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POLICY SUPPORT



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## *Capacity Building and Policy Needs Assessment for Sustainable Consumption and Production*



**Executive Summary**

### **Information note**

This document summarizes the findings of the study on ‘Capacity Building and Policy Needs Assessment for Sustainable Consumption and Production’. The study has been compiled under the EU funded SWITCH-Asia Policy Support Component (SWITCH-PSC) that it is managed by UNEP. This summary is based on the scientific assessment made by the research team, comprising experts from CSIRO and IGES, and it does not necessarily represent official opinions of the EU or UNEP.

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The full text of the study is available in electronic form on the SWITCH-Asia website.

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## **Introduction**

### **Purpose of the report**

This document summarizes findings of a collaborative study by the United Nations Environment Programme, the Commonwealth Scientific and Industrial Research Organisation (CSIRO, Australia) and the Institute for Global Environmental Strategies (IGES, Japan) under the EU funded SWITCH-Asia Policy Support Component (SWITCH-PSC).

The overall objective of the SWITCH-PSC is to strengthen national and regional policy frameworks to promote the shift towards more sustainable consumption and production patterns and Resource Efficiency (RE), thereby contributing to green growth and reduction of poverty in Asian countries and assisting countries in achieving the Millennium Development Goals (MDGs). For more information on the SWITCH-PSC please refer to Annex 1 of this document and also to <http://www.switch-asia.eu/switch-policy.html>

To achieve this overall objective and purpose, the SWITCH-PSC focuses on the achievement of two specific and interlinked objectives:

- i. To build the capacities of national authorities to strengthen or put in place policies helping to mainstream SCP and RE into regional, sub-regional and national development programmes.
- ii. To assist stakeholders in the project countries (government, private sector, civil society), in designing and implementing specific policy-oriented activities to shift towards Sustainable Consumption and Production.

The activities of the SWITCH-PSC for the first year of implementation (2011) were the following:

- A\_1\_1: Identify capacity building needs of decision makers in the participating countries.
- A\_1\_2: Review the existing legal environmental policy tools (agreements and voluntary initiatives) that are related to SCP and RE.
- A\_1\_3: Identify clusters of countries with similar problems to tackle, and common interests.

The study on 'Capacity Building and Policy Needs Assessment on SCP' covers the activities A\_1\_1 and A\_1\_2 and provides all the necessary information to support also the activity A\_1\_3.

The objectives of the study were to:

- ***Identify capacity building needs of decision makers in the participating countries.*** Perform a consultation with the national ministries relevant for SCP (environment, industry, economy and finance, trade, development, planning, private sector, consumer) in all 19 SWITCH eligible countries, and identify the specific country needs in the SCP field. Strengths and weakness of the national SCP policies and policies relevant to SCP to be reviewed, as well as capacity constraints of key bodies (ministries, sectoral and consumer associations, private sector). This activity will build upon relevant reviews that have been already done for some countries or for the region but it is expected that considerable work will be needed to identify needs and opportunities and create outputs to support the future project activities.
- ***Review the existing environmental policy tools (laws, agreements, voluntary initiatives, etc.) that are related to SCP and RE.*** Review policy tools as well as gaps and synergies with set priorities, based on outcomes of National SCP Roundtables and Regional Meetings under the Marrakech Process, and other relevant meetings and projects, which provided formal input on regional needs and priorities on SCP to the 18th Session of CSD.
- ***Identify clusters of countries with similar challenges to tackle and common interests.*** Organize consultation with ministries in the beneficiary countries in order to:
  - o Identify priorities for capacity building
  - o Identify sub-regional groups of countries with similar interests and needs on capacity building.

The study has been undertaken in consultation with national ministries relevant to SCP (including environment, industry, economy and finance, trade, development and planning) and has also involved international organizations, donor agencies, civil society organizations and the private sector to some extent. It aimed to identify specific country needs regarding SCP policy development and implementation. The study team reviewed the strengths and weaknesses of national SCP policies and other policies relevant to SCP, and helped to identify capacity constraints of key bodies (ministries, sectoral and consumer associations, and the private sector). This activity builds upon relevant reviews already conducted for certain countries and for the region, but considerable additional research was required to identify needs and opportunities and create outputs to support future project activities of the SWITCH-Asia Policy Support Component.

In addition, the study has reviewed existing environmental policy tools (laws, agreements, economic instruments, and voluntary initiatives) that aim to enable SCP and resource efficiency (RE). The review has tried to identify gaps and synergies with set priorities, based on outcomes of National SCP Roundtables and Regional Meetings under the Marrakech Process, and other relevant meetings and projects which provided formal input on regional needs and priorities on SCP to the 18th Session of the Commission on Sustainable Development (CSD). The ongoing EC-funded Global Outlook on SCP Policies, being conducted by UNEP, was also used to this Asia-focused review.



## Method used for the study

The current study of existing SCP policies and capacity strengthening needs for 19 countries in Asia has been based on a review of the main policy documents addressing SCP, National Development Plans, and sectoral policies for housing, infrastructure, transport, energy and water that are influential for SCP outcomes. The desk review was accompanied by a series of interviews with high-level policy officials and experts from academia, international organizations, donor agencies and NGOs in eight of the 19 countries assessed.

For this purpose, the study team undertook eight one week missions, to Bangladesh, Cambodia, China, India, Lao PDR, Nepal, Sri Lanka and Viet Nam. During each country mission, meetings with ministries relevant to SCP were organized, offering the study team an opportunity for detailed insight into the policy process and to discuss all issues related to SCP. In most of the visited countries the study team also organized a half-day workshop to assess existing capacities, priorities and capacity gaps for SCP and came up with a draft action plan for future policy support in countries.

