance them themselves.

**5.5 The LP Gas Product Package and Delivery**

Choice of LP Gas package is crucial when reaching out to new markets, particularly when consumers may be paying the price of the equipment for a significant period and will have high performance expectations. There is always a danger that the development of the package will be an afterthought, and that the rural community may not be properly prepared for it.

**5.5.1 Choosing the Type of LP Gas System**

Consumers need to be aware of what they are getting. In some African countries, a few unfortunate accidents have created some aversion to LP Gas; education is needed to dispel myths about LP Gas\(^{13}\) that might prevent market development.

Consider the following:

- Is there sufficient product diversity for the various potential buyers? A variety of LP Gas packages may be needed for different income groups.
- Are the appliances appropriate to needs and desires of the consumers?
- Are the packages priced appropriately?

**5.5.2 Delivery, installation, maintenance and safety**

Again, delivery and installation is often an afterthought. The last link in the chain (i.e. between the retail depot and the consumer) is often the most difficult, and the costliest. Are there agreements about installation of the system? Can they be safely installed in the normal consumer households or place of work?

It is helpful if community members, hired by the MFI or cooperative and trained by the LP Gas company, conduct the installations and servicing, and are continually involved in safety awareness campaigns and outreach. Such opportunities for creating jobs and incomes, and building community bonds, should be taken up by LP Gas companies.

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\(^{13}\) Carbon monoxide poisoning from charcoal burners in enclosed spaces kills far more than LP Gas!
Chapter 6
Case Studies: Success Stories and Lessons Learnt

6.1 Kenyan Experiences with LP Gas and Credit

Background: Kenya has one of Africa’s fastest-growing demands for LP Gas among peri-urban and rural consumer markets. Consumption stands at about 40 metric tonnes per year (2003). Five companies participate in the LP Gas market. There are an estimated 800,000 cylinders in use in the market, and annual sales of cylinders are over 30,000 per year. The domestic (and rural) sector makes up an increasing part of sales.

There are two major barriers to wider use of LP Gas by the rural and urban households:

- **Supply of LP Gas.** Until 2000, there was limited storage capacity for LP Gas in Kenya.
- **Price of Cylinders.** Kenyan consumers cannot afford to make the upfront investment in cylinders and stove burners.

Products: A number of the oil companies in Kenya (Mobile, Caltex, Total, Shell/BP) introduced the LP Gas gas bottle into the local economy in the 90s. Considerable efforts have been put into reducing the size of gas cylinders to units that are affordable by the mass market. The smaller 6 kg cylinder was introduced in 1993 with cooking and lighting accessories (12.5 kg, 22 kg and 50 kg were already available). As well, even smaller (3 kg) cylinder with burner was introduced in 1999.

Finance Interventions: Finance has been available for LP Gas Cylinders and appliances for over 5 years. On the one hand, the Kenya Union of Saving and Credit Cooperatives, has been promoting financed LP Gas cylinders and appliances among its member cooperatives. On the other hand, a number of hire purchase agencies have been offering LP Gas appliances as one of their financed products. Together, these projects may account for about 5% of the household LP Gas market.

KUSCCO has been running a project with 200 SACCO’s (out of a membership of 2400) offering special loans of about Ksh5,000 ($62.50) payable in 6 months. These are 6kg and 12kg cylinders, although the 12kg cylinders are only 15% of total sales. Financed sales have consistently been over 5,000 units per year.

In addition to KUSCCO, a number of hire-purchase companies offer gas cylinders and appliances to rural consumers.

Lessons Learnt:
- Some people’s negative view of LP Gas affects sales “LP Gas is dangerous and cause fires”. There is a need to educate SACCO members on LP Gas
- Insufficient awareness program, and lack of spread of the finance programs
- Availability of refills. The remote locations of rural households, and the lack filling points in dispersed regions, make product expensive and difficult to access, especially far from Nairobi.

