



Facilitating the green transition for ASEAN SMEs

A toolkit for policymakers



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Foreword

There is growing global recognition that efforts to recover from the economic impacts of the COVID-19 pandemic must also contribute to lowering emissions and improving the environmental performance of the economy. This is true in the ASEAN region, where the ASEAN Comprehensive Recovery Framework (ACRF) includes the transition towards a green and circular economy. The greening of small and medium enterprises (SMEs) is an essential component of the green recovery. SMEs constitute the majority of businesses throughout the world, and they face unique challenges in adopting greener practices. Some of these challenges are those that SMEs face more broadly – access to finance, regulatory barriers, and information deficits. There are also additional barriers to SMEs looking to go green, not least in understanding what techniques and technologies are most appropriate in a given situation, what are the optimal ways to access them, and how to make sure that they enhance economic competitiveness.

As the economies in the Association of Southeast Asia Nations (ASEAN) continue to grow and develop, SMEs remain a primary driver of economic growth. Ensuring that growth is green, and that SMEs are part of that growth, will help make economies more competitive internationally, enhance access to export markets and to international value chains, and improve business competitiveness and quality of life.

This toolkit provides governments with policy guidance across three areas – regulatory tools, financial tools, and information tools – to help SMEs in the ASEAN Member States enhance their environmental performance and economic competitiveness. In each of these three areas, approaches are highlighted that focus on supporting cost-effective measures that enhance competitiveness. Chapter 3 of this report also provides a series of quick and digestible messages about the benefits of greener practices for both SMEs and for policy makers, and their respective roles in this process.

This toolkit aims to distil the lessons learned through the OECD's work on greening SMEs in other regions, notably the six countries of the Eastern Partnership region, while drawing upon the experiences of other OECD member states and ongoing actions taking place in ASEAN Member States.

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Executive Summary

SMEs make up the vast majority (97-99%) of firms in ASEAN Member States and provide the majority of employment. They are essential drivers of economic growth. This makes the greening of SMEs critical to the region's pursuit of sustainable development. However, greening smaller firms can be difficult. Most SMEs focus their efforts on survival – i.e., short-term profitability, ensuring their day-to-day operations, maintaining revenue and paying salaries. This is especially true of small and micro enterprises, which tend to operate on relatively short time horizons.

Improving environmental performance may seem like an additional cost of doing business for SMEs. They rarely have (or can afford) dedicated staff to work on environmental performance, including understanding sometimes complex environmental requirements. However, experience from around the world demonstrates that adopting greener practices can have real benefits for SMEs, including increasing profitability and lowering the operating costs, increasing competitiveness and resilience, and opening access to new markets and sources of finance.

Beyond the economic and environmental benefits of greener practices for conventional SMEs, the green economy presents entirely new opportunities for SMEs to become leaders in fields such as renewable energy installation, green service provision, and green consulting. Firm size cuts both ways for SMEs trying to adopt greener practices. Although small firms have fewer resources to adopt green measures, they often have greater flexibility than larger firms and can sometimes adopt new technologies more quickly.

What motivates SMEs and their owners is likely to be very different from what motivates large corporations. Despite their heterogeneity, SMEs have many common characteristics that influence their approach to environmental issues and the implementation of green practices, both in achieving and going beyond compliance. Understanding these characteristics can help shape policy approaches to SME greening (OECD, 2018^[1]):

- SMEs often lack information about the costs and benefits of relevant green practices and may have limited capacity to understand environmental requirements, as well as a low awareness of the need to address their environmental impacts.
- SMEs may have limited capacity to implement the changes required to improve environmental performance and uncertainty about both the most appropriate technologies and the ways they can incorporate green practices into core business planning.
- SMEs often operate on shorter time-scales. Generally, environmental technologies encompass higher costs in the short term with the benefits realised in the longer term.

Access to finance is also a key limitation. The most common environmental issues for SMEs, such as resource and energy savings, are only addressed if actions are likely to result in a substantial cost reduction in the short term.

Financial tools:

Governments can improve the business case for greener practices using financial tools. This includes supporting SMEs' access to green finance, supporting the development of green markets through green public procurement and encouraging green corporate value chains, and introducing tax and duty privileges on investments in more sustainable equipment, among other things. Many SMEs are willing to invest in more energy-efficient and environmentally friendly processes, but they require reliable partners in financing their investments. Banks unfamiliar with small-scale green investments may be reluctant to fund such investments and lack the specialised staff needed to evaluate SME projects.

This section looks at strategies including grants, low-interest loans and tax incentives for businesses willing to go beyond compliance and invest in greener technologies; encouraging involvement in the supply chains of larger firms with sustainability requirements, and creating markets through green public procurement.

Information tools:

The public sector has an important role to play in co-ordinating and conveying information to SMEs. This section looks at how information tools, including both strategies that governments use to communicate with SMEs and signals to inform the market and improve the business case for companies to adopt green practices, are a vital component for supporting the greening of SMEs. It includes guidance on different communications approaches, from advising individual businesses directly to disseminating guidance on environmental compliance and good practices to a wide audience. The benefits of different communication mediums are discussed, as is the introduction of sector-specific certifications and eco-labels, as well as other environmental recognition awards.

Regulatory tools:

Environmental regulation tends to focus on larger firms. Although relatively smaller firm size means that firm-level environmental impacts tends to be much less than larger companies, their per-unit environmental impact may be higher than larger enterprises and many firms together may be significant in aggregate. Where environmental regulations do exist for SMEs, compliance can be difficult, because of a lack of resources and awareness (Brammer, Hojmosse and Marchant, 2011^[2]).

Environmental regulatory tools should be approached from a perspective of helping SMEs adopt greener practices rather than punishing non-compliant activities. Regulatory regimes need to be reformulated to address the specific characteristics of SMEs, and to provide incentives for enterprises to go beyond compliance. This section looks at a number of strategies, including simplification of regulatory requirements for SMEs through standardised permits or general binding rules as well as other better regulation initiatives; offering regulatory incentives for the establishment of environmental management systems; and moving towards sector-specific strategies for compliance assurance.

1 Greening SMEs: a challenge and an opportunity for the ASEAN region

Small and Medium Enterprises (SMEs) make up the vast majority of firms in the Association of Southeast Asian Nations (ASEAN) Member States (97-99%) and provide the majority of employment (OECD/ERIA, 2018^[3]). They are also responsible for a significant portion of industrial pollution, not least because they are less heavily regulated than large enterprises. Although there is no comparable data for ASEAN Member States, in the EU, SMEs generate an estimated 64% of industrial pollution (Constantinos, 2010^[4]). The environmental performance of SMEs will thus be critical to putting ASEAN economies (and most others around the world) onto a more sustainable development path.

Supporting measures to increase resource efficiency and reduce the environmental impact of SMEs can improve SME competitiveness by lowering their operating costs and giving them access to new markets, while also increasing resilience. With ASEAN Members aiming to enhance economic growth while ensuring the sustainability of their power systems and ecosystem services, now is the time to adopt measures to support SME greening. This is particularly important in the difficult economic times the world is facing, with the impact of the COVID-19 virus requiring strong government support for industry. ASEAN has developed the ASEAN Comprehensive Recovery Framework (ACRF) which serves as the consolidated exit strategy from the COVID-19 crisis. The approaches in this toolkit can support measures to promote transition towards a green and circular economy, an initiative of the ACRF implementation plan under the broad strategy on advancing towards a more sustainable and resilient future.

Through a variety of policy tools, governments can support SMEs' adoption of greener practices in ways that ensure the green transition is seen as a business opportunity rather than just a compliance cost. Governments have a vital role in creating the conditions to support the uptake of green practices by SMEs.

This document, targeted specifically at the ASEAN region and building on previous OECD research, provides practical guidance on the wide variety of policy tools that governments can employ to make the business case for SMEs to adopt green practices. The aim of this toolkit is to better equip governments with information on the benefits of greening for SMEs, as well as the knowledge and tools to support SME greening. The expected outcomes are to have more governments include green enterprise targets in regional and national action plans, and take actions to encourage SMEs to improve environmental performance. Ultimately, going green makes business, as well as environmental and ethical, sense.

Where does the situation currently stand in ASEAN Member States?

