GREENING SMES BY ENABLING ACCESS TO FINANCE
STRATEGIES AND EXPERIENCES FROM THE SWITCH-ASIA PROGRAMME

Scaling-up study 2013

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ABBREVIATIONS

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<tr>
<td>BMO</td>
<td>Business membership organisation</td>
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<tr>
<td>CBP</td>
<td>Capacity building programme</td>
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<td>CDM</td>
<td>Clean Development Mechanism</td>
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<tr>
<td>CER</td>
<td>Certified emissions reductions</td>
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<td>CSRSME</td>
<td>Coalition of Socially Responsible SMEs in Asia</td>
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<tr>
<td>Capex</td>
<td>Capital expenditure</td>
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<tr>
<td>EE</td>
<td>Energy efficiency</td>
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<tr>
<td>E&amp;RE</td>
<td>Energy and resource efficient</td>
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<td>EUM-BENP</td>
<td>EU-Malaysia Biomass Entrepreneurs Nurturing Programme</td>
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<td>EU-PIC</td>
<td>EU Project Incubation Centre</td>
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<td>ESCO</td>
<td>Energy service companies</td>
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<td>FI</td>
<td>Financial institutions</td>
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<td>ECCP</td>
<td>European Chamber of Commerce Philippines</td>
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<td>GHG</td>
<td>Greenhouse gas</td>
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<td>IEM</td>
<td>Industrial equipment manufacturer</td>
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<td>IFC</td>
<td>International Finance Cooperation</td>
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<td>MoU</td>
<td>Memorandum of understanding</td>
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<tr>
<td>PDD</td>
<td>Project design document</td>
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<tr>
<td>PUPUK</td>
<td>The Association for Advancement of Small Business</td>
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<tr>
<td>R&amp;D</td>
<td>Research and development</td>
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<tr>
<td>SCP</td>
<td>Sustainable consumption and production</td>
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<td>SME</td>
<td>Small and medium-sized enterprises</td>
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<td>SSCM</td>
<td>Sustainable supply chain management</td>
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<td>WtE</td>
<td>Waste to energy</td>
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# LIST OF SWITCH-ASIA PROJECTS
(that started in 2009, 2010 and 2012)

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<td>Malaysia and Indonesia</td>
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<td>China Motor Challenge</td>
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<td>Establishing E-Waste Channels to Enhance Environment Friendly Recycling</td>
<td>WEEE Recycle</td>
<td>India (Bangalore, Delhi, Kolkata, Pune)</td>
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<tr>
<td>Establishment of the ASEAN Energy Manager Accreditation Scheme</td>
<td>AEMAS</td>
<td>Multi-Country</td>
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<td>Get Green Vietnam (Sustainable Living and Working in Vietnam)</td>
<td>Get Green</td>
<td>Vietnam</td>
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<td>Automotive SSCM</td>
<td>Thailand</td>
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<td>Greening Sri Lankan Hotels</td>
<td>Greening Sri Lankan Hotels</td>
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<tr>
<td>Green Products and Labelling (Green Products Development and Labelling in Mongolia)</td>
<td>Green products</td>
<td>Mongolia</td>
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<tr>
<td>Green Philippines Island of Sustainability</td>
<td>GPIoS</td>
<td>Philippines</td>
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<td>Improving Environmental and Safety Performance in Electrical and Electronics Industry in China</td>
<td>ESEEC</td>
<td>China</td>
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<td>Implementing Sustainable Consumption in Civil Society of Urban China</td>
<td>SC in Urban China</td>
<td>China</td>
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<td>Improving resource efficiency for the production and recycling of electronic products by adoption of waste tracking system</td>
<td>REWIN</td>
<td>China</td>
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<td>Implementing Industrial Symbiosis and Environmental Management Systems in Tianjin Binhai New Area</td>
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<td>Improving energy-efficiency and environmental performance of Chinese SMEs and large companies facilitated by voluntary public-private partnerships</td>
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<td>SEID</td>
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FOREWORD

The world has come to a point in development where behaviour has to be more environmentally friendly and more ‘sustainable’. Sustainable consumption and production (SCP) has emerged in recent years, and is still taking shape, as an approach that both public and private sectors can follow, to improve resource use and efficiency and, for business, to generate alternative market opportunities at the same time.

The European Union (EU) has invested heavily with its development funds in SCP in Asia, with 70 projects alone co-funded under the SWITCH-Asia programme. These projects, along with other initiatives in the region, are generating SCP tools and practices for use by industry, policymakers, and consumer groups recognising the importance of going green.

The problem now is that such innovations are not spreading fast enough. SCP is not being replicated sufficiently to create sustainable industries and it is not creating the impact we need. It is the same with policy. There are now SCP instruments in Asia that can help to provide an enabling environment for business and consumers alike to SWITCH to green thinking and more sustainable behaviour. But they are often not being fully implemented, or enforced effectively, and their impact remains scattered.

SCP has not yet become an everyday practice. Anticipating this challenge of limited ‘uptake’, SWITCH-Asia was designed from the start with a Network Facility to analyse the grant-funded projects, to distill lessons and, significantly, to share them broadly. In this way, the EU is seeking maximum impact for its SCP programme in Asia, and for SCP at large.

Looking at what is preventing the spread of SCP practices the Network Facility found ‘barriers’ include lack of adequate financial resources and technical knowledge, lack of awareness, inefficient flow of information, inadequate policy frameworks and peer pressure that favours unsustainable practices. In their project designs many projects include ‘leverage’ points where a relatively small effort can create a significant jump in the replication of SCP. Finally, the projects have been developing strategies that face the barriers, open up possibilities to overcome them, and enable specific sectors of society (namely, business and public services) to start using or intensify the use of SCP practices.

Such scaling-up tends to be either horizontal or vertical. For horizontal scaling-up, projects roll out their practices within a sector or a geographic area, for example, cleaner production in Bangladesh tanneries. For this, they partner with business membership organisations to make a business case out of SCP and build capacity for implementation amongst interested SMEs. For vertical scaling-up, projects engage with local, national or even regional policy-makers to influence legislation and other ‘rules’ governing the behaviour of SMEs and consumers. A introductory report ‘Framing of scaling-up SCP practices in the SWITCH-Asia Programme’ summarises the findings and places them in the context of other scaling-up efforts.

The Network Facility identified five clusters of leveraging strategies based on the analysis of the project data and carried out continuous in-depth study on each: engaging with service providers, building partnerships within supply chains, linking with policy makers, engaging with consumers towards ethical purchasing and usage of goods, and enabling access to finance.

The resulting reports, providing real-world experiences from the SWITCH-Asia projects, the barriers they faced and the strategies they employed, are now available on the SWITCH-Asia website www.switch-asia.eu.

The Network Facility hopes SCP practitioners, policy-makers, and researchers will be able to use the reports in a shared effort of pushing SCP in Asia for a more sustainable world.
Financial resources might be essential for small and medium-sized enterprises (SMEs) in Asia when they adopt environmentally friendly practices and technologies. So, in the SWITCH-Asia programme, green finance is a leverage point for the scaling-up of sustainable production practices. SMEs have a wide range of financing needs as they set out to ‘green’ their businesses. In the short-term they require working capital, for example, to purchase environmentally friendly raw materials. In the medium-term, they need access to adequate financing for investing in eco-efficient equipment and clean technologies. In the long-term, green financing is needed for scaling-up the green business model to other regions and sectors. In response to these needs, SMEs can find a spectrum of financing solutions in the market. These could be grouped into six categories: debt financing (e.g. commercial loans); equity financing (e.g. venture capital); institutional funding (e.g. public grants); leasing and factoring; tailored financial instruments (e.g. carbon finance), and supporting non-financial services (e.g. capacity-building on financial services). Experience from SWITCH-Asia has confirmed that in Asia both credit and equity financing solutions are available for SMEs no matter what stage of maturity.

When it comes to green funds, these are mainly available as bank loans for clean energy or energy efficiency solutions. Venture capital and start-up funds are entering the market and awaiting entrepreneurs who like to make an impact through financing resource-efficient products and services.

Despite the easily identifiable financing needs and a wide range of financing solutions in the market, there is still a mismatch between the demand and supply sides. Several barriers were identified on both sides including:
- Lack of financial literacy
- Lack of financial transparency
- Services of financing institutions perceived too costly
- Poor marketing and communication by financial institutions
- SMEs lack collateral
- Banks require SMEs transparency
- Lack of effective channels and modalities for communication with credit providers for funding purposes
- Banks do not consider SME lending as profitable business

Indeed, the role of the SWITCH-Asia programme is to address the barriers on both sides with specific strategies. These include: addressing the enabling environment for access to finance; promoting financial solutions; increasing the capacity of SMEs to access finance; addressing banks - from awareness to technical assistance, and enabling investment linkages.

**STRATEGY 1: ADDRESSING THE ENABLING ENVIRONMENT FOR ACCESS TO FINANCE**

The regulatory framework plays a critical role in improving the financing landscape for SMEs. A good legal framework and financial infrastructure can set the necessary pre-conditions for enabling SMEs to access finance. A few SWITCH-Asia projects, such as SCI-Pak, focus on identify-
ing potential opportunities to improve existing policies and making recommendations for new policy instruments for enabling financial access towards sustainable production. Others focus on advocating a particular policy instrument. For example, based on inputs from multi-stakeholders, the Biomass-SP project envisions developing policy recommendations for a Biomass Action Plan. A concrete measure could include relevant economic instruments to promote the commercialisation of biomass.

STRATEGY 2: PROMOTING FINANCIAL SOLUTIONS
Most SWITCH-Asia projects that are currently addressing the topic of ‘access to finance’ are including it in awareness-raising activities. Depending on the project, teams incorporate information on financial options in road shows, awareness forums or workshops. For example, the Biomass-SP project presents available financing assistance for existing manufacturing biomass companies, especially through the facility of soft loans, or credit guarantees during the road shows. In workshops and project exhibitions, the MEET-BIS project invites a representative of a loan guarantee fund, a speaker from an international financing institution and a representative of an SME bank to exchange information on financial services to enhance SME access to energy efficient technology.

STRATEGY 3: INCREASING CAPACITY OF SMES TO ACCESS FINANCE
To succeed in getting financial resources, SMEs need to communicate the business case for sustainable consumption and production (SCP) to financial institutions and investors by showing them the competitive advantages of implementing SCP strategies in their operations. Lack of business knowledge and management ability can increase financial barriers for SMEs. Low levels of financial literacy can prevent SMEs from adequately assessing and understanding different financing options. At the same time, SME accounting records and financial statements are often neither clear nor evident. For example, the SMART Cebu project applies individual coaching to SMEs for attending their financial needs.

STRATEGY 4: ADDRESSING BANKS – FROM AWARENESS TO TECHNICAL ASSISTANCE
Investors and financing institutions base their financing decision on the expectation that the investment will bring about regular incomes. Their evaluation of the performance of SMEs is done purely on the basis of economic risk. Often they have very limited knowledge about understanding environmental risk and lack the diagnostic tools to evaluate an SME’s loan request for resource efficiency and cleaner manufacturing projects. Financing institutions have great potential to improve their risk management systems and processes with regards to SME environmental projects. Most often observed in the SWITCH-Asia programme are projects that approach banks and explain resource and energy efficiency as a business case to banks. An increased number of projects involved banks as project associates.

STRATEGY 5: ENABLING INVESTMENT LINKAGES
To promote investments, investors require more information about target SMEs. SWITCH-Asia projects take various steps to enable communication between SMEs and financiers. Study tours for investors and matchmaking events were identified as the most common activities.

The challenge of getting access to finance for greening an SME’s operations might be due to both demand- and supply-side factors. SWITCH-Asia projects reviewed for the current study have showed that many of them can be addressed as part of the on-going SWITCH-Asia programme. However, there are still untapped opportunities remaining, some of which are outlined below.
**SCALE-UP GREEN CREDIT LINES AND BANK LOANS**

The number of credit financing solutions with a consideration of environmental, social and governance criteria along with traditional financial assessment metrics is still limited. Even development financing institutions, (DFIs) that have a mandate to provide finance to the private sector for investments that promote development, have not yet strategically mainstreamed sustainability issues into their operations. There is still a lot of potential for integrating sustainability issues into banking operations, from procurement to credit risk assessment. On-going efforts are made, for example, by the Waste to Energy project in Cambodia.

**DIVERSIFY FINANCING CHANNELS**

Credit financing solutions have been the most frequently observed category of solutions covered by the SWITCH-Asia projects. But what about other financing instruments that could be relevant for greening SMEs? A few projects are promoting factoring and leasing. Other categories, especially ‘impact investment pillar’ deserve attention as they offer excellent opportunities for scaling-up sustainable consumption and production. Impact investing solutions concentrate on companies, whose primary goal is delivering social and environmental goods, whilst also delivering competitive market returns.

**IMPROVE UNDERSTANDING AND INFORMATION**

Improving the understanding by SMEs behind resource efficiency opportunities and their ability to reach out to information on available funds still remains a big challenge as well as a great opportunity. Initial advice on reducing information deficits about resource saving options and detailed consulting on resource saving measures and investment options are essential. These services can be included in a project as technical assistance or via consulting components in special SME funds.

