Shaping the economy of sustainable development
An overview of policies and initiatives supporting the shift towards sustainable consumption and production patterns in Asia

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ACKNOWLEDGMENTS

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The report also benefited from the generous financing support of the European Commission, Norway and Switzerland.
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Abbreviations and acronyms

10YFP 10-year framework of programmes on sustainable consumption and production patterns
3Rs Reduce, Reuse, and Recycle
ADB Asian Development Bank
AIT-VN Asian Institute of Technology in Vietnam
APRSCP Asia Pacific Roundtable on Sustainable Consumption and Production
ASEAN Association of Southeast Asian Nations
CAMRE Council of Arab Ministers Responsible for Environment
CFL/LED Compact Fluorescent Lamps / Light Emitting Diode
DAC Development Assistance Committee
DTI Department of Trade and Industry
EU European Union
ESCAP United Nations Economic and Social Commission for Asia Pacific
ESCWA United Nations Economic and Social Commission for West Asia
GED Green Economic Development
GDP Gross domestic product
GGGI Global Green Growth Institute
GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH
IREA International Renewable Energy Agency
MDGs Millennium Development Goals
MSSD Mediterranean Strategy for Sustainable Development
NGOs Non-Governmental Organisations
ODA Official Development Assistance
OECD Organisation for Economic Co-operation and Development
PPP Purchasing Power Parity
RE Resource Efficiency
RODG Regional Operations and Development Group
SACEP South Asia Cooperative Environment Programme
SCP Sustainable Consumption and Production
SCP-RAC Regional Activity Centre for Sustainable Consumption and Production
SDGs Sustainable Development Goals
SMEs Small and Medium-sized Enterprises
UN United Nations
UN Environment United Nations Environment Programme
UNESCAP United Nations Economic and Social Commission for Asia and the Pacific
UNESCO United Nations Educational, Scientific and Cultural Organization
UNIDO United Nations Industrial Development Organisation
UPC Abu Dhabi Urban Planning Council
USD United States Dollar
VCPC Vietnam Cleaner Production Centre
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Executive Summary

Asia is rapidly growing and urbanizing, leading to ever-greater resource use and environmental stress. Global value chains are an important part of Asian income and employment growth (ADB 2014). As broadly conceived, the region is indeed economically structured towards trade, with 13 out of 38 developing economies in the Asia-Pacific reporting a total value of exported goods and services being more than 50% of GDP (ADB 2016).

In the meantime, ecological footprints are increasing rapidly with some industrializing countries already operating beyond their biocapacity. In response to this, stakeholders across the region are increasingly utilizing sustainable consumption and production approaches and a sound foundation for such work has been laid. Opportunities but also challenges to not only achieve resource efficiency but also adopt more holistic and integrated approaches are huge in Asia. In this regard, the advent of the Sustainable Development Goals (SDGs) and the implementation of the 10-Year Framework Programme for Sustainable Consumption and Production (10YFP) represent a clear opportunity to bring together a currently fragmented approach and build upon the promising foundations laid.

This report looks at national policies and initiatives related to sustainable consumption and production in Asia, without pretending to offer an exhaustive inventory of such policies and initiatives. It was developed based on literature review, integrating information collected through key regional projects such as SWITCH Asia and SwitchMed¹. The report is also based on the results of a pilot survey conducted end of 2015 by UN Environment, serving as Secretariat of the 10-Year Framework of Programmes, to which only 7 countries from Asia (including Japan, Malaysia, the Philippines, and Thailand for the Asia-Pacific region, and Jordan, Lebanon and the United Arab Emirates for West Asia) responded. In this context, the report provides: 1) key elements of the Asian region’s socio-economic and environmental profile, which sets the scene; 2) an introduction to regional frameworks and networks promoting more sustainable consumption and production patterns; as well as 3) an initial review of relevant national policy frameworks and instruments. The report has two objectives: understanding ongoing efforts to create the conditions for an economy of sustainable development, and laying the foundations for a baseline that can serve as a starting point to track progress on sustainable consumption and production policies in the region, in the context of Agenda 2030 for Sustainable Development and the SDGs.

This report also presents several case studies from Japan, the Philippines, Vietnam, the United Arab Emirates, as well as a country success story from Malaysia, as inspiring examples of government-led initiatives for sustainable consumption and production.