Across ASEAN Member States (AMS), environmental concerns and support for green economic growth are increasingly included in national and sub-national planning documents (OECD/ERIA, 2018^[3]). While this indicates significant interest in developing more environmentally sustainable economies, the level of detail and the extent of implementation differ from country to country. In some ASEAN Members, the inclusion of environmental concerns in planning documents is vague and does not provide direction for

action, while in others the focus is on addressing climate change in particular rather than the broader sustainability, health and economic benefits of green growth. In others, green growth is targeted, but through a narrow lens aimed at specific sectors. Across all AMS, environmental enforcement efforts are targeted chiefly towards large enterprises (OECD/ERIA, 2018^[3]).

The ASEAN SME Policy Index 2018 found significant variance across countries in support for green SMEs, and AMS were classified according to early stage, middle stage, and advanced stage based on their progress. Early Stage AMS included Brunei Darussalam, Cambodia, Lao PDR, and Myanmar. Mid Stage included Indonesia, the Philippines, Thailand, and Viet Nam. Advanced Stage included Malaysia and Singapore. The recommendations based on the differences in implementation levels are summarised in Table 1.1.

Table 1.1. Policy recommendations to boost the greening of SMEs

Level of policy	Challenges	Policy recommendations
Early stage <i>Cambodia, Myanmar, Brunei Darussalam and Lao PDR</i>	Disconnect between the agencies supporting SMEs and those supporting greener practices	Develop national policies that specifically support the greening of SMEs, as opposed to industry broadly, and that have clear action plans and timelines.
	Lack of awareness about the advantages of greening and mechanisms available	Establish one-window agencies that support SMEs in becoming greener with advice and signposting to available resources.
Mid stage <i>Indonesia, Philippines, Viet Nam and Thailand</i>	Lack of awareness about the advantages of greening and mechanisms available	Develop communication strategies and information tools to reach out to SMEs and help them understand the business case for adopting more energy and resource-efficient practices.
	Monitoring mechanisms are generally already developed, but further evaluation mechanisms are still lacking	Strengthen monitoring and evaluation of the implementation of incentives and support schemes targeting SMEs in order to track their effectiveness and improve them.
Advanced stage <i>Malaysia and Singapore</i>	SMEs might be disadvantaged compared to larger companies in having access to available incentives	Establish environmental regulatory regimes that differentiate between SMEs and larger enterprises, and that take account of the risk level of the activity being pursued, with regulatory incentives for going beyond compliance and with assistance for SMEs to accomplish this.
	Potentially disconnect between the programmes supporting SMEs and those supporting greener practices	Mainstream strategies to support SME greening within the overall approach to supporting SMEs, including technical assistance, access to finance, regulatory incentives and market access.

Source: (OECD/ERIA, 2018^[3])

The green transition for SMEs: challenges and opportunities

Green SMEs can be divided into two categories: “green innovators”, which are developing new products, technologies and approaches that can have transformational impacts; and “green performers”, which are conventional SMEs that take steps to make their operations more resource efficient and environmentally friendly in order to enhance their competitiveness (McDaniels and Robins, 2017^[5]).

Green innovators play an important role in the broader transition to greener economies. SMEs that focus on green manufacturing and environmental services sectors, such as design and construction firms, agricultural companies, and energy solution providers, contribute to eco-innovation across a broad range of industries. New and young firms are particularly important for radical green innovations, as they often exploit technological or commercial opportunities which have been neglected by more established companies or even challenge the business models of existing firms.

For the majority of conventional SMEs, which are not associated with the green economy, there is a range of drivers beyond regulatory compliance to support the adoption of greener practices. Over the past decade, there has been increased research into what exactly those drivers are. For instance, principal drivers for SMEs to go green in Malaysia include the following (Moorthy et al., 2012^[6]):

- Economic benefits are the overarching drivers for businesses and include efficient use of resources and inputs, more efficient production techniques, and improved standing with stakeholders.
- Financial incentives include access to green finance, green soft loans, and exemptions from import duties and taxes on investments related to adoption of green practices.
- Stakeholder demand includes both internal stakeholders, such as the owners and employees, as well as external stakeholders, such as individual customers and government procurement agencies.
- Legislation and regulation can encourage the adoption of green practices, and facilitate capacity building.
- Resources and knowledge include the time and money to implement practices, and the understanding and awareness of potential benefits.

In Europe, researchers delved into the EuroBarometer data and found encouraging results. Some 97% of SMEs surveyed complied with environmental regulations, and 22% of firms went beyond regulatory requirements, while 27% percent were considering doing so in the future. Of the firms that were going beyond environmental requirements already, more than half stated it was because environmental concerns were among the firm's priority objectives. The same study also found something important – firms that went beyond environmental requirements actually had a larger increase in sales than those who did not (Sáez-Martínez, Díaz-García and González-Moreno, 2016^[7]).

Because governments in ASEAN are already deploying strategies to support SME development and productivity, mainstreaming support for greening can be a cost-effective means to enhance competitiveness and lower environmental impact. However, the willingness and ability of SMEs to adopt sustainable practices and seize green business opportunities generally are affected by size-related resource constraints, skill deficits and knowledge limitations. SMEs are often unaware of financially attractive opportunities for environmental improvement. There is a widespread misperception that protecting the environment is associated with technical complexity, burdens and costs (Walker and Redmond, 2014^[8]) (OECD, 2018^[11]).

Even when a firm is aware of the positive relationship between environmental performance and firm competitiveness, a lack of appropriate skills and expertise may prevent the adoption of better practices and technologies (Pinget, Bocquet and Mothe, 2015^[9]). Perhaps more fundamentally, limited financial resources (relative to larger firms) often make SMEs risk-averse and when it comes to investing in new technologies, partly because of the uncertainty about the payback period (OECD, 2018^[11]).

What motivates SMEs and their owners is likely to be very different from what motivates large corporations. Despite their heterogeneity, SMEs have certain common characteristics that influence their approach to environmental issues and green practices, both in achieving and going beyond compliance. Understanding these characteristics can help shape policy approaches to SME greening (OECD, 2018^[11]):

- SMEs often lack information about the costs and benefits of relevant green practices, and may have limited capacity (resources, time, expertise) to understand environmental requirements or even the need to address environmental impacts.
- SMEs may have limited capacity to implement the changes required to improve environmental performance, and uncertainty about how to identify the most appropriate technologies and how to incorporate green practices into business planning.

- Although the required payback period for new investments is often as short as two-three years (it is also a function of the cost of capital), SMEs often operate on shorter timescales. Generally, environmental technologies encompass higher costs in the short term with benefits realised in the longer term.
- Access to finance is also a key limitation. The most common environmental issues for SMEs, such as resource and energy savings, which usually are not related to the core business of the company, are only addressed if actions are likely to result in a substantial cost reduction in the short term.

A multifaceted issue that requires a whole-of-government approach

This document provides a brief overview of the policy levers available to governments, and provides some examples of how these policies have been implemented in OECD and ASEAN Member States. The strategies and instruments described here are divided into three broad categories:

- Regulatory tools: simplification of regulatory requirements for SMEs through standardised permits or general binding rules, as well as other better regulation initiatives; offering regulatory incentives for the establishment of environmental management systems; and moving towards sector-specific strategies for compliance assurance.
- Financial tools: grants, low-interest loans and tax incentives for businesses willing to go beyond compliance and invest in greener technologies; encouraging supply chain pressure from larger companies and exerting it through green public procurement.

Information tools: advising individual businesses directly or disseminating guidance on environmental compliance and good practices to a wide audience in the printed and, increasingly, electronic form; introducing sector-specific certifications and eco-labels as well as other environmental recognition awards.

2 Financial tools

Governments can directly improve the business case for greener practices through the use of financial tools. This includes supporting SMEs' access to green finance, supporting the development of green markets through green public procurement and encouraging green corporate value chains, and introducing tax and duty privileges on investments in more sustainable equipment, among other tools. Many SMEs are willing to invest in more energy-efficient and environmentally friendly processes, but they require reliable partners in financing their investments and the right regulatory framework. However, they often face obstacles in getting access to finance, with banks being reluctant to fund such investments and lacking the specialised staff needed to evaluate SME projects.

Building the capacity of SMEs and lenders

In general, SMEs face greater challenges with respect to access to finance than larger enterprises. SMEs may find interest rates and collateral requirements of bank loans prohibitive, and may not be familiar with other sources of finance that are available. The size and sophistication of both the SMEs and the financial sector can also make the struggle more difficult, as lenders may not have the capacity to address the challenges that SMEs face and may be less interested in lending to smaller enterprises.

