Pro-Poor Financial Services for Rural Water

Linking the Water Sector to Rural Finance

gtz

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to overcome poverty

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1. Why Are We Concerned?

1.1. Access to rural water is key to development

Access to safe drinking water and to sanitation facilities is a pre-condition for achieving most of the Millennium Development Goals (MDGs). While it helps to reduce extreme poverty, food insecurity, and child mortality, it also has a positive influence on education, particularly for girls. Additionally, it reduces maternal mortality (Box 1). Despite considerable progress in Asia, more than one billion people have no permanent access to safe drinking water, and more than two billion have no access to basic sanitation facilities[1]. This scenario is particularly critical in sub-Saharan Africa, where more than 340 million people lack access to safe drinking water, and more than 500 million have no access to improved sanitation facilities[2].

Some 75 % of the world's poor live in rural areas, so a focus on rural water is clearly needed, if the MDGs are to be met.[3] Rural water comprises domestic water for drinking and cooking purposes, for human hygiene, and for sanitation services. It also comprises productive water used in smallholder agriculture, including livestock production and irrigation, as well as water for agro-processing. Secure and sufficient water for people, for food production, for the natural environment, and for other uses is essential for the sustainable development of society, as a whole, and for rural areas, in particular.

With the majority of the world's poor living in rural regions, rural development makes a tangible contribution to structural poverty reduction, and aims to foster the productive potential of partner countries, in accordance with the principle of environmental sustainability. Access to safe drinking water and basic sanitation plays a pivotal role in achieving the MDGs.

1.2 Closing the financial gap requires market finance

One of the key challenges for achieving the MDGs is the financing of infrastructure and services in the water sector. Based on available data, the funding shortfall, worldwide, for achieving the MDGs in water supply and sanitation is estimated to range between US$ 9 billion and US$ 30 billion a year.[4] As a result, a significant amount of funding will be required for rural water supply and sanitation to meet this shortfall. The financial needs in the agriculture sector, as a whole, are estimated at US$ 8 billion a year.[5] While most of the funding is required for expanding irrigation and increasing water productivity, both demand immense investments in technology, management systems, and service delivery. Investments in improving water infrastructure in developing countries are primarily financed by the public sector. In view of budgetary problems, however, the public sector in most developing countries is not expected to provide these financing requirements. Market financing, therefore, can play an important role in closing the financial gap. Financial intermediaries should be in a position to mobilize local funds and develop financial products for stakeholders in the water sector on a demand-driven basis. Mobilization of market finance would also assist the public sector to focus funds more on the extreme poor, who have no access to financial markets due to their limited bankability.

1.3 Rural water finance is specific

Water is both a private and a public good. On the one hand, productive water use is for the benefit of the economy. On the other hand, access to safe water and sanitation is a human right. Hence, water management and investment decisions cannot be handled by purely adhering to commercial principles. Rather, policymakers must consider the high impact on public health and the environment and, thus, on poverty reduction. This makes the water sector a politically sensitive sector, and political interference in the water sector is common. For instance, politicians may, for social reasons, lower water tariffs in order to improve access. Such interven-

1 | World Health Organization and United Nations Children's Fund (2006), pp. 8–16.
2 | World Water Assessment Programme (2009), p. 11.
3 | The World Bank (2007), p. 45.
4 | World Health Organization (2008), pp. 1–8, and MDG Africa Steering Group (2008), pp. 16–20.
5 | MDG Africa Steering Group (2008), p. 30.

BOX 1: RURAL WATER AND ACHIEVING THE MILLENNIUM DEVELOPMENT GOALS[6]

MDGs	Water supply and sanitation
Goal 1: Eradicate extreme poverty and hunger	Illnesses caused by unsafe drinking water and inadequate sanitation generate health costs that can claim a large share of poor household income. Water is a factor of production in agriculture, industry, and other economic activities that provide livelihoods for poor people.
Goal 2: Achieve universal primary education	Improved water supply and sanitation services relieve girls from water-fetching duties, allowing them to attend school. Reduced water- and sanitation-related illness, including reduced injuries from water-carrying, improve school attendance, especially for girls.
Goal 3: Promote gender equity and empower women	Reduced time, health, and care-giving burdens from improved water services give women more time for productive endeavors, adult education, empowerment activities, and leisure. Water and sanitation facilities closer to home put women and girls at less risk of sexual harassment/assault, while gathering water and searching for privacy, respectively.
Goal 4: Reduce child mortality	Improved sanitation, safe drinking water sources, and greater quantities of domestic water for washing reduce infant and child morbidity and mortality. Sanitation and safe water in health-care facilities help ensure clean delivery and reduce neonatal deaths.
Goal 5: Improve maternal health	Accessible sources of water reduce labor burdens and health problems, resulting from water portage, and thus reduce maternal mortality risks. Safe drinking water and basic sanitation are needed in health-care facilities to ensure basic hygiene practices following delivery.
Goal 6: Combat HIV/AIDS, malaria, and other diseases	Safe drinking water and basic sanitation help prevent water-related diseases; 1.6 million deaths a year are attributed to unsafe water, poor sanitation, and lack of hygiene. Improved water supply reduces diarrhoea morbidity by 21 %; improved sanitation reduces diarrhoea morbidity by 37.5 %; hand washing can reduce the number of diarrhoeal cases by up to 35 %.
Goal 7: Ensure environmental sustainability	Adequate treatment and disposal of excreta and wastewater relieve pressure on freshwater resources. Improved sanitation reduces flows of human excreta into waterways, helping to protect human and environmental health.