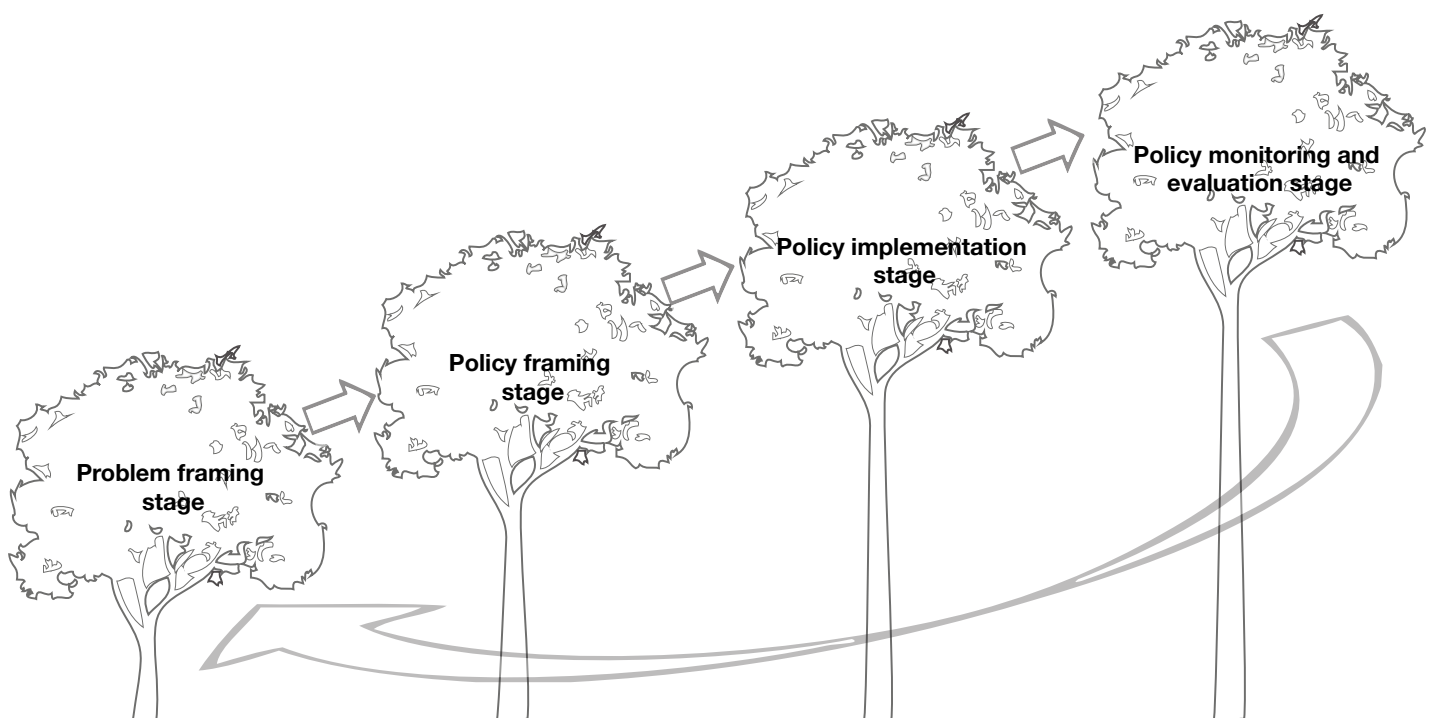
For countries not visited the study team conducted, as far as possible, telephone interviews with the SCP focal points or EU SWITCH officers as a starting point for the analysis but then had to rely mainly on desktop review of relevant policy documents. In addition members of the study team held bilateral meetings with country officials that participated in the 'Workshop for the Review of the Assessment on Capacity Building and Policy Needs on SCP' and the 'Meeting of the SWITCH-PSC Technical Advisory Committee' that held in Yogyakarta, Indonesia on 7-8 November 2011.

One important aspect of the policy analysis was to distinguish the main steps in the policy development process, meaning that the policy analysis for SCP needed to go well beyond the question of whether high level frameworks or policies existed that might guide and enable SCP.



The study took account of the four main phases and steps of the policy cycle, including:

- The **problem framing** stage of the policy process. This is a very important stage for SCP, reflecting the contested and complex nature of SCP problems and the need to define problems with considerable care. This includes discussion of relevant social goals and public concerns, and monitoring of natural and social systems and their interaction to identify problematic environmental or social change. Causes of change need to be identified, and assessments of risk, uncertainty and ignorance must be undertaken. Also, assessment of existing policies and institutional settings are required. All these elements then allow for proper definition (framing and scaling) of policy problems.
- The **policy framing** stage which includes the development of guiding policy principles, the construction of a general policy statement and the definition of measurable policy goals.
- The **policy implementation** stage, which needs to be explicit about the different aspects of implementation as implementation tasks often remain overlooked. This includes the selection of policy instruments, planning of implementation and communication, the provision of statutory, institutional and resourcing requirements, and the establishment of policy enforcement and monitoring mechanisms.
- The **policy monitoring and evaluation** stage provides an opportunity to learn from policy interventions, to provide ongoing monitoring including data capture, a mandated evaluation and review schedule and decisions for extension, adaptation or cessation of policies.



## Highlights of the assessment

Policy making for SCP in Asia needs to address the **dual objective** of raising the standard of living and **alleviating poverty** while ensuring **environmental sustainability** of development. In such a context economic growth is a very important objective and usually involves environmental and resource degradation of some kind. There needs to be a broader discussion about the quality of growth and the merits of investment into SCP to inform priority setting in treasury and finance departments that matches the ambition of SCP policies to ensure smooth implementation of programmes and activities.

Implementation of existing SCP policies at the **sub-national level is a both a challenge and opportunity**. Proper implementation will require additional guidelines for local authorities, urban councils and communities on how to use the high-level policy guidance in their day-to-day decision making, further awareness raising and information sharing with sub-national representatives to help overcome existing barriers of implementation, and clear incentives that motivate local decision makers to act in accordance with regulations issued at the central level.

SCP is a complex policy issue involving many areas of sectoral policy that need to work together to achieve the objectives of SCP. To enable this, countries need to **strengthen capacity for cross-departmental cooperation** at various levels including high-level decision making and lower level day-to-day operational arrangements. This involves strengthening horizontal communication within and among departments, encouraging greater transparency of departmental strategies among public servants, and sharing information. The establishment of **one single SCP body within each government**, with an appropriate mandate and sufficient resources, could facilitate such coordination.