The situation is further compounded for green SMEs and SMEs looking to invest in greener practices. Better access to finance can greatly facilitate SMEs' green initiatives, and, for green start-ups, support the development and expansion of their enterprise. However, it can be challenging to make the case to banks, which remain the main source of SME finance beyond internal funds. SMEs may struggle to present the best information to lending parties, both in terms of the initial case for the green investment and for ongoing reporting. They may find short tenors challenging when contrasted against the longer payback periods of some green investments. Institutions are often unfamiliar with methods used to value the economic benefits of green initiatives, and may be reluctant to provide loans.

Ensuring that SMEs have access to green finance requires not just ensuring that funds are available, but also building the capacity of different parties when it comes to sustainable investment. As green finance for SMEs is an emerging area of finance, there is often a gap in expertise on both sides of the table. Providing SMEs' with capacity training to make a business case for investments that make their operations more resource efficient or environmentally friendly is important. That capacity training might entail understanding the documentation required for a loan application, and knowing how to reflect the savings from investing in more efficient equipment in their projections. Equally, financial institutions need to be supported so that they are better equipped to assess the risk and rewards of green investments, and thus make realistic judgements about interest rates.

Supporting access to green finance

Public financial institutions, local and international, may offer reduced interest loans for environmental investments by SMEs. Such loans are usually conditional on the planned measures going beyond

regulatory requirements and the use of best available techniques and/or best environmental management practices, and applications need to be certified by the competent environmental authority.

Credit lines extended by International Financial Institutions (IFIs) and disbursed through local commercial banks can be a good approach to improving access to green finance for SMEs. Such credit lines facilitate access to longer-term finance and make it more feasible to borrow. This does not mean the funds are necessarily cheaper than ordinary loans (i.e. the interest rates are not subsidised), but the end user and the local bank can often benefit from grant-funded consultancy services and training to develop feasible projects. This helps to reduce the risk to the local banks, making them more willing to lend, and also improves the overall effectiveness of the investment.

Box 2.1. Examples of providing low-interest loans to green investments

- **France:** OSEO public investment bank offers loans at favourable rates and without collateral from EUR 50 000 to EUR 3 million for up to seven years for SMEs who adopt environmentally friendly technologies (with the share of capital costs exceeding 60%) or develop new ones.
- **Malaysia:** Credit Guarantee Corporation Malaysia (CGC) helps SMEs access funding by providing expert support, loan guarantees, financing facilities, and credit rating. While not specifically focussed on green investments, it aims to provide support to low carbon projects (Initiative, 2019^[10]). Additionally, Green Technology Financing Scheme (GTFS) introduced since 2010 is a soft loan supported by the government. The treatment of the loan is similar to that of normal loans, where the borrower must repay the loan to the bank throughout the tenure period. GTFS for year 2021-2022 will continue with a fund size of RM 2 billion, which will be guaranteed by Danajamin to encourage the issuance of Sustainable and Responsible Investment (SRI) sukuk.
- **UK:** Resource Efficient Scotland's SME Loan provides interest-free loans for SMEs to undertake improvements that reduce energy and resource operating costs. Loans range in value from GBP 1 000 to 100 000, and can be eligible to receive 30% cashback (up to a maximum value of GBP 10 000). Funded by the government of Scotland, the programme is designed to be accessible as possible, with clear online application and documentation.
- **USA:** In the US state of Virginia, a cooperative agreement between the Department of Environmental Quality and the Department of Business Assistance has allowed the state's small businesses, since the year 2000, to obtain loans of up to USD 50 000 to finance the purchase of equipment to implement voluntary pollution prevention measures or to introduce agricultural best management practices. These loans have an interest rate of 3% with favourable repayment terms based on the borrower's ability to repay and the useful life of the equipment being purchased.
- **Indonesia:** Indonesia's Centre of Forest Development Financing (Pusat P2H) operates under the Ministry of Environment and Forestry. It provides soft loans to micro and small enterprises through a variety of structures, including directly and through intermediaries, and by establishing revenue sharing arrangements. It offers long payback periods (up to 16 years), grace periods, and below market interest rates.

Governments can also work with private banks to provide incentives for good environmental performance of small businesses, by taking the same strategy as IFIs and establishing lines of credit to support SMEs in undertaking green investments. Banks may require an environmental checklist for loan approval, and insurers may demand a statement of environmental risk identification and control. Banks and insurers can also offer better loan or insurance policy conditions to businesses with green credentials. Successful implementation of a soft loan programme for environmental investments is likely to require:

- early definition of the environmental goals to be achieved by each project
- inclusion of environmental requirements in the loan agreement with a clear definition of environmental measures to be taken and adequate monitoring processes
- close monitoring and evaluation by the lending institution of the use of funds and of progress in achieving its environmental goals.

Creating financial incentives through tax and duty privileges

Tax privileges are a powerful tool to encourage SMEs to enhance their environmental practices, as well as to support the development of new green enterprises. In many OECD countries, entrepreneurs are allowed to take tax exemptions and deduct certain categories of environment-related investments from their taxable corporate incomes. These exemptions are intended to encourage them to go beyond environmental compliance, and they typically expire after a clearly defined period. Often, they are developed in the context of policies aimed at promoting innovation, research and development. Similarly, the government may offer tax incentives – accelerated depreciation, reduced property or corporate taxes – for the purchase of new environmental technologies and other environmental investments. Tax reductions or exemptions can also be differentiated based on the actual environmental impact of the investment.

There is growing use of tax incentives in the ASEAN region to encourage businesses to invest in green industries. In Malaysia, the Malaysian Green Technology Corporation's MyHIJAU initiative promotes the sourcing and purchasing of green products and services in Malaysia. In tandem with the Malaysian government's implementation of green public procurement (Box 3.2), the government has also rolled out green technology tax incentives, including the Green Investment Tax Allowance (GITA) and Green Income Tax Exemptions (GITE). GITAs are available for qualifying green technology assets and projects, while GITEs are available for the provision of green services. Under the MyHIJAU initiative, the Malaysian Green Technology Corporation defines qualifying categories of assets, projects, and services (Malaysia Green Technology Corporation, 2017^[11]).

Grants and free consultancy services

Grants may be offered by public agencies for the purchase of environmental technologies and/or to subsidise a share of consultancy costs for the identification and implementation of resource efficiency and other environmentally oriented measures. Sometimes the government reimburses SMEs the full cost of an initial environmental audit.

For example, Enterprise Ireland, a public industrial development agency, provides grants to SMEs as a percentage (up to 50%) of consultancy costs for the identification and implementation of resource efficiency and other environmentally oriented measures (as long as they go beyond compliance with legal requirements). One enterprise can get up to EUR 200 000 over three years. Grants are associated with compliance audits, which also serve as compliance assistance tools. France's Environment and Energy Management Agency (ADEME) subsidises up to 50% of the costs of environmental audits, which cover both compliance and resource efficiency. The German public bank Kreditanstalt für Wiederaufbau (KfW) has a "Special Fund for Energy Efficiency in SMEs" which covers up to 80% of costs for SMEs to receive professional advice on energy efficiency improvements.

Direct subsidies and free technical assistance to SMEs helps to increase their awareness and secure their initial engagement in green practices. However, given the limited availability of public funding for promoting compliance and green business practices, a gradual transition toward a fee-based system for technical assistance would improve its long-term sustainability. This transition would also mean transferring the

delivery of technical assistance to trade associations which often charge businesses cost recovery fees for compliance audits, assistance with EMS implementation, training of environmental managers and similar services. The dilemma with having small businesses pay for technical assistance is that they may not be able to afford the fees (and often feel that the provision of environmental help and support should be free).

Box 2.2. Singapore's support for green consultancy services

In Singapore, the Energy Efficiency Fund (E2F) supports businesses in improving environmental performance through a variety of different measures, including the resource efficient design of new facilities or major expansions, energy assessments for existing facilities, and support with the adoption of energy efficient equipment and technology.