Asia’s approach to sustainable consumption and production

Efforts in Asia with regards to sustainable consumption and production have so far predominantly focused on the manufacturing sector, cleaner production, pollution control, waste management and efficiency approaches, as evidenced by the emphasis on the development of resource focused policies, such as those for energy and water. Policies reported in 2015 reflected this tendency, with emphasis being put on manufacturing but also, to a certain extent, on market-based instruments such as eco-labeling and public procurement. In recent years, some countries, such as Malaysia, Thailand, and Viet Nam, have also started addressing social aspects, as shown through efforts towards considering sustainable consumption. As a major global production centre, Asia has indeed the potential to be a model for sustainable manufacturing, consumption, and takeback system. Building on good practices from the region, introducing progressive circular economy instruments, such as remanufacturing and refurbishing, and creating sharing economy business opportunities and other service industries will be a further opportunity.

In terms of the policy landscape, there are currently few national plans specifically dedicated to sustainable consumption and production in the region. Examples include Viet Nam and Malaysia, which have developed national plans and Indonesia, which has developed a national framework in line with the 10-Year Framework of Programmes on Sustainable Consumption and Production. In West Asia - Mashriq countries in particular, Jordan and Lebanon have also specific national action plans in 2016 and 2015, respectively. Other countries, such as China with its National Plan on the Implementation of the 2030 Agenda for Sustainable Development, integrate sustainable consumption and production into a broad sustainable development strategy, while green growth has increasing prominence in the region. The approach is welcomed by Asian countries who wish to both industrialize without going through a heavily polluting phase as well as placing economic growth in the context of sustainable development.

Map 1. Sustainable consumption and production in national policy frameworks
Key challenges and opportunities

Towards more holistic and integrated approaches to sustainable consumption and production

Building on and strengthening the excellent existing efforts in the production side and infrastructure, the region could move forward to transitional and progressive policies addressing lifestyles through a systemic approach. The role Asia plays in global value chains Asia is central and offers large opportunities for developing resource efficient production practices, but it is also at a turning point to integrate sustainable consumption dimensions and prevent industrialisation and urbanisation from leading to an unsustainable high consumption culture. Enhancing such a transition would be urgent in high-income countries, where consumption and footprint hits the highest level in the world. It is also important that low to middle income countries understand the positive role of sustainable consumption and production in their development - not as a means of austerity, but of improving the quality of growth and thereby the quality of life.

Unification of approaches under the Sustainable Development Goals framework

A sound foundation for sustainable consumption and production exists within the region, through multiple and complementary approaches, and can be further advanced with the unifying framework of the Sustainable Development Goals, as well as with the support of the 10-Year Framework of Programmes, Sustainable Consumption and Production. At the national level, the opportunity to develop national sustainable consumption and production plans, as mandated under Sustainable Development Goals indicator 12.1.1, could be used to conduct baseline research to understand the current national situation and then develop holistic national plans using a multi-stakeholder approach.

Increase in capacity building, technical and financial support, as well as in domestic investments

Sustainable consumption and production is currently mainly externally driven in Asia, with many processes requiring technical assistance from and funding of external actors. However, external funding remains insufficient and will need to be expanded dramatically if the Sustainable Development Goals and the 10-Year Framework of Programmes are to be successfully implemented in the region. On the other hand, a number of countries in the region are increasing their roles as international donors. For example, Saudi Arabia, the United Arab Emirates, and China are estimated to be 5th, 9th, and 16th contributors of ODA as gross disbursements in 2014, respectively (OECD 2016b). There is an enormous potential of these emerging donors to contribute on mainstreaming and foster the shift towards sustainable consumption and production inside and outside of the region. The 10-Year Framework of Programmes on Sustainable Consumption and Production, its regional processes and implementing partners can also serve as catalysts to enhance mobilization and coordination of donors and regional resources. At domestic level, policies and initiatives need to be consolidated through a centralized mechanism, but also support by investments and financing tools, such as public-private partnerships, increased taxation and improvements in tax collection.

Greater involvement of other stakeholders

Engagement of and a role for non-government stakeholders in Asia is not always clear, though references to them are often made within plans and strategies on sustainable consumption and production. To ensure the most effective policy-making, non-government stakeholders should be engaged in the policy making process at the earliest possible opportunity. Multi-stakeholder approaches are a firm foundation, which can be built upon as countries seek to institutionalise sustainable consumption and production. Sub-national actors, especially regarding lifestyle and
education aspects, have a key role to play as this can frequently fall under the remit of local governments who are the closest to citizens.