There is ample evidence of the **abundance of national policies**, laws, regulations and programmes to support SCP in Asia. One important aspect of policy analysis is the **effectiveness of policy implementation**, especially at state and local level. There is a bigger need to support the formulation of tools that will reinforce the implementation of existing SCP related policies than to promote the formulation of new policies.

Most countries have well-developed frameworks for environmental protection and pollution control, which have emerged since about 1995. There is a lot of experience in implementation and important success stories in regard to, for example, mitigating urban air pollution. **Overarching policy frameworks** and laws are very important for framing policy context and they provide important guidance for sectoral policy initiatives.

Traditional sustainability indicators will not be sufficient for monitoring and evaluating SCP policies. SCP requires data and indicators that incorporate economic accounts, as well as environmental and social accounts that are compatible with the economic accounts. There is a **need to invest in frameworks, knowledge and data generation and indicators for SCP**, which may well be based on previous guidance frameworks for SCP developed by the UNEP.

The expressed priorities for capacity building and policy support include **a wide range of** themes but the following issues have been identified as the most important priorities: sustainable public procurement and sustainable consumption in general; sustainability reporting; benchmarking schemes for industry; national and regional indicators on SCP; eco-labels; coordinated awareness-raising campaigns; assessment of gaps in knowledge and practice; eco-innovation and adaptation of new technologies for cleaner production. On a sectoral level, **energy, water, food, mobility and tourism** are sectors of interest as expressed by the countries with sustainable cities being a cross-sectoral issue.



## ***Main findings from the policy analysis***

### ***The SCP Context***

While people, communities and businesses in rapidly developing Asia strive for opportunities associated with industrialization and modernization and work for increased material standards of living, governments have come to an understanding that the future prosperity of the region will crucially depend on enabling environmentally sustainable development. Sustainable Consumption and Production (SCP) underpins sustainable development and despite the use of different terminologies, all countries have taken steps to pursue SCP in one way or other. Despite these efforts, environmental concerns are not always considered important by communities and individuals. This makes achievements in SCP across all levels of government a difficult task, and in 'real life' development objectives frequently contradict sustainability aims.

Despite the complex and contested nature of SCP issues, the recognition of the importance of SCP and sustainable development has resulted in the formulation of framework policies, laws and legislation including many different instruments and incentives.

### ***Main policy domains relevant to SCP (with reference to important economic sectors)***

In Asian developing countries, national development plans guide the integration of different objectives such as economic development, social development and raising the standard of living, and environmental integrity. The authority of the departments responsible for development plans varies between countries. In some cases, such as in China and Viet Nam, one department shows strong leadership and coordination, whereas in other countries such as the Philippines all departments act fairly independently with much a lower level of coordination.

For all countries, the Millennium Development Goals (MDGs) define an important set of aspirations, including environmental sustainability and the effective and efficient use of natural resources. Many countries have achieved significant improvements in recent decades. Different countries have followed different strategies to use laws and regulations to enable sustainability, including special frameworks for sustainable development, SCP and green growth, and mainstreaming goals into development plans.

In regard to policies there has, understandably, been a focus on pollution control and to some extent on eco-efficiency of production and cleaner production, with important efforts to enable national innovation through the creation of National Cleaner Production Centres and an emphasis on preventive approaches. More recently, some countries have looked at much more integrated approaches, considering the whole production-consumption continuum and taking a life cycle perspective. Most notably, China has been one of the first countries globally to institute a ***Circular Economy Promotion Law*** covering all aspects of resource use, waste and emissions that occur when a society produces and consumes. Not surprisingly, there is no blueprint and only a very few international examples for how to implement such complex legislation across all levels of government, from national to local jurisdictions.

Most countries have well-developed frameworks for environmental protection and pollution control, which have emerged since about 1995. There is a lot of experience in implementation and important success stories in regard to, for example, mitigating urban air pollution. Examples include the ***Law on Environmental Protection and Natural Resources Management*** (Cambodia, 1996). Overarching policy frameworks and laws are very important for framing policy context and they provide important guidance for sectoral policy initiatives. Priorities are very similar in most countries investigated and include:

- Environmental protection
- Urban development
- Construction and housing
- Mobility and transport
- Food and agriculture
- Natural resources
- Manufacturing and consumer goods
- Tourism
- Energy and water



## ***Food and agriculture***

Most countries studied have a large agricultural sector both in terms of employment and contribution to GDP, often based on smallholder agricultural communities facing local food security and poverty issues. From a national policy point of view, agriculture has high potential for modernization and growth, to contribute to export income and to ensure local food supplies for the domestic population. Efforts include bringing technology to farmers, improving the efficiency of investments, rationalizing subsidies, diversifying production, improving supply chains, protecting food security and fostering inclusiveness through improvements in access to land, credit and skills.

## ***Mining and energy sectors***

There are numerous examples of rich resource endowment in Asian countries, such as hydropower in the Lao PDR and Bhutan, fossil fuels in Indonesia, etc. to name a few. While mining and energy led development may contribute to export incomes and the balance of payments, local benefits are more questionable. The distribution of resource wealth across a nation crucially depends on policy mechanisms that enable a fair distribution of the gains across time and geographies. Some countries are considering moving from the traditional system of royalties to resource rent taxes to ensure adequate gain sharing when resource prices are high, and using this income to invest in infrastructure, systems for retirement pensions and support for manufacturing and small businesses.

There are many examples of policies favouring energy efficiency and renewable energy. For example, China's target for reduction of energy intensity is incorporated in its National Development Plan and numerous more detailed policies and programmes for energy efficiency including buildings, transport and products. Energy efficiency is a very important policy goal to combat climate change threats through fundamental changes in energy systems.

There are important linkages and trade-offs between food, energy and water that need be addressed through policy settings but are often overlooked because of functional differentiation of departmental responsibilities.



## ***Cleaner production***

Cleaner production is a major policy imperative and has resulted in various laws to promote cleaner production. For examples see China, Sri Lanka and the Lao PDR. Many countries have established a Cleaner Production Centre as part of their national innovation system and these have had very visible achievements with regard to resource and emissions intensity in many industries including textiles, the pulp and paper and chemical industries, iron, steel and cement.