- **Design workshops for new facilities and major expansions:** E2F will support companies in holding technical workshops on resource efficient design by covering up to 50% of the costs associated with the workshops, up to a maximum of SGD 600 000. Eligible costs include consultancy fees, transportation and accommodation, venue, and other logistical costs. The costs of implementing the recommendations from the design workshop are specifically excluded under this part of E2F.
- **Energy efficiency assessments for existing facilities:** For industrial companies, E2F will provide a grant for up to 50% of the cost of conducting an energy efficiency assessment, capped at SGD 200 000 for any single facility. The costs of implementing the recommendations from the assessment are excluded, but where companies do not have the funds available to implement the recommendations, they are encouraged to work with Energy Services Companies or other sources who can finance improvements out of the expected savings from improved energy performance.
- **Adopting energy efficient technologies:** For manufacturing enterprises who wish to adopt energy efficient technologies, they can apply for a grant to defray a fraction of the costs, including personnel, equipment, and professional services. The proposed project must meet a range of criteria that includes resulting in measurable energy savings, completion within 36 months of the grant being approved, and use of technology or equipment with a proven track record.

Source: Energy Efficient Singapore (2017), "Energy Efficiency Fund (E2F)", http://www.e2singapore.gov.sg/Incentives/Energy_Efficiency_Fund.aspx.

Send right market signals through green public procurement

Green public procurement (GPP) can play a significant role in creating demand for green products and services and boosting the market where private consumer demand for them is insufficient. By using their purchasing power to choose goods and services with lower environmental impact, public authorities can help to drive down the costs of such purchases and make them more affordable generally. Green public procurement also increases market acceptance of green products (e.g. by demonstrating their commercial feasibility). Countries increasingly recognise that GPP can also be a major driver for innovation, providing industry with incentives for developing green products and services, particularly in sectors where public purchasers represent a large share of the market (e.g. construction, health services and public transport).

GPP makes it a condition of tendering for government contracts that the applicant commit to maintaining specified environmental standards up and down the supply chain. Green procurement may also take the

form of exclusion criteria, where only firms certified to a recognised environmental standard are allowed to be considered, or assessment criteria, where a firm's environmental performance is scored on a scale, and the result is part of the procurement decision.

GPP guidelines often require that particular products contain a minimum amount of recycled content or achieve specified levels of energy efficiency. Purchasing guidelines may also favour – through price preferences, explicit set-asides, or other mechanisms – suppliers who comply with environmental requirements, obtain green certification, qualify for environmental labels, or otherwise demonstrate their environmental credentials. GPP most often covers areas such as the purchase of energy-efficient computers and appliances, environmentally-designed buildings, recycled paper, electric cars, and electricity from renewable energy sources. The Irish EPA's Green Procurement Guidance for the Public Sector went even further and targeted several additional areas: food and catering services, cleaning products and services, and uniforms and other textiles.

Since procurement guidelines normally do not specify firm size, and since there are also important considerations about value for money for the taxpayer, GPP policies can support SMEs by ensuring that requirements to qualify are accessible and clear, providing assistance to meet requirements, and by targeting sectors of the economy in which SMEs predominate.

Box 2.3. Malaysia's experience with greening public procurement

In Malaysia, the government included Green Public Procurement (GPP) in its 11th Malaysia Plan, a national planning document. The Plan mandates that by 2020, 20% of public procurement must abide by green standards. Starting from an initially limited number of ministries, the programme has now been expanded to all government ministries and agencies, resulting in cumulative CO₂ emission reductions of approximately 100 kilotons in 2016. Twenty product groups were identified as priority areas for green procurement, with procedures developed for certifying products in each area. The GPP programme is supported by complimentary programmes to help SMEs produce green products and adopt green practices. Support includes capacity building through the MyHIJAU SME & Entrepreneur Development Programme, funding through the Green Technology Finance Scheme, eco-labelling and certification, and support for the adoption of environmental management systems.

Source: < Malaysian Green Technology Corporation (2017), "Green Procurement", <https://www.myhijau.my/green-procurement/>

Support green supply chains of large enterprises

Governments should encourage larger firms to form partnerships with smaller suppliers to improve environmental performance and provide public recognition to those who do so. Supply-chain pressure offers a valuable means of influencing the environmental behaviour of SMEs. Environmental awareness in global supply chains also affects which suppliers a firm is willing to use, so suppliers receive pressure from buyers to reduce impact. Meeting green quality standards can be challenging for SMEs which face growing pressures to reduce costs, but they also offer SMEs access to environmentally conscious large firms, knowledge flows and global markets.

There are several motivations for large companies to engage in greening the supply chain. Firms with global supply chains and outsourcing strategies are forced to monitor environmental impact to reduce risk: a supplier closed down for poor environmental performance could both disrupt the supply chain and cause serious reputational damage. In addition, better "upstream" environmental performance generates cost savings for larger firms from more efficient production practices.

Increasingly complex supply chains make it difficult to implement and sustain green practices because production is dispersed across multiple sites and autonomous partnerships. So the whole supply chain needs to engage in green initiatives to gain competitive advantage. Supply chain pressure is particularly important and effective in sectors dominated by business-to-business transactions.

Often larger firms not only require good environmental performance from their suppliers but also work with them to facilitate the improvements. They invest in the environmental capacity of smaller suppliers because without it their own environmental goals cannot be met. Examples include Wal-Mart in the US and Marks & Spencer in the UK. Big firms in South Korea sign “voluntary green purchasing pacts” with smaller suppliers. Larger companies may also audit their suppliers for resource and energy efficiency, this being primarily a cost-driven measure.

Less formally, sustainable supply chain management may serve to influence suppliers in a more indirect way, if these suppliers improve their production processes in anticipation of gaining new business from a different or broader set of customers demanding sustainable products. Buyers’ pressure and support are especially important for small suppliers who lack internal capabilities to define their own greening strategy. The choices made by buyers drive the behaviour of SMEs trying to participate as vendors (Lee, 2008^[12]).

Governments should encourage larger firms to form partnerships with smaller suppliers and provide public recognition to those who do so. For example, a Business-to-Business Green Mentor Programme was launched in 2003 by the Limerick/Clare/Kerry Regional Waste Management Office in Ireland. It urges larger good practice companies to provide guidance on waste prevention to SMEs. Programme activities include an informational visit by SMEs to a volunteer “mentor” company, with follow-up guidance for individual SMEs on how to identify and implement ways of reducing waste generation or energy or water consumption. In another example, Zero Waste Scotland concludes voluntary agreements with retail companies that then pass on the resource efficiency requirements down the supply chain. In South Africa, a survey of 312 SMEs in the manufacturing sector found that firms participating in green supply chains exhibited better economic performance (Mafini and Muposhi, 2017^[13]).

In South Korea, rising environmental concerns led to the creation of the Supply Chain Environmental Management (SCEM) Program, with the explicit purpose of using supply chains to drive a knowledge transfer from large firms to smaller ones. Paid for with matching funds from the national government and large firms, SCEM provides support on hazardous materials handling, environmental product analysis, and EMS implementation (Lee, 2008^[12]).

3 Information tools

Improving the environmental performance of a firm can improve its financial performance as well. However, many SME owners and managers are concerned about the short term costs of enhancing their environmental performance, and think there is an inherent conflict between protecting the environment and keeping costs down and running a successful business. The challenge is to convince them that many green practices can actually reduce costs and make for better business.

The public sector has an important role to play in co-ordinating and conveying information to SMEs. This section looks at how information tools, including both strategies that governments use to communicate with SMEs and signals to inform the market and improve the business case for companies to adopt green practices, are a vital component for supporting the greening of SMEs.

The message matters

The right message is crucial for the effectiveness of communication tools. The business benefits of improved environmental performance should be the main “selling point” of environmental outreach to SMEs. Since the biggest concern of most SMEs is short-term financial profitability, the fact that environmental management can save money, reduce costs and increase efficiency is usually well received by business owners. So regardless of whether the objective is to improve compliance, influence the uptake of environmental technologies or increase the adoption of EMSs, environmental information targeting small businesses should make the “business case” and illustrate the financial benefits of environmental improvements.

Some of the potential cost savings from environmental improvements in SMEs include:

- **Process efficiency:** Optimising the performance of existing processes (or introducing more efficient new ones) minimises the use of raw materials, energy and water and the production of waste. Proper maintenance of equipment minimises downtime and waste associated with shutdown and start-up periods.
- **Product design:** It may be possible to re-design a product so as to reduce the amount of resources it contains while still maintaining the level of service it provides.
- **Waste disposal:** Improving process efficiency reduces the amount of waste produced. Once waste has been generated, it is often possible to reuse it or pass it on to other companies that can use it, and thus avoid the costs of its disposal.
- **Source of raw materials:** Changing the source of raw materials in a particular process by switching to recycled materials can potentially result in cost savings.
- **Infrastructure:** It is possible to generate savings by making efficiency changes in the company's infrastructure: installing energy-efficient lighting, insulating buildings, improving the efficiency of heating systems.
- **Packaging and transport:** The reduction of packaging volume and finding local suppliers and customers to decrease transportation distances can be major sources of cost savings.

