

Environmental Finance Through the Financial Sector – An Approach with Growing Potential – Experiences of KfW Entwicklungsbank

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During the last two decades, it has been widely acknowledged that financial sector promotion is an instrument that is well-suited to help achieve the Millennium Development Goals, particularly by increasing poor people's income, by fostering the economic growth necessary to fight poverty and by contributing more directly to gender equality. However, the financial sector also has a huge potential to help protect the environment (MDGs 7 and 8).

The potential of the financial sector lies in its capability to reach out to a broad parts of the population, particularly through Micro-, Small and Medium Sized Enterprises. This outreach can be ensured by the leverage effect of refinancing means of financial institutions.

From this perspective, building inclusive financial systems clearly includes the protection of the environment and addressing the challenges of climate change, because the consequences of environmental problems hit poor people more severely than other parts of the population in developing countries.

Furthermore, damages caused by ecological challenges require enormous investments in the future. Public sector financing source will by far not be sufficient to meet the financing needs for these investments. Therefore a smart combination of private and public funds is needed. Development Finance Institutions together with private Investors are therefore increasingly called to help to develop broad scale approaches for local financial sectors and to mobilise international and local sources of financing.

However, entrepreneurs and private households in the developing world are facing a number of environmental challenges, including

- continuously increasing energy demand – and hence increasing energy tariffs – due to high growth rates and high energy intensity in major middle-income countries;

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- the fact that despite high world market energy prices, in many developing countries energy tariffs have been – and continue to be – highly subsidised. This policy is a challenge for any efforts to promote financial products, e.g. to invest both in production technologies and housing improvements that have a higher degree of energy efficiency and fewer negative environmental consequences, such as CO₂ emissions.

So an enhanced effort to help mitigate and adapt to the effects of climate change is needed. Climate change as such cannot be reversed. However, there are ways to contribute to slowing down climate change processes and to develop, in a relatively short period of time, innovative financial products that reduce the vulnerability of shocks resulting from climate change, such as natural disasters of all kinds, and to adapt to the consequences of those shocks.

More specifically, the financial sector has a huge potential to help achieve environmental goals such as saving energy and reducing emissions relevant to climate change by promoting financial products tailored to finance environmentally beneficial investments. This potential needs to be tapped effectively and efficiently. The central challenge for development finance in the area of financial systems development therefore is how to involve financial institutions in emerging environmental finance markets on a sustainable basis. Particularly, financial institutions should develop environmental finance products as part of their own strategies. There is a business case for environmental finance if the products offered by the local financial institution in line with the clients needs as well as its own commercial requirements and constraints.

Environmental finance includes saving energy and reducing greenhouse gas emissions. Typical products include environmental credit lines to small and medium-sized industries, energy efficiency programmes (for micro, small and medium sized enterprises – MSMEs – as well as housing improvement). It also provides new approaches, especially to help rural people use appropriate financial services to cope with the effects of climate change via weather insurance schemes.

Against this background, the programmes for “Environmental Finance through the financial sector” focus on two core topics which already make up more than 10% of the financial sector portfolio of KfW Entwicklungsbank: On the one hand, refinancing the portfolios of financial institutions to increase energy efficiency, and investments in renewable energies, on the other. Both fields are well suitable for broad-scale promotion through local financial institutions in transition and developing countries. The essential precondition of involving local financial institutions is that customers can turn to “their” local bank for financing corresponding investment measures. In order to meet with clients needs, the loan officer of the bank has an opportunity to inform clients about the advantages of investments in renewable energies or energy efficiency and is hereby increasing the clients’ awareness of that topic.