**SUPPORT MACRO-CONDITIONS NEEDED**

At the micro level, working on the opportunities behind the supply and demand side of financing is essential but it is not sufficient. Utilisation or creation of supporting macro-level conditions is also needed. Having supporting policy goals and environment programmes in place indisputably contributes to the effective use of green funds for SMEs. For example, DFIs including development banks and local development agencies, need to develop innovative financing solutions in response to the development goals set at the national and regional level. If national development plans make reference to goals for financing of clean technologies and/or enabling green SME financing, the development banks will design and implement relevant financing products to serve these goals.
INTRODUCTION

This report focuses on access to finance (A2F) for scaling-up sustainable consumption and production (SCP). SMEs all over the world benefit when they implement SCP strategies. Many SMEs targeted by the SWITCH-Asia programme focus on improving energy and resource efficiency, and the switch to more efficient technology which demands knowledge, leadership and, most of all, investment. Many Asian SMEs are challenged by the limits of their liquidity to meet short- and medium-term commitments and investment plans. In such cases, access to finance is crucial for making green growth a reality, scaling-up the manufacturing of, and promoting the demand for, green products. The SWITCH-Asia programme recognises that enabling A2F can catalyse the uptake of SCP practices in greater numbers across Asia. Having finance available can allow a faster and wider replication of resource-efficient solutions that have a positive cost benefit ratio.

To be able to present the strategies that SWITCH-Asia projects are using to access finance, this report presents insights based on the efforts of projects towards enabling access to (green) finance schemes for SMEs. By mid-2013, an increasing number of SWITCH-Asia projects had recognised the importance of providing access to finance and are using it to leverage a shift in production practices. Most projects focus on raising the capacity for cleaner production but when it comes to implementation, access to finance has been found to be key. Some projects, therefore, regard finance as a supporting instrument. This report assumes that even supporting activities can enable learning in how to plan, promote and process ‘access to finance’. The lessons being learnt can provide current and future projects and programme developers with enriching information and tips on how to improve their impact by enhancing activities in the development and execution of projects with more effective A2F.
This study collects experiences from the SWITCH-Asia projects operating during 2010-2012 that had activities linked to A2F. The SWITCH-Asia Network Facility conducted extensive desk research, reviewed project documents, reports, and websites in connection with access to finance. At the Networking Event 2012 in Bangkok a number of projects participated in a workshop on ‘Access to Finance’ and provided information by answering questionnaires. Additionally, the Network Facility experts conducted interviews with a number of projects, beneficiaries, financial institutions, and policy-makers in order to draw out the lessons.

The information gathered will provide current and future project developers with enriching information and tips on how to improve the impact of projects by incorporating more effective A2F which, in turn, enhances project activities. The specific objectives of this thematic study are:

- To gather an overview of financing needs of SMEs – especially those targeted by the SWITCH-Asia programme;
- To provide an overview of financial solutions for SMEs;
- To analyse the gap between financial needs and financial solutions; and
- To collect and compile initial lessons learnt and solutions to financial challenges as implemented by SWITCH-Asia projects.

The study is divided into five chapters. The first chapter highlights the relevance of green finance for sustainable development. The second chapter looks at A2F from the perspectives of SMEs on one hand, and from banks on the other. It explains the areas where SMEs’ access to green finance brings about positive economic, environmental and social impact and why it is important to join hands in order to enable it. This chapter also provides an overview regarding the financial needs of SMEs and the financial solutions available to them. Based on the overview, the chapter characterises a mismatch between demand and supply. The third chapter of the study deals with the strategies that the SWITCH-Asia projects are employing to address A2F. It hints at approaches and methods used by selected projects to engage with financial institutions and policy-makers from the financial sector. In the final chapter, initial lessons are presented and opportunities identified for the SWITCH-Asia programme in the area of enabling access to finance.

This report is the second part in the analysis of SCP scaling-up mechanisms and identifies interesting areas that can make a difference. Further research reports on scaling-up mechanisms are produced by the SWITCH-Asia Network Facility and are available under www.switch-asia.eu/switch-info/publications.html.

This study will be continued as the projects advance and as new ones come on-stream.
BACKGROUND

SMEs play a major part in green economic development, above all in emerging markets. Financial resources might be key for their adoption of environmentally friendly practices and technologies. Therefore, access to finance (A2F) has become an important topic on the international development agenda. A2F for small and medium-sized enterprises (SMEs) usually encompasses the availability, accessibility, affordability and effective distribution of financial services.

ACCESS TO FINANCE – A DRIVER FOR ECONOMIC DEVELOPMENT

SMEs play a major role in the economic and social development of emerging markets. In society, they are an important source of employment and income generation for low-income groups. The economic relevance of SMEs is even greater when informal businesses are taken into account.

Studies indicate that the role of SMEs in an economy appears to increase with a country’s average income level. This might indicate that SMEs are themselves a driver of economic growth (IFC, 2012a). In Asia, many SMEs are part of local and global supply chains. Improving their performance, as well as the performance of local entrepreneurs can help increase business, and employment. As such, SME access to financial services is a crucial factor for economic development. Investing in up-to-date and resource-efficient technologies requires financial resources but financing SMEs is risky for banks and other financial institutions.

FIGURE 1: PERCENTAGE OF FIRMS VIEWING ACCESS TO FINANCE AS A MAJOR OBSTACLE BY FIRM SIZE AND COUNTRY INCOME GROUP (Source: World Bank Enterprise Surveys 2006-2009)

<table>
<thead>
<tr>
<th>Firm Size</th>
<th>Low Income</th>
<th>Middle Income</th>
<th>High Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;30)</td>
<td>45%</td>
<td>35%</td>
<td>20%</td>
</tr>
<tr>
<td>Medium (30-99)</td>
<td>40%</td>
<td>30%</td>
<td>15%</td>
</tr>
<tr>
<td>Large (100 and more)</td>
<td>30%</td>
<td>20%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Note: The Enterprise Surveys define small firms as having fewer than 20 employees and medium-sized firms as having between 20 and 100 employees. Data are for the most recent year available for each country, ranging from 2003 to 2009. Statistics by country income group are simple averages of the countries in each group.

Especially in emerging markets, access to financial services for SMEs frequently remains a challenge. According to the World Bank Enterprise Survey, SMEs in developing countries are more likely to report constraints in accessing finance than SMEs in developed countries (IFC, 2010b), as shown in Figure 1 (above). From the banker’s perspective, SMEs remain vulnerable, with evident weaknesses. Their size can limit their market approach. A small number of staff might mean limited management capacity. With limited resources, SMEs lack the ability to expand their capacity. They face tough competition especially from larger enterprises that might be able to offer better deals due to their lower production costs. Financial institutions and investors who offer debt financing, equity financing, leasing and factoring instruments are mainly interested in doing business with SMEs that can deliver transparent accounts and show operational and market consistency to lower the risk of defaulting of loans.

FINANCING NEEDS OF SMES

One of the strengths of SMEs lies in their ability to respond quickly to opportunities and to offer new goods and services as markets change. But to upgrade their processes, to expand and innovate, they need access to financial services (credit, insurance, payment facilities), and to have a healthy cash flow (access to bank credit, guarantees, venture capital, leasing, trade credit, etc.).

In the short-term, SMEs require working capital to cover the daily production and administration costs associated with running the business, for example payroll, rent, and complementary services for production processes such as water and energy. In Nepal, the construction SMEs targeted by the VSBK project request short-term seed money for sustainable construction practices and improvements of the environmental performance. Further short-term finance would help to cover operational costs and interest rates of the targeted Nepali SMEs. In the project Sustainable Revival of Livelihoods in Post-disaster Sichuan: Enhancing Eco-friendly Pro-poor Bamboo Production Supply Chains to Support the Reconstruction Effort project (in short ‘Bamboo’) the targeted SMEs need liquidity for purchasing raw bamboo and new machines. Manufacturing SMEs in the project Reduction of Environmental Threats and Increase of Exportability of Bangladeshi Leather Products (Re-Tie) and Sustainable and Cleaner Production in the Manufacturing Industries of Pakistan (SCI-Pak) need short-term finance to secure exports of goods to international buyers.

SMEs targeted by the SEID project required short-term funds to establish a better quality control system and build environmental protection capacity. Entrepreneurs in the project SMEs for Environmental Accountability, Responsibility and Transparency (SMART Cebu) report a lack of short-term finance for consulting services for eco-design, eco-labelling and eco-packaging.
Furthermore, they need short-term capital to participate in trade fairs, to develop prototypes, and to produce bulk orders.

A green approach for enabling access to the necessary finance could be in the provision of finance for environmentally friendly raw materials, or in capacity building for staff in cleaner production practices. Textiles SMEs in India targeted by the SusTex project could use short-term finance to purchase such environmentally friendly raw materials, and for capacity building of staff. Other SWITCH-Asia projects including Sustainable Production Innovation in Vietnam, Cambodia, Laos and (SPIN-VCL) and Zero Carbon Resorts (ZCR) report SMEs need short-term finance for smaller technology upgrades in their operations.

In the medium-term, SMEs need access to adequate financing for equipment and machinery – for its purchase, maintenance and repair. A great number of SWITCH-Asia projects including SPIN-VCL, SMART Cebu, Bamboo, ZCR, SusTex, Sustainable Bean Processing – SCOPE, Biomass SP, Greening Supply Chains in the Thai Auto and Automotive Parts Industries (Automotive SSCM) and Sustainable Production Through Market Penetration of Closed Loop Technologies in the Metal Finishing Industry (ACIDLOOP) require medium-term finance for green technology upgrades. SCI-Pak SMEs reported a need for medium-term finance for upgrades of physical assets beyond equipment such as property or industrial buildings, for future benefits.

By improving their environmental performance through investing in efficient equipment and clean technologies, access to green finance could improve the competitiveness of SMEs in medium term.

Finally, long-term financing primarily refers to market expansion. Market expansion can refer to the introduction of new products thus finding new markets. In the Bamboo project, SMEs will need long-term financing when they re-adjust their products and companies need to plan and implement market entry strategies for new products. But market expansion can also refer to instances where enterprises might want to expand their facilities to increase their production volume, or to open new subsidiaries in other regions because of the attractiveness of new market opportunities. This is true for tourism operations engaged in the ZCR project or for industry targeted in the SCI-Pak project. Thus, financial resources are needed to efficiently upgrade existing facilities. Typically, the magnitude of such investments is high and the returns, in most cases, long-term. From a sustainable production perspective, long-term green financing might mean scaling-up the green business model itself to other regions or sectors.

With this picture of financial needs in mind, it is useful to examine what suitable financial instruments (products and services) might be available in Asian markets.
### FIGURE 2 PROVIDES AN OVERVIEW OF FINANCIAL NEEDS OF SMES IN SELECTED SWITCH-ASIA PROJECTS

<table>
<thead>
<tr>
<th>Project name</th>
<th>Short-time financing need for...</th>
<th>Medium-term financing need for...</th>
<th>Long-term financing need for...</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEs targeted by the ZCR project</td>
<td>technology upgrade</td>
<td>new green technology</td>
<td>Extension / new buildings</td>
</tr>
<tr>
<td>SMEs targeted by the SPIN VCL project</td>
<td>investment funding for SCP technologies and product innovation</td>
<td>investment funding for SCP technologies and product innovation</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the SMART Cebu project</td>
<td>consulting services for Eco-design, Eco-labeling, Eco-packaging &amp; etc working capital for trade fair participation, prototype production, bulk order production</td>
<td>investment in environment-friendly equipment &amp; facilities</td>
<td></td>
</tr>
<tr>
<td>SMEs target in the Automotive SSCM Thailand project</td>
<td></td>
<td>equipment and production process improvement</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the PRO SUSTAIN project</td>
<td>upgrading FAIR TRADE INDIA branded retail outlets regular market surveys and related capacity building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the SusTex project</td>
<td>tailor-made financial requirements i.e. for raw material, or capacity enhancements</td>
<td>technological innovation</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the VS BK project</td>
<td>seed money for sustainable construction practices and improvements of the environmental performance operational cost interest rates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the SCOPE (Soybean processing) project</td>
<td>export financing (letter of credit)</td>
<td>purchase technology upgrades to meet both hygiene &amp; energy targets</td>
<td>re-building due to expansion of business</td>
</tr>
<tr>
<td>SMEs targeted by the SCI-Pak project</td>
<td>export financing</td>
<td>cost of equipment (capex – upgrade of physical assets such as equipment, property, or industrial buildings for future benefits)</td>
<td>construction and commissioning of new operations</td>
</tr>
<tr>
<td>SMEs targeted by the Re-Tie project</td>
<td>export financing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the Wood project</td>
<td></td>
<td>technology upgrade</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the Biomass SP project</td>
<td></td>
<td>acquire technology</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the ACID LOOP project</td>
<td></td>
<td>upgrade equipment and processes to modern technology</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the Bamboo project</td>
<td>capacity building</td>
<td>investment for technical upgrades</td>
<td></td>
</tr>
<tr>
<td>SMEs targeted by the SEID project</td>
<td>establishment of a better quality control system improvement of the environmental protection capacity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2.3 FINANCING SOLUTIONS

Financing instruments can be divided into six broad categories according to the short-, medium-, and long-term financial needs of SMEs (see Figure 3):

- **Debt financing**: commercial loans, concessional loans, microcredit;
- **Equity financing**: private equity, venture capital, mezzanine finance;
- **Institutional funding**: public grants, tax incentives, loan guarantees;
- **Other financial instruments**: leasing, factoring;
- **Tailored financial instruments for energy and resource efficiency**: arrangements with the energy and service companies (ESCOs) (from ESCOs’ internal funds or by the customer, or by a third party funding), carbon finance such as through the Clean Development Mechanism (CDM); and
- **Supporting non-financial services** (e.g. capacity-building on financial services).

Bank financing generally remains the most important source of external finance to SMEs. **Debt financing** comprises lending activities to SMEs, where the SME signs a contract with a bank to receive a certain amount of money with the compromise of paying the borrowed amount back to the bank with additional interest at market rates for the time span of the contract. The life span can be short-, medium-, or long-term. Debt financing includes a variety of types of loans. Debt financing can further be classified into apex or wholesale lending and direct or retail lending. Some development finance institutions (DFIs) act as wholesaler of funds from multilateral and bilateral funding agencies, using accredited financial institutions, chambers, industry associations and cooperatives as conduits to expand their lending reach to a wider base of SME beneficiaries. The DFI credit risk would be the conduit institutions while the credit risk of the conduit institutions would be the end-beneficiary SMEs. DFIs can likewise lend directly to SMEs that are not being served by other financial institutions, in pursuance of their developmental role.