6 | United Nations Millennium Project Task Force on Water and Sanitation (2005), p. 18. Table 2.1.

tions, however, make it difficult to recover the cost of water service delivery which, in turn, affects revenue and hinders the necessary investment in infrastructure.

Agriculture, the main income source in rural areas, is another sector shaped by politics, as it is subject to both taxation and subsidization. Agriculture incomes may vary, not only due to market forces, but also due to the impacts of political decisions. While economic risk can be calculated, political risk cannot, and this uncertainty makes potential investment in rural areas seem less attractive. Moreover, since natural calamities tend to affect all households in a region in much the same way, there is a covariant lending risk for financial institutions.

There are also costs to financing that are specific to rural areas. Increasing outreach of financial services in rural areas may demand simultaneous activities in more remote areas. This causes high transaction costs for both lenders and borrowers. Rural clients often live geographically scattered, leading to high transport costs for lenders and borrowers. Increasing outreach may result in a larger number of farmers demanding smaller loans on a short-term basis which, in turn, increases the cost of loan administration. These specific risks and costs may explain, to a certain extent, the very limited access of rural people to financial services.

Among rural clients are the extreme poor, who lack income and collateral. They live in low-potential rural areas, where low population density precludes the sustainable operation of financial institutions. Due to their lack of income and financial illiteracy, they might not be able to take up small loans, even if access to finance were available. Increasing the outreach of financial services to the extreme rural poor will require alternative approaches, including social transfers.

1.4 Rural poor lack access to water and finance

Rural areas still lag far behind urban areas in terms of drinking water supply and access to sanitation. Worldwide, some 900 million people in rural areas still have no access to a secure water source[7]. Only 39 % of the world rural population have access to improved sanitation[8]. Moreover, due to this lack of water access, the huge potential of small-scale irrigation – an important livelihood pillar for the rural poor – cannot be fully utilized. The global potential was estimated to exceed 40 million smallholders with about 7 million hectares of irrigated land that could eventually benefit from the adoption of small-scale irrigation technologies.[9] To finance inputs for irrigation development, farmers frequently rely on informal money lenders, who charge high interest rates. Local financial markets have, so far, been financing only a small share of the capital and recurrent costs of small-scale irrigation development. In general, access to financial services in rural areas remains very low, in particular, for the rural poor.

Pro-poor rural financial services should enable the poor and low-income population to access water and sanitation facilities by offering **loans**, **savings**, and **payment services**, as well as **insurance** – all designed to meet the demands of people with low income in rural areas, relating to both agricultural and non-agricultural activities. These pro-poor financial services would not only benefit the end user, but also the providers to the poor, and could cover a wide range of activities (e.g., connecting houses to water sources, water pumps, boreholes, irrigation schemes, etc.). They could also embrace larger investments, such as irrigation schemes, smaller scale networks, which may be beyond the scope of typical financial services to the poor. Many countries, in recent years, have moved to community-based approaches for water services in rural areas. This is resulting in a rise in the demand for large-size loans to cover up-front investments.

From a financial systems perspective, these pro-poor financial services are already offered by a wide variety of institutions: commercial and development banks; non-bank financial institutions; cooperatives; microfinance institutions (MFIs); semi-formal and non-formal organizations, such as savings and credit cooperatives; self-help groups, village savings and loan associations, and financial service associations; input supply traders; and agro-processing companies.

7 | World Health Organization and United Nations Children's Fund (2006), p. 14.
8 | Ibid, pp. 20–21.
9 | In sub-Saharan Africa, the potential has been estimated at approximately 4 million farming households with 0.7 million hectares of irrigated land.