## ***Sustainable consumption***

Consumption is much harder to address by public policy because of the common belief that consumers are free to make their own purchase decisions according to their taste and means. The policy context is further complicated by the co-existence of over- and under-consumption that exists in many countries in the region. On one hand, countries whose economic growth strategy has been dependent on export incomes strive for the development of a stable domestic market to avoid over-exposure to world economic trends. On the other hand, a new consumer class adds to the environmental burden associated with consumption.

While public awareness plays an important role in shaping the consumption behaviour of households, infrastructure may well play a more important role. Investment in public transport and green buildings, as well as quality urban planning, will help shape consumer behaviour in areas of high environmental impact such as housing and mobility. The public sector will play an important role as a larger consumer, enabling behavioural change through the green public procurement initiatives that are being embraced by many countries in the region.

Businesses have an increasing incentive to organize their own supply chains in environmentally and socially responsible ways to ensure their future social licence to produce. Corporate Social Responsibility (CSR) is growing in importance in a market where consumers have started to ask questions about the products they purchase. Another important area for government intervention is the tourism sector, and there are many examples of green tourism initiatives and associated regulations to help maximize the overall benefit of visitors.

Developing Asia will require new production and consumption methods to underpin the future prosperity and competitiveness of the region and its people. These important changes will not happen spontaneously but will depend on well-designed policies. There is a triple dividend of greater wellbeing, increased competitiveness, and environmental integrity to be gained if policy settings are correct. Asia seems, on the whole, to be making good progress toward achieving this.

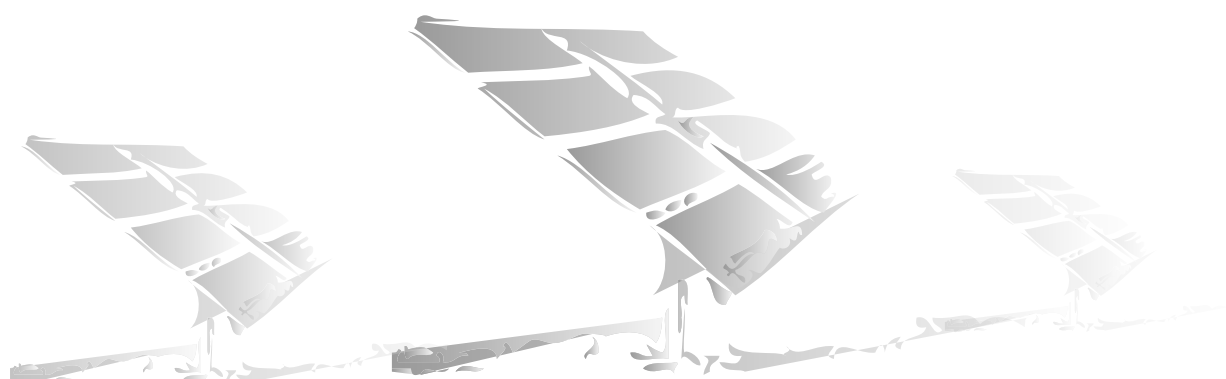
## ***Policy implementation***

There is ample evidence of the abundance of national policies, laws, regulations and programmes to support SCP in Asia. One important aspect of policy analysis is the effectiveness of policy implementation, especially at state and local level. A number of critical success factors for policy implementation that have been identified in this study:

- It is advantageous if there is a single responsible authority for coordinating SCP activities in a country to avoid confusion, duplication of efforts, conflicting activities, and inertia.
- The two main functions of the coordinating authority are to show leadership and capacity for decision making, in order to reduce complexity, and to help build linkages among all actors that need to be involved.
- Human capital and knowledge transfer about SCP issues and policies to state and local authorities as well as city governments are crucial for successful implementation at these levels of government.
- If incentives are designed to favour SCP it becomes easier and more likely to achieve good outcomes at all levels. Since businesses depend on local context for their day-to-day business activities it is important that national policy guides state and local practice.
- For society at large it will be crucial have champions of SCP among community leaders and decision makers who promote innovative technologies for SCP and sustainable lifestyles.

## ***Monitoring and evaluation of policies***

One important criterion for policy success is the ability to monitor and evaluate policy outcomes. If relevant processes and systems for monitoring and evaluation are put in place and reliable and credible data is available it becomes possible to learn from policy interventions and to make decisions about policy extension, adaptation or cessation. Traditional sustainability indicators will not be sufficient for monitoring and evaluating SCP policies. SCP puts a focus on economic activities – production, distribution and consumption – and therefore requires data and indicators that incorporate economic accounts, as well as environmental and social accounts that are compatible with the economic accounts. There is a need to invest in frameworks, knowledge and data generation and indicators for SCP, which may well be based on previous guidance frameworks for SCP developed by the UNEP.





## ***Expressed priorities for regional capacity building***

Based on the policy review and consultations held during on-site country studies, the project team identified a number of areas where countries appear to have similar needs for capacity strengthening. This section summarizes such common needs in three key areas: frameworks, policies and institutions; education and training; and research and innovation. It ends by identifying five broad domains that the project team considers to be priorities for future efforts to strengthen the SCP capacities of Asian countries.

### ***Frameworks, Policies and Institutions***

#### ***Frameworks***

One of the most frequently expressed needs was for developing close and effective collaboration among the various ministries and departments as well as between government and non-government agencies. Interviewees mentioned a need for a framework for coordinating SCP initiatives between ministries. In China, for example, there was a call to organize regular roundtable meetings to facilitate the sharing of knowledge and information, developing a common set of standards and criteria to avoid conflicting policy objectives. With support, the National Development and Reform Commission (NDRC) and Ministry of Environmental Protection (MEP) could convene high-level inter-ministerial consultations for relevant SCP approaches to be discussed by the ministers of each department.

Another approach suggested for strengthening SCP frameworks was to strengthen and expand the mandate of the host ministry of the national focal point. In Sri Lanka, for example, better enforcement of monitoring mechanisms for existing policies was linked to strengthening the role and capacity of the Central Environmental Authority (CEA) in its enforcement of Environmental Protection Licences and Environmental Impact Assessment. A similarly expressed need to increase coordination in Cambodia was to strengthen the mandate of the existing Green Growth Secretariat, to combine green growth and climate mitigation strategies.