6.2 India Case Study

Background: The Government of Andra Pradesh has been using women’s empowerment as one of its key poverty alleviation strategies. It catalyzed the set up revolving loan funds with thousands of grass roots women’s self help groups (SHGs). The program is focused on family welfare, promoting their nutritional and educational status, awareness on environment, public health through sanitation and clean drinking water.

LP Gas is promoted among SHGs as a product that reduces smoke in the kitchen and drudgery among poor women. Andra Pradesh took interest in encouraging women to switch to LP Gas by waiving the deposit on LP Gas cylinders. Under this subsidised program, over 1 million women have been provided with LP Gas cooking systems.

Products: A variety of suppliers offer LP Gas products under the India programs. The products range from 3 kilogram cylinders with cookers to more elaborate cooking and lighting appliances together with larger cylinders.
Finance Interventions: Due to widespread government support for LP Gas, a number of finance initiatives have emerged to spread LP Gas to lower income groups.

The United Bank of India operates a scheme to finance LP Gas in rural areas. The maximum loan amount available under the scheme is about $80. It has a 7.5% interest rate and is payable between three and five years. The loan amount covers the cost of regulator, cylinder, burner stove and accessories.

Within the SHG approach, women organize themselves into homogenous groups based on income levels, caste and neighbourhood. As with most group-based loans, they collectively decide the interest rate, loan procedures and the social pressures to be utilized in loan enforcement. The SHG assist illiterate groups to develop savings and thrift habits and business skills in addition to access loans. Less than 20% of loans are for consumption as most are used for microenterprise.

Lessons Learnt: The subsidies for kerosene and LP Gas have been difficult for the Government of India to sustain. There are millions of people on waiting lists to receive the subsidized cylinders, far more than the Government is able to provide, even though financial support for kerosene and LP Gas subsidies are often above US$ 1 billion per year. A World Bank document summarises the problems experienced by Andra Pradesh:

“An assessment undertaken in 2000–01 of [the Andra Pradesh] scheme showed that urban beneficiaries used much more LP Gas than rural beneficiaries, LP Gas was used most extensively when there were opportunities for earning cash income (such as the agricultural season), and that for most beneficiaries wood remained the primary cooking fuel. Most households found it difficult to manage the cash payments for cylinder refills even with the large subsidy prevailing at the time, resulting in incidental use of LP Gas for making tea or preparing meals for unexpected guests. Overall, ... the scheme facilitated the uptake of LP Gas but failed to encourage the substantial and sustainable use of LP Gas by its intended primary beneficiaries, the rural poor.”

6.3 Indonesia Case Study

Background: In 1991, equipment seller Camping Gaz worked with LP Gas distributors in urban areas of Java island to set up an LP Gas financing system. The program, which took 2 years to set up, was based on independently administered sales promotion and payment collection forces. After 3 years, 100,000 burners/stoves are selling annually, a significant market share for a relatively small company.

Products: The program targets consumers already using kerosene, persuading them to switch to LP Gas. Two types of LP Gas cooking appliances were selected and modified for the local market. Products are assembled locally to avoid import duties in a first phase. Components are purchased in Asia, mainly from China and Thailand and a basic assembly line was set up. 24 months later Camping Gaz established a manufacturing unit to produce 50% of the stove components with the assistance of local engineers.

The LP Gas packages supplied to consumers (including burner, 6 kg cylinder, regulator, hose and other basic equipment) retails at a price of $100. Production costs per unit including stove regulator, cylinder, LP Gas, hose was approximately $50. The margin was approximately $50 per stove sold. Cylinder turnaround for 6kgs was 6 times per year.

Marketing and Outreach Set-Up: Marketing activities were carried out to select relevant areas, the stoves and in setting up the commercial concept of direct promotion. No formal advertising campaign was carried out. Camping Gaz simply provided the sales promoters with leaflets containing basic instructions on:

- Advantages of LP Gas vs. Kerosene
- Efficiency of LP Gas vs. Kerosene
- Hygiene
- Safety
- Economy
- Speed

Fifty LP Gas sales promoters from lower middle-income households were selected to market products to peers from their socio-economic group, mainly by convincing them to shift from kerosene to LP Gas. The promoters educate and inform targeted groups via direct sales to homes. Local coordinators (usually women) host LP Gas demonstration parties for 8 to 10 friends in their homes. On average each promoter makes two demonstrations per day including Saturdays.