2. Who Are the Clients?

Potential clients for pro-poor financial services for rural water include:

Rural households: A household may require financial services to pay the water and sanitation connection fee to access the communal system or to invest in latrines, rainwater-harvesting, and/or other domestic water facilities. Usually, rural households share the same water, fetched at a village well or received from a direct connection to the local network, that is not only used for domestic consumption, but also for productive purposes, such as the livestock they hold in their backyards and the irrigation of gardens. In other words, the demand for financial services from households in rural areas is for both consumptive and productive water investments.

Smallholder farmers: Small-scale agriculture includes livestock production, irrigation, and water for agro-processing. Water-related investments are often required for irrigation schemes (i.e., different types of pumps, such as treadle pressure pumps or motorized pumps, and related equipment). Depending on the size, type, and physical condition of their land, farmers may invest in a range of different technologies requiring short- to medium-term financing. In addition, due to the seasonality and risk patterns of their business, they would depend on different financial products than is the case with, for instance, small and medium enterprises (SMEs) in rural areas.

Community-based water service providers: Governments in many countries have transferred responsibility for water services to the community level. Thousands of small- to medium-size water supply systems are now operated by community-based service providers[10], such as cooperatives, water committees, or small municipal companies. In many places, such providers are crucial to delivering water to rural households and smallholders. In rural Kenya, for instance, it is estimated that around 30% of water schemes are managed by community-based organizations.[11] However, financial constraints, as well as limited managerial and technical expertise, often affect their efficiency. Normally, communities are involved in the initial design and implementation of new schemes, contributing to the capital investment (in cash, in kind, or through labor), and having complete management and financial responsibility for the operation and maintenance of the schemes. Given that the poverty level of community group members can range from the destitute to the more vulnerable non-poor, management and operational capabilities are low, and there is no orientation towards profit seeking. While their investment needs can be large, there is a lack of sufficient legal recognition for them to be considered for any loan. If at all, they may be served by the microfinance industry. Their demand for financing services can be divided into two main categories: to meet (i) the community share in capital contribution towards new investments; and (ii) the costs for repairs, rehabilitation, or augmentation of services (O&M).[12]

Small and medium entrepreneurs: SMEs do business with water-related services, such as water carters, latrine cleaners, or traders of water-related technical equipment. In many countries, private businesses fill the gap left by inefficient public water service providers, and play a critical role in supplying water to rural households[13]. These businesses – often informal microenterprises – charge cost-recovering fees, and

10 | Biesinger, B.; Richter, M. (2007a), p. 11.
11 | Mehta, M.; Virjee, K.; Njoroge (2007), p. 2.
12 | Biesinger, B.; Richter, M. (2007a), p. 11.
13 | Please refer to Salter, D. (2003) for examples of private sector financing of water in rural Vietnam and Cambodia.

BOX 2: EXAMPLES OF INVESTMENTS IN RURAL WATER

Client group	Type of technology for water supply	Approx. investment required (in US$)
Households	Connection of household to water supply at village level: pipe, one-time membership fee, water meter	120–300
	Latrines	60–150
	Water tanks 2,500 litres, incl. pipes	400
	Roof-top improvement with water harvesting tank	100–400
	Shallow well in concrete	500–600
Smallholder farmers	Bucket kit (for about 50 m² irrigation area)	15
	Drum kit (500 m²)	110
	Rainwater harvesting	200–500
	Hip pump (2,000 m²)	70
	Rope-and-washer-pump (2,000 m²)	40
	Treadle pumps (4,000 to 6,000 m²)	110–190
	Motorized pumps which irrigate about 1 hectare	550–800
	Soil and water conservation improvements on fields, e.g., land leveling	1,500
	Gravity-fed sprinkler irrigation scheme for 200 farmers with 80 hectares irrigation area	2,000
Local water suppliers	Community water tank and pipes	20,000
	Borehole and stand pipe with electric pump	37,000

Note: Costs indicated are a rough estimation of the average financial burden associated with the respective investment. It is important to bear in mind that costs may not only vary between countries; they can differ tremendously, even within the boundaries of a country, depending on factors, such as remoteness or the availability of materials.

the profit margins often lead to much higher prices than formal providers would charge. Households, thus, benefit from increases in service efficiency, outreach, and the reliability of these enterprises. However, improved management and the scaling-up of these services depend on adequate access to financial and business development services.

Previous studies suggest that a considerable demand for pro-poor financial services for water in rural areas remains unmet. The number of potential microfinance clients in rural areas for investments in water supply is estimated to be 5.0 million in East/Southeast Asia, 10.3 million in South Asia, and 3.1 million in sub-Saharan Africa. Concerning microloans for rural sanitation, there are 17 million potential clients in East/ Southeast Asia, 30.8 million in South Asia, and 4.4 million in sub-Saharan Africa. In total, the potential demand for micro-loans in these three regions is estimated at US $ 1.5 billion in the case of rural water supply, and US $ 5 billion in the case of rural sanitation. The challenge is how to unlock this latent demand and turn it into an effective process.[14]

14 | Mehta, M. (2008), p. 15.