#### ***Sustainable public procurement (SPP)***

SPP was frequently identified as an approach which, if properly developed, allows government to lead by example in their procurement practices. It would also use governments' substantial purchasing power to shift product manufacturers toward sustainable production. In India it was identified that establishing an effective system for sustainable procurement would not be easy and would need support. A number of components need to be developed, including guidelines and training, and a coordinating body needs to be established within the government. A strengthening of the government's capacity will have to be complemented by capacity strengthening also on the supply side; in many sectors suppliers have limited capacity to comply with strict environmental demands and lack the ability to provide credible evidence of compliance. In Nepal, as in India, a first step should be to identify a limited number of product groups where sustainable public procurement could play a significant role in terms of overall positive impact and with a high estimated cost-performance ratio. Taking the idea further, Sri Lanka has indicated that support for collaboration between the Ministry of Environment and the Department of National Planning would allow for SCP guideline development to be incorporated into national project financing. This should include specific guides to resource efficiency and pollution. Furthermore the government needs support to develop mechanisms and guidelines for sustainable public procurement.

Moreover sustainable consumption in general has been addressed as a priority in many countries and a number of experts have expressed the opinion that policies to support more responsible and sustainable consumption are needed.

To support sustainable procurement (and sustainable consumption in general), most countries need **eco-labels**. Taking the Lao PDR as an example, limited labelling and standards regimes exist for efficient appliances and buildings. In this case, imported electrical devices are one obvious area where opportunities to review existing standards and labelling (e.g. for devices imported from Thailand or China) could lead to improvements in efficiency and safety. Eventually, harmonizing labels across countries in regions or sub-regions would foster international trade in more sustainable products.

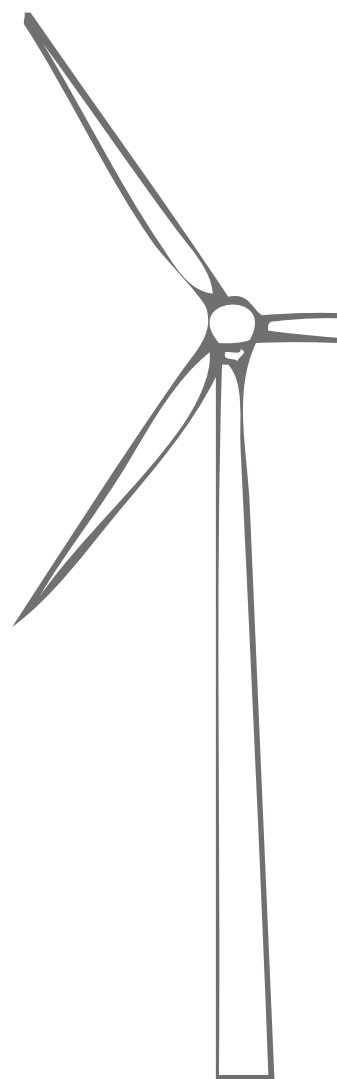
### ***Sustainability reporting, benchmarks and indicators.***

Another area where support could be provided is in developing and enforcing guidelines for corporate **sustainability reporting**. An example is the recently developed National Green Reporting System in Sri Lanka, which is currently being implemented. The system is designed to target industry and service sectors in general, however there are special provisions to stimulate small and medium-sized enterprises (SMEs) to participate in the process through supply chain management. SMEs are quite crucial but often lack capacity to monitor their environmental impacts or appreciate the benefits of benchmarking and reporting. Over 85% of businesses in Sri Lanka are SMEs, and more than 50 organizations, including public and private ones, had already registered to use the system within the first two months of its adoption. Capacity support would provide information and support centres for participating SMEs, and training on how to use the reporting system, monitoring and evaluation.

Several countries expressed need for support in development of energy efficiency **benchmarking schemes in industry**. These benchmarking schemes could eventually support the development of relevant standards. In China, the Environmental Certification Center (ECC) of the Ministry of Environmental Protection is already working toward the development of low-carbon certification schemes; the SWITCH-Asia programme could provide additional support. Beyond benchmarking schemes there is a need to develop an easily understandable **national and regional SCP indicator system**. An indicator system would allow policy makers to monitor implementation and effectiveness of policy initiatives related to SCP.

### ***Institutional issues***

Agencies are needed to support implementation of government policy. While some countries have National Cleaner Production Centres, these centres find it hard to be financially independent. There is indication that more **targeted implementation agencies** handling a limited portfolio of practices addressing more immediate stakeholder needs (e.g. energy efficient production) could be more easily sustained. An example of support for such an institutional set-up can be seen in the case of Nepal. The Alternative Energy Promotion Centre (AEPC) was established in 1996



on an initiative by UNDP. It works with off-grid rural energy and focuses on micro-hydro, biogas, and solar energy. The centre works with a large number of donor agencies and other organizations and provides substantial subsidies, 85% of which are covered by donors and the remaining part by the government. So far, 300,000 solar home systems have been delivered and 15MW capacity of hydro power has been installed. The projects on biogas are also reported to have been fairly successful in rural areas with livestock production. Despite these efforts, alternative sources still only provide less than 1% of the country's energy supply. There are already opportunities to build upon and expand further. A new industry policy since 2010 includes environmental sustainability as one of the four key objectives, and in line with this increased emphasis on sustainable industry a new centre for energy efficiency in industry is starting up as collaboration between Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and the Federation of Nepalese Chambers of Commerce and Industry (FNCCI). This centre will train energy auditors and offer subsidized audits, mainly to larger industries, develop showcases and build awareness. Both the Ministry of Industry and the Federation of Nepalese Chambers of Commerce and Industry expressed the need to strengthen capacity support to the private sector. One way of doing that could be by expanding the new energy efficiency centre for industry to include broader sustainability aspects. This could be realized as a collaborative effort among government, private sector and other international agencies. In Bangladesh, there is a recommendation to strengthen an already established SME Foundation by raising its technical capacity and training more personnel to support sustainable production among SMEs – which comprise the majority of businesses in the country.