![Figure 3: The Spectrum of Financing Solutions for SMEs](image-url)
Commercial loans usually demand collateral, such as a specific property to be pledged as security for the repayment of the loan. Concessional loans are subsidised by public credit lines known as ‘public’ or ‘soft’ loans or grants, which reduce the cost of interest. Micro-credits are small-scale loans for micro-enterprises. SMEs might favour micro-loans since micro-lenders do not necessarily require physical collateral.

In the case of equity financing, private equity is capital provided by private and/or institutional investors who assume an ownership stake in a growing SME for a limited period of time (commonly 5 to 10 years). Equity financing includes private equity investments, venture capital and mezzanine capital. Venture capital is a long-term financing instrument leveraged by management and business development support (‘incubation’) to unlisted, innovative, and potentially high growth enterprises in an early development stage. Investments are characterised by a high risk of failure but, in turn, equally high rates of return. Mezzanine capital combines the characteristics of debt and equity financing. The difference is that investors are not granted ownership in the SME. Mezzanine loans are usually of shorter duration and are more expensive for SMEs.

Institutional funding includes public grants, tax incentives, and loan guarantees. Grants are financial contributions provided by governments, development financial institutions, international development organisations and foundations. Grants can be provided for any purpose that the grantor and the grantee agree on. Tax incentives including tax deduction and tax reductions seek to give special conditions to SMEs for specific purposes, for example, to promote SCP practices.

A loan guarantee is a financial product available to SMEs for a charge as a partial substitute for collateral and track records. The guarantor will, fully or partly, assume the debtor’s loan obligation in the case of default and this provides security to the bank.

Other financial instruments include factoring and leasing. Factoring is a form of receivables finance whereby a business sells, or assigns its account receivables (i.e. invoices) to a finance company (called a factor) at a discount, in exchange for immediate money with which to finance continued business. Factoring differs from a loan in three main ways. Firstly, the emphasis is on the quality of the receivables and not only on the SME’s credit worthiness. Secondly, factoring is not a loan it is an advance on an SME’s outstanding invoices. Thirdly, a bank loan involves two parties whereas factoring involves three (borrower, buyer, and factor).

Likewise, leasing appears as an important complementary source of investment finance, especially in countries where the collateral regime and the information infrastructure are weak. Leasing is broadly defined as a contract between two parties where one party (the lessor) provides an asset (machinery, equipment, vehicles, and/or property) for usage by another party (the lessee) for a specified period of time, in return for specified payments. Leasing is based on the proposition that profits are earned through the use of assets, rather than from their ownership. It focuses on the lessee’s ability to generate cash flow from business operations to service the lease payment, rather than on the balance sheet or past credit history.
Energy service companies (ESCOs) offer **tailored financial services**. These are private companies with technical expertise which assess, design, and implement energy efficient solutions for public and private clients. Depending on the ESCO’s business model, they may finance (‘shared savings’) or assist in arranging financing (‘guaranteed savings’) for the improved operation of a client’s energy system. In most cases, the remuneration of the ESCO depends on the amount of savings that their improvements are able to generate for the customer. The linkage of performance and payment is commonly defined as ‘performance contracting’.

**Tailored financial services** also include carbon finance. Carbon finance provides a funding opportunity that helps to reduce pollution and greenhouse gas (GHG) emissions by investing in renewable energy or energy efficiency improvements. Carbon projects have become increasingly important since the implementation of the Clean Development Mechanism (CDM) under the Kyoto Protocol. The CDM encourages energy conservation and the adoption of renewable energy by issuing certificates for verified and recorded emissions reductions (certified emissions reductions) that can be sold to governments, large-scale companies and carbon funds to meet project investment costs or to enhance project revenues.

**Supporting non-financial services** can be essential for improving access to finance. Networks, for example, help to find and understand solutions by engaging different members in discussions and encouraging the exchange of experiences, both successful and unsuccessful. Cooperation between network members is essential for sustainable learning. This includes technology innovation, which is fostered by the coming together of experts and different stakeholders from inside and outside the network.

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**FIGURE 4: AVAILABILITY OF GREEN FINANCING SOLUTIONS ALONG DIFFERENT MATURITY STAGES OF A SME**

(Source: http://ec.europa.eu/enterprise/policies/finance/financing-environment/index_en.htm)
Experience from SWITCH-Asia, and other projects, has confirmed that in Asia both credit and equity financing solutions are available, at various stages of maturity of SMEs, and in response to their particular financing needs (see Figure 4, above). When it comes to green funds, these are mainly available as bank loans for clean energy or energy efficiency solutions. Venture capital and start-up funds are also entering the market and awaiting entrepreneurs who like to make an impact through financing resource efficient products and services. The figure shows that, especially in the early stages of business development, access to finance remains a challenge.

**THE FINANCING GAP**

There is still a mismatch between the demand and the supply for finance, especially green finance; and several factors are at play in developing countries, which make it difficult for SMEs to access it. As can be seen in Figure 5, these factors can be classified into two main categories: supply-side and demand-side. Taking a facilitating role, SWITCH-Asia projects try to address one or more of these issues.

### THE DEMAND SIDE – WHAT BARRIERS DO SMEs FACE?

- **Lack of financial literacy**
- **Lack of financial transparency**
- Services of financing institutions perceived too costly
- Poor marketing and communication by financial institutions

### THE SUPPLY SIDE – WHAT BARRIERS DO FINANCING INSTITUTIONS FACE?

- SMEs lack collateral
- Banks require SMEs transparency
- Lack of effective channels and modalities for communication with credit providers for funding purposes
- Banks do not consider SME lending as profitable business

**FIGURE 5: THE ROLE OF THE SWITCH-ASIA PROGRAMME IN ADDRESSING DEMAND AND SUPPLY SIDE BARRIERS**

**The demand side**

*What are the barriers faced by SMEs?*

- Lack of financial literacy
- Lack of financial transparency
- Services of financing institutions perceived too costly
- Poor marketing and communication by financial institutions

**SWITCH-Asia’s role**

- Addressing the legal framework for A2F
- Promoting financial solutions
- Increasing capacity of SMEs to access finance
- Addressing banks from awareness to technical assistance
- Enabling investment linkages

**The supply side**

*What are the barriers faced by financing institutions?*

- SMEs lack collateral
- Banks require SMEs transparency
- Lack of effective channels and modalities for communication with credit providers for funding purposes
- Banks do not consider SME lending as profitable business
to access bank loans. Another project, Encouraging and Implementing Sustainable Production and Consumption of Eco-Friendly Batik in Indonesia and Malaysia, also considers that capacity on costing and pricing is essential for an SME’s profitable operation. The project offers such sessions for targeted SMEs in its marketing component. In Malaysia, the Biomass-SP project finds that most of their targeted SMEs do not keep proper records and lack a sound management system.

Lack of financial transparency
In Asia, a proprietor, or her or his family, usually operates one micro-enterprise. The SMART Cebu project found that often an entrepreneur of a targeted SME tended to make little distinction between the finances related to their business activities and those of their own personal household transactions. Some SMEs operate on the basis of two books, so that profits are re-calculated downwards to evade taxes. However, when these SMEs apply for a loan on the basis of their actual business (i.e. profits) their loan application does not match their financial records. Such management and non-transparent practices have led to SMEs being seen as risky borrowers and making them less appealing to lenders. Also, the project MSME Clusters reports lack of transparency as a barrier for SMEs to access finance as the SMEs targeted by the project lack of proven track records and credible balance sheets.

Services of financing institutions are perceived as too costly
Often financial institutions offer loans only at high fees or interest rates. SMEs are often not able or willing to pay such high fees. For SMEs in Vietnam, for example, the interest rates for a bank loan reach 15%. After interest rates, the SMEs need to cover the costs for feasibility studies and transaction costs charged by the banks. Ultimately, financial services found at the bank are perceived to be too cumbersome and too time-consuming by SMEs.
Limited knowledge of financial solution due to poor marketing and communication by financial institutions

Poor marketing and ineffective communication between banks and entrepreneurs are major obstacles for SMEs seeking bank finance. This is the case in Pakistan where the SCI-PAK project found that SMEs lack information on the benefits and conditions of a bank’s financial solutions. Soybean processing SMEs targeted by the Soybean processing – SCOPE project were found to be unaware of technical innovation and lacked knowledge on efficiency and thus were not even asking for financial solutions.

Lack of proven market

Another major challenge for SMEs when accessing financing is proving that they have established markets that would absorb their products and services and which would be the main source of repayment for their loans.

THE SUPPLY SIDE – WHAT BARRIERS DO FINANCING INSTITUTIONS FACE?

SMEs lack collateral

When banks grant loans or credit, their decisions are mostly based on the availability of fixed assets as collateral. Many SMEs cannot provide collateral as they cannot dispose of equipment, machinery, or land. Soybean processing SMEs targeted by the SCOPE project, for example, often report lack of collateral as a challenge when accessing bank loans. Frequently, banks do not accept a personal guarantor like many micro-financing institutions do. SMEs in the project SMART Cebu often suffer from bank demands for collateral. They might ask for high amounts of collateral, 150% or more of the loan value. The SMART Cebu entrepreneurs consider such demands too stringent. Therefore, these banks with such physical collateral requirements will not accept the SMEs as clients, and the SMEs cannot access finance from the banks.

Banks require transparency from SMEs

Most financial institutions and banks lack information on SMEs and their likely cash flows or credit histories. The banks then doubt the SME’s capacity to repay a loan. Financial institutions would normally require SMEs to identify their stable source of cash flow and provide supporting documents such as purchase orders, contracts, etc. as proof. The majority of small and micro-enterprises targeted by SWITCH-Asia projects, and reviewed in this report, lack corporate governance, and this is a major hurdle for the banks.

Lack of effective channels and modalities for communication with credit providers for funding purposes

SMEs are often not aware of financial solutions provided by the banks, especially in the area of
green finance, nor of the procedures to follow to gain access to finance. This could be the case of a non-transparent banking system – as the project Mainstreaming Energy Efficiency through Business Innovation Support Vietnam (MEET-BIS) reports. The SCI-Pak project found that banks do not have the capacity to engage and inform SMEs on accessible financial solutions, nor do they have the knowledge for assessing cleaner production investments. SMEs targeted in the Automotive SSCM project and SMEs in the Zero Carbon Resort project state ineffective communication with banks as the SMEs consider banks procedure too bureaucratic and too complicated.

**Banks do not consider SME lending as profitable business**

Due to their size, SMEs are often only looking for a small investment but banks do not find such small transactions profitable. High operating costs for SME lending and contract enforcement remain an obstacle even at low default rates. The MEET-BIS project in Vietnam found that banks are often not interested in serving SME clients needing small loans to boost SCP or energy efficiency. Smaller companies in Vietnam that want to invest in energy efficiency upgrades, such as a US$ 15,000 solar water heater system, have more difficulties finding a bank that finances such investment. In Thailand, the Automotive SSCM project states that loan officers lack understanding of the situation of SMEs. Also, the SMEs in the Greening Sri Lanka Hotels project report that banks are not aligned to SME lending. By targeting the financial needs of larger enterprises, banks tend to do better business than by addressing SMEs. Many financial institutions across Asia do not make enough profit with SMEs as their sole, or major, debt clientele, despite charging a premium on the interest because of the high risk and the transaction cost.

**Limited competition for tailored services targeting SMEs**

As larger companies and their needs for investment offer better business, most financial institutions do not offer tailor-made services for SMEs. Due to the low degree of competition among banks for SME clients, there is a shortage of innovative financial products addressing the needs of SMEs.

**Banks consider SME lending high risk**

Loans responding to financial requests from SMEs are often considered high risk by the banks. The weak capacity inherent in SMEs for drawing up business plans and developing business projections means that banks find it difficult to assess profitability and, at the same time, could face an increased financial risk as a lender in case of default. The SMART Cebu project believes that banks do not fully understand the environment surrounding SME lending. They also do not appear to have appropriate tools to help them assess the risk of lending to SMEs for particular investments, such as cleaner production measures. The project Biomass-SP sees a problem with the capacity of banks. In Malaysia, the project found that the banks lack relevant skills to evaluate new, green business ideas – especially in the commercialisation of biomass. Bankers are not familiar with the green technology market compared with mature market products such as mortgage loans. Where credit evaluators do not understand the biomass business, they are likely to consider lending as high risk.