In addition to the financial benefits discussed above, green practices may result in commercial benefits (new business opportunities, preferred supplier status, etc.), organisational benefits (derived from improvements in the quality of management), communication benefits (positive public image, better relationships with customers, investors and regulators), and increased employee motivation and morale. These benefits are confirmed by small businesses themselves: Scottish SMEs named reduced operating costs, a more motivated workforce, reduced risk of prosecution or fines, and improved customer relationships as key business gains from improving their environmental performance. At the same time, sometimes fear of regulatory action motivates SMEs more than the perceived business case, even if savings are eventually achieved, as was found to be the case with manufacturing firms in Thailand (Laosirihongthong, Adebajo and Choon Tan, 2013^[14]).

Box 3.1. NetRegs – a web-based compliance assistance tool for Scotland and Northern Ireland

NetRegs, launched in 2002, is a web-based tool created in partnership between the UK environmental regulators (for England and Wales, Scotland, and Northern Ireland), then shifting to Scotland and Northern Ireland only, which provided free environmental guidance to small and medium-sized businesses. The content was developed jointly by the regulatory authorities but was customised for Scotland's and Northern Ireland's context. NetRegs includes:

- Guidance by business type for 112 sectors, including agriculture, construction, offices, and others
- A searchable library of environmental topics
- Guidance on existing and forthcoming national and EU legislation and a free e-update service, which provides regular updates on changes in the environmental legislation
- A self-assessment questionnaire that enabled businesses to discover more about what they must do to fully comply with environmental legislation
- Interactive learning modules on more complex pieces of legislation)
- Video case studies illustrating good practice
- A postcode-driven “waste directory” containing a matrix of waste recycling and disposal contacts
- Links to trade associations and other sources of environmental guidance and business support.

NetRegs conducted biennial telephone surveys to understand how SMEs perceive their environmental performance and the assistance they get in improving it. In the last UK survey (2016), 1 000 interviews were conducted with businesses in Scotland and Northern Ireland. According to the survey, small businesses' reasons for improving their environmental performance were to improve reputation/green credentials (41%), financial pressures (23%), and suggestions from within the businesses itself (17%). The five most commonly cited benefits of environmental improvements were reduced operating cost (53%), reduced risk of prosecution or fines (47%), improved relationships with customers (35%), more motivated workforce (33%), and increased sales and profitability (23%).

Source: (Scottish Environment Protection Agency (SEPA), 2019^[15])

Communication strategies also need to reflect the ways in which different types and sizes of enterprises access information and respond to it. SMEs, particularly micro-businesses, often do not have substantive resource or expertise devoted to environmental compliance. The same regulatory approaches, incentive structures, and sources of finance that might work for large companies may be challenging for SMEs to interpret and respond to. Businesses are told that they have a duty to act in an environmentally responsible way, but it is often unclear what this actually means, how a business can do it and at what cost. Going

beyond compliance represents an even bigger challenge, where the lack of awareness of cost-effective opportunities is the key bottleneck.

Effectively reaching SMEs through targeted channels and approaches

An important part of an effective communication strategy for reaching SMEs is identifying the most effective channels and approaches to reaching them (Revell and Rutherford, 2003^[16]). For instance, although the internet is a cost-effective communication tool, depending on the level of internet penetration and its use by business owners it may not be very effective for reaching them. While in the long term web-based guidance is likely to become the primary communication channel for SMEs, in the short and medium term online tools will need to be complemented by more traditional instruments such as paper mailings, brochures and workshops.

It is also important to recognise that small businesses get environmental advice and guidance from a multitude of sources, including regulatory agencies, local authorities, special business support organisations, trade or professional associations, consultants, banks and accountants, other business owners and even personal networks (which is especially true for micro-businesses). Understanding how to use these communication channels in different situations and across different sectors is vital.

For example, a survey of Scottish businesses (Scottish Environment Protection Agency (SEPA), 2019^[15]) found that almost 70% of businesses managers contact their local government to discuss environmental issues, while less than 30% turn to the national environmental authority. Less than 15% of businesses tend to turn to consultants, trade bodies, business support organisations or a compliance assistance website. These results are similar to those obtained by another UK research (SNIFFER, 2008^[17]), which concluded that SMEs looking for information on environmental issues would most likely contact the local authority in the first instance, followed by trade associations, the internet, and professional advisors.

Building institutional partnerships

In order to ensure a co-ordinated approach, a national government body should take the lead in establishing a network of actors engaged in helping SMEs improve their environmental performance. Environmental authorities have regulatory competency over only part of the SME community, and they are not the primary interlocutors of small businesses. However, in OECD countries they often co-ordinate the efforts of other public and private actors to promote green behaviour of SMEs.

Working in partnership with business groups can be particularly useful, as many SMEs do not respond to outreach activities conducted by regulatory government agencies due to suspicion and fear. Feedback from businesses groups is extremely useful in developing and improving compliance assistance programmes.

It is important that a national government body such as the environment ministry or the ministry of economy take the lead in establishing a network of actors engaged in helping SMEs improve their environmental performance. Once such a network has been created, its member institutions should perform the crucial “signposting” function of providing businesses with references to direct operators of multiple governmental and non-governmental programmes promoting different aspects of green business. Working in partnership with business groups can be particularly useful in developing and improving compliance assistance programmes.

To be effective in this co-ordinating role, the environmental authority should:

- Build better understanding among its own staff of the diversity, needs and most effective ways to work with SMEs.

- Conduct staff training programmes on promoting compliance and resource efficiency.
- Better integrate advice into its core compliance monitoring and enforcement activities.
- Establish partnerships with other government agencies, local governments, publicly funded business support organisations and business associations to increase its credibility with SMEs and reduce their mistrust.
- Explore ways to co-ordinate and leverage resources of other government agencies for developing and implementing innovative approaches to assist the SME community.
- Enhance interaction with business associations to develop plain language guidance documents and factsheets on environmental compliance and green practices and create opportunities for small businesses to comment on proposed regulations.

Involvement of trade associations and other business groups

Business associations and other more general business service providers, such as insurance agents, accountants, and banks, can also act as important conduits for information. They are in regular contact with SMEs. Business and trade associations tend to have well-established communication channels with their members and with governments, and an understanding the regulatory challenges faced by their members and the approaches that work best for them. Most OECD country governments work with business and trade associations to explain new environmental regulations to their members, as well as to provide regulators with practical support in designing regulatory approaches to address sector-specific needs. However, only a few countries use trade associations to stimulate directly the adoption of green practices.

Business and trade associations have a role to play in “signposting” different web-based information and guidance sources and communicating their usefulness for small businesses, given SMEs’ potential reluctance to seek such information on the internet. Feedback from businesses groups is extremely useful in developing and improving compliance assistance programmes.

Governments can provide both broad guidance and specific advice

Among information dissemination tools, one can distinguish between advice and guidance. Advice is active, direct engagement with a business face-to-face during inspection visits or audits, answering telephone, e-mail or website help requests, as well as addressing business representatives at seminars and similar events. Guidance is the provision of information to regulated entities, typically in the written (printed or electronic) form. Guidance includes, among other things, e-mail updates, websites, leaflets, brochures and other publications.

Guidance should be concise and clearly distinguish between legal requirements and good practices in order to avoid excessive efforts by small businesses to achieve compliance. It should contain a simple message about the problem, its solution (step-by-step guidance) and where to go for more information. The most appropriate communication channels are likely to be sector-specific, reflecting the different business models and activities within different sectors. Government bodies, including ministries of economy and environment, should work in partnership with trade associations and business support organisations to elaborate and disseminate environmental guidance, which would add to its credibility.

Guidance and advice can also be given through the use capacity building workshops, both directly by the government and through grants given to non-governmental organisations with knowledge and experience related to greening SMEs. Non-government actors (including business associations and consulting companies) can provide direct capacity building support to businesses through audits of different aspects of their environmental management, demonstration projects and their follow-up. The success of capacity building activities depends on such factors as:

- involving multiple public sector organisations and industry associations in programme design, implementation and strategic oversight
- affordability of the support services, which has a major influence on their uptake by SMEs
- consideration of economic impacts of green practices (on companies' profitability, employment, competitiveness, etc.)
- promoting the programme's achievements, including through publicising success as case studies
- using local delivery partners to enable capacity building programmes to gain local knowledge, credibility and accountability
- regular, independent and impartial evaluation.