14 India: Access of the Poor to Clean Household Fuels JULY 2003, ESMAP.
15 Since this project, the local LP Gas industry and the Indonesia economy have gone through major changes that might have affected its reach/success.
16 This approach was pioneered and popularised by “Tupperware” in the USA.
After a demonstration, the promoter collects orders that are completed at a later stage. Local coordinators collect and transmit the payments of the products sold in their home and receive a salary of 5% of collected amount. Sales promoters work in small teams assigned to geographic zones. They have a base salary of about $60 with a significant sales incentive, plus allowances for transport and bonuses for accomplished targets.

**Finance Interventions:** The project was completely internally company-financed, setting up the consumer credit scheme. No microfinance institution, NGO or government department was involved. Even the deliveries are carried out by Camping Gaz staff.

Credit is repaid in 6 equal monthly instalments of $16-17, with the first at the point of installation. A parallel network of 15 money collectors and 5 senior collectors was established to manage and collect payments. The collectors are strict about loan terms. It is essential to collect payments on the exact due date, or no money would remain. An IT system was set up to monitor credit control, from payments and to follow delinquent customers. If there are significant delays a senior collector follows up. Thus far, only 2% of the overall turnover has been considered as bad debt.

**Lessons Learnt:**
- Price of LP Gas vs. kerosene was an issue. Customers need to experience LP Gas efficiency to be fully convinced.
- It is essential to adapt products to local consumer preferences, as well as to use local promoters.
- Parallel but independent promotion and credit management systems helped avoid fraud on the part of field staff.
- Extremely motivated staff and central company support is necessary to carry out this type of program, which takes time to set up and implement.

### 6.4 Sudan Case Study

**Background:** A high dependence on biomass fuels for household energy in Sudan, contributes to environmental degradation and desertification, and causes serious health problems to women and small children. However, in recent years, oil production grew dramatically in Sudan, and as flaring is banned, LP Gas has become abundantly available (national production was 170,000 tonnes in 2003). The Sudanese Government thus supports LP Gas as a fuel. It has instituted an LP Gas subsidy of 50%, and there is a tax exemption on imported LP Gas appliances. As well, local authorities vigorously promote LP Gas use.

ITDG-Sudan initiated an LP Gas-microcredit scheme among Internally Displaced Peoples (IDPs) of Wau Nour, Kassala, where firewood was the dominant cooking fuel, taking a considerable share of the daily household expenditure. The project also involved the monitoring of household indoor air pollution levels during 24 hours with thirty households.

**Products:** Households bought a package comprising cylinder, gas burner, and kisra plate (kisra is a local staple pancake) using a revolving fund to facilitate purchase. The package cost is around SDD 15000 ($58) and the revolving fund requires a SDD 1000 ($4) down payment from each member. Since LP Gas costs less than biomass, based on energy saving and conservation calculations, it was shown that the Sudanese government is keen to replace woodfuel with LP Gas.
A Study into the Application and Use of Microfinance in LP Gas Projects

household could repay the cost of LP Gas appliances in a period of six to twelve months.

Marketing and Outreach Set-Up: Activities were organized through the Women Development Association (WDA) – a charity organization. The WDA received considerable training on subjects including management, accounting, revolving fund and advocacy.

Word of mouth dissemination alone on the benefits of LP Gas and the option of accessibility through revolving fund made a big impact both locally and on women at an IDP camp some 200 km from Kassala – a new revolving fund is enabling them to access LP Gas.