Financing problems faced by SMEs are due to both demand and supply factors. These factors can be addressed by the SWITCH-Asia programme as illustrated by the following case studies.
The SME finance gap is the outcome of a disparity between the needs of the SMEs and the supply of financial institutions. Currently, a number of SWITCH-Asia projects are working towards closing the gap. Their activities can be categorised in the following strategies:

**STRATEGY 1: Addressing the Enabling Environment for Access to Finance**

**STRATEGY 2: Promoting Financial Solutions**

**STRATEGY 3: Increasing Capacity of SMEs to Access Finance**

**STRATEGY 4: Addressing Banks – from Awareness to Technical Assistance**

**STRATEGY 5: Enabling Investment Linkages**

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**FIGURE 6: SWITCH-ASIA PROJECT ACTIVITIES AIMING AT ENABLING ACCESS TO FINANCE FOR SUSTAINABLE PRODUCTION IN SMES**

<table>
<thead>
<tr>
<th>Strategy Project</th>
<th>Addressing the legal framework for access to finance</th>
<th>Promoting financial services</th>
<th>Increasing capacity of SMEs to access finance</th>
<th>Addressing banks – from awareness to technical assistance</th>
<th>Enabling investment linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automotive SSCM</td>
<td>Market-scan of financial solutions available</td>
<td>Assistance to write a financial proposal, business plan, green loan applications</td>
<td>Institutional partnership with a SME bank</td>
<td>Optimisation of existing financial packages with SME bank</td>
<td>Match-making online &amp; offline platforms</td>
</tr>
<tr>
<td>Biomass-SP</td>
<td>Policy recommendations for a Biomass Action Plan including economic instruments</td>
<td>Promotion of green funds Promotion of CDM</td>
<td>Individual coaching for CDM project development Entrepreneurs Nur-turing Programme (EUMBENP)</td>
<td></td>
<td>Match-Making Investors study tour Business Directories</td>
</tr>
<tr>
<td>China Motor Challenge</td>
<td>Cooperation with ESCOs</td>
<td>Cooperation with ESCOs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bamboo</td>
<td>Assistance to prepare Investment Plans</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

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*SWITCH-Asia | GREENING SMES BY ENABLING ACCESS TO FINANCE*
<table>
<thead>
<tr>
<th>Strategy Project</th>
<th>Addressing the legal framework for access to finance</th>
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<th>Addressing banks – from awareness to technical assistance</th>
<th>Enabling investment linkages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Philippines Islands</td>
<td>Envisioned training package on financial solutions</td>
<td></td>
<td>Inclusion of bank into training programme</td>
<td></td>
<td>Institutional partnership with a SME bank</td>
</tr>
<tr>
<td>MEET-BIS</td>
<td>Market-scan of financial institutions/solutions and integration of the info and financial institution representatives to the trainings, exhibitions</td>
<td>Feasibility Study for ESCO development</td>
<td></td>
<td>Building relationship with banks</td>
<td>Reducing transactions cost for banks</td>
</tr>
<tr>
<td>MSME Clusters</td>
<td></td>
<td></td>
<td>Diversify delivery channels</td>
<td>Institutional partnership with a SME bank</td>
<td></td>
</tr>
<tr>
<td>SCI-PAK</td>
<td>Policy recommendations for enabling SMEs access to finance</td>
<td>Promotion of CDM</td>
<td>Awareness Session with BMOs</td>
<td></td>
<td>Round Table</td>
</tr>
<tr>
<td>SCOPE</td>
<td></td>
<td></td>
<td>Workshop to develop green credit line and credit conditions</td>
<td>Facilitation of leasing</td>
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<tr>
<td>SMART Cebu</td>
<td>Awareness raising among SMEs on financial options available</td>
<td>Providing financial literacy to the members of the BMOs and individual coaching</td>
<td>SCP awareness for banks (advocacy, study tours, workshops)</td>
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<td>Match-making by joint fora</td>
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<td>Re-Tie Bangladesh</td>
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<td>Facilitating factoring for export</td>
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<td>Waste to Energy (WtE)</td>
<td>Envisioned training package on business plan development</td>
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<td>Activities to adapt credit conditions</td>
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<td>Institutional partnership banks</td>
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<td>Zero Carbon Resort</td>
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<td></td>
<td>Promotion of financial solutions</td>
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</table>
3.1 STRATEGY 1: ADDRESSING THE ENABLING ENVIRONMENT FOR ACCESS TO FINANCE

The regulatory framework plays a critical role in improving the finance landscape for SMEs. A good legal framework and financial infrastructure can set the necessary pre-conditions for enabling SMEs to access finance.

ESTABLISHMENT OF FINANCIAL MECHANISMS SUITED FOR SMES

The project Sustainable and Cleaner Production in the Manufacturing Industries of Pakistan (SCI-Pak) sets a focus on the enabling policy environment for promoting sustainable production in the textile and tannery sector in Pakistan. The project conducted an assessment study to identify potential opportunities to improve existing policies under the framework of SCP. The study presented the existing legislation and identified opportunity areas that could benefit most from improvements on the goal of increasing sustainable production - with a focus on resource efficiency - in SMEs. From the analysis the SCI-Pak project concluded that there are a great number of opportunities in the policy area of increasing access to finance that would benefit SMEs in improving their production towards sustainable production. New financial mechanisms for SME implementation of efficiency measures should be established. Options include venture capital funding for start-ups. Further options include transparent and competitive R&D grants that should provide invoice-based financing, where borrowers provide accepted invoices (or receivables) as collateral to the commercial bank, that could be promoted by the State Bank as an alternative to collateral based lending.

In the study, it was suggested that new financial mechanisms for SMEs undertaking the efficiency measures should be established. According to the project partners, performance contracting is another alternative to promote energy and resource efficiency in Pakistan. This enables risk sharing between the contractor, the bank, and SMEs implementing innovative sustainability ventures. In addition, SME financing should be incorporated into the Annual Credit Plan of the State Bank of Pakistan. Programmes for credit guarantee and credit insurance agencies could provide the incentives as well as risk coverage for banks and should be established. Financial institutions should be supported in designing and launching industry based programme lending schemes.

SCI-Pak workshop

In Pakistan, this project aims to implement a range of energy and resource efficiency initiatives in the textile and tannery sectors, with the potential to adapt them to other manufacturing industries in the long-term (e.g. sugar, pulp and paper, steel rolling etc.).

For more information see:
www.sci-pak.org
Another conclusion was that a wage subsidy programme should be established to support on-the-floor training of workers. Firms should pay, for instance, 70% of the minimum wage to the worker with the remaining 30% being paid by a government contribution payable through a training organisation directly to the worker. Additionally, leading firms should sponsor a training unit within a public sector institute, where trainees can be trained specifically on their machines and according to their requirements and standards. (National Industrial Policy, 2010)

The assessment study was used as background for an ‘orientation session’ for policymakers on the Policy Framework for Sustainable Production in Pakistan. With the session the project sought to develop an agenda for the succeeding policy dialogue among different stakeholders from government, SMEs, business associations, financial institutions and equipment manufacturers. The Ministry of National Disaster Management agreed to host and to lead the subsequent activities in the policy arena.

**POLICY INTERVENTION VIA ECONOMIC INSTRUMENTS FOR ENHANCEMENT OF MALAYSIAN BIOMASS INDUSTRY**

The project **Sustainable Production of the Biomass Industries in Malaysia: Optimising Economic Potential and Moving Towards Higher Value Chain (Biomass-SP)** aims to develop the biomass industry based on the principle of sustainable consumption and production (SCP). Malaysia has an abundance of biomass available and its full potential for commercialisation remains untapped. The project interveives with greater market access and green supply chain opportunities from the EU. The project strategy includes the development and application of effective economic instruments that enhance SCP.

Based on inputs from multi-stakeholders, the Biomass-SP project envisions developing policy recommendations for a Biomass Action Plan. A concrete measure could include relevant economic instruments to promote the commercialisation of biomass. Such instruments will help policy-makers to improve current fragmented government efforts in supporting the development of manufacturing of eco-friendly products, biomass technologies and resource efficiency in Malaysia. To develop such instruments the project envisions conducting workshops which discuss the use of economic instruments in Europe addressing biomass issues. Participants will analyse case studies of the successful use of economic instruments addressing biomass and identify promising use of economic instruments in Malaysia. These activities were still at the planning stage when this study was written – so lessons learnt will be obtained in late 2013.
3.2 STRATEGY 2: PROMOTING FINANCIAL SERVICES

Banks need to provide information on the terms and conditions of their financial services to SMEs. The availability and accessibility of such information provides the basis for interaction between banks and SMEs. To increase availability and accessibility of information on financial products most SWITCH-Asia projects that are currently addressing the topic access to finance are including the topic in raising awareness activities. Depending on the project, teams incorporate information on financial options in road shows, awareness forums or workshops.

ROAD SHOWS CREATE AWARENESS IN MALAYSIA
At the heart of the Biomass-SP project is a complementary training to strengthen SMEs’ financial, technical and environmental compliance capacities to increase export competitiveness on biomass products, services and technologies. In its first year, the project conducted a series of road shows to raise awareness of the potential of commercialisation for biomass among hundreds of SMEs. Financial solutions for increasing the biomass business were always part of the agenda of the road shows as according to the project’s analysis access to finance is a crucial bottleneck for the SMEs.

During the road shows the project presents the available funding mechanism. Financial institutions present their available financing assistance for existing manufacturing biomass companies, especially through the facility of soft loans, or credit guarantees. The project highlighted that bio-based companies are also exposed to incentives offered as well as venture capital opportunities.

The Biomass-SP project also provides SMEs with an overview of funding opportunities offered by the Malaysian government agencies. The project provides information on the various

| Strategy 1: Raise awareness of biomass SMEs | Information on pricing and market is accessible and available |
| Strategy 2: Link SMEs with R&D | SMEs are aware and know how to apply for access to finance |
| Strategy 3: Address banks and financial institutions | SMEs innovate with local Research and Development knowledge |
| Strategy 4: Enable access to finance by coaching SMEs | Access to finance for biomass ventures is accessible and available |
| Strategy 5: Linking SMEs to EU Supply Chains | SMEs access private funds |
| | SMEs access Government funds and grants |
| | Business models for biomass ventures are developed |
| | Local biomass R&D is commercialised |
| | Publicity on demo projects in media and internet |
funding options and grant schemes by ministries under different agencies, and a methodology to tap these opportunities in line with the 10th Malaysia Plan. The project seeks to invite various agencies to present their financial solutions. Such agencies include the Ministry of Science, Technology, and Innovation; the Ministry of Agriculture’s Development Corporation (MTDC)’s commercialisation of R & D funds, the Cradle Fund 500, the Malaysia Life Science Fund (VC Fund), the Malaysia Debt Ventures Bhd (debt financing based on project and non-collateral approach), Green Technology Financing Scheme (soft loan for green technology projects), and SME banks (soft loan for SMEs development).

INFO-SESSIONS ON THE CLEAN DEVELOPMENT MECHANISM IN PAKISTAN

The SWITCH-Asia project Sustainable and Cleaner Production in the Manufacturing Industries of Pakistan (SCI-Pak) promotes financial solutions. The SCI-Pak project organised three workshops to introduce business and industrial representatives to the opportunities of opting for Clean Development Mechanism (CDM). The CDM is an arrangement under the Kyoto Protocol which allows industrialised countries with a greenhouse gas reduction commitment to invest in initiatives that lessen emissions in developing countries as an alternative to more costly emission reduction measures. Pakistan is lagging behind the developing world to capture the carbon market. It has only nine projects that have been registered by the CDM executive board while this number for China and India is 969 and 534 respectively. Therefore, there is a need to catch up with the world. This scenario reflects the lack of awareness about CDM and the scarcity of financial incentives. Weak institutional capacity and a long project cycle are the reasons that have hindered the CDM penetration in local industry.

To inform SMEs linked to the project about CDM, the SCI-Pak project presented case studies of different CDM projects in the textile and tannery sectors in India. The workshops introduced technical presentations on writing a project design document (PDD), which is the most important part of the CDM process. It was highlighted that the PDD serves as the basis for the CDM project evaluation by the CDM executive board. A quality PDD will ensure smooth validation, positive validation report, quick registration of the project with CDM executive board and on time completion of verification and issuance of CERs by the CDM executive board.

NETWORK TO INCREASE ACCESS TO INFORMATION ON FINANCIAL SOLUTIONS

To promote financial solutions, the SCI-Pak project envisions establishing an ‘Energy and Resource Efficient (E&RE) Network’ to address the financial needs of SMEs. The decision to develop such a network was taken together with the State Bank of Pakistan and commercial banks at a round table. The round table concluded that
the problem on access to finance in Pakistan was not the lack of financial resources but the lack of interaction tools and mechanisms to bridge the supply and demand of financial resources. For that reason, the participants welcomed the launch of the E&RE Network.

The parties envision that the E&RE network is based on a web platform that provides information on relevant E&RE policy intervention and additional financing opportunities directly tailored to those SMEs willing to increase their energy and resource efficiency should also be a goal of the network. Finally, the network should facilitate the transfer and development of technologies, which are urgently needed to increase energy and resource efficiency of SMEs.

**FINANCIAL SOLUTIONS AS PART OF TRAININGS, AWARENESS PROGRAMMES AND EXHIBITIONS**

In Vietnam, the project *Mainstreaming Energy Efficiency through Business Innovation Support (MEET-BIS)* promotes energy and water efficiency for SMEs by building the marketing and sales capacity of technical product suppliers. The project has built capacity with the technology suppliers to serve the SME energy and water efficiency market through market research, seminars, (boots on) exhibitions, sales training sessions, workshops and business club meetings, attracting more than 700 participants so far. Besides building capacity in the product sup-

**FIGURE 8: SCI-PAK PROJECT STRATEGY ON HOW TO CREATE A NETWORK TO INCREASE ACCESS TO INFORMATION ON FINANCIAL SOLUTIONS.**

- **Educational and financial institutes, government organisations**
  - Provide information and knowledge

- **IEMS (Industrial equipment manufacturer)**
  - IEMS provide technical solutions for SMEs

- **SMEs**
  - Offer their products

- **Consumers / Retailers**

This project aims to assist key private sector players to develop commercial markets for their energy and water efficiency products targeting SMEs, and assists suppliers of energy and water efficiency solutions to develop commercial markets in the SME sector. SMEs should improve their profits by offering ‘business innovation packages’ and ‘investment packages’ with local technology providers specialised in energy and water-efficient technologies.

For more information see: [http://meet-bis.vn](http://meet-bis.vn)
ply chain, MEET-BIS aims to enhance SME access to finance for investment in energy efficiency by working with local financial institutions. Whereas the focus of the awareness programme lies on energy efficient solutions, financial solutions have also been part of the agenda. In workshops and project exhibitions the project invited a representative of a loan guarantee fund, a speaker of IFC and a representative of a bank to exchange information and discuss financial services to enhance SME access to energy efficient technology.