## **Education and Training**

### **Awareness-raising**

The region could benefit from **coordinated awareness-raising campaigns**. In all countries, there was expressed need for raising awareness among all stakeholders, including consumers (about lifestyle choices), businesses (about benefits of more sustainable management and production methods), government officials and agencies (about the importance of SCP in achieving sustainable development policy objectives). Attention should be paid to public employees, consumers, farmers, SMEs, and legal practitioners.

Participants at the workshop in India observed that educational efforts, including both formal education in schools and more general awareness raising campaigns targeting the general public, need to go hand in hand with improved access to easily understandable consumer information. Eco-labels for energy efficient appliances, for example, would help with purchases of more sustainable light bulbs, air conditioners, fans, refrigerators, computers, televisions, etc., and mandatory requirements for producers to provide consumers with environmental product information could be instituted. Support to environmental NGOs working on consumer education could be strengthened and these organizations could be made more professional and better coordinated, and more resources could be allocated to professionally designed campaigns involving celebrities and other community leaders. In Viet Nam, participants mentioned the need to develop a **National Action Plan on SCP education** to promote SCP principles and practice, and also to identify options for building **SCP support networks** both in universities and in local communities. Sri Lankan participants proposed re-organizing school syllabi (at Advanced and Ordinary level) to integrate SCP, ensuring integration of theory and practice. To avoid being abstract, **consumer awareness could be linked to livelihood, health and lifestyles issues**. Awareness on nutrition and food hygiene is relatively low among the general public, contributing to health problems, especially among children. Efforts to educate consumers on these issues could increase the health benefits of poverty alleviation.

Sri Lanka provides an example towards sustainable agriculture – an area of primary importance to all countries. In Sri Lanka, an amendment, made in July 2011, to the 1980 Control of Pesticides Act, now requires agrochemicals sales staff to have undertaken training in said area, to understand the substances and be able to provide technical advice to customers. Over 7000 trained personnel are in demand; the Ministry of Agriculture needs technical assistance to meet the demands of such training. Training is also needed for **extension officers** especially on reducing overuse of pesticides and chemical fertilizers.

**Legal practitioners** would also benefit from more information to understand the conflicting issues related to economic, social and environmental development to better understand long-term sustainability implications of laws, and how decisions by courts and legal practitioners affect stakeholder adherence to sustainable practices at various levels in the legislative framework.

The Lao PDR has identified opportunities in using its Green Growth strategy to incorporate awareness of SCP. It expressed need for support to create a **multi-stakeholder platform** that would raise the profile of green growth/SCP while providing social learning opportunities. Such a platform would acknowledge the reality that responsibility for SCP is distributed across multiple sectors and scales of development.

## ***Skills and Training***

An often identified need is for development of and training for use of **technical guidelines**. Examples include guidelines on sustainable agriculture (e.g. using less or no fertilizer, organic farming) or more sustainable practices. Bangladesh, for example, needs to train agricultural extension officers to better communicate with and develop skills of farmers. An example is in application of the alternate wet-and-dry (AWD) farm irrigation method which can save water and increase production. Under this method, instead of constantly flooding rice fields (which farmers do to avoid weeds and to prevent insects from attaching to plant roots), the AWD practice encourages alternating periods of irrigation and non-irrigation. Once the water falls below required levels, a simple, inexpensive device (a 'pipe' inserted in the ground) automatically triggers more irrigation. The method has seen a 20 – 30% reduction in irrigation water use and 10 – 15% more rice yield. However it is only practiced by a limited number of farmers, due to a lack of practical guidelines and limited resources to reach out to the larger rural farming community.

Similarly, to achieve more sustainable tourism, SME tourism operators need guidelines on how to reduce the effects of their practices on, for example, biodiversity, pollution, etc. The scale of this cannot be underestimated in a region where tourism is a substantial source of income. Another example is the textile industry that is polluting waters from dyeing and finishing activities – an acute problem in Bangladesh and several other textile producing countries. Guidelines would be useful, for example, on suitable quantities of chemicals to use, appropriate quantities of dye for particular fabrics, or for the treatment of industrial sludge containing toxic chemicals and heavy metals.

There is significant scope for sustainability improvements in the construction sector, in terms of both energy efficiency and better supply chain management. Current building codes in Nepal, for example, focus on technical aspects, such as earthquake resistance, and do not include environmental criteria. There is generally a low level of skills on sustainability measures in the construction industry. Training of architects and engineers and general awareness-raising in the sector could be beneficial, but would need to be complemented by demand creation efforts and possibly also with changes in regulations, such as building codes. Local government officials, who are in charge of inspections and enforcement, would also need to be involved in capacity strengthening efforts.

In Cambodia, workshop participants highlighted the need for support in on-the-job training, internships, sandwich courses for graduate recruits to ministries, knowledge transfer from (international) experts, capacity building for commune and district councils, and refresher courses for ministerial staff and training on SCP for planning. Information sharing and the need to train technical people in marketing, management, communication and persuasion were also mentioned. Information and training programmes should be provided in local languages (e.g. Khmer in Cambodia, and both Sinhala and Tamil in Sri Lanka) and tailored to recipient communities.

To support the above capacity development activities, tools should be developed for access across the region. Examples include mapping gaps in knowledge availability, developing databases (e.g. of best practices, of toxic substances, etc) and the development of pilot and demonstration projects, as well as guides for replication and up-scaling, and the development of national SCP indicator systems.

### **Research and Innovation**

The need for research on SCP in order to support decision making and practices in the region was a recurring theme. Several technical knowledge gaps were revealed during interviews in areas such as industrial energy efficiency, sustainable agriculture, waste management, carbon footprint calculations, and building design standards. In most countries, interviewees stated the need for enhancing regional cooperation with neighboring countries to facilitate knowledge exchange and access technical expertise. One commonly suggested area was a study on the **assessment of gaps in knowledge and practice** of SCP in the region. This would include in-depth review of the current policies, institutions and capacities in this area; studies on specific SCP policy instruments (e.g. learning networks, technology transfer, environmental taxes and charges, subsidies, green public procurement) that could be used by national and local governments to achieve greater policy implementation; and a comparative analysis to see which policy instruments are effective in other countries and regions, especially in Europe, and how these might be tailored to the regional context.