Recognising green practices

Sector-specific green certification (of business practices) and eco-labelling schemes (for products), that can contribute to an increased demand for green business practices, should be designed in a way that the business benefits to SMEs outweigh both the direct costs in terms of fees that must be paid to obtain certification and the indirect costs of staff time to be spent complying with their requirements. It is important to communicate to a broad audience to raise the recognition of the certification or eco-label, starting at a very early stage of the scheme's development. Trade associations should design marketing and promotional materials which a business could use to display its "green credentials" to actual or potential customers.

Sector-specific green certifications

The primary goal of green certification programmes is to increase the market share of their members. In order to make environmental management credentials more relevant to specific economic sectors, business associations in many OECD countries collaborate with environmental authorities to develop green certification brands, many of which target SMEs. The environmental regulator (and, sometimes, local authorities) work jointly with trade bodies to produce "green standards" for the sector as well as guidelines on how businesses may "earn" the right to display appropriate signs (stickers, posters, *etc.*) to highlight their environmental practices to their customers. Examples of such programmes can be found in a very wide range of economic sectors, most of which are characterised by direct interface between business and retail customers, allowing SMEs to benefit directly from their improved environmental image.

For example, Ireland's Green Hospitality Programme (under the National Waste Prevention Programme) has been developed to act as an umbrella brand for hospitality-related environmental initiatives, including the Green Hospitality Award, Green Restaurants, and Green Festivals. Formal resource efficiency audits, resource consumption benchmarks, workshops, training and guidance are provided to each participating hotel or restaurant to enable them to develop their own environmental programme and prepare for the different levels of award. Hotels pay for membership, but the fee is partly subsidised by the government.

Box 3.2. The Red Tractor Assurance scheme

A “green standard” can also be part of a larger self-regulatory business initiative. The Red Tractor Assurance scheme is a collection of standards around food safety, animal welfare, and environmental impact the agricultural sector in England and Wales. It is administered by Assured Food Standards – a company owned by the UK farm unions and several agro-industry trade bodies. Founded in 2000, it has expanded beyond its original mission of food to cover many environmental aspects of food production (management of pesticides, fertilisers, manure runoff, etc.) across about 80,000 participating farms. Under the “environmental compliance module” for pig and poultry producers, certification bodies collect data on compliance with environmental permits when carrying out audits for the Red Tractor scheme. This helps to decrease the number of Environment Agency visits to farms (to just once every three years) and to cut annual permit charges for farmers.

Source: Invalid source specified.

Eco-labels

Whereas green certifications apply to businesses, eco-labels have the same function with respect to products. Eco-labelling schemes seek to enable producers to harness consumer demand for environmentally friendly goods by displaying a legally protected symbol or logo. If the label has this effect, other producers may respond by improving the environmental performance of their products in order to obtain a label in an attempt to regain the market share. This results in a reduced environmental impact from the products within the product group. The impact of reputational incentives among SMEs is typically lower than among larger enterprises, but they can be effective if they are relevant to local supply chains or customers.

Eco-labelling schemes are generally voluntary: a firm that wishes to have an environmental label awarded to its product may apply to the labelling scheme, and the label will be awarded if the product meets the relevant criteria. Eco-label criteria can be based on a single parameter or on studies that analyse the environmental impact of a product or service throughout its life cycle.

As part of its ISO 14000 series of environmental standards, the International Standards Organisation has drawn up a group of standards specifically governing environmental labelling. The ISO 14020 family covers three types of labelling schemes: Type I is a multi-attribute label developed by a third party; Type II is a single-attribute label developed by the producer; and Type III is an eco-label based on a full life-cycle assessment. Environmental product declarations (EPD) providing quantitative information about a product in a standardised form may also be considered a form of eco-labelling. EPD systems are relatively costly to establish and operate, making SMEs’ participation in them unlikely.

Single-attribute labels represent an environmental declaration by an enterprise about a particular environmental characteristic of a product, which in some schemes has to be verified by a third party. Such eco-labels can be related to energy efficiency (for example, the US “Energy Star”), sustainable management of a particular natural resource (*e.g.* forestry eco-labels), or the percentage of recycled material in a product, among other factors. The simplicity of single-attribute eco-labels makes them particularly attractive to SMEs.

A key feature of lifecycle eco-labels is that an independent third party is involved in assigning the eco-label. Since a product is assessed against a number of approved criteria, the producer is forced to collect and analyse a lot of information that could be used to improve product characteristics through the entire

life cycle. The EU Ecolabel, the Scandinavian “Nordic Swan” and the German “Blue Angel” are examples of lifecycle eco-labels.

The effectiveness of eco-labels in motivating enterprises to improve environmental performance depends on criteria defined for a particular product group. The environmental criteria need to be updated and made more stringent regularly so that only best products are able to meet them, thereby ensuring that the eco-label remains a mark of excellence within a product group. Labelling schemes should combat misleading claims by manufacturers about their products.

Box 3.3. Thailand’s Green Industry Project

The Green Industry Project was launched in Thailand in 2011. It is a graduated programme providing environmental certification to enterprises, based on their compliance with range of environment-related criteria. The graduated approach makes it accessible to SMEs with less experience or resources for improving environmental performance, and provides goals that encourage continuing improvement, up to deploying international EMS systems such as ISO 14001. The five levels are as follows:

- Level 1: Green commitment - the organisation needs to have policies on at least one of the following: reducing environmental impact, sustainable use of resources, climate change mitigation, or the protection and restoration of the natural environment.
- Level 2: Green activities - in addition to the policies from Level 1, the organisation needs to have a related action plan with objectives, targets, processes, responsibilities and a timeframe, and must implement the action plan.
- Level 3: Green system - in addition to the requirements for the preceding levels, the organisation needs to have a formal environmental management system in place, must conduct monitoring and evaluation, and engage in regular high-level reviews of its results.
- Level 4: Green culture - in addition to the requirements of the preceding the level, the organisation must abide by ISO26000 with transparent decision-making and public disclosure around environmental impact and actions, identify environmental concerns as core values, and perform in line with international standards.
- Level 5: Green network - in addition to the requirements of the preceding the level, enterprises must show that they are supporting other components in their supply chain in undertaking green practices.

For each level of certification, there are specific conditions for the evidence that needs to be provided to prove compliance. Through the programme, qualifying enterprises can gain access to exceptions on the import of certain technology and equipment, qualify for government green procurement, use the Green Industry Mark on their products, and access to green loans, among other incentives. Regulatory incentives are also integrated, as achieving certain levels of compliance can result in less frequent environmental monitoring, although this is likely more of a benefit for larger enterprises that are already subject to compliance monitoring.

Source: **Invalid source specified.**

The proliferation of green labels may create confusion among firms and consumers, particularly since the verification of claims of environmental friendliness is difficult. Sometimes industries create eco-labelling schemes simply to sell themselves to customers, which leads to significant “greenwashing”. Therefore, the criteria and process for determining whether a product merits an eco-label or green certification should be transparent. It is necessary to ensure that labels are not awarded too easily, without rigorous scrutiny of each company’s practices.

Eco-labelling schemes are usually run by non-profit organisations (including governments) without commercial interests. To cover their costs, scheme operators commonly an application fee as well as an annual charge, depending on the turnover of the labelled product. The EU Ecolabel scheme, managed by the European Commission since 1992, provides preferential treatment for SMEs, with considerably reduced application and annual fees.

Participation in national eco-label schemes may, however, be costly for SMEs. In Korea, for example, the number of eco-certified products is very large and continues to grow, but the growth of the number of companies producing such products is much slower, which potentially indicates the predominant share of larger firms and not of SMEs in the green products market. To counteract this, governments may consider supporting capacity-building activities to ensure SMEs can participate in eco-label schemes.

Another point that should be stressed is that establishment of national eco-label schemes in small countries often does not pay-off because of a limited market and relatively high cost for companies. However, it could be economically and practically feasible to establish a simplified national product certification scheme for particular products widely produced in the country, or more ambitiously, an eco-label scheme for ASEAN as a whole.