The Zero Carbon Resort project in the Philippines, targeting tourism SMEs, realised that when resorts or hotels plan to expand, access to finance is an essential factor for entrepreneurs. Therefore, the project invited the Development Bank of the Philippines to present their Green Financing Programme during workshops and conferences. The bank’s programme targets industries and local government units that want to green their operations. With its funds, the bank aims at promoting resource efficiency and low-carbon operations. The funds shall ensure that industry’s operations no longer contribute to environmental degradation. The bank particularly supports investments for environmentally friendly processes and systems such as cleaner production, waste minimisation, resource conservation, energy efficiency, and pollution prevention and control which are in line with the objective of the ZCR project; specifically the Replace Phase where the project encourages hotels and resorts to replace old, outdated technology and upgrade to green, efficient technology.

The project Green Philippines Islands of Sustainability (GPiOS) aims to minimise the environmental impact of SMEs in Metro Manila and the Calabarzon region. The project centres on workshops in cleaner production and individual consulting by experienced consultants. The project aims to transfer know-how through training workshops and coaching, combined with a system of quality assurance and monitoring. The commercial SME bank, Plantersbank, is a project partner and a project beneficiary at the same time. As a project beneficiary it is taking part of the training and is undergoing cleaner production audits together with many other SMEs from diverse sectors. As a project partner the Plantersbank has the opportunity during the GPiOS training programme to promote their financing programme to the participating companies.

The GPiOS project aims to minimise the environmental impact of SMEs in Metro Manila and the CALABARZON region. It helps to reduce the level of pollution by encouraging preventive environmental production and integrating sustainable growth, social progress and environmental protection, into the business of participating companies.

For more information see: www.greenphilippines.com.ph
In Thailand, the project *Greening Supply Chains in the Thai Auto and Automotive Parts Industries* (further *Automotive SSCM*) is attracting the attention of SMEs through the organisation of seminars at trade fairs like Syncon Fair in Bangkok where many SMEs and financial institutions are present. At such seminars green financial packages in Thailand are on the agenda as well as EU/Japanese standards and regulations affecting the Thai automotive sector.

**THE FINANCE PLUS MODEL**

The *MSME Clusters* project in India supports its targeted SMEs with a so called ‘finance plus’ model. It does not promote financial solutions on its own but implements a combination of technical assistance and enabling access to finance. The project works with the following steps: (1) propagate in the cluster – an agglomeration of SMEs doing similar business – that there is a business case for technology transformation (here the sustainability aspect is chipped in a priori.), (2) identify where changes in technology is a least cost option, (3) implement the change using technology support from the project, (4) prove the case that it has worked, (5) propagate its success to other units and financing institutes such as development banks, non-banking financial companies, commercial banks (the latter is important to instill their confidence in financing a business case), (5) identify the units which need finance and their major bottlenecks in getting finance, (6) discuss with banks, and (7) negotiate and make finance available. During this entire process, business membership organisations (BMO) are involved as an integral part of the process. In future, it is envisioned that the BMOs carry this forward as an income generating activity.

**PROMOTION OF FUNDS VIA ENERGY SERVICE COMPANIES**

For the green investment market to perform better, agencies or institutions with knowledge and technical capacity on technology and cost-saving potential need to help identify opportunities, conduct cost-benefit analyses or good feasibility studies. Energy service companies (ESCOs) are private companies with technical expertise, which assess, design and implement energy efficiency improvements for public and private clients. Their aim is to improve the energy efficiency solutions. Next to developing and designing energy efficient solutions, ESCOs facilitate financing for energy efficiency projects.

In China, the project *China Motor Challenge* facilitates improvement of the operating efficiency of electric motors in cooperation with ESCOs. Over 400 major industrial users of electric motor systems have upgraded motors in their systems. To encourage motor users to upgrade to more efficient motors, the project links them with ESCOs, who can supply know-how, equipment and financing to realise the upgrade. ES-
COs are a relatively new type of service company in China and currently several hundred of them are operating country-wide, advising companies how to improve their energy efficiency. The typical arrangement in China is that the ESCO takes on all up-front costs of the energy audit and equipment purchase, and is paid a proportion of the energy savings achieved. This contracting method is known as ‘energy performance contracting’ and effectively reduces the risk for the customer. Although this provides a convenient mechanism for motor users to save energy and costs, the concept of ESCO services is new so that in many sectors they have yet to gain trust. By training and building capacity of ESCOs, the China Motor Challenge project contributes to further electricity savings of industrial motor system users beyond its direct project impact.

In Vietnam, energy service structures are still developing. The Law on Energy Efficiency and Conservation came into effect only on 1 January 2011. It encourages the development of energy conservation technology and the production of energy efficient products, and introduces obligatory labelling standards for the energy consumption of products. The law also encourages the development of ESCOs.

The MEET-BIS project in Vietnam targets technology suppliers. A number of these technology suppliers are interested in becoming ESCOs to provide full service solutions to medium- and large-sized companies. However, until a strong energy service structure is developed, barriers and challenges need to be overcome as technology suppliers might underestimate the function of an ESCO especially when it comes to financing and the financial risk. For energy service providers to operate successfully in the market many skills and technologies are required including: business development and marketing, engineering, energy-savings and process optimisation technologies, project and contract management, financial and accounting, as well as monitoring and validation. MEET-BIS is currently assisting one of its partner companies with a pre-feasibility study for an ESCO.

**STRATEGY 3: INCREASING CAPACITY OF SMES TO ACCESS FINANCE**

To succeed in getting financial resources, SMEs need to communicate the business case for SCP to financial institutions and investors by showing them the competitive advantages of implementing SCP strategies in their operations. Lack of business knowledge and management ability can increase financial barriers for SMEs. Low levels of financial literacy can prevent SMEs from adequately assessing and understanding different financing options. At the same time, SME accounting records and financial statements are often neither clear nor evident.
PROMOTION OF LEASING

The Soybean Processing – SCOPE project links soybean processing SMEs to micro-leasing companies when they need to buy new equipment. The project recommends leasing as the process to access micro-leasing is easy and less burdensome than accessing banks. The local micro-leasing company only interviews the entrepreneur and researches the company. When contacting the micro-leasing companies the SMEs already need to have chosen the equipment to be leased. The project, on the basis of the analysis of the product cycle followed by the company, makes suggest for the right, most efficient equipment.

The MEET-BIS project in Vietnam explored a leasing model that would function without the complicated loan policies of banks. The leasing organisations approached by the project considered the energy efficiency market as a potential and sustainable one. However, so far the financial institutions do not have clear strategy to enter the market. The MEET-BIS project will support the leasing company in developing a leasing market for energy efficiency as leasing is new to the sector. However, the leasing companies also see challenges in the value of the outdated equipment. Establishing a leasing model is in its early stages in Vietnam. In the near future, the leasing companies plan to examine the energy efficiency equipment firms and models in order to choose suitable suppliers and evaluate the value and equity of the equipment.

PROMOTION OF FACTORING

Bangladesh is an export country: from June 2011 to July 2012 Bangladesh exported US$330 million of leather (as crust or finished leather) to mainly China, South Korea, Italy, Japan, and Spain (UNIDO, 2012). What is on the one hand good business, poses on the other hand problems for the entrepreneurs. Local leather exporters manufacturer their goods and often have to wait for months for their payment. Many importers wait until the goods have reached the country of destination and pay the bills on receipt of the shipments. Such challenges were also reported from tanneries targeted by the project Reduction of Environmental Threats and Increase of Exportability of Bangladeshi Leather Products (Re-Tie).

Responding to the needs of the SMEs the Re-Tie project linked the Bangladeshi SMEs to a Dhaka-based factoring service. Factoring is a financial transaction where an SME sells its invoices to a third party at a discount. In this way the factoring service provided immediate financing to the leather producer. Once the goods are received the importer pays the factoring service. Factoring eliminates negotiations about credit periods with suppliers. Both parties, exporters and importers, benefit from factoring.

Organising collateral

Since the economic crisis, SMEs in the SMART Cebu project suffer from lack of funds for production and exports as clients are more reluctant to advance a 50% payment together with

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**FIGURE 10: SCHEMATIC PRESENTATION OF EXPORT FINANCING**

1. Order for goods
2. Make loan with purchase order as collateral
3. Ship goods
4. Pay for goods
5. Remit payment, net of loan principal and interest
the order. This would provide the supplier with sufficient funds to cover the costs for raw materials and production costs, reducing the risk of accepting larger orders. However, after the crisis the supplier is only paid 100% upon delivery of the products. This has been a major obstacle for many of the smaller companies, as they simply do not have enough internal funds to start-up production. They therefore need to access external funding from banks or private loan sharks, just to be able to operate. Business Membership Organisations (BMO) here play a role. They do not lend out money themselves, they simply organise the collateral. The BMO places an amount of money on a bank account, either from its own reserves or by lending the money from government sources. This amount is not used for providing loans to the SMEs, but is a guarantee to back a time-limited cheque or as ‘stand-in collateral’ for a company which needs to obtain a short-term loan from a local bank, when it needs to buy raw materials for a new order. As most of the companies are able to pay back the loan in due time, after all, the credit line can be used for multiple loans at the same time. The concept is therefore quite interesting as BMOs can play an active role in breaking down the barriers for SMEs to get money from the formal bank sector, without having to put up their equipment as collateral.

**Promotion of Islamic banking principles**

In Indonesia, the Soybean Processing – SCOPE project aims to link its target SMEs to the Syariah Bank Mandiri, a state Islamic bank that has a specific loan product for the procurement of heavy equipment where the equipment will be used as collateral. In a so-called ‘warung mikro,’ a micro credit programme, bank staff reported the Syariah Bank Mandiri bank may accept tofu tempe equipment as collateral as long as there is a buy back guarantee from the equipment suppliers. Producers who receive a loan from the Islamic bank will pay cash to equipment suppliers. The suppliers subsequently deliver the equipment to the producers. In case producers are unable to pay an installment, the bank will take back the equipment. In such a case the equipment supplier has agreed to buy it back from the bank.

**RAISING AWARENESS ON FINANCIAL LITERACY**

The inadequate level of financial literacy constitutes a major constraint to the economic growth of SMEs in developing countries. In this study, financial literacy generally refers to the ability to understand finance. This understanding initially includes knowledge for taking personal decisions on finance and extends to questions of corporate governance. Lack of such financial literacy often results in poor planning, underestimating market volatility, and/or inadequate accounting, which can lead to financial losses for many SMEs. Especially among small and emerging businesses, the deficiency of the financial literacy is a challenge, while medium-sized and large enterprises are less likely to struggle with it. SWITCH-Asia projects can help SMEs overcome this burden by providing support and/or capacity building. The capacity building of SMEs can include providing technical and business support services such as training, business development services, assistance in formalising financial statements, and loan application preparation. Such services could be potentially provided by appropriate associations such as SME development agencies, SME associations, or chambers of commerce.
In the Philippines, the GPIoS project cooperates with the Plantersbank that focuses on SMEs. The main problem for the SMEs participating in GPIoS is that few of them are ‘bankable’. The target SMEs cannot demonstrate stable and sufficient cash flow, nor do they have a concluding overview of their budget. The Plantersbanks assists SMEs in becoming bankable, by getting a better overview of their finances and by learning how to fill in financial applications. By becoming able to access green finance, the SMEs are enabled to purchase technology upgrades recommended by the GPIoS team. Bankability for the Plantersbank includes an assessment of track records, such as turnover in recent years and profit margins. Furthermore, it embraces an analysis of the specific sector, such as market opportunities, development prospects, and a risk assessment of environmental conditions.

In Thailand, the Automotive SSCM project provides assistance to SMEs on how to write financial proposals, business plans, and green loan applications, and how to calculate the return-on-investment and savings potential. The project includes, with the SME bank, a bank as an associate partner in the project consortium. The bank also has its main mission to develop the potentials of SMEs entrepreneurs both before and after credit approval. The bank aims to transfer knowledge to the entrepreneurs by organizing the financial literacy and management trainings that assist the businesses in surviving and expanding.
In Cambodia, the project Waste to Energy for the Rice Milling Sector builds capacity of SMEs to enable them to prepare improved business plans. With strengthened capacity rice millers can develop medium- to long-term business plans in order to make them more eligible for credit and collaborate with banks and financial institutions to stimulate that credit / loan packages.

In Pakistan, SMEs constitute 90% of businesses and play a critical role in the manufacturing sector by providing 80% of industrial employment (about 30% of GDP), and generating one-fourth of the sector’s export earnings. Pakistani SMEs lack access to financial resources to support the implementation of E&RE-oriented strategies and achieve the appropriate upgrade of environmentally sound technologies. In order to address SMEs the SCI-Pak project developed and disseminated in July 2011 two workshops on A2F in Karachi and Feisalabad with BMOs. Recognising the fact that Pakistani SMEs lack the capacity for the reliable and proper delivery of information to banks, the project focused the workshops on answering the following questions: How can BMOs support SMEs to deliver quality and reliable information for financial institutions? What are the capacities and technologies needed to ensure the collection and preparation of reliable data?

The project developed guiding materials to show BMOs and SMEs how to identify the best financial instruments in order to reduce administrative costs related to the production process and to develop effective and good quality financial reporting through the elaboration of sustainable-oriented business plans.