**Monitoring and measuring progress**

A lot of progress has been made, especially in Asia Pacific, to create the conditions for monitoring and measuring progress on sustainable consumption and production, including through the identification of key indicators and development of broad databases. In West Asia, on the other hand, no clear mechanisms for monitoring, reporting, and evaluation were defined at the regional level. Nevertheless, at the national level, only a limited number of countries established clear and eligible national sustainable consumption and production indicators. Identifying such indicators and collective data while adopting a comprehensive sustainable consumption and production perspective - such as integrating basic needs, well-being, and lifestyles, and including all aspects of natural resources, socio-economy, and policies at both process and impact levels – will be crucial.
Essentials of Asia’s socio-economic and environmental profile

Asia is the world’s largest continent and home to over half of the world’s population. It is a very diverse and varied region both geographically and demographically, from extremely arid regions in northern China and West Asia to the tropical regions of south and Southeast Asia. It is home to rapidly ageing populations in China, Korea and Japan, and countries characterized by their youthfulness such as Cambodia and Lao PDR. It features some of the richest countries in the world (the United Arab Emirates) and some of the poorest (Myanmar). It has the two largest countries in the world by population (China and India) as well as some of the smallest (Dubai and Singapore). It features highly industrialized and urbanized countries, and those which are still predominantly agricultural. It is also culturally diverse, being the birthplaces of Buddhism, Hinduism and Islam as well as the political philosophy of Confucianism, which has held a central position in the culture of East Asia for over two millennia.

The use of macro-statistics at the regional level masks this immense diversity, especially with the presence of China and India whose vast populations are individually a multiple of sub-regions such as West or Southeast Asia and whose GDP accounts for 60% of the GDP of the Asia-Pacific region as a whole (ADB 2016). Asia remains mostly rural, with 48% of its population living in urban areas, but is rapidly urbanizing, with a projected urban population of 64% by 2050 (United Nations 2015), and industrializing. Coupled with rapid population growth, resource consumption and its attendant environmental impact is quickly becoming in danger of being uncontrollable. As broadly conceived, the region is economically structured towards trade with 13 out of 38 developing economies in the Asia-Pacific reporting a total value of exported goods and services being more than 50% of GDP. In 26 of 38 countries, total exports exceeded 30% of GDP in 2015 (ADB 2016). Indeed, the large increase in global value chains over the last three decades is due to the increased presence of Asia within global trade. This is particularly due to the rise of China as a manufacturing hub (China’s share of global manufacturing rising from 3% in 1990 to 19% by 2010), but also the increasing role and presence of other Asian countries such as Thailand, the Philippines, India, Indonesia and Viet Nam amongst others. Global value chains are an important part of Asian income and employment growth (ADB 2014). There has been an increase in the share of industry and services in the region between 2000 and 2015 and a decline in agriculture and household consumption (ADB 2016), demonstrating a strong economic emphasis on domestic production over consumption.

Capacity in overcoming these challenges varies greatly across the region. The Asia-Pacific region had a literacy rate of 95% in 2011, in contrast South and West Asia reported a 63% literacy rate with a wide gap between low female and high male literacy rates (UNESCO-UIS 2013). Productivity per worker (as measured in GDP at constant basic prices per worker, using 2011 PPP, reference year 2013) varies widely but are broadly in line with the level of industrialization. Industrialized countries such as Singapore (USD121,900), Japan (USD71,400) and the Republic of Korea (USD61,500) report high levels, while predominantly rural countries such as Nepal and Cambodia report low levels of USD4,800 and

Across Asia-Pacific, ecological footprints within industrializing countries are low but increasing rapidly with some industrializing countries already operating beyond biocapacity.

The situation in West Asia is bipolar. Gulf countries feature high consuming populations, many economies in the region being reliant on fossil fuel industries. Masriq countries face dual challenges of development and environmental degradation such as desertification and water scarcity.
USD4,900 respectively (Asian Productivity Organisation 2015). Politically, there have been transfers to multi-party democracy and civilian rule in Indonesia, Myanmar and the Philippines; long-term stable democracies in India, Malaysia and Singapore; and stable political structures in countries such as China, Lao PDR, Saudi Arabia, the United Arab Emirates and Viet Nam. Although the region has become more politically stable in recent decades, it is facing growing inequality with the potential to be a long-term destabilizing factor.