Environmental recognition awards

Governments can also use positive public relations incentives to promote environmentally friendly business behaviour. Environmental awards help raise environmental awareness through businesses and the community and help companies gain recognition for their good environmental performance. For example, the “Vision in Business for the Environment of Scotland” (VIBES) initiative recognises businesses of all sizes and sectors employing environmental best practices in their daily activities. The award programme is supported by the Scottish Environment Protection Agency and run in partnership with other government bodies. It is supported financially through private sponsorship and has in-kind support from a number of business associations. There are several award categories, including Best Environmental Management, Best Environmental Product or Service, Best Co-operation for the Environment, and Best Micro-business Award. A case study is produced for each winning business and published on the VIBES website. The VIBES awards are also used as a mechanism for providing direct advice to applicants via site visits, and further environmental improvements are encouraged via feedback and wide information dissemination.

To be effective, environmental awards need to be widely promoted in business and industry media. However, some SMEs may not have the financial or labour resources to enable them to complete the application process, which may dissuade them from entering environmental awards.

Environmental awards can also recognise the role of different stakeholders in greening small businesses. The US National Steering Committee for the Small Business Ombudsman/Small Business Environmental Assistance Programs has established four Small Business Recognition Awards. Among them, the Trade Association Environmental Leadership Award recognises exemplary performance and leadership by an industry trade organisation in enhancing members’ compliance with environmental regulations. There is also an award for a small business environmental assistance programme. The European Enterprise Promotion Awards recognise public bodies and public-private partnerships that support the development of green markets and resource efficiency.

Key messages for policy makers and SMEs on the benefits of the green transition

This section provides key messages for policy makers and firms on the benefits of the green transition, to help SME development agencies and other entities improve their communications on greening SMEs.

More energy efficiency means lower bills

For firms:

Investing in more energy efficient equipment can provide significant cost savings over the long term, depending on the existing level of energy efficiency, cost of inputs, the sector, and the available technology. For instance, support for SMEs in the Eastern Partnership region of Europe has resulted in average savings of approximately 15%, with variance across different industries (EaPGreen, 2017^[18]). Commonly upgraded equipment includes insulation, lighting, heating, ventilation, and air conditioning (HVAC), refrigeration, and other appliances. However, challenges can arise with the timescale involved for repayment. Many smaller enterprises operate on short cycles, without savings to invest in new equipment. Access to finance is crucial to permit this – in particular, access to low-interest loans, with relatively long repayment schedules, scaled for the needs of different firms.

Role of governments:

SMEs that are interested in adopting measures that are more efficient often need support and information to do so – governments can support this by providing subsidized or free energy efficiency audits, to identify the most effective places to make changes and estimate how much the energy savings will be. In tandem with this, they can also provide matching grants for firms that upgrade to more energy efficient equipment. Governments should also remove fossil fuel subsidies, to show the real cost benefits of switching to more energy efficient approaches. Finally, governments can facilitate access to finance by extending lines of credit to commercial banks, specifically earmarked for energy efficiency measures.

More efficient use of other resources means lower production costs

For firms:

Beyond energy efficiency, firms can optimise the use of other inputs to save money and lower their environmental footprint. This includes the use of water and other inputs in food, industrial, and manufacturing processes. This also includes reusing material after processes, recycling, and reducing waste. This process can be supported through the adoption of an Environmental Management System (EMS). For instance, a project to support SMEs in the metal sectors in Nepal, Bangladesh, and Sri Lanka, resulted in an average water savings of 21 533 litres per annum and average input material savings of over 1 000 kg per annum ((TERI), 2020^[19]).

Role of governments:

Policy makers can put in place programmes that assist SMEs in understanding how they can make their processes more efficient, what equipment they need, and what processes to undertake. Since this may be more specialized to individual industries and industrial processes than energy efficiency measures, public support may take the form of full or partial grants for companies to have audits done by knowledgeable experts. This can also help stimulate the development of green service providers. Governments can support the adoption of EMS systems such as ISO 14001, as well as develop simplified EMS certifications.

Greener performance appeals to domestic consumers

For firms:

Consumers are increasingly conscious of the environmental impact of economic activities and seek out environmentally responsible products. For firms producing consumer goods or services, having a green certification means that their products stand out. It can also mean that firms are able to access new markets

for export, by appealing to those consumers as well. This can allow firms to expand, even while reducing their environmental footprint.

Role of governments:

In order to support SMEs in expanding their appeal to green markets, governments have three roles to play – developing green certification standards for SMEs that are meaningful and achievable, supporting SMEs in reaching those certification standards through information provision and direct support, and educating the public about the green label standards so that the ecolabels are widely recognized. Governments can also help stimulate the uptake of a green label by requiring that all or a certain percentage of public procurement be certified – this helps give firms confidence that there is an economic benefit to achieving certification.

Greener performance opens new markets

For firms:

Increasingly, multinational companies are requiring that firms participating in their value chains achieve certain sustainability levels and certifications. Thus, by greening their performance, SMEs can meet the green requirements of large multinationals who are increasingly struggling to ensure that their tier one and tier two suppliers are sustainable. Achieving environmental certifications can also allow firms to expand into new markets in high-income countries, where consumers will pay a premium for products certified to green standards.

For governments:

Requirements for firms to participate in global value chains are normally based on globally recognized standards, like ISO 14001, which provides a standard for environmental management systems. Meanwhile, consumers in high income countries will generally look to specific standards, such as the EU Bio certification or USDA Organic. Governments can help firms understand and achieve those standards by ensuring access to finance and expertise to help them get there.

Greening performance motivates employees and improves morale

Greener performance also acts as a morale booster for employees working for a firm. It shows that the place they work cares about its community and about the future, and has been demonstrated to be a motivating factor for existing employees and drawing talented new ones.

4 Regulatory tools

As a group, SMEs are highly heterogeneous; they can be found in practically every economic sector, and thus have highly divergent levels of environmental risk. Although relatively smaller firm size means that firm-level environmental impacts tends to be much less than larger companies, their per-unit environmental impact may be higher than larger enterprises and many firms together may be significant in aggregate. Overall, this makes for a challenging environmental regulatory situation. Regulating SMEs is difficult, because of the number and variety of SMEs. Compliance with environmental regulations is difficult for SMEs, because of a lack of resources and awareness (Brammer, Hoejmosé and Marchant, 2011^[2]). Environmental regulatory tools should be approached from a perspective of helping SMEs to adopt greener practices rather than punishing non-compliant activities. To do this, regulatory regimes need to be reformulated to address the specific characteristics of SMEs and to provide incentives for enterprises to go beyond compliance.

Keeping up to date with environmental requirements may be burdensome for SMEs, particularly when it comes to understanding which requirements apply to them. Finding guidance/ advice about what they have to do to comply with given regulations is difficult. SMEs often feel that they are not supported enough and are unreasonably expected to cope with the same levels of paperwork and obligations as larger companies (Ghazilla et al., 2015^[20]). Businesses generally express support for a customer-focused relationship between regulators and the regulated with the primary goal of compliance rather than enforcement (OECD, 2018^[1]).

Rather than relying on enterprise size, regulatory approaches tend to distinguish between installation and activity risk levels. How environmental regulators approach low and high-risk facilities can make a vital difference in allocating resources to support environmental compliance. Usually, environmental regulators do not have strategies that apply only to low-risk facilities – they simply have fewer resources to spend on them than on high-risk sites. However, an increasing number of environmental regulators in OECD countries are establishing special regimes for low-risk installations, the vast majority of which are SMEs. For rules that will have a significant impact on small businesses, soliciting their input at the drafting stage reduces eventual adverse effects.

The steps outlined in this section are meant to encourage governments to see regulatory policy not simply as a means to protect the environment but as a tool to help SMEs become greener. Part of that process is ensuring that environmental regulation is effective while being proportionate to the cost of compliance. Part of it is also using it as a conduit to help SMEs improve their environmental performance. Ultimately, environmental regulatory efforts succeed or fail at the firm level. SMEs need to be provided with the tools to understand and enact environmental improvements – and that includes having the human resources in place to proactively react to regulatory incentives. In Vietnam, SMEs operating in the textile and garment sector were found to benefit from a confluence of three factors that determined their ability to react to environmental regulations: human, resources, organisational development, and institutional development. Those three factors together drove SME ability to adapt to environmental requirements and to drive for better results (Nguyen, Beeton and Halog, 2015^[21]).