During the research phase and using a revolving fund system, the project enabled 167 households to switch to cooking with LP Gas. The level of indoor air pollution was reduced by around 80% (preliminary data). The scaling up phase of the project has seen new branches, more demand, further training, TV and radio promotion, improved supply chain and improved appliances.

Finance Interventions: There have been very few defaulting households, as they are all very keen to pay because they know that failure to pay results in other women in the queue being deprived of LP Gas appliances.

It is hard to convince the LP Gas companies to supply subsidised appliances, or to provide substantial seed money, even though LP Gas sales profit would soon cover such an investment. An important message to the private sector is that profit resides in LP Gas sales rather than cylinders. Another key factor is to have refilling shops close to where people live where they do not have easy access to transport.

Lessons Learnt:

- Poor communities’ acceptability of poverty alleviation strategies depend on addressing their own needs and priorities, best understood through participatory approaches and awareness-raising.
- A revolving fund enables poor communities to access services, income-generating activities. It is an empowerment tool, particularly for women.
- Involving partners and stakeholders is a key element in project success and sustainability. Partners and stakeholders are easily influenced by best practices and can replicate them.
- In poor households, traditional kerosene wick lamps and candles are contributing to indoor air pollution. Low cost LP Gas lighting would be a major benefit, especially to school-children doing homework.
A Study into the Application and Use of Microfinance in LP Gas Projects

References

There is excellent information about microfinance on the websites of the key organizations listed in Key Contacts.


Sokona, Youba, LPG Introduction in Senegal LPG Introduction in Senegal, Briefing Paper. ENDA -TM