Rises in prosperity across Asia are therefore tempered by increasing environmental degradation and unsustainable living patterns. Many countries in Asia are now in “overshoot”, whilst struggling to increase wellbeing for their citizens. Sustainable consumption and production frameworks are nascent in the region, but the policy decisions that are being made today and the behaviours that are encouraged will determine whether Asia and the world as a whole are able to meet the challenge of climate change and end the century living sustainably.

As macro figures mask its immense diversity, it is difficult to contextualize Asia globally. Nevertheless, the major socio-economic and environmental figures below underline the foregoing. Asia, as a major production centre and with significant resource based economies (particularly in West Asia) but lacking resource efficiency, has a high material intensity, second only to Africa (where resource extraction is a major proportion of GDP). GDP per capita and human development are middling, which is to be expected in a highly diverse and rapid growing and urbanizing region. It is concerning to note that the ecological footprint per capita of 2.3 gha, although lower than global average of 2.8, is already beyond biocapacity with substantial growth and urbanization yet to come.

Across Asia-Pacific, ecological footprints within industrializing countries are low but increasing rapidly with some industrializing countries already operating beyond their biocapacity. The situation in West Asia is bipolar. Gulf countries feature high consuming populations due to the emphasis of many economies in the region being reliant on fossil fuel industries, while Masriq countries face dual challenges of development and environmental degradation such as desertification and water scarcity.

## Table 1. Key Indicators for Asia

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<tr>
<td>Domestic Material Consumption per capita (ton/capita) (2010)</td>
<td>9.8</td>
<td>Biocapacity per capita (global ha/capita) (2012)</td>
<td>0.9</td>
</tr>
<tr>
<td>Material Productivity (USD/kg) (2010) *1</td>
<td>0.38</td>
<td>Total Primary Energy Supply per capita (kJ/capita) (2010)</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Labour Productivity (thousand USD/labour) (2016)</td>
<td>28</td>
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*1 GDP divided by Domestic Material Consumption  *2 GDP divided by Total Primary Energy Supply  *3 GDP divided by total number of employment  *4 Domestic Material Consumption divided by GDP.
Regional cooperation frameworks and networks

The history of sustainable consumption and production can be broadly defined as moving through five stages. Initially these were technically focused with end of pipe (1970s) to cleaner production (1980s) then efficiency (1990s) approaches used. The birth of life cycle approaches (2000s) and the current sufficiency approach stage has led to a greater consideration of social issues.

This progression can also be observed in Asia, with the region appearing to move through these stages, but with different countries remaining at different stages. Efforts in the region have predominantly focused on the technical issues of end of pipe, cleaner production and efficiency approaches, as evidenced by the emphasis on the development of resource focused policies such as those for energy and water. In recent years, some countries within the region, such as Malaysia, Thailand and Viet Nam, have also started including social aspects through life cycle and sufficiency approaches, as shown through efforts towards considering sustainable consumption such as promotion of sustainable lifestyles to the public and support for green labelling schemes. There have been tentative steps towards wellbeing, most notably Bhutan’s Gross National Happiness.

The development of sustainable consumption and production in the region has a near two-decade history with initial efforts being focused on the Asia-Pacific Roundtable for Sustainable Consumption and Production (APRSCP). Established between 1997 and 1999, APRSCP is an international, non-governmental and non-profit institution aiming for the reduction of environmental impacts whilst increasing the standard of living within the region. It has moved from its initial focus on cleaner production towards the broader themes through regular roundtables held every 18 to 24 months. An increased involvement of national governments, notably through the 10YFP National Focal Points, in the forum has further assisted in the strengthening of the roundtable.

In parallel with the APRSCP, the Marrakesh Process was implemented within the region. The Process supported resource efficient and cleaner production; the greening of businesses and markets; green public procurement; development of fiscal instruments; and the development of national action plans (Akenji, Bengtsson, and Schroeder 2017). The Asia-Pacific chapter of the Global Outlook on SCP (UNEP 2011) comprises a full analysis of regional efforts around this period. With the variety of good practices shown, the Marrakesh Process assisted in raising awareness of a broad concept of sustainable consumption and production, which is being further promoted and advanced through the 10YFP.