3. Why Are They Not Being Served with Financial Services?

Political interference: Policies to support access to rural water are often implemented with the help of subsidies or donor grants. Thus, financial services compete with grants, and the effective demand for financial services decreases correspondingly. Moreover, if a government, for political reasons, insists on an interest rate ceiling for loans in rural areas, financial institutions will encounter difficulties in covering the cost of intermediation: the poorer the clients and the more remote and scattered they are, the more difficult it becomes to recover costs. This, of course, will limit outreach and prevent the expansion of financial services in rural areas. Indeed, as all three sectors (finance, water, and agriculture) are prone to political interference, inconsistencies between the different policy fields are common and widespread.

Lack of outreach: This forms the biggest barrier to the sustainable provision of pro-poor financial services for rural water. The problem is particularly endemic in rural parts of sub-Saharan Africa, but is widely encountered in other rural areas around the world. Large parts of these rural communities are not served by any financial intermediary, whatsoever. In a recent marketing survey amongst farmers in India, carried out by The World Bank, only 12 % of the interviewees indicated that they have access to formal credit.[15] In Africa, less than 20 % of the population has access to formal financial services.[16] Unless the outreach of financial institutions increases in such areas, the options for financing pro-poor water and sanitation services remain very limited.

Limitations faced in low-potential rural areas: The provision of sustainable financial services in rural areas with limited economic potential remains a challenge. Low population density and little income prevent financial intermediaries from covering their costs of lending. Transaction costs are high. In these areas, loan financing may not be the appropriate instrument. This is especially true for the destitute and the lower end of the poor population.

Loan products not demand driven: Even where and when financial institutions are available, the rural poor struggle to access loans for water and sanitation investments. Loan portfolios are heavily concentrated in short-term working

15 | The World Bank (2008), p. 21.
16 | Ibid, p. 21.

capital and are, furthermore, rarely adapted to the needs of the rural poor with respect to seasonality, repayment periods, and duration. The lack of medium- and long-term financing options is becoming a particularly urgent problem in many developing countries[17]. In addition, formal standards and collateral requirements cannot be met by the rural poor, themselves.

Small business finance gap: Investments with larger up-front costs (e.g., in small networks) require higher loan sums, term financing, and collateral/debt security. These loans are normally traded/dealt by commercial banks. Their customers are usually companies with both solid business practices and financial management. Rural water operators, often operating in the informal sector, do not fall under this category, and rarely have access to such loans. On the other hand, the microfinance sector could, in principal, finance such investments. However, microfinanciers tend to grant loans on a short-term basis and charge relatively high interest rates. These arrangements are not suited to bigger investments that need a longer time to pay off. Thus, the loans demanded by such operators may be too small (and not secured) for the formal/commercial banking sector and, simultaneously, too large for the microfinance sector.

Information gap: In most cases, lending to the water sector represents a new line of business for financial institutions. Most financial institutions do not have information about the potential demand pattern for rural water investment in terms of loan size and loan terms. Nor are they aware of the specific risks associated with water investment. Although there seems to be a high demand for pro-poor financial services for the rural poor in many places, the limited knowledge of financial service providers about the water sector is one reason why this demand remains untapped.

Financial management skills: The lack of financial expertise among potential rural clients is a serious obstacle, preventing many poor people from making use of financial services for their own benefit, even in places where such products are offered. The education level in rural areas is generally lower than in urban areas. Both the high level of rural illiteracy and the lack of book-keeping practises make it difficult to calculate investments and their potential costs and benefits. Furthermore, the procedures of financial institutions are often perceived as burdensome, complicated, and lacking in transparency. Meeting the formal requirements of banks often prevents customers from applying for bank loans.

17 | Grimm, J.; Richter, M. (2006c), p. v.

4. How Can They Be Better Served?

Pro-poor financial services for rural water can be offered by any financial service provider reaching poor people in rural areas. Experience indicates that financial services for poverty-oriented water supply and sanitation will not require the creation of specific institutions or 'windows'. Formal financial services can provide a wider range of products and services that are less expensive and more reliable than informal financial arrangements. To provide sustainable financial services for pro-poor rural water supply, however, institutions need to be able to go beyond their usual scope in terms of addressing the demand of potential clients.[18]

4.1 Enhance the development of sustainable and inclusive rural financial systems

Policy-makers play a fundamental role in the development of sustainable and inclusive financial systems. They need to set the right incentives for the systems' stakeholders, as well as put into place adequate supervision and proper regulation, in order to encourage innovation and competition. The policy issues that may have to be addressed, when creating an enabling environment for pro-poor financial services for rural water, include interest rate ceilings, overly strict rules on branch openings, and regulations that insist on exaggerated levels of collateral.[19] Many water-related investments, for example, in irrigation for agriculture, depend on weather conditions and are, therefore, characterized by higher risks, which are reflected in necessary larger risk premiums. Regulatory caps on interest rates could deter financial service providers from lending for these investments, thus limiting the supply of pro-poor financial services for rural water.