WLPGA. Statistical Review of Global LP Gas 2004

WLPGA, LP Gas Markets Guidelines for LP Gas Use in Rural Energisation, 2002

# Key Contacts

<table>
<thead>
<tr>
<th>MFI</th>
<th>Credit program</th>
<th>Region</th>
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<tr>
<td><strong>ACCION International &amp; ACCION USA</strong>&lt;br&gt; Headquarters&lt;br&gt; 56 Roland Street, Suite 300&lt;br&gt; Boston, MA 02129 USA&lt;br&gt; Tel: 617-625-7080&lt;br&gt; Fax: 617-625-7020&lt;br&gt; <a href="http://www.accion.org">www.accion.org</a></td>
<td><strong>First loan 1973</strong>&lt;br&gt; <strong>Lending model: Solidarity Group</strong>&lt;br&gt; <strong>Loan period: 6 weeks to 12 months.</strong>&lt;br&gt; <strong>Average loan US$594</strong>&lt;br&gt; <strong>Repayment rate: 94%</strong></td>
<td>Latin America and the USA</td>
</tr>
<tr>
<td><strong>ADRA International</strong>&lt;br&gt; ADRA International Headquarters&lt;br&gt; 12501 Old Columbia Pike&lt;br&gt; Silver Spring, MD 20904&lt;br&gt; Call Toll-Free 1-800-424-ADRA (2372)&lt;br&gt; <a href="http://www.adra.org">www.adra.org</a></td>
<td><strong>First loan 1988</strong>&lt;br&gt; <strong>Lending model: Solidarity Group</strong>&lt;br&gt; <strong>Loan period: varies</strong>&lt;br&gt; <strong>Effective interest rate: 1-10%</strong>&lt;br&gt; <strong>Repayment rate: 96%</strong>&lt;br&gt; <strong>Average loan US$200</strong></td>
<td>Asia, Latin America and Africa</td>
</tr>
<tr>
<td><strong>CARE International</strong>&lt;br&gt; Boulevard du Regent, 58/10&lt;br&gt; B-1000 Brussels&lt;br&gt; Belgium&lt;br&gt; Tel: 32-2-502-43-33&lt;br&gt; Fax: 32-2-502-82-02&lt;br&gt; E-mail: <a href="mailto:info@care-international.org">info@care-international.org</a>&lt;br&gt; <a href="http://www.care-international.org">www.care-international.org</a></td>
<td><strong>First loan 1990</strong>&lt;br&gt; <strong>Lending model: Group and individual</strong>&lt;br&gt; <strong>Loan period: varies</strong>&lt;br&gt; <strong>Average loan US$250</strong></td>
<td>Asia, Latin America and Africa</td>
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<tr>
<td><strong>Catholic Relief Services CRS</strong>&lt;br&gt; 209 West Fayette Street&lt;br&gt; Baltimore, MD 21201-3443&lt;br&gt; 410-625-2220 or 800-736-3467&lt;br&gt; <a href="http://www.catholicrelief.org">www.catholicrelief.org</a></td>
<td><strong>First loan 1960</strong>&lt;br&gt; <strong>Lending model: Village bank and credit unions</strong>&lt;br&gt; <strong>Loan period: varies.</strong>&lt;br&gt; <strong>Average loan US$90</strong></td>
<td>Worldwide</td>
</tr>
<tr>
<td><strong>Foundation for International Community Assistance (FINCA)</strong>&lt;br&gt; 1101 14th Street&lt;br&gt; Washington, D.C. 20005&lt;br&gt; Tel: 202-682-1510 - <a href="http://www.villagebanking.org">www.villagebanking.org</a></td>
<td><strong>First loan 1984</strong>&lt;br&gt; <strong>Lending model: Group</strong>&lt;br&gt; <strong>Loan period: 4 months.</strong>&lt;br&gt; <strong>Effective interest rate: 36%</strong>&lt;br&gt; <strong>Average loan US$101</strong></td>
<td>Latin America, and Africa</td>
</tr>
<tr>
<td><strong>Freedom from Hunger</strong>&lt;br&gt; 1644 DaVinci Court - Davis, CA 95616&lt;br&gt; (800) 708-2555 - Fax (530) 758-6241 - <a href="mailto:info@freefromhunger.org">info@freefromhunger.org</a>&lt;br&gt; <a href="http://www.freefromhunger.org">www.freefromhunger.org</a></td>
<td><strong>First loan 1988</strong>&lt;br&gt; <strong>Lending model: Group and individual</strong>&lt;br&gt; <strong>Loan period: 4 and 6 months.</strong>&lt;br&gt; <strong>Effective interest rate: 69%</strong>&lt;br&gt; <strong>Average loan US$62</strong></td>
<td>Africa, Asia and Latin America</td>
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<tr>
<td><strong>Grameen Bank</strong>&lt;br&gt; Grameen Bank Bhaban&lt;br&gt; Mirpur, Section-2&lt;br&gt; Dhaka-1216, Bangladesh&lt;br&gt; Phone: 8802-9005257-68&lt;br&gt; Email: <a href="mailto:grameen.bank@grameen.net">grameen.bank@grameen.net</a>&lt;br&gt; <a href="http://www.grameen-info.org">www.grameen-info.org</a></td>
<td><strong>First loan 1976</strong>&lt;br&gt; <strong>Group</strong>&lt;br&gt; <strong>Loan period: 1 year</strong>&lt;br&gt; <strong>Effective interest rate: 20%</strong>&lt;br&gt; <strong>Repayment rate: 95%</strong>&lt;br&gt; <strong>Average loan US$190</strong></td>
<td>Bangladesh and Nepal</td>
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<tr>
<td><strong>Heifer Project International</strong>&lt;br&gt; P.O. Box 8058, Little Rock, AR/USA 72203&lt;br&gt; Tel: (800) 422-0474&lt;br&gt; <a href="http://www.heifer.org">www.heifer.org</a></td>
<td><strong>First loan 1944</strong>&lt;br&gt; <strong>Lending model: Individual</strong>&lt;br&gt; <strong>Average loan US$250</strong></td>
<td>Worldwide</td>
</tr>
<tr>
<td><strong>Mennonite Economic Development Associates MEDA</strong>&lt;br&gt; 302-280 Smith St.&lt;br&gt; Winnipeg, MB</td>