Furthermore, the infrastructure of a local financial institution makes it possible to finance small-scale measures in an efficient way. This enables loans for energy efficiency/renewable energies (EERE) to be standardised, an important pre-requisite for efficient provision of services. In this regard, the credit lines provided by KfW Entwicklungsbank in South-Eastern Europe – the “pioneer region” of KfW Entwicklungsbank for EERE promotion – usually have sub loan sizes of around EUR 2,000 for private customers (housing loans) and on average EUR 69,000 for small and medium-sized enterprises. The sub loans thus are characterized by volumes which are not attractive for large international financial institutions. Nevertheless, the financing of a large number of smaller individual investments can make an important contribution to reducing greenhouse gases and increasing energy efficiency in transition and developing countries. That’s why financial institutions with a good track record in serving the needs of SME clients and private households are at the cutting edge of implementing these innovative products. The provision of adapted loan products creates an incentive for small and medium-sized enterprises or private households in these countries to make investments in modern, energy-efficient equipment. It supports the countries in achieving economic growth and expanding their production capacities based on energy-efficient technologies with a more sustainable use of resources. In addition, providing corresponding financing products locally will create markets for environmental technologies and promote a CO₂ efficient economic development.

In order to address these issues, KfW has embarked on financing energy efficiency and renewable energy investments through the financial sector. It is now a global player in environmental finance. KfW is working with financial partner institutions in Asia, Latin America and the Caribbean, the MENA Region and Southeast/Eastern Europe. The total active portfolio in environmental finance sums up to EUR 789.1 million, of which EUR 651 million have been committed in 17 countries and EUR 138.1 million in regional and global funds devoted to environmental finance.

At bilateral level, KfW is supporting more than 38 partner institutions projects in 17 countries globally. The largest part (33%) of these credit lines has been committed to projects in Europe and Central Asia, with a total volume of EUR 337.4 million (45 projects in 8 countries). Latin America and the Caribbean follows with a volume of EUR 192.9 million (7 projects in 2 countries and several other countries through two regional partners). 8 projects have been supported in Asia with credit lines totalling EUR 134.2 million. and the MENA region with a volume of EUR 17.2 million (3 North African countries).

In South-Eastern Europe, KfW Entwicklungsbank has been refinancing environmental credit lines now for more than two years. The refinancing is carried out on a bilateral level at near-market conditions.

KfW also invests in two funds for renewable energy and energy efficiency (see Box 2 below). On behalf of the German Government, KfW holds a EUR 33 mil-

lion equity participation in the *Green for Growth Fund Southeast Europe* financed out of Government funds as well as KfW's own funds. Its mission is to contribute to enhancing energy efficiency and fostering renewable energies in the Southeast Europe region including Turkey.

KfW committed to invest on behalf of the German Government another EUR 57.3 million of its own funds as well as funds from the German Government in the *Global Climate Partnership Fund*. The fund provides financial support to small and medium sized enterprises (SMEs) as well as private households in developing countries and emerging markets for investments in energy efficiency and renewable energies.

The context in which the local financial institutions operate in this regard is different from country to country. Some countries, such as Serbia and Turkey, have requirements and regulations that offer a legal incentive for investments in renewable energies and energy efficiency for small and medium-sized enterprises as well as private households. In this case it is easier for the financial institutions to provide their customers adequate financial products to support in fulfilling legal requirements.

Box 1: Project Example Yumis, Nis (Republic of Serbia)

The company Yumis has been active in food processing since 1991. Located near Nis (250 km northeast of Belgrade) the medium-sized enterprise produces instant soups, ice cream and roasted peanuts, among other products. In 2009 the company decided to upgrade the production line for producing the peanuts. A new, energy-efficient machine replaced a 16 year-old machine with a lower production capacity.

The production process requires two energy sources: electricity and diesel. While the energy consumption of the old and new machine is the same, the production volume has increased considerably, from 1,752,000 kg to 3,942,000 kg of peanuts. Thus the specific energy consumption – i.e. related to one kilogramme – dropped from 0.61 kWh/kg to 0.27 kWh/kg. This results in energy savings of 55.6% compared to the old machine, which alternatively could have been expanded to a larger production capacity. For the company this translates into a cost savings of EUR 121,791 per year, whereby the investment is amortised within a short period of time. The company's competitiveness has improved considerably due to the significantly lower energy costs.

The owner of Yumi became interested in energy efficiency for cost reasons. Based on the positive experiences gained from upgrading the peanut roasting machine and the resulting cost savings, the company now has built up a cooperation with the university in Nis to improve the energy management of the company. At the end of 2010 the company planned to convert the heating system from electricity to gas and install a new efficient boiler.