In parallel, the SWITCH-Asia programme was established in 2007 by the European Commission after sustainable consumption and production was labelled as a priority in the regional cooperation strategy for 2007 - 2013. It has pledged EUR300m for pilot projects in the period 2007 – 2020. The projects operate in 18 countries, with a project duration of 24 – 48 months and average grant size of EUR1.7m with the aim of promoting sustainable consumption and production amongst Small and Medium Sized Enterprises and supporting Asian policy makers (UNEP 2011, SWITCH-Asia 2016b, SWITCH-Asia 2017e). A more detailed discussion of SWITCH-
Asia appears in the Funding and Technical Resources section below, but as with the policy initiatives, project implementation has mainly focused on production.

**Asian Lead Paint Elimination Project (Bangladesh, India, Indonesia, Nepal, Philippines, Sri Lanka and Thailand)**

The Asian Lead Paint Elimination Project is a regional project along with the Global Alliance to Eliminate Lead Paint launched in 2010 to reduce lead poisoning of children by eliminating lead decorative paints in seven Asian countries - Bangladesh, India, Indonesia, Nepal, Philippines, Sri Lanka and Thailand.

Lead-contained paint is one of the major cause of the exposure to lead (WHO 2010). At the global level, exposure to lead has declined by phasing out leaded gasoline in the majority of the countries. By contrast, lead-based paints have been still produced and consumed in many developing countries (Kessler 2014). A survey in seven Asian countries in 2013 revealed that more than three-quarters of the paints sold contained over 90 ppm of lead, which exceeds the regulated limit in most of the industrialized countries, and a quarter contained extremely high lead levels, above 10,000 ppm (Brosché et al. 2014).

**Institutional mechanism and resources**

The Asian Lead Paint Elimination Project was implemented from December 2011 to June 2015 by the International POPs Elimination Network (IPEN), with seven local partner organizations. The project took a strong stakeholder approach. It established the National Alliances to Eliminate Lead paint with paint associations, experts and non-governmental organizations to strengthen the campaign. The project held dialogues with stakeholders to develop the third-party paint certification and labelling programme. Dialogues with policymakers and politicians were also held in each country. As many as 20 to 30 Small and Medium Sized Enterprises and 40 to 50 stakeholders had engaged per country throughout the project period (EU 2016).

**Instruments**

The Asian Lead Paint Elimination Project took a combination of different approaches: campaign, research, lobbying, capacity building, and labelling. The intensive outreach campaigns amounted to approximately 20 outreach events per year per country. Studies of the paints available in the market were conducted periodically (EU 2016). This research component plays a key role to monitor the progress and conduct campaign and policy dialogue with scientific evidence.

The issue of lead paint is multi-sectoral. Along with the dialogues with private sector and campaigns, the project partners had lobbied policymakers and political leaders in each country covering different relevant ministries (IPEN, 2015; EU, 2016). This multi-ministerial approach was essential to address the crosscutting aspects of production technology, health risk, regulations and standards, and education.

Other key elements of the project were capacity building and information-based instruments. Eliminating lead additives from the production process was a considerable challenge to Small and Medium Sized Enterprises. Capacity building to Small and Medium Sized Enterprises provides necessary information to change their production process from lead-free materials. Alongside the capacity building, the project developed Asian Lead Safe Paint certification programme, a regional third-party certification and labelling scheme (EU 2016).
Impacts, challenges and key success indicators

The projects resulted in successful elimination of lead-based paints from Asian markets. **At the end of the project in 2015, all market-leading brands produced only low lead paints in the all seven target countries.**

Enforcement of the new regulations especially with small-scale manufacturers, and the establishment of regulation in the remaining countries are further challenges. Steps to elimination are to be continued.

Key success factors of this project were:

i) Comprehensive mix of interventions and regional network;

ii) Engagement with different government agencies, and

iii) Capacity building of private sector.

First, the whole set of the science-based campaign, stakeholder dialogues, labeling scheme, and capacity building made an effective intervention package. Such efforts became stronger through regionally coordinated implementation of interventions in multiple countries. Second, continuous engagement with ministries across governments made policy change and appropriate government support possible. Finally, provision of capacity building to Small and Medium Sized Enterprises ensured production pattern shift.

These success approaches can be scaled-up for further elimination of lead-based paint in Asia and other regions or scaled-out to overcome other unsustainable products and consumption patterns – such as any commodities alongside lifestyles - e.g. reduction of food loss, excessive use of high-carbon transport, and overconsumption of daily products.

For further information: Switch-Asia website

http://www.switch-asia.eu/projects/lead-paint-elimination/

In Nepal and the Philippines, regulations to set obligatory limitation of lead content of paint as 90 ppm, which is as high standard as the ones in the industrial countries, were established.