Another hindering factor is interest rate subsidies, which can significantly distort market conditions and the efficient functioning of the financial system. Assistance to financial institutions should not take the form of subsidies on interest rates but, rather, on mechanisms to help the institutions to decrease transactional costs and develop demand-driven financial services.

The degree of development of the financial system can vary significantly within a single country. Usually, the system tends to be less developed in rural areas. Policy-makers and development organizations may need to support existing poverty-oriented rural financial service providers to expand, or help other financial institutions to penetrate these areas. Assistance can take the form of capacity building, for example, in risk management, or in the form of financial support for the extension of the outreach of institutions, using new and cost-efficient forms of delivery, such as mobile units or mobile phone banking.

4.2 Creating an enabling framework in the water sector

Water sector policy should lay down the foundations for creating favorable conditions for the financial sector to enter the market for rural water.

Subsidies: Subsidies are common and widespread in the water and agriculture sectors. In some countries, grant financing dominates the scenario in the water sector, preventing local financial markets from entering this segment. Here, the issue is to properly target grants to the extreme poor, and to make commercial funds available for those market segments that can afford loan financing. Users will be unwilling to engage in market finance, as long as they

18 | Biesinger, B.; Richter, M. (2007d), p. viii.
19 | Biesinger, B.; Richter, M. (2007d), p. xii.

can expect subsidies. On the other hand, market finance cannot reach the poorest.

Regulation: The regulatory framework in the water sector needs to provide private and community water suppliers with the possibility to charge tariffs that are, at least, cost covering. To access loans, suppliers should be in a position to generate a positive cash flow. This holds true, not only for community-based systems that require charging their members, but also for private water and sanitation suppliers, when they set their tariffs. Thus, effective regulation supports the bankability of service providers in the water sector.

Legal status: Frequently, the legal status of community-based water organizations, as well as of private water suppliers, is very weak, resulting in limited creditworthiness. Often, it is impossible to hold a bank account. Water policies and regulatory mechanisms reflect the role of these important stakeholders in the water sector, and strengthen this role.

4.3 Expanding the outreach of financial institutions

In seeking to serve rural areas, financial institutions should develop strategies to reach, on a sustainable basis, a significant number of new clients, who have not yet benefited from access to financial services (new area, new client segment, new sector). There are a number of approaches that financial intermediaries can pursue, in order to increase outreach, such as the following:

Sustainable growth of financially viable institutions: In general, rural areas that show a fair coverage of financial service providers already have the prerequisites for effective financial intermediation. Expanding outreach would ideally center on existing, well performing, and financially viable institutions that focus on the lower income market. Their outreach would expand by scaling-up their product range to target demand from rural households, smallholder farmers, and community organizations. This can be realized through "upgrading"[20] rural finance institutions that are similar to non-governmental organizations (NGO), or by "downscaling"[21] commercial bank services.

Expanding gradually into marginalized areas: Rural areas that are marginalized, where income levels are lower, often lack basic access to financial services. In search of new markets, well performing institutions may expand gradually into less developed regions. The extension of branch networks of existing institutions, or the deployment of new delivery channels (e.g., mobile units, mobile phone banking), may justify initial support measures/subsidies for institutions interested in penetrating such areas. The current situation in various regions, including sub-Saharan Africa, presents a number of options to be explored for better outreach.[22] The development of community-based financial intermediaries (community-based organizations, financial service associations) and their linkage to formal financial institutions (linkage approach)[23] is another valuable option to create access to financing, particularly in rural areas with severe limitations on the financial sector. Providing risk capital, equity financing, and "greenfielding"[24] can be of interest, where no other options exist.

Extending market-based financial services to marginalized rural areas is limited due to extreme poverty. It would require a combination of market finance and social transfers. Expansion strategies should, therefore, include poverty mapping exercises, with the development of mechanisms for targeting. The creation of pro-poor units in utility companies could assist in institutionalizing poverty mapping.