In Indonesia, small SMEs especially in the tofu and tempe sector often work without keeping records and without including indirect costs in their profit calculations. Business administration skills among these SMEs are low. The SCOPE project provides financial literacy classes with the SMEs. According to project experts, SMEs lack knowledge on efficiency, are unaware of technical innovation and lack skills to assess such technology. Due to this low awareness, entrepreneurs do not see the need to upgrade and their business and administrative issues are often the lowest priority. As entrepreneurs show no interest in book-keeping classes, the project always packages these topics with training events that are attractive to entrepreneurs such as product innovation. With these strategies, SMEs will sign on and pay for attending the training.

In order to increase financial literacy, the SMART Cebu project has taken to a two-tier strategy. In the first stage, the project provided an overview on financial literacy including corporate governance and operational management to the members of the BMOs. In a second step, the project attends to the actual financial needs of the SMEs, which were identified in the project’s cleaner production audits. With individual coaching, the project aims to support companies with their business plans, their business projections, and applications to the banks. The project decided that providing detailed financial literacy input at the beginning of the project would be too abstract and only confuse the SME partners.

The Entrepreneurs Nurturing Programme – coaching by Biomass-SP

The Biomass-SP project offers support to SMEs in its flagship initiatives the Entrepreneurs Nurtur-
FIGURE 12: ACTIONS IDENTIFIED BY THE SWITCH-ASIA PROJECT SMART CEBU TO ADDRESS THE CHALLENGES THAT SMES HAVE WHEN ACCESSING FINANCE

<table>
<thead>
<tr>
<th>Obstacles identified</th>
<th>SMART Cebu actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEs are intimidated by banks.</td>
<td>SMART Cebu partner ADFIAP conducts meeting and workshop to prepare dialogue sessions with banks.</td>
</tr>
<tr>
<td>SMEs lack knowledge of financial solutions.</td>
<td>SMART Cebu partner ADFIAP conducted overview of financial literacy to the members of targeted business membership organization that are part of the projects.</td>
</tr>
<tr>
<td>SMEs do not know what technical upgrades are necessary and under- or overestimate investments.</td>
<td>SMART Cebu conducts CP audits and provides recommendation to increase environmental performance including the specification of necessary investments.</td>
</tr>
<tr>
<td>SMEs are confused with the different financial options on offer. Entrepreneurs tend to opt for zero interest solution offered by the local government even though these options funds equipment not required.</td>
<td>Based on the technical recommendation after the CP audits SMART Cebu partner ADFIAP provide coaching for each individual SMEs how to prepare a business plan, and a application to get a loan for the required technical upgrade.</td>
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Biomass-SP’s technical coaching at SME site

ing Programme (EUMBENP). The project selected 50 SMEs to receive complementary environmental and business coaching related to biomass supply and utilisation activities. The Nurturing Programme is one of the core elements of the project. The programme consists of a series of nine capacity building programmes (CBPs) on subjects relevant to biomass commercialisation e.g. grant application opportunities, CDM, carbon footprint and SCP, economic benchmarking of biomass and biomass products, EU green market access opportunities and pelleting/briquetting technologies and market opportunities. The CBPs have been running parallel with EUMBENP’s coaching activities.

As part of the Nurturing Programme, the Biomass-SP project conducts a capacity building programme for SMEs to expose them to financing avenues available for biomass commercialisation. From the effort of constant outreach exercise and awareness of project branding, Biomass-SP has captured the attention of CDM investors. The project Biomass-SP offers direct coaching to projects that seek to tap the CDM. In order to be eligible for certification, emissions reduction projects have to be registered in advance in the CDM Designated National Authority. One important factor in realising carbon value is the requirement of “additionality”, which implies that the project must demonstrate that it is additional to market activity that would have occurred anyway. For businesses and SMEs, CDM offers an alternative means of revenue for ‘green’ projects that includes biomass and renewable power generation, biogas, fuel-switching projects, palm oil mill effluent methane capturing, as well as bio-composting projects. The Biomass-SP project offers a coaching programme for SMEs who have business
ideas to exploit the local biomass resources. The coaching is provided at zero cost with expert consultancy services for the development of CDM projects from ‘project idea note’ stage up to ‘project design document’ stage. The Biomass-SP project can facilitate CDM project owners by matching them with the available CDM project investors, consultants and technology providers involved in co-financing or equity participation of green projects. This capacity building programme is running parallel with EUMBENP’s coaching activities.

3.4 STRATEGY 4: ADDRESSING BANKS – FROM AWARENESS TO TECHNICAL ASSISTANCE

Investors and financing institutions base their financing decision on the expectation that the investment will bring about regular incomes. Their evaluation of SME performance is done purely on the basis of economic risk. Often they have very limited knowledge or understanding of environmental risk and they lack the diagnostic tools to evaluate SME loan requests for resource efficiency and cleaner manufacturing projects. Financing institutions have great potential to improve their risk management systems and processes with regard to SME environmental projects.

BUILDING RELATIONS WITH THE FINANCIAL SECTOR

The Vietnamese financial sector consists of about a hundred banks – either state-owned, private or foreign bank branches. The sector is still underdeveloped in terms of its service offering to the population of Vietnam, as well as in terms of efficiency and management practices.

<table>
<thead>
<tr>
<th>Obstacles Identified</th>
<th>MEET-BIS actions</th>
</tr>
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<tr>
<td>Energy efficiency is beyond their normal business. If the ‘business as usual’ scenario offers profits and growth, there is little incentive for a bank to invest in something new. The market for financing EE projects perceived as small, it is not worthwhile for banks to develop a particular financial product. Market development requires an up-front investment, which the commercial banks were not willing to make.</td>
<td>Market research to build / explain the ‘business case’ to the bank.</td>
</tr>
<tr>
<td>Banks prefer to lend to state-owned/large enterprises, SME lending is not profitable because of high transaction costs</td>
<td>Explore possibilities of reducing transaction costs with a credit scoring tool, or by grouping transactions</td>
</tr>
<tr>
<td>Banks expressed their concern with the quality of energy efficient installations; how can the bank and the client be sure that the identified savings are realised?</td>
<td>Support development of the Banks’s network of energy audit companies who can provide a second opinion. Training bank staff on energy efficiency equipment and related quality standards. Explore possibility of energy service companies targeting the SME segment.</td>
</tr>
</tbody>
</table>
Difficulties in accessing finance for energy efficiency investments include lack of collateral and inadequate financial records. SME finance is often referred to as the ‘missing middle’ in the financial services markets in emerging economies.

There are several energy efficiency credit lines operational in Vietnam. Vietnamese financial institutions such as TechComBank, VietInBank and others have received capacity building support on energy efficiency finance and operate international energy efficiency credit lines extended by International Finance Cooperation (IFC), the Swiss Development Cooperation, and others. When MEET-BIS kicked off, energy efficiency credit lines in Vietnam were highly under-utilised. On the one hand, reasons for under-performance included unclear and/or very extensive application procedures, no performance incentive for the Vietnamese banks, and limited capacity in the private sector to deliver turnkey solutions. On the other hand, banks’ ability to adequately understand and appraise energy efficiency projects were very limited. Furthermore, banks prefer larger projects to the smaller energy efficiency projects (energy efficiency product finance) that SMEs work on.

The MEET-BIS project works towards building relations and potentially partnerships with these financial institutions and the local private sector supply energy efficiency equipment. The MEET-BIS experts contacted banks and exchanged information with them to explore how the project could contribute to building a pipeline of potential energy efficiency investment projects for the banks. As a second step, the project conducted a high-level workshop in partnership with IFC, where technology suppliers had the chance to meet with key partner financial institutions. During the workshop, Vietnamese technology suppliers and bank management discussed the barriers for SMEs to access finance and together looked for solutions to overcome the barriers.

The SCOPE project aims to develop a green financing scheme for medium-sized companies in the soybean processing industries in Indonesia. Project partner PUPUK (The Association for Advancement of Small Business) aims to develop criteria and credit conditions. The association envisions itself acting as a market facilitator bringing SMEs and bankers together in green financing workshops. The objective of the events are to raise awareness and give information about SME needs on green equipments and financing support and to build business linkage among producers, financial institution and equipment suppliers. The concept of the association does not foresee that the financial institution provides a lower interest rate. The association, however, expects that producers who want to purchase efficient or green technologies can get credits through the scheme more easily. The driver for the financial institution would be reputation as they can promote their product as green financing.

The Automotive SSCM project in Thailand envisions developing financial support programmes on SCP. With project associate SME Bank, the project focuses its work on the optimisation of existing financial packages rather than on development of new packages. This work includes a review of existing loan and en-
vironmental criteria. Additionally, the project is approaching private banks to seek their involvement in the project. This type of work with private banks will depend on their specific interest and needs, and it is envisioned to develop new financial packages or review existing packages. To get an overview of existing financial packages the project undertakes a detailed review of financial services offered by the SME Bank and private banks. This work had not been completed when the current study was written.

In India, the MSME Clusters project addresses banks by organising workshops. Later project experts follow up by one-to-one interaction. With individual dialogue the project aims to understand their demands. Understanding a bank’s perspective, the project can discuss with the SMEs how these demands can be addressed. As a last stage the project organises interactions of most interested SME units with banks and supports the negotiation process between the parties.

RAISING FI AWARENESS ON SCP

As Asia’s growing economies are putting pressure on natural resources, banks and other financial institutions should take the environmental performance of SMEs into account when they take investment decisions. To increase the understanding by financial institutions of SCP, several SWITCH-Asia projects conduct activities to increase awareness amongst the banks.

The SMART Cebu project consortium includes the Association of Development Financing Institutions in Asia and the Pacific (ADFIAP) which ADFIAP offers expertise on sustainable financing mechanisms. ADFIAP provides support to SMEs and advocates with banks to green their financial services and adapt them to the needs of SMEs. The Landbank of the Philippines and the Development Bank of the Philippines are members of ADFIAP. Through their membership in the association, the SMART Cebu project has already established contacts and relationships with the two banks. The project identifies these two banks as the entry point into the market of financial institution in the Philippines. According to the project, both banks as development banks have a leading role in the market of financial institution in the Philippines. The assumption is that once the development banks have adapted their services to green SMEs other banks will follow.

The project built up close relationships with the two banks. It creates awareness with the banks on SME difficulties ranging from financial statement to providing collateral. The outmost goal of this advocacy is to develop financial tools that are adapted to the needs’ of SMEs.

EXPLAINING THE BUSINESS CASE OF ENERGY EFFICIENCY/RESOURCE EFFICIENCY

Banks are used to dealing with risks as all bank lending decisions are usually exposed to some degree of risk. Banks face the challenge to price loans accordingly. As in every business, financial institutions also depend on the quality of the financial performance of their partners to achieve their goals. Thus explaining the business case for SCP is an important entry point to interest banks in financing green investments of SMEs. The SCI-Pak project in Pakistan develops training materials for banks to increase banks understanding of the benefits of energy efficiency/

FIGURE 14: THE STRUCTURE OF THE SWITCH-ASIA SCI-PAK PROJECT TRAINING TARGETING FINANCING INSTITUTIONS

- Adding value to their shareholders and increasing profits
- One alternative: Integral Systems for Environmental Management
- Recognition of sustainable-oriented SMEs as a business driver
- Increase of internal resource and energy efficiency
- Integration of environmental risks management instruments
- The business case for E&RE
- Access to finance (A2F) strategies and instruments
resource efficiency (EE/RE). The training packages seek to present the new business atmosphere for financial institutions and to introduce ‘integral system for environmental management’ as a strategy to rethink the business model in financial institutions. It points to banks to direct financial gains including cost savings, cost-consciousness among employees, lower future compliance costs and better business opportunities with sustainability-oriented clients. With the training materials SCI-Pak also highlights the benefits to be gained through reputation and image that come with using EE/RE. EE/RE attracts and retains customers and partners and attracts and retains good employees. Programmes promoting EE/RE gain better recognition in society and public in general.

**Learning by seeing – study tours on SCP**

*SMART Cebu* promotes the benefits of sustainable production practices among SMEs to banks. The two banks targeted by the project joined a study tour to Europe in order to understand how environmental performance improvements can be quantified into economic savings. Senior representatives of the project partners together with selected policy-makers and representatives of banks visited the Netherlands and Germany to familiarise themselves with how SCP is implemented in Europe. The consultation during the tour focused particularly on standards, green product design and innovations, latest developments in the area of cleaner production, and trade show trends.

To reach out to additional financial institutions, the *SMART Cebu* invited 28 participants from financing institutions including public and commercial banks and the Coalition of Socially Responsible SMEs in Asia (CSRSME) attended an executive briefing on SCP. Banks in the Philippines require their borrowers to submit an environmental compliance certificate to show that they comply with the current legal framework. Financial institutions are environmentally conscious. However, according to the project they lack understanding on how to effectively integrate SCP thinking into their daily processes. The project envisions that if sustainability thinking is integrated into both SME and bank operations, economic growth would in itself become more sustainable. During the *SMART Cebu* session, bankers showed keen interest in SCP and potential business opportunities. Participants also said that sustainable development issues like SCP, which balances economic, social and environmental dimensions provides banks and financial institutions the leverage to promote green principles and practices to existing and potential SME clients.

**Understanding green technology**

The project *Biomass-SP* conducted a briefing session for financial institutions (FIs) and development financial institutions (DFIs) on green technology. The project aimed to show that green technology may very well be the new driver for future economic growth. At the event, the project increased awareness of FIs and DFIs on the growing biomass industry in Malaysia and the increasing demand in the global market for biomass-based products. According to the project, the session was a stepping stone and a good way to disseminate the financial needs of SMEs and SME potential growth. It served as a platform for business opportunities to be made, knowledge and information be shared, and networks as well as friendships be formed. From the briefing session, the project concluded that it is important to educate not only the FIs and DFIs on what they can do to help the green businesses to grow, but also address the SMEs. SMEs need to know the risks involved when they venture into the biomass industry. The project realised that there should also be a two-way communication between the SMEs and the financiers so that both will have a mutual understanding on the issues and risks involved, which is later hoped to lead to a win-win agreement.
Additionally, the project reported that more capacity building programmes need to be conducted for FIs and DFIs to improve their technical knowledge for funding feasible green technology projects.