Lead exposure for consumers and workers in the paint manufacturing industry was reduced, and the demand for low-lead paint also created business opportunities (EU 2016).

Such regional efforts to establish regional networks and frameworks have been continued and strengthened after Rio+20, with the adoption of the 10-Year Framework of Programmes on Sustainable Consumption and Production (10YFP). In Asia-Pacific sub-region, the Asia-Pacific Roundtable on Sustainable Consumption and Production has continued to be periodically held.

In addition, the **sub-regional forums - ASEAN Forum and the South Asia Forum on Sustainable Consumption and Production** - have been established with the first forums held in 2014 and 2016 respectively. The ASEAN Forum agreed a work programme for 2014 – 2015 which included annual meetings, building cooperation with external partners, implementation of collective studies on traditional practices, development of specific indicators, greening supply chains, and increasing government and Small and Medium Enterprises’ capacity (Kementerian Lingkungan Hidup 2017). The First South Asia Forum on Sustainable Consumption and Production was organized by UN Environment, South Asia Cooperative Environment Programme (SACEP), SWITCH-Asia and the Government of Sri Lanka. It focused on policy dialogues regarding tertiary curricula, training on mainstreaming sustainable consumption and production and received national government updates on progress. The meeting ended with a summary statement.
welcoming the establishment of the forum, encouraging relevant stakeholders to participate and provide technical and financial assistance, and requesting UN Environment and other international organizations to assist with resource mobilization (SWITCH-Asia 2017d). These forums have deepened and expanded regional engagement with sustainable consumption and production, but being comparatively recent lack the deeper roots of the Asia-Pacific Roundtable.

In 2013, the Roadmap for the 10YFP implementation in Asia and the Pacific 2014-2015 was developed through a series of consultations building up to the First Asia-Pacific Regional Meeting on the 10YFP held on November 7th – 8th 2013 in Bangkok, Thailand. The roadmap described potential outputs under each of the 10YFP programmes as well as crosscutting opportunities. Of the 29 activities described, 19 were completed within the period, 3 were not completed (in buildings and construction) with 7 were still ongoing in 2016.

Following the implementation of this roadmap and the adoption of Agenda 2030 in 2015, the Sustainable Consumption and Production Asia Pacific Roadmap 2016 – 2018 was developed through a regional consultative process. The roadmap has the overall objective of creating a clear and shared regional agenda, strengthening synergies and establishing a platform for the mobilization and sharing of knowledge, expertise, technology and financial resources. This is accomplished through four main goals and objectives:

i) Mainstreaming sustainable consumption and production as an integrative approach to deliver on the Sustainable Development Goals and the 10-Year Framework of Programmes;

ii) Developing government and stakeholder capacity to implement policies and programmes in specific domains;

iii) Strengthening linkages between new and existing cooperation, dialogue and delivery platforms in the Asia-Pacific;

iv) Monitoring sustainable consumption and production and resource efficiency: both resource use data as well as the platform to understand who is doing what.

These objectives are pursued through 7 thematic areas, including the mainstreaming of sustainable consumption and production into national policies/strategies and the six 10YFP programmes. These areas are also linked to relevant targets (indicators) of the Sustainable Development Goals to ensure their integration into regional efforts on sustainable consumption and production (UNEP 2016).

In West Asia, there are two processes dedicated to sustainable consumption and production, in the Arab and Mediterranean regions respectively. The Arab Roundtable Meeting on Sustainable Consumption and Production, covering the majority of the countries in Gulf and Masriq regions, has been convened since 2008. The main strength of this process in the Arab region has been the high-level leadership and support with the League of Arab States serving as a part of the secretariat. The Arab Regional Strategy for Sustainable Consumption and Production – proposed by the roundtable – was endorsed by the Council of Arab Ministers Responsible for Environment (CAMRE) in 2009 (UNEP 2012). After Rio+20, the emphasis has been shifted to the context of
the implementation of 10-Year Framework of Programmes. The 4th roundtable “Putting The 10-Year Framework of Programmes on Sustainable Consumption and Production into Action” was held in 2013 (CEDARE 2013). In the same year, a Capacity-building Workshop for the National Focal Points in the Arab Region launched the Roadmap for Implementation of the 10-Year Framework of Programmes on Sustainable Consumption and Production in the Arab Region (UNEP