<td><strong>First loan 1985</strong>&lt;br&gt; <strong>Solidarity Group and individual</strong>&lt;br&gt; <strong>Lending model: Loan period: 3-12 months.</strong></td>
<td>Central, South and North America, Caribbean, Africa and Russia</td>
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<tr>
<td>Organization</td>
<td>Key Information</td>
<td>Location/Program Areas</td>
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<td>--------------------------------------------</td>
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<tr>
<td>R3C 1K2, Canada</td>
<td>Effective interest rate: market rate</td>
<td>27 countries in Asia, Africa, Latin America, E. Europe, the NIS and the Middle East</td>
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<tr>
<td>Tel: (204) 956-6430 Fax: (204) 942-4001 <a href="http://www.med.a.org">www.med.a.org</a></td>
<td>Repayment rate: 94% Average loan US$350</td>
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<tr>
<td>Opportunity International Australia</td>
<td>First loan 1971 Lending model: Group and individual Loan period: 3-12 months Effective interest rate: varies Repayment rate: 89% Average loan US$315</td>
<td>Opportunity International Australia, Group and individual program</td>
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<tr>
<td>Level 6, 163 Clarence St. SYDNEY NSW 2000 02 8259 0404 <a href="http://www.opportunity.org.au">www.opportunity.org.au</a></td>
<td></td>
<td>Kenya, Uganda and Tanzania</td>
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<tr>
<td>PRIDE – Africa</td>
<td>First loan 1993 Lending model: Group Loan period: 3-24 months Effective interest rate: 35% Average loan US$300</td>
<td>PRIDE – Africa, Group program</td>
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<tr>
<td>P O. Box 39320 Nairobi - 00623, Kenya</td>
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<td>Tel/Fax: (+254-20) 3749511 Tel: (+254-20) 3741428/3745363 Email: <a href="mailto:info@prideafrica.com">info@prideafrica.com</a> <a href="http://www.prideafrica.com">www.prideafrica.com</a></td>
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<td>Kenya, Uganda and Tanzania</td>
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<td>Save the Children</td>
<td>First loan 1992 Lending model: Group Loan period: 3-6 months Effective interest rate: 40-50% Average loan US$56</td>
<td>Save the Children, Group program</td>
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<td>Headquaters:</td>
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<td>Attn: Donor Services</td>
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<td>54 Wilton Road Westport, CT 06880</td>
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<td>Tel. (203) 221-4030 or 1-800-728-3843</td>
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<td><a href="http://www.savethechildren.org">www.savethechildren.org</a></td>
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<td>Women's World Banking</td>
<td>First loan 1982 Repayment rate: 97% Average loan US$500</td>
<td>Women's World Banking, Group and Individual program Africa, Asia, Europe, Latin and North America</td>
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<td>8 West 40th Street, 9th Floor, New</td>
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<td>Tel: 212-768-8513 Fax: 212-768-8519</td>
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<td><a href="http://www.womensworldbanking.org">www.womensworldbanking.org</a></td>
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<td>World Council of Credit Unions</td>
<td>First loan 1971 Loan period: varies Lending model: Individual</td>
<td>World Council of Credit Unions, Group program</td>
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<td>WCCU</td>
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<td>5710 Mineral Point Rd., PO. Box 2982</td>
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<tr>
<td>Madison, WI 53705-4493 Phone: (608) 231-7130 Fax: (608) 238-8020 <a href="http://www.woccu.org">www.woccu.org</a></td>
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<td>Africa, Asia, Latin America and CEE</td>
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<tr>
<td>Kenya Rural Enterprise Program (NGO)</td>
<td>Established 1984 Developed microfinance program for rural loans similar to Grameen Bank Now divided into three agencies (NGO, Bank and advisory services group)</td>
<td>Kenya Rural Enterprise Program, Group and Individual program Africa</td>
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<td>PO. Box 39312</td>
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<td>Nairobi, Kenya</td>
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<tr>
<td>Phone: 254-2-572422 Fax: 254-2-711645 Email: <a href="mailto:k-rep@arcc.co.ke">k-rep@arcc.co.ke</a> <a href="http://www.k-rep.org">www.k-rep.org</a></td>
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Glossary