The Automotive SSCM project in Thailand trains loan officers of the project associate SME Bank. The loan officers gain knowledge on the interpretation and verification of the green credentials and technical aspects outlined in the business plans submitted by SMEs for acquiring loans, including assessment of returns on investments in green technologies.

Reducing transaction costs

The problem that SMEs in Vietnam have in accessing financing for energy efficiency investments seems to be similar to SMEs in many other countries. Difficulties like lack of collateral or inadequate financial records, the MEET-BIS project cannot tackle in the current project setup in a comprehensive manner. To still support individual SMEs the project is currently exploring the option for sales agents of technology suppliers to provide additional support to SMEs. Sales agents deal with SMEs on a regular basis, and could in principle 1) provide information on existing SME energy efficiency credit lines; 2) perform a first assessment of the creditworthiness of the firm, and the profitability of the energy efficiency investment; and 3) assist eligible SMEs in completing the loan application. Optimaliy, the technical supplier submits ‘batches’ of SMEs n for example, 10 completed loan applications of SMEs, and therewith make SME EE finance much more attractive to the bank. The project currently builds on partnerships between the technical suppliers and the banks, and arranges for sales agents to be trained in the credit application procedure by the local bank. However, sales staff is mostly technical experts with no background in business finance. Therefore, MEET-BIS is also developing a set of tools that helps the sales agents assess the costs and benefits of standardised SME energy efficiency products. This tool will allow technical sales staff to assess the creditworthiness of the firm and the investment flow to see whether a bank loan for energy efficiency will outweigh the credit costs (at 15% interest rate).

SHOWCASING INVESTMENT OPPORTUNITIES

Lack of investment is often a major factor responsible for slow growth amongst SMEs. This is also true for the bamboo sector in Sichuan, China. At present, only 10% of bamboo SMEs in Sichuan receive any form of investment, and investment in semi-processing SMEs is nonexistent. To inform investors and banks about the sector the project Sustainable Revival of Livelihoods in Post-disaster Sichuan: Enhancing Eco-friendly Pro-poor Bamboo Production Supply Chains to Support the Reconstruction Effort developed an investment plan for the Sichuan SME bamboo sector. With the investment plan, the project strives to provide information to potential investors about the opportunities and risks for bamboo investments in Sichuan. The investment overview gathered basic information about the possibilities of bamboo including existing bamboo product specifications. Moreover, the plan assesses the current domestic investment climate for the sector and identifies strengths, weaknesses, opportunities and threats. The plan was developed following consultation with local banks that helped to identify financing mechanisms which can be accessed by bamboo target SMEs. Meetings were held with representatives from the construction and furniture sectors from within and without the province in order to assess potential sector-driven investment. The investment plan highlights the factors that make Sichuan and the bamboo industry attractive for investments such as policy support including tax deductions and exemptions, legal restriction on timber favouring bamboo and available technical support. The investment plan was widely disseminated to relevant policy-makers, entrepreneurs of bamboo enterprises and investors, which provided a picture of current situation of Sichuan bamboo industry and provided useful information to investors for taking investment decisions.

Delivering showcases to highlight the business case of SCP to banks

The project Green Philippines Island of Sustainability (GPIoS) takes great care to document the success of the project’s intervention with company reports. The high-earning measures documented in their environmental reports serve as showcases for the benefits of cleaner production
as well as to explain to banks and investors the potential of efficiency possible by implementing sustainable production practices.

The show case series documents how companies participating in an ECO-SWITCH training have improved their environmental performance. Additionally, factsheets which contain the actual quantified environmental and economic savings are shared with the bank as shining showcases of the participating companies. This serves as a business case for recommendations provided by the project, with quantified results including the return of investment. Currently, the GPIoS project aims to build a series of shining showcases of the participating companies within the network of the Planters Bank – one of the banks attached to the project with a memorandum of understanding. As the bank is also one of the beneficiaries of the project’s cleaner production programme, bank managers receive an in-depth understanding on what the ECO-SWITCH approach is about.

3.5 STRATEGY 5: ENABLING INVESTMENT LINKAGES

To promote investments investors require more information about target SMEs. SWITCH-Asia projects take various steps to enable communication between SMEs and financiers.

CREATING DIALOGUE BETWEEN DEMAND AND SUPPLY

One strategy to reduce the mismatch between supply and demand is to create stronger relationships between financial institutions and SMEs through enabling dialogue. Various projects have taken measures to bring them together.

The Bamboo project produced a business directory. The directory aims at increasing contact between target SMEs and potential investors from industry, financial institutions and government. The directory is divided into sections on different bamboo industries, with a focus on the main industries targeted by the action (board, flooring, furniture, and construction), as well as larger semi-processing SMEs. The bilingual directory, in Chinese and English, collected information on contact details for SMEs along with their product range.

The SCI-Pak project in Pakistan brought banks and SMEs together to identify strategies to foster the communication and interaction between financial institutions and SMEs. SCI-Pak started their roundtable by highlighting the business benefits of energy and resource efficiency for SMEs and financial institutions as they are measures to reduce the consumption of energy and resources and minimise waste and greenhouse gas emissions. Efficiency measures at the same time strengthen the economic performance and competitiveness of SME’s through cost reductions. The participants decided that awareness campaigns for SMEs should be launched at the grass roots level to educate the masses regarding different financial instruments developed by the State Bank of Pakistan for the modernisation of SMEs.

The project organises seminars to bring together SME Bank, SMEs and potentially private banks to create synergies and learning. At the seminars, banks get an opportunity to present their green financial products and SMEs can present their needs and priorities. Such seminars facilitate discussions on how to create better linkages between supply and demand of green financial products in Thailand.

The SCI-Pak project cooperated with the State Bank of Pakistan (SBP) to identify strategies to foster the communication and interaction between SBP, financial institutions and SMEs in facilitating SME access to finance to undertake energy and resource efficient production. The cooperating partners organised a workshop, which invited high-level representatives of around 12 local banks and four directors of BMOs and the representative of the International Finance Corporation. Likewise, the event was useful in informing banks about the different financial
instruments developed by SBP for the modernisation of SMEs. Main topics of the meeting were: establishment of credit guarantee scheme for SMEs and concessory refinancing scheme for modernization of SMEs, revision of regulatory framework for SME financing, conducting SME cluster surveys and financial awareness programmes for SMEs.

CREATING JOINT PLATFORMS VIA STUDY TOURS

Study tours increase the awareness of participants on SCP, as shown earlier. But study tours also enable investors to examine SME performance at an operational level and to inform investors whether to incorporate target SMEs into their own investment portfolios. By visiting companies, investors can experience an SME’s management capacity and potential for innovation. Next to business records, such visits add another layer of information for investors to assess their risk and make decisions on conditions for investments.

The Bamboo project in Sichuan invited over 40 investors, purchasers, entrepreneurs and bankers to an investor tour to Sichuan Province. The study tour is one part of the action aiming to improve the investment climate for lenders. With the study tour, the project increased the visibility of the sector and thereby improved investment conditions. The tour offered seven bamboo company visits, eight theme workshops, a seminar on investment, and matchmaking activities between the participants and local bamboo-companies. Project experts and potential investors got the chance to meet the Sichuan Forestry Department and local government officers.

During the tour participants gained a better knowledge of successful investment policies implemented to develop the counties’ bamboo sectors, supply chain management in the bamboo sector and monitoring of environmental standards. The tour provided a platform for external communication for the Sichuan bamboo industry and drew more attention to industry. The effort was a success: study tour participants reached a range of agreements of intent with Sichuan bamboo companies.

The domestic and international investors who joined the study tour built active connections with local bamboo enterprises. The project partner EU Project Incubation Centre (EUPIC) regularly collects feedback from investors (from the investment tour and others like investment plan receivers). Through activities like customer awareness raising events, potential investors and buyers got to know the Sichuan bamboo industry and reached the factories.

The Bamboo project aims to contribute to environmentally sustainable, pro-poor economic growth in post-disaster Sichuan province, China. The specific objective is to increase livelihood opportunities through environmentally sustainable production of bamboo re-building materials in Sichuan, especially in earthquake-affected areas.
BUSINESS MATCHMAKING

For investors, identifying healthy investment opportunities can be a challenging process. The process of matching investors with SMEs is one of the main features of matchmaking events as organised by various SWITCH-Asia projects.

The Bamboo project in Sichuan seeks to improve access to capital for processors, information dissemination on potential private and government lenders. As one of their activities the project partners provide matchmaking opportunities. The matchmaking meetings are done at the EU-China Fair. The EU Project Incubation Centre in Chengdu sends the profiles of the Chinese companies to the European companies about half a year before the fair. The forms of interested companies received are fed into a matchmaking software and timetables for matchmaking meetings are formed. Matchmaking between investors and Sichuan bamboo entrepreneurs so far did not create an immediate investment case. But suppliers and buyers, investors and bamboo entrepreneurs have built long-term dialogue mechanisms. Whenever the time is opportune, the cooperation can be initiated through the feedback from the investors.

The Biomass-SP project also uses match-making events to connect SMEs with investors, financial institutions or other business partners in the supply chain. A prominent example is a session at the EU-Asia Biomass Best Practices and Business Partnering Conference 2012 organised by the project. The business matchmaking session at the conference aims to establish business and technology partnerships by arranging one-to-one business meetings between participating biomass companies from the EU and Asia regions to formalise long-term business partnerships such as collaboration in public procurement, venture capital investment, R&D joint venture, management contracts, technical assistance, technology licensing, biomass trading, manufacturing investment and contract manufacturing within the key priority areas of the conference. The business matchmaking is open to 500 participants, over 20 industries from Malaysia, and across Asia and Europe. A complimentary softcopy of the Business Collaboration Profiles Catalogue is available on request. This catalogue is circulated to various target groups via the network of the supporting organisations across Europe and Asia. The first edi-
tion contains 60 profiles of Malaysian biomass companies and it is being updated progressively with further registration coming in (see Figure 15, below).

Matchmaking between SMEs and investors is also part of the SMART Cebu project. The project is aimed at increasing the competitiveness and productivity of Cebu SMEs. SMART Cebu organised a Green Finance Forum. The goal of the forum was to inform SMEs of the lending facilities of both Bank of the Philippines (DBP) and Land Bank of the Philippines (Land Bank) for cleaner production, energy efficiency, renewable energy and other environmental loans. The forum offered the option for one-on-one (bank-to-SME) meetings on the specific financing needs as well as the loan terms and requirements. Over 30 participants attended the forum. However, the project recognised that there were still many obstacles to good communication. SMEs were intimidated by banks demands, and banks did not understand the intricacies of SMEs lending. The project therefore adapted its strategy (see Figure 16, below). Before matchmaking between banks and SMEs takes place, both parties need to increase their understanding of each other roles and needs. The banks need to realise the business case of SCP and to understand how SMEs operate and how banks can support them. SMEs need to identify their investment needs and prepare business plans and projections. Only when they reach this point, does it makes sense to meet a bank and request finance.

The objective of this two-step strategy is to foster understanding of their respective roles and responsibilities.

**FORMING INSTITUTIONAL PARTNERSHIPS WITH FINANCIAL INSTITUTIONS, BANKS AND INVESTORS**

**Partnerships with banks and investors**

The project Green Philippines Islands of Sustainability (GPIoS) signed a partnership agreement with Plantersbank. This partnership bridges the gap of the lack of SMEs to approach financial institutions and effectively access resources. GPIoS will serve as a tool to increase profitability while being environmentally friendly, making SMEs more bankable. GPIoS and Plantersbank share a common goal of promoting sustainable development. When Plantersbank identifies companies with whom they would like to establish a financial agreement, the loan officers recommend these companies to participate in ECO-SWITCH, as part of the final deal. The bank has an interest in making sure that their customers are doing their best to develop a sustainable business. The collaboration between GPIoS and Plantersbank includes promoting awareness and compliance of Filipino entrepreneurs on local and national legislation and policies involving sustainable production and consumption. It involves heightened use of technology-based assessment and environmental trainings for participating SMEs. Plantersbank with the GPIoS project will attract more pro-environmental investors and transactions and a well-founded public-private partnership.

**Financial players as project partners**

Projects can already make the link to financial institutions already during the project design.
stage. Banks can, for example, be involved as associate partners in SWITCH-Asia projects. The SMART Cebu project linked the financial sector to the project by involving ADFIAP in the project consortium. ADFIAP, the Association of Development Financing Institutions in Asia and the Pacific in Manila functions in the project as the focal point of all development banks and other financial institutions engaged in the financing of development in the Asia-Pacific region. ADFIAP is active in the ‘greening’ of the financial sector and is a good advocate for organising financial support to the Cebu Home and Lifestyle sector.

The project partners ADFIAP and ECCP signed a memorandum of understanding with the Development Bank of the Philippines with the primary intent to support the SMART Cebu SMEs with a green financing programme responsive to their investment requirements.

The project Automotive SSCM includes the SME Bank as an associate partner. The project scope includes the issue of access to finance in a work package that aims to harmonise and implement specific financial support packages. The project envisions developing financial products targeting SMEs in the automotive sector for SMEs that want to invest in the environmental friendly production. The project partner SME Bank will involve as the main coordinator in analysing existing loans, defining qualified SME to loans offered, developing new financial products and offering special financial package, for example, low interest rates.