Ensure collaboration between environmental and non-environmental regulatory entities and SME agencies

Environmental and non-environmental regulators such as environmental agencies, local government, and business registration agencies can work together to identify opportunities to reduce duplication in paperwork and conduct joint or delegated inspections in selected sectors. SME agencies are essential to this process, because they are often in close communication with the SMEs themselves, and have a broader perspective on SME activities. However, they also must be empowered in this co-ordination role and provided with the appropriate capacity.

Listing the full range of regulations that have an impact on small businesses in selected sectors helps to identify opportunities to reduce duplication in paperwork and/or processes among regulatory authorities. Among different ways to simplify the administrative requirements for reporting on environmental issues and avoid duplication of requested information are the creation of nationwide information registration systems accessible by all competent government authorities, the introduction of e-government to replace paperwork documentation, and the implementation of the “one-window” approach for issuing appropriate permits and licences to businesses (e.g. through local authorities). Offering compliance-related information to businesses also contributes to better regulation by reducing their transaction cost of compliance (see the section on information tools).

Improving regulation of SMEs with low environmental risk

There is a marked trend in OECD countries to simplify environmental regulatory requirements for SMEs that are characterised by a low level of environmental risk, although this remains at an early stage in ASEAN MS. This simplification generally involves replacing environmental permitting with general binding rules – standardised requirements for specific activities with low environmental risk that are practised by a large number of operators using similar technologies. Rules that require operators to notify or register with the competent environmental authority before engaging in an activity are preferable in terms of the regulator’s knowledge of the regulated community and control over its potential environmental impacts.

Smaller businesses, often with limited in-house regulatory capacity, benefit from a standardised, rules-based approach to setting environmental requirements. It provides more certainty about the most effective way to achieve compliance than do individual, customised permits. Rule-based regimes also have other benefits, including reduced bureaucracy and costs to the regulator and the absence of impact on the level playing field within an industrial sector.

Environmental regulators in different countries have very different risk tolerances, driven in part by their mandate and the institutional context. In practice, low-risk installations are usually defined “by exclusion”, as those that are not considered high-risk. Risk assessment criteria typically relate to the environmental hazard of a regulated facility (its complexity in terms of impacts on different environmental media, location with respect to urban and environmentally sensitive areas, volume of pollution releases and potential for accidents) and to its operator’s performance (compliance record and environmental management practices). Low-risk installations are generally eligible for a simplified regulatory regime.

Taking a sectoral approach to environmental regulation

Environmental regulations tend to refer to activities, which may or may not correspond to a specific economic sector. However, efforts to promote compliance with them should generally be sector-based because businesses, particularly SMEs, respond primarily to messages adapted to their sector. The sectoral approach to outreach is part of a larger customer service perspective that environmental

regulators should adopt in their relationship with small businesses. Environmental enforcement authorities should work to strengthen their own staff's capacity to regulate and advise small businesses in specific sectors.

Using regulatory incentives to encourage SMEs to adopt EMSs

Environmental regulatory structures can build in incentives to encourage SMEs to adopt certified environmental management systems (EMSs). While market demand from customers and clients is also a driver, as is the desire to improve environmental performance, regulatory systems can incentivise EMS uptake through support with EMS implementation and compliance upgrading and benefits such as reduced inspection frequency of facilities and reduced fines for infraction. Introducing incentives such as the ones described in the example below are possible at every level of AMS development, as they also help to reduce the regulatory burden for the government. However, considering that in the AMS at earlier stages of development environmental regulation of SMEs is not significant begin with, this may be more effective in AMS in the Mid to Advanced stage.

A study of 1 333 firms in Vietnam's manufacturing sector found clear reductions in resource intensity across electricity, fuel, and water per unit produced, with an average of 2.3% reduction in resource intensity for firms with an environmental standards certification (ESC) from the government (Fadly, 2018^[22]). Under decree no.80/2006/ND-CP (Vietnam, 2006^[23]), firms involved in a range of 144 polluting activities must submit an EIA to the government. The ESC is issued by the State Management Agency for Environmental Protection if the firm demonstrates that it is in line with the requirements of the EIA.

Some other examples of incentives employed include the following:

- In the Netherlands, EMS-certified operators can apply for licences that are less detailed and prescriptive. Several EU countries (e.g. Italy, Slovakia) issue permits with longer validity periods and with reduced reporting requirements to EMAS-certified companies (European Commission, 2004^[24]).
- The US EPA's Small Business Compliance Policy allows small businesses to obtain reductions in monetary penalties if violations are discovered by any voluntary means, including government-sponsored on-site compliance assistance activities or environmental audits, EMSs, use of online compliance assistance tools, etc. In Austria, administrative fines are waived for businesses with a certified EMS if they detect non-compliance during an internal audit.
- The inspection frequency may also be directly or indirectly linked to the presence and quality of the operator's EMS. Companies with a certified EMS enjoy reduced inspection frequency in Norway, and in France installations registered with EMAS (there were only 17 such installations in April 2011) are exempted from routine compliance inspections. In Korea, "green companies" designated by the Ministry of Environment are exempted from routine environmental reporting, and their inspection frequency is reduced.

However, small businesses face barriers in implementing environmental management systems (EMSs), including a lack of resources, knowledge and technical capacity, high upfront costs, and low public visibility. The challenge is to tailor EMSs, both in terms of their content and delivery, to the particularities of SMEs. With regard to SMEs, EMSs with straightforward paperwork and multiple levels of progressive achievement paired with sectoral green label schemes are more likely to be attractive to small businesses than formal ISO 14001 certification, which is relatively complex and costly. Many OECD and non-OECD countries have designed simplified EMSs for SMEs.

Box 4.1. The Philippine Environment Partnership Program (PEPP)

The Philippine Environment Partnership Program (PEPP) was created in 2003 by the Environmental Management Bureau of the Department of Environment and Natural Resources (DENR-EMB) to support industry self-regulation and reporting while improving environmental performance. It includes incentives and assistance for SMEs to achieve cleaner production standards. The PEPP has two programmes:

- Track 1 gives recognition and incentives to enterprises that go beyond compliance in their environmental performance. To qualify for Track 1, enterprises need to show they have been consistently environmentally compliant for three years prior to the date of application and that they have gone beyond compliance through actions such as implementing an EMS, undertaking pollution prevention or waste minimization initiatives, or engaging in community or social responsibility programmes.
- Track 2 is an assistance programme aimed at industry associations and individual companies, particularly SMEs, who are not yet compliant with environmental regulations but are committed to improving their performance. Successful applicants to the programme sign an Environment Consent Agreement, a legally binding agreement between the company/industry association and the DENR-EMB that commits the company to:
 - Implement Environmental Management Plans (EMPs) within the framework of Environmental Management System (EMS)
 - Attain waste reduction targets within an agreed timeframe and agree to means of verification;
 - Adopt pollution prevention and/or cleaner production
 - Provide progress environmental performance report to EMB

Source: DENR-EMB (2017), "Philippine Environmental Partnership Program – Catalyst for Holistic Environment Partnership", <http://pepp.emb.gov.ph/>

Ensure that information about regulatory requirements for SMEs is clear

Most small businesses seek clear and consistent information on the minimum requirements for compliance. Interpretation of text-heavy guidance can be difficult for an SME. The most efficient way of providing advice and guidance to businesses is to take into account the full suite of regulations that apply to them, not just environmental regulations. Regulatory requirements that are communicated to small businesses should be well co-ordinated across government.

To avoid excessive or unnecessary costs for businesses, guidance should clearly state the minimum legal requirements. As the volume and complexity of both mandatory and voluntary (good practice) guidance grow, voluntary guidance can sometimes be treated as mandatory in practice. Misleading advice could lead to over-compliance and an unnecessary increase in the regulatory burden. To avoid this, compliance and good practice guidance should be clearly distinguished.

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FACILITATING THE GREEN TRANSITION FOR ASEAN SMEs

A toolkit for policymakers

Small and medium enterprises (SMEs) make up the vast majority of firms in ASEAN Member States, between 97-99%, and provide the majority of employment. They are essential drivers of economic growth. However, when it comes to efforts to green the economy, policy makers have traditionally focussed efforts on larger companies.

Interest in green growth is rising across the region, and this toolkit provides ASEAN policy makers with the regulatory, financial, and informational tools to support SMEs in going green. As the impacts of climate change intensify and new challenges in biodiversity and resource limitations become ever direr, policy makers are looking for new approaches to support SMEs in the transition to a greener economy. By adapting these approaches to national contexts, governments in ASEAN Member States can help SMEs enhance their environmental performance and support the development of new green economic sectors.

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