Annualized costs
Costs calculated so as to reflect a rate that is based on a full year.

Biomass
Plant material, vegetation, or agricultural waste used as a fuel or energy source.

Cooperative
A legal entity owned by its members, with no passive shareholders, according to each member's level of economic interest. Cooperatives could be jointly owned commercial enterprises that produces and distributes and/or purchases goods and services and is run for the benefit of its owners – for instance farmers or employed workers. They could also be credit unions offering the same services as banks to its members - e.g. loans, often at much lower interest rates than banks, share accounts and checking accounts. (See also SACCO)

Fee for Service
Charging a fee for each service provided

Finance
To furnish credit a borrower

Guarantor
A person who takes formal responsibility for another person's loan and agrees to repay the loan should it default.

Grameen Bank
A microcredit organization started in Bangladesh. Grameen pioneered a system where groups of individuals are loaned money, but the whole group is denied further credit if one person defaults. Thus creates economic incentives for the group to conscientiously repay loans.

Hire purchase
A contract in which a person hires goods for a specified period and at a fixed rent, with the added condition that if he shall retain the goods for the full period and pay all the instalments of rent as they become due, the goods shall become his.

Informal sector
The informal sector includes all economic activities which are not officially regulated and which operate outside the incentive system offered by the state.

K-Rep

Liquified Petroleum Gas (LPG, LP Gas)
Hydrocarbon gases, usually propane or butane issued from petroleum and natural gas kept under pressure to be stored and transported as liquid

Merry go round
Form of group based financing where members contribute an agreed amount of money periodically (usually monthly). Members take turns in receiving this collected amount.

Microcredit
One of a number of micro-scale financial services, is a lending mechanism and framework that provides lenders with the financing mechanism to manage the risk and costs of lending to very small borrowers who are usually dependent on income from self-employment or business ownership.

Microenterprise
A very small-scale business, especially owner-operated with few employees

Microfinance
For the purposes of this publication, microfinance encompasses a wide range of financial interventions that can be used to help low-income people overcome financial barriers that prevent them from improving their lives and livelihoods.

Microfinance Institution (MFI)
Financial institutions whose business focus is on providing microfinance services. They may take the form of: formal financial institutions such as banks, usually via specialized departments or in cooperation with downstream institutions, NGOs, etc., semi-formal institutions such as cooperatives, NGOs, village savings banks or informal financial institutions such as savings and credit groups, moneylenders, commercial credit, etc.

Millennium Development Goals
The United Nations Millennium Development Goals are eight goals that all 191 UN member states have agreed to try to achieve by the year 2015, committing the international community to an expanded vision of development that promotes human development as the key to sustaining social and economic progress in all countries, and that recognize the importance of...
creating a global partnership for development. These goals have been commonly accepted as a framework for measuring development progress.

**Multilateral banks**
Financial intermediaries owned by both developed and developing countries, which provide long-term lending for development either globally or within a region. These banks comprise the World Bank and the five regional development banks, the Inter-American Development Bank (IDB), the African Development Bank (AfDB), the Asian Development Bank (AsDB), the Caribbean Development Bank (CDB) and the European Bank for Reconstruction and Development (EBRD).

**NGO**
Non Governmental Organization

**Peri-urban areas**
Areas around, by or near urban areas

**Savings and Credit Cooperative (SACCO)**
A credit union of farmers, trade employees, or other group with similar interests that collectively organize member income and loans for the benefits of all members.

**Security**
Often referred to as 'collateral' in the financing community. It refers to assets, sureties and other fixed and other assets that enable a financing institution to have 'recourse' to obtain the value of their loans should the borrower default or be unable to meet their loan repayments.

**Subsidies**
A payment by the government to producers or distributors in an industry to develop its growth, prevent its decline or an increase in the prices of its products.

**WLPGA**
World LP Gas Association