Lowering the costs of financial intermediation: The high cost of financial intermediation results in high interest rates that prevent financial institutions from reaching wider markets. This applies, in particular, to sectors, such as agriculture and rural households, where profitability and yields are lower than in other markets. Consequently, interventions should include a push for operational efficiency and a gradual increase in loan volume in order to bring interest

20 | "Upgrading" refers to the transformation of non-governmental organizational microfinance institutions into regulated financial institutions.
21 | "Downscaling" refers to commercial banks that want to enter new client segments on the lower end.
22 | Competition in the financial sector is the key driving force for motivating financial institutions to expand services beyond the urban centers, where they find interesting business opportunities.
23 | "Linkage" approach refers to the linkage of self-help groups to financial institutions.
24 | "Greenfielding" refers to the establishment of new financial institutions.

margins down. Efforts to strengthen institutions and develop capacity at all levels of the financial system, must take these issues into account. All services offered should have easy-to-understand and customer-friendly procedures, with flexible repayment modes and alternative collateral requirements. Rural financial institutions will, thus, be better able to reach a broader clientele, which will include low-income customers.

4.4 Widening the range of suitable financial products for the rural poor

Some financial institutions already offer finance for irrigation, water supply, and sanitation investments through their standard product range. However, these may not be suitable in terms of repayment period, size, and collateral requirements. Rarely is there a short-term return on investments in, for example, irrigation, in contrast to value-added activities. Hence, financial institutions should adapt their services to the rural framework in terms of risk management, flexible repayment options, and profitability of the investments that are financed. Financial institutions need to adapt to meet the covariant risks and irregular income patterns of people in rural areas.

The following segments of the financial market offer particular scope for meeting rural water sector needs, by adapting common features of existing products or developing new products.

Housing finance consists mainly of loans directed at low-income private households for renovating or extending an existing home, constructing a new home, or installing basic infrastructure.[25] In this segment, retail loans for private households can be adapted and used for investments in water connections, latrines, water tanks, pumps, etc.

Short-term working capital loans can be attractive to smallholder farmers, small private water-supplying enterprises, and water installing companies, if they are designed to fit their specific purpose.

SME finance is directed towards small, creditworthy enterprises of different types. SME finance can also provide ready-made products for small- and medium-sized enterprises operating in the water sector, either already supplying water-related products and services (such as private small-scale water providers) or planning to do so. Such businesses would then be able to finance their various projects. A full range of financial services would be required. Community-based small service providers can mostly be found in rural areas, and are informal in nature. SME finance includes several products, in particular, that can be adapted for lending to the rural water sector:

- **Short-term investment loans,** for example, for the acquisition of motorized pumps and irrigation equipment and related equipment for smallholder farmers.
- **Medium- and long-term investment loans,** especially for larger wells and expensive equipment that can be used by small-scale farmers or local water suppliers.
- **Payment services,** for example, for the collection of water fees charged by local water suppliers.
- **Wholesale lending,** which can be used by water suppliers to on-lend to their clients.

BOX 3: THE ROLE OF COMPETITION

Increased competition is the key driving force for motivating financial institutions to expand their services to less developed areas and new-client segments.[26] In most sub-Saharan African countries, a fair degree of financial service coverage – and even competition – has developed in the urban context, but not yet in rural areas. To facilitate the expansion of financial services to the rural water sector, special attention should be given to removing constraints (e.g., interest rate ceilings)[27] that prevent financial service providers from offering appropriate financial products. The creation of an enabling environment, in which innovation is encouraged and competition takes place, is also important in satisfying the demand of rural clients.

25 | Consultative Group to Assist the Poor (2004), pp. 1–2.
26 | The development of competition among financial institutions is supported by a conducive business climate in a given country, not only in sectors, such as trade and services, but also in agricultural markets; e.g., Kenya.
27 | Interest rate ceilings are counter-productive because they prevent financial institutions to move down-market to serve the low-income population. Financial institutions must charge interest rates that not only allow for, at least , operational self-sustainability, but that also prevent clients from being overcharged due to institutional inefficiencies (e.g., high cost and/or high default rates), which is often the case in sub-Saharan Africa (e.g., Uganda). Please refer to Biesinger, B.; Richter, M. (2007c), p. ix.

BOX 4: KENYA WOMEN'S FINANCE TRUST – LOAN PROGRAM FOR WATER HARVESTING TANKS[28]

Women in rural areas often spend hours every day fetching water. Furthermore, they frequently divert funds from small business loans into water investments. These observations have led the Kenya Women´s Finance Trust (KWFT) to design a program of water-specific loan products connected to the purchase of a tank for water harvesting.