**Eco-innovation and adaptation of new technologies** for cleaner production was identified as an area where current capacity is low. Sectors often mentioned in this regard included agriculture, waste and wastewater management, and energy efficiency. An example of such a need was expressed by Cambodia, in drawing the link between food security and sustainable agriculture. Cambodia aims to significantly increase food productivity, especially for rice, without increasing land used for agriculture. However, knowledge about soil quality, land availability, industrial fish farming, and impacts of fertilizer use or biogenetics is limited. Suggestions for R&D activities and investments included a GIS-based land resource management system, and strengthening the Scientific Agricultural Institute.

For energy, the Lao PDR expressed a need to conduct an independent study on how to strengthen delivery of decentralized energy and water services. Such a study could focus on evaluating a range of public-private partnership models. Cambodia identified a need for research on how to up-scale the use of simple, sustainable technologies such as biogas stoves across the country. Bangladesh also expressed a need for further research into setting up biogas plants in villages. Supporting research to explore such innovative opportunities in technology, management practices, etc, and budgeting for them or partnering with donor agencies would allow Bangladesh to pursue a more sustainable path to consumption and production.

An approach recommended by workshop participants in Sri Lanka was that since R&D activities are usually considered costly, SCP research for now should focus on **adaptation of existing technologies**. Another area with perceived opportunities was to support development of **partnerships between government, research and development institutions, and market actors**. The aim was not only to mobilize funding for research and implementation, but also to ensure that research findings are reflected in policy design, and also for easier adaptation of new SCP designs and SCP technologies. In this respect service laboratories were identified as a feasible model. In Cambodia there was expressed need for more service laboratories for agricultural (or water) pollution research. Sri Lankan interviewees suggested that upgrading the capacities of government service laboratories would be helpful, as well as facilitating development of service agreements between companies and universities to share research labs.



## ***Identifying responses***

On identifying specific responses to the expressed capacity building and policy support needs by the SWITCH eligible countries, and especially by the ones targeted by the PSC, a balance should be achieved between the following needs:

- The PSC's main implementation scope is at the regional level with activities that should address all 19 eligible countries but at the same time should provide responses to specific country needs. Therefore there is a need to strengthen the ability of institutional stakeholders to respond to SCP policy challenges both with regional (or better sub-regional) capacity building and by sharing knowledge and information on the basis of policy activities at the national level.
- The study has identified an integrated set of policy support activities at national, sub-regional and regional levels that extend beyond the scope of the PSC. While this is an advantage of the study (i.e. recommendations from the study can be used in the formulation of future support programmes and projects on SCP policies) it poses a challenge, to identify the specific subset of activities that should be supported by the PSC at the national, sub-regional and regional level.
- Last but not least, the political systems of the targeted countries include a variety of governance forms and government structures. The response to specific country needs should therefore take into account the different types of legal systems and power structures in each country and provide tailored support that it is at the same time politically neutral and easily transferable to the sub-regional and regional level.

On the basis of these constraints it has been decided that the specific policy support and capacity building activities will focus on three levels (Figure 1.):

- Sub-regional capacity building
- National policy support
- Sub-regional co-operation and information sharing

In the first level (2<sup>nd</sup> year of the PSC's implementation) the activities of the PSC will include sub-regional capacity building on the following subjects: SCP frameworks and concepts; SCP policies at large; and SCP sectoral issues. The sub-regional level has been chosen because it will allow more efficient implementation and will create appropriate conditions for further cooperation among countries.

In the second level (2<sup>nd</sup> and 3<sup>rd</sup> year of the PSC's implementation) policy support will be provided to the PSC targeted countries on the basis of specific expressed needs. The policy support will be based on the implementation of activities around the following nine topics, each one of them related to a specific stage of the SCP policy process:

- The **problem framing** stage
  1. National Roundtables on SCP
- The **policy framing** stage
  2. National Action Plans on SCP
  3. Regulatory tools for SCP
- The **policy implementation** stage (sector oriented)
  4. Public Procurement
  5. Lifestyles
  6. Cities
  7. Mobility and Tourism
- The **policy monitoring and evaluation** stage
  8. SCP Indicators
  9. Policy coordination

In the third level (3<sup>rd</sup> and 4<sup>th</sup> year of the PSC's implementation) the case studies from the national implementation will be taken into the sub-regional level and be combined with activities related to regional policy cooperation, dialogue with the private sector and establishment of a network of Asian SCP (policy) experts.

Each of the SWITCH-PSC targeted countries, in consultation with UNEP, will choose the activity that best fits their national needs and will identify, together with UNEP, national partners to participate in implementation.