**MSME Clusters**

The MSME Clusters project targeting the foundry sector in India has the Small Industries Development Bank of India (SIDBI) as a project associate. The SIDBI’s role in the project includes assistance in the development of new financial products and the creation of awareness about them. SIDBI brings in its extensive domain knowledge on Indian MSMEs. The project envisions a triple-bottom-line credit requirements assessment by the financial institutions involved. The project aims to establish a regular interaction of SIDBI branch level credit officers with the MSMEs in the targeted clusters and their representatives through the BMOs. The BMOs will help SIDBI modify its existing credit instruments and develop new lines. To strengthen the credit delivery channels, the project seeks to capacitate BMOs to provide their independent assurance about credit seeking enterprises through an independent appraisal and by providing internal peer intelligence about the credit worthiness of MSMEs.

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**FIGURE 16: SMART CEBU STRATEGY FOR MATCH-MAKING**

![Figure 16: SMART CEBU STRATEGY FOR MATCH-MAKING](image-url)
The project Scaling up Sustainable Development of MSME Clusters seeks to address the energy, environment and social issues and ensure sustainability across foundry clusters in India. The project aims to introduce improved technologies, scale-up the capacity of BMOs, facilitate aggregate sustainability reporting and enhance MSMEs access to credit through improved financial linkages.

Linking to financial institutions
The project Waste to Energy for the Rice Milling Sector in Cambodia links the rice mills with investment capital and will allow for the installation of high quality technology in their mills, thereby increasing their operational capacity and higher performance. In order to enable access to finance, the project has two banks, the ANZ Royal and ACLEDA, as project associates both of which have indicated that they are positive towards the use of the standard in the approval process of a loan. Local branch credit officers of both these banks will be involved in supporting the interested rice millers to make loan applications following their bank procedures. Project and bank both aim to work on credit modalities for investment in waste to energy (WtE) technologies. The project advocates that a future WtE standard should be a part of the loan conditions.

Engaging in public private partnerships
Public private partnerships are a funding option that can be utilised in times of economic uncertainty and in periods of prosperity. In India, for example, the Government launched the Scheme for Integrated Textile Parks (SITP). The scheme aims to create new textile parks of international standard at potential growth centres by engaging a panel of professional agencies for project identification and execution. The SITP targets industrial clusters and locations with high growth potential that require strategic interventions to improve their competitiveness. Project costs cover common infrastructure and buildings for production and other support activities. The Sustainable Textiles for Sustainable Development (SusTex) made use of an SITP. Under the project, a model eco-friendly textile park is being established which will set an example to the other approved textile parks across India. A public private partnership between the Government of India and textile manufacturers organised in the Jaipur Integrated Texcraft Park Private Ltd (JIPPTL) provides funding for the infrastructure. The SusTex project provides research, knowledge and capacity to entrepreneurs and workers. The public private partnership ensures the acceptance of the eco-park model. A key project strength is the buy-in of the JIPPTL members.
CONCLUSIONS

Activities implemented by SWITCH-Asia projects range from addressing the legal framework for access to finance, to addressing banks or SMEs respectively. The majority of projects reviewed for the study disseminate financial solutions – from green government funds, to bank loans, venture capital, to funds available under the Clean Development Mechanism. Some projects add individual coaching for SMEs to their awareness activities. In most cases, they informed banks on the business case of SCP and energy efficiency. In all cases, it has shown that building relationships with financial institutions is crucial to be able to draw the attention of bank credit officers. Even though projects did have the opportunities to build bankers’ capacity on the benefits of green technologies, none of the projects address the topic of risk assessment and criteria of credit evaluation.

Out of the projects reviewed for this study, the majority target banks. Engagement with other possible sources of finance such as local (government) funds, business angels, venture capital funds and value chain financing solutions are currently underutilised.

Most projects are raising awareness on SCP and/or SME lending with banks. Credit officers at the banks also require SCP awareness and capacity building on environmental advisory and green financing and the attendant risks and solution additional to the observed approach among some SWITCH-Asia projects of explaining the business case of resource and energy efficiency.

All projects addressing access to finance matters envision creating financial tools in one way or the other. However, the projects also mention that this has been a gigantic task requiring time and has had the initial requirement of awareness raising on the business case of sustainable production financing for SMEs. This finding points to the fact that banks need further technical assistance in the field of environmental risk assessment, understanding of sustainability in SMEs, etc. None of the financial institutions targeted by the project reviewed for this study actually offers a financial solution that is driven and shaped by the needs of SMEs.

Activities addressing SMEs vary according to the capacity and size of SMEs targeted by the projects. Individual coaching is often necessary. However, case-by-case training does not enhance scaling-up of SCP. A success factor in many project activities was that they took a catalytic role and acted as an intermediary. Many projects provided the linkage or bridge between the entrepreneurs and the financial institutions as, for example, demonstrated in the ‘finance plus model’.

Financial Institutions are mostly target driven such that they would rather cater to projects of large corporations which have complete financial information, hence, are easier to evaluate and package and less risky compared to SMEs. To place SME lending on equal footing, SWITCH-Asia projects could advocate with financial institutions to bridge the financing gap by setting separate SME volume targets. To pursue the attainment of said targets, it would be best for financial institutions to set up a dedicated SME unit focused solely on SME advisory and financing.

While finance is an essential problem for small and micro enterprises, it is often not the only challenge. Lack of finance in general comes in combination with other issues, e.g. technology and finance, marketing and finance, infrastructure and finance, etc. Hence to address access to finance SME need support in a “finance
plus model”. The effort of promoting SCP will only be fruitful if there is technical assistance and a financing component because switching from business as usual to cleaner production requires substantial financial resources that normally SMEs cannot support with internally generated funds. The SWITCH-Asia programme has recognised the need for dual effort. With its 5th call and its push for access to finance activities in projects the programme addresses the stated need.

4.1 OPPORTUNITIES

The challenge of getting access to finance for greening SME operations might be due to both demand- and supply-side factors. SWITCH-Asia projects reviewed for the study have shown that these issues can be addressed as part of the on-going SWITCH-Asia programme. However, large opportunities remain untapped. The following section points at the opportunities that SWITCH-Asia can still address on the demand and supply sides.

SUPPLY SIDE

Scaling-up green credit lines and bank loans
Credit financing solutions with a consideration of environmental, social and governance criteria along traditional financial metrics are still small in size. Even development financing institutions (DFIs) that have a mandate to provide finance to the private sector for investments that promote development have not yet strategically mainstreamed sustainability issues into their operations. There is still a lot of potential for integrating sustainability issues into the banking operations from procurement to credit risk assessment. Many DFIs have clean energy infrastructure financing schemes. But these funds are often for large and medium-sized green technology infrastructure projects (e.g. renewables, waste, water supply and sanitation). There is still a lot of potential for greening DFIs’ funds targeted at SMEs in manufacturing and service sectors. These could be targeted more at short-term working capital needs, equipment and machinery finance in the middle-term, and upgrading facilities in the long-term.

Enhance FI capacity on SCP
In order to diversify financial products and enhance the effectiveness of the distribution channels, capacity building among financing institutions on green technologies and sustainable production approaches remains essential.

Improve transparency
Availability of information is key for credit financing. Hence, capacity building efforts targeted at financing institutions could include greater reliance on credit information systems, and SME risk scoring and competitiveness benchmarking.

Diversify deliver channels
To provide financial services, banks and financial institutions have to incur high costs for trained staff, buildings and maintaining branch networks. Alternative delivery channels can decrease these costs and present a balance between personalised services and emerging transactional services. Answers to this challenge include mobile banking and even more delivery and dissemination channels via sales agents or BMOs.

View financial product as a leverage point for SCP
DFIs have also a coaching role for industries (often SMEs) and retail banks (distributing funds) as they run technical assistance programmes to enhance the effectiveness of their financial products. In this way, these technical assistance programmes are ideal mediums to set-up capacity building programmes on sustainable production.

Bringing impact investing to light
In the SWITCH-Asia programme, the above-mentioned credit financing solutions targeting companies that like to adapt green technologies are, up to now, the most frequently observed category of solutions. But what about other financing instruments could be relevant for greening SMEs? Other categories (see Figure 17) especially impact investment pillar deserve attention as it offers excellent opportunities for scaling-up SCP. Impact investing solutions concentrate on companies, whose primary goal is delivering social and environmental goods, whilst also delivering competitive market re-
Impact investments aim to generate reasonable financial returns while solving social and environmental problems. These solutions have been the result of gradual merging to the middle from purely socially driven activities as well as from purely profit-driven investments. This type of financing could potentially respond to the financing needs of SMEs from USD 500,000 to USD 3 million, which is called the ‘missing middle’.

Impact investment has become a recognisable area in development in the Asia-Pacific region. Business angels, social venture capital funds, some foundations and specialised impact investment funds are part of this growing market. Avantage Ventures (2011) estimate an investment opportunity of between $52 billion and $158 billion within the Asia-Pacific region. Monitor Institute (2009) suggests a range of actions to accelerate impact investing including: set industry standards for social and environmental impact measurement (metrics); develop impact investment networks; create industry defining funds that can serve as beacons for how to address social and environmental issues; launch and grow dedicated impact investment banking capabilities; lobby for specific policy/regulatory change.

FIGURE 17: CATEGORIES OF FINANCING SOLUTIONS FOR SMES: PHILANTHROPY SERVICES, IMPACT INVESTMENT AND SUSTAINABILITY INVESTMENT (Adapted from Credit Suisse, 2012)
So far, private equity impact investors are not effectively spotted by the SWITCH-Asia projects (except a few such as Bamboo in China and Biomass-SP in Malaysia) despite their potential to invest in set-up of green equipment by SMEs, sustainable design processes within companies and integrating social enterprises into global supply chains. BMOs and chambers of commerce having an intermediary position and service provider role could deliberately target impact investors and draw their attention to the sustainable production efforts of SMEs and their financing needs. Indeed, identification and evaluation of target enterprises is one of the identified challenges for the growth of impact investing (see Figure). In addition, impact investors might not always be aware of the SCP tools and instruments, so there is still awareness-raising to be done on the environmental and social improvements and financial value SMEs could create by utilizing them. Set-up and coordination of common language platforms would be needed as well.

Solutions on the charity end of the financing spectrum could also be relevant for scaling-up the activities of small enterprises in Asia. Besides grants and sponsorships, other innovation solutions such as crowd funding are approaching this end. Crowd funding also includes communication about the product (Start Green Ventures, 2012). Small, family businesses in the handicraft sectors in particular could benefit from financial solutions at this end of the spectrum.

**DEMAND SIDE**

**Improve understanding of transparency and accuracy among SMEs**

In the last decade financial literacy has assumed greater importance due to the increasing complexity of financial markets. Financial transparency and accuracy plays a vital role in the efficient allocation of an SME’s profits and the ability of the individual entrepreneur to meet their financial goals in relation to their business development plans.

**Improve understanding of the benefits of SCP and resource efficiency**

Improvement in SME understanding behind resource efficiency opportunities and their outreach to information on available funds still remains to be both a big challenge and a great opportunity (KfW, 2012a). Initial advice on reducing information deficits about resource-saving options and detailed consulting on resource-saving measures and investment options are essential for empowering the demand side. These services are often included as technical assistance or consulting components in special funds for SMEs (see Figure 19) (KfW, 2012a).

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### FIGURE 18: CHALLENGES FACED BY IMPACT INVESTORS IN THE INVESTMENT PHASE
(Source: Avantage Ventures, 2011)

<table>
<thead>
<tr>
<th>CAPITAL FUNDRAISING</th>
<th>INVESTMENT DEAL SOURCING</th>
<th>POST-INVESTMENT PORTFOLIO MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Weak Social Infrastructure</strong></td>
<td><strong>Difficulty Identifying and Evaluating Target Enterprises</strong></td>
<td><strong>Challenges in Managing Portfolio Management</strong></td>
</tr>
<tr>
<td>• Lack of social engagement</td>
<td>• Unclear understanding of “social enterprises”</td>
<td>• Difficulty in benchmarking social and environmental impact</td>
</tr>
<tr>
<td>• Weak government support</td>
<td>• Lack of data</td>
<td>• Weaker management capabilities and talent</td>
</tr>
<tr>
<td>• Fragmentation of players</td>
<td>• Language barriers</td>
<td></td>
</tr>
<tr>
<td>• Disconnect between social enterprises and investors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Diversify dissemination channels to reach SMEs

Service providers could play a critical role in the development and management of technical assistance and consulting components of SME funds. Business membership organisations could be partner with these funds and help to develop trainings, tutorials and glossaries that could help their members to grasp savings potentials, new technologies, investment options and most importantly financial terminology.

At the micro level, working on the opportunities behind supply and demand side of financing is essential but it is not sufficient. Utilisation or creation of supporting macro-level conditions is also needed.

Engage policy-makers to optimise access to green finance

Having supporting policy goals and environment programmes in place indisputably contributes to effective use of green funds for SMEs (KfW, 2012b). For example, DFIs including development banks and local development agencies need to develop innovative financing solutions in response to the development goals set at the national and regional level. If these development plans (National Action Plans, Poverty Reduction Strategy Papers, etc.) do make reference to goals for financing of clean technologies and/or enabling green SME financing, the development banks would design and implement relevant financing products to serve these goals. The SWITCH-Asia programme can play a role especially through the Policy Support Component paying attention to this link.

A package of resource efficiency enhancing policy instruments (regulatory, informational, voluntary, etc.) can also provide an excellent framework for the effective functioning of SME funds. For example, if standards on best available technology are in place, the technical assistance components could easily make references to those.
FURTHER READING AND REFERENCES


KfW (2012b). ‘Finanzielle Zusammenarbeit zur Förderung von Effizienztechnologien in Entwicklungsländern’ presented by Felicitas Birckenbach at the Workshop ‘Ressourceneffizienz in der Wirtschaft – Aktuelle und künftige Rolle der EZ’


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