Loan conditions are simple. The loan ceiling is set at the price of the water tank, and the maximum duration is one year. The water tank serves as collateral. With water-tank producers, KWFT has negotiated price reductions of up to 35 % per tank, including free delivery to rural households. Initially, it was a challenge for KWFT to cooperate with the tank producers. Many manufacturers, so far, had only been used to donor-related funding, and not to arrangements for promoting and distributing their products with loans. They also had concerns about the operational cost for deliveries in rural areas, and were reluctant to offer products at reduced prices. However, KWFT's pilot run, with an initial budget of US$ 70,000, was a huge success for everybody involved. Tank producers realized that they could increase their sales volume by adhering to the program. Although the pilot program was only open to existing clients, many non-clients demonstrated a strong interest in the loans. The scalability of the initial pilot was an important factor for the rapid expansion of the program, itself.

The success of the program can be primarily attributable to the provision of a client-driven product. It relates closely to the lives of the clients and the fact that they can obtain the product besides the loan. Free home delivery and reduced prices and payments in several instalments, rather than a lump sum, make it easier for clients to acquire tanks. KWFT invested in marketing materials, promotional campaigns, road shows, and selling-skills training for their field staff to ensure that the information about the product's advantages would reach potential clients in rural areas. It was also noticed that co-branding of the product with the KWFT logo evoked loyalty to the program from existing clients. Finally, word of mouth by existing clients, who had already acquired tanks, was another important channel for promoting demand. KWFT's experience with its water tank loan program has demonstrated that developing and offering a **demand-driven product** can rapidly turn latent demand into a real demand of significant size.

Agricultural finance refers to financial products and services that are directed towards financing the production of agricultural outputs. When looking at pro-poor financial services for rural water, agricultural finance may be used and adapted to the needs of financing productive water usage in smallholder agriculture (livestock production, irrigation or water for agro-processing[29]). Agriculture finance takes into account the special features of the agricultural production cycles, especially seasonality, and can offer such adapted products and services.

Research shows that there is a supply-demand gap with regard to small-scale irrigation financing, especially in terms of medium- and long-term finance.[30] For larger investments in machinery or tools (large water pumps, etc.), leasing may be an appropriate mechanism. Leasing offers an alternative to lending. The equipment, itself, is used as collateral, and can enable smallholder farmers to lease costly equipment at less expense. The supply of adjusted financial services to the agricultural sector to date remains, however, very limited. In the absence of suitable products, many farmers rely on non-financial service providers for commodity-based loans.

Savings: Apart from credit products and simple current accounts, it is equally important, that financial institutions offer trustworthy and demand-driven savings products. Savings facilities are an integral part of a range of financial products adapted to client needs. They buffer clients from crises, enabling them not only to meet their basic needs, but also the ability to cover investment costs from their own resources. Savings also assists clients to enable them to build up a financial track record which, in turn, assists the financial institution to judge the creditworthiness of its

28 | Biesinger, B.; Richter, M. (2007b), p. vii. Annex 2.
29 | Grimm, J.; Richter, M. (2006b), p. 48.
30 | Grimm, J.; Richter, M. (2006c), p. 5.

clients with regard to future loans, or to use the savings as collateral. For community-based service providers, savings can facilitate the collection and deposit of regular water fees. Mobilizing deposits further enables financial institutions to become self-sustainable. Case studies have demonstrated that a large percentage of the financial requirements for rural water can be met by savings products and short-term finance products that are properly adapted to the respective context.[31]

4.5 Closing the information gap

Expanding outreach to new regions and new client groups, including rural water users, is a strategic decision. Financial institutions need to be convinced that lending to this sector is an attractive business venture, and that costs and risk can be controlled (Box 5).

The development and provision of demand-driven financial services for rural water investments and services in new markets can be a major business opportunity for financial institutions. Above all, better access to water and sanitation potentially improves the health conditions and income generation capabilities of poor rural people, and these improvements will impact on their quality as clients of financial service providers. For instance, failure to respect repayment schedules for micro-loans may, in fact, be related to sickness caused by waterborne diseases. Furthermore, a rural household's wealth can be influenced by complementary income sources, such as backyard gardening, livestock holding, and the growing of counter-season crops. All these activities depend considerably on the household's access to water.[32]

With the already identified business opportunity for financial institutions, there is sufficient knowledge of the characteristics of farming and production systems, such as regional/local development potential, production potential, intensity and returns on production, cropping patterns and, more importantly, markets and market channels. This data will allow such institutions to assess the production and market risks, along with the risk and costs of financial intermediation.

Concurrently, the mind-set of smallholder farmers will need to be changed. Bias against financial institutions, the lack of awareness of financial services or conditions under which they are available, and general financial illiteracy have to be overcome. It is, therefore, essential to ensure that procedures are simple, financial products are demand-driven, and clear and concise financial information is provided. Improving a rural client's bankability and financial management skills will benefit both parties, as well as close the gap between financial and non-financial institutions and the rural poor. Besides the institutions themselves, agricultural extension agencies should also play an important role in providing information, especially on the financial service options available to rural clients.