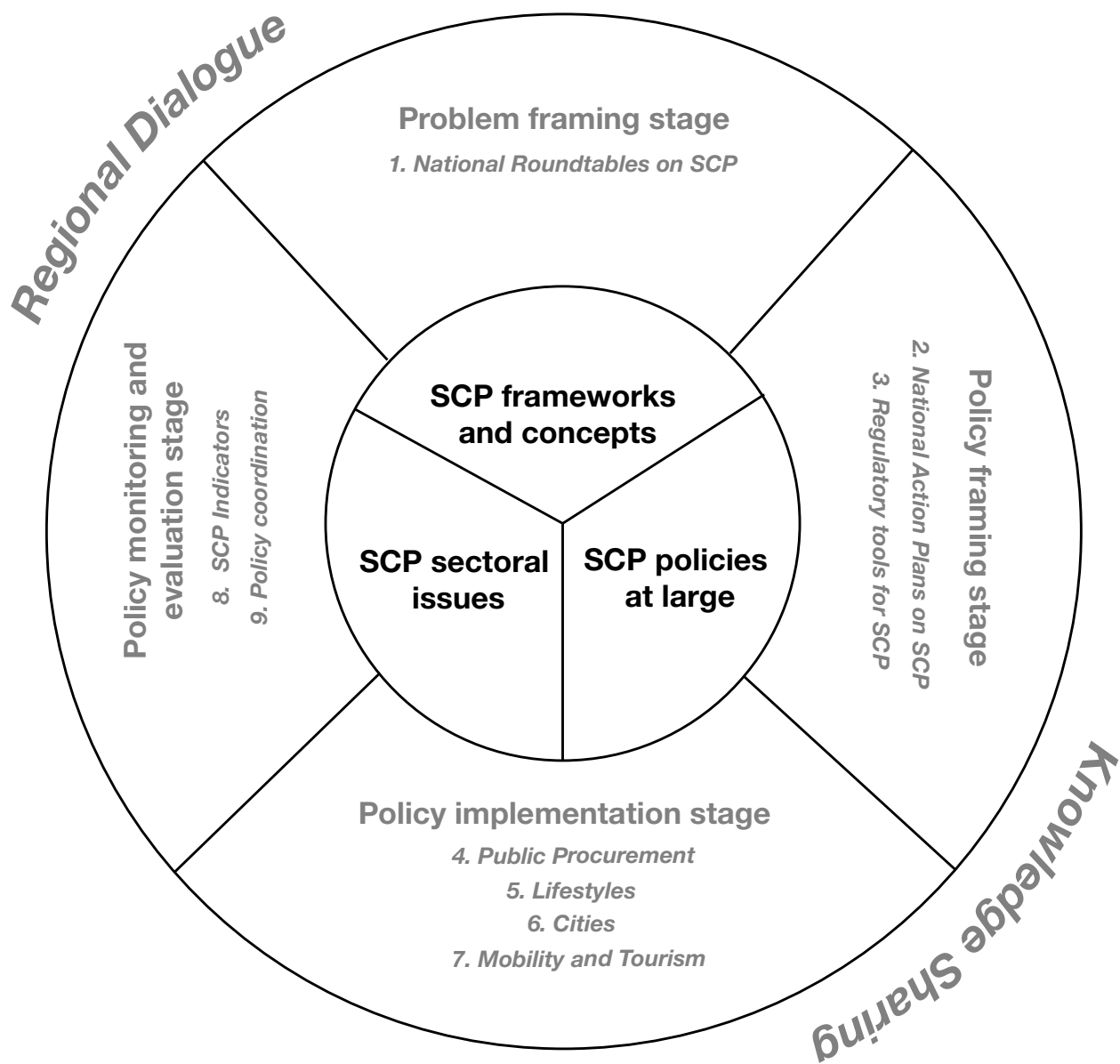


Figure 1.

## ***Aspects that should be addressed during the implementation of capacity building and policy support activities***

### ***Cross-departmental collaboration will be instrumental to providing coherent policy settings across policy domains***

SCP is a complex policy issue involving many areas of sectoral policy that need to work together to achieve the objectives of SCP. To enable this, countries need to strengthen capacity for cross-departmental cooperation at various levels including high-level decision making and lower level day-to-day operative arrangements. This involves strengthening horizontal communication within and among departments, greater transparency of departmental strategies among public servants and information sharing. The establishment of one single SCP body within each government, with an appropriate mandate and sufficient resources, could facilitate such coordination.

### ***Policy implementation at the sub-national scale will be crucial to achieving practical SCP outcomes***

Many countries have identified SCP as an important overarching policy objective to underpin future prosperity, competitiveness and environmentally sound development, and in turn have created policies, laws and regulations at national level. Countries have set different priorities based on their economic structure and development status and have either invested in national SCP strategies or mainstreaming SCP into other policy documents, or very often a combination of these. In general, priority has been given to the production side with less attention paid to policies aimed at influencing consumption patterns related to environmental impacts. As a result, most countries are equipped with policies that may partly enable SCP. However, what is often lacking is implementation at the sub-national level. Proper implementation will require additional guidelines for local authorities, urban councils and communities on how to use the high-level policy guidance in their day-to-day decision making, further awareness raising and information sharing with sub-national representatives to help overcome existing barriers of implementation, and clear incentives that motivate local decision makers to act in accordance with regulations issued at the centre.

### ***Harmonization of development objectives and funding for SCP***

Policy making in Asia needs to address the dual objective of raising the standard of living and alleviating poverty while ensuring environmental sustainability of development. In such a context economic growth is a very important objective and usually involves environmental and resource degradation of some kind. There needs to be a broader discussion about the quality of growth and the merits of investment into SCP to inform priority setting in treasury and finance departments that matches the ambition of SCP policies to ensure smooth implementation of programmes and activities. Investment into cities and infrastructure such as public transport, renewable energy systems and sustainable water and wastewater systems and also green manufacturing and industrial symbiosis will be crucial and will have a lasting legacy for SCP outcomes.

### ***Measuring success will be vital informing future policy planning***

The current set of economic indicators does not address SCP outcomes properly and countries need to invest into monitoring and evaluation of SCP including developing a set of broader SCP indicators. SCP indicators will be different from current sustainability indicator approaches because they will need to address the close linkages and dependencies of economic, social and environmental outcomes



with the production and consumption process. SCP indicators will be based on a system of economic, environmental and social accounts that work together well to address issues of SCP and to monitor progress of SCP policies.

### ***Getting the mix of policies right to incentivize all sectors of society, industry and communities***

Countries have started to invest into transformational policies such as budget and tax reform including resource and carbon taxes, trading schemes and payment for ecosystem services. These economic instruments and settings will help to create a different set of incentives in favor of SCP outcomes and will set countries on a new green growth economic development trajectory. Economic incentives will need to be supported by legal and planning arrangements, especially for fast growing Asian cities, covering the domains of construction and housing, transport, water and energy. Awareness and readiness for SCP needs to grow across all sectors of society and government can take a lead with regard to green procurement and eco-efficiency of government owned businesses. Most importantly, policy settings need to support initiatives among the business community to unleash the creativity and innovation of industries for eco-efficient production and green products.

### ***Enhancing technical knowledge and supporting countries' innovation culture***

Innovation will be crucial for developing technologies and practices for production of goods and services and will involve experimentation in industries but also across all sectors of societies. To secure future prosperity there need to be new ways of producing and consuming based on new technologies, and new lifestyles that support sustainability. Many of the technologies that will underpin SCP are already known but there is large potential for further development. There is also vast improvement through organizational settings and logistics that needs be achieved. Countries need to invest in sharing knowledge and building a national innovation culture.



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