Other countries still lack the appropriate legal framework and incentive systems. In these markets, local financial institutions can act as a spearhead to promote investments in energy efficiency and renewable investments because they have a broad clients base and can create awareness for using energy efficient and resource-conserving technologies. By making their customers sensitive to the potential of energy efficiency and renewable energy, loan officers can contribute to generating demand for this kind of investments. These institutions know their region well and have contacts to local producers or importers of energy efficient technology or renewable energy products. In this regard the direct client relationship is key. But it is also important not to overburden the loan officers and thereby the financial institutions. This means that the loan officers can and should not be a replacement for a trained energy adviser or engineer. However, financial institutions should train their internal staff as well as those employees who are in direct contact with clients and work to anchor the principle of energy efficiency and the use of renewable energies in their businesses.

Local financial institutions are thereby enabled to establish themselves as “green”, “eco-sensitive” financial institutions – which is often still rather a niche in those local markets than a mainstream pattern.

At the end of 2009, KfW Entwicklungsbank started on a new course of refinancing of financial institutions that is oriented towards promotion of investments in renewable energies and energy efficiency. The Green for Growth Fund Southeast Europe was founded in December 2009 with support of the European Union. Its global counterpart, the Global Climate Partnership Fund, was founded in the same year with support of the German Federal Ministry for the Environment. Both funds are structured funds for refinancing financial institutions.

Both funds have an advisory facility. This facility is a special account into which the fund posts a portion of its earnings, thus financing technical assistance for financial institutions in partner countries. Apart from start-up financing for establishment of the facility, it is self-sufficient and is not dependent on the constant supply of grant funding from public donors. The measures typically financed by this facility serve to support local financial institutions in the partner countries when introducing a EERE loan product. This also includes training employees to recognise the potential of corresponding investments and to assess the climate effects. Additionally, financial institutions are enabled to provide the funds with information on saved energy and reduced greenhouse gas emissions as a consequence of the financed investments. This information from the financial institution is naturally based on simplified assumptions and models in order to avoid prohibitive costs and enable the product to be used to finance small-scale measures. After a certain period of time impact analyses using representative samples will be conducted to increase the accuracy and informative value of the information provided. The first investments have started at the end of 2010. Combined, both funds will be supporting projects in over 22 countries worldwide.

Box 2: The Fund Approach – Intelligent Use of Public Funds

The Green for Growth Fund Southeast Europe (GGF) and the Global Climate Partnership Fund (GCP) are both structured in several tranches with different risk/return ratios. This allows investors to make investments based on their capacity and willingness to bear risk. The “junior tranche” usually consists of public donor grants which are available to the funds for unlimited duration. In addition, it is subordinate in relation to the other tranches (mezzanine and senior tranche), thereby serving as a risk cushion for these other tranches. This enables bilateral and multilateral development banks as well as private investors to invest in the fund. Bilateral and multilateral development banks mainly invest in the mezzanine tranche, which usually has a term of 10 – 15 years. If the funds of the junior tranche are depleted, further losses will initially be offset by the mezzanine tranche. Only after depletion of both the junior and mezzanine tranche, the investors of A-tranche (shares and notes held by international financial institutions and private investors) would be affected.

This so-called waterfall structure allows scarce public funds to be intelligently used and leveraged with additional funds from public and private investors. In this way public funds and funds of international financial institutions help facilitate the involvement of private investors in promoting the private sector in developing countries. Depending on the region and the design of the funds, scarce public funds can be supplemented many times over with the funds of other investors.

The experiences gathered so far for broad-based refinancing of measures for energy efficiency and renewable energies show that it is important to convince the financial institutions of this concept. On the other hand, it is also important to convince individual customers of the economic advantages of such investments. These customers then serve as multipliers and examples for attracting further customers and as a focal point of a broader awareness raising. By the same token advantages of investments in renewable energies and energy efficiency for customers can be demonstrated, and existing technologies in the respective countries can be promoted. The use of innovative financial concepts such as structured funds not only help to bundle the resources of international donors, international development financial institutions and private investors, but also to harmonise their promotional approaches. By providing adapted loans through local financial institutions it is possible to support the promotion of energy efficiency and renewable energies in transition and developing countries with significant broad-scale effects, while also contributing to environmental financing and greenhouse gas emission reduction.

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