BOX 5: GOOD REASONS TO PROVIDE FINANCE TO IRRIGATION FARMERS

- Irrigation improves agricultural productivity, provides reliable income and, thus, increases the borrowing capacity of smallholders.
- Irrigation farmers belong to the economically more active poor. They represent a promising clientele for financial institutions seeking new market segments.
- Irrigation reduces agricultural risk. Smallholder irrigation farmers are less vulnerable to weather conditions, which reduces the climatic production risk substantially.
- Irrigation reduces the effects of seasonality, provides a more even cash flow, and allows a stronger presence in markets.
- The emergence of low- and medium-cost irrigation technologies has opened a wide range of new investment opportunities for smallholder farmers. The potential demand for financial services is high.[33]

31 | Biesinger, B.; Richter, M. (2007d), p. 31.
32 | Biesinger, B.; Richter, M. (2007a), p. 57.
33 | Grimm, J.; Richter, M. (2006a), p. 39.

BOX 6: RECOMMENDATIONS FOR PRO-POOR FINANCIAL SERVICES FOR RURAL WATER

Actors (Who?)	Recommendations (What?)	Action (How?)
Policy makers	Enhance the development of sustainable and inclusive rural financial systems	› Establish the right incentives › Establish adequate supervision tools and proper regulation › Encourage innovation and competition › Avoid interest rate subsidies › Develop mechanisms to assist institutions to decrease transactional costs › Develop demand-driven financial services › Support existing poverty-oriented rural financial service providers › Capacity building measures
	Create an enabling framework in the water sector	› Develop foundation for creating favorable conditions for pro-poor financial services for rural water • Properly target subsidies to the extreme poor and other market segments where loan financing is affordable • Implement effective regulations • Improve the legal status of important stakeholders in the water sector by implementing water policies and regulatory mechanisms
Financial sector practioners	Widen the range of financial products to the rural poor	› Develop and provide demand-oriented financial services for rural water investments and services › Assist providers to access new markets, win new clients, and diversify their portfolio and operations › Provide greater flexibility within the product range, and adapt existing methodologies to the specific needs of the rural water sector • Housing finance (loans, retail loans, short-term working capital loans) • SME finance • Agricultural finance • Savings
	Expand the outreach of financial institutions	› Expand gradually into marginalized areas › Lower the costs of financial intermediation › Develop community-based financial intermediaries and link them to formal financial institutions
Water sector practioners & development cooperation	Closing the information gap	› Convince financial institutions that lending to this sector is an attractive business venture, and that costs and risk can be controlled › Support existing poverty-oriented rural financial service providers › Overcome general financial illiteracy › Keep procedures simple › Ensure that financial products are demand-driven › Provide clear financial information › Help to close the gap between financial and non-financial institutions and the rural poor › Provide data and knowledge of the characteristics of the respective farming and production system, such as regional/local development potential, production potential, intensity and returns on production, cropping patterns and, importantly, markets and market channels.

5. Conclusions

Despite the fact that the financial services sector in many countries, particularly in sub-Saharan Africa, are still characterized by manifold constraints and limitations, the future potential of local financial markets for financing rural water is very significant:

- Financial markets are becoming more and more mature, and are expected to gradually extend into the lower income markets, as well as expand in terms of product portfolios on offer. Governments are increasingly supportive of inclusive financial systems, which will assist in creating better framework conditions, in general, and include the rural water sector (e.g., a sound regulatory framework to support competition and the development of a variety of viable financial institutions in a country).

- In the financial market of many developing countries, there is a strong potential for expanding services to the under-served population. With regard to rural water, this broadly applies to the rural households sector, which holds an immense potential for financial inclusion.

- If only a few promising financial institutions were to recognize the market potential related to rural water, and successfully engage in it (e.g., by offering demand-driven financial products, especially for rural households), a spill-over effect can be anticipated within a medium-term perspective.

The potential for increased involvement of local financial markets in the pro-poor water and sanitation sector is within reach. Successful approaches will require a general effort in particular by policy makers to develop financial systems in sub-Saharan countries, which would benefit from pro-poor rural financial services.

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Abbreviations and Acronyms

FAO	Food and Agriculture Organization
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (German Technical Cooperation)
IFAD	International Fund for Agricultural Development
KWFT	Kenya Women's Finance Trust
MDGs	Millennium Development Goals
MFIs	Microfinance institutions
NGO	Non-governmental organization
O&M	Operation and Maintenance
SMEs	Small and medium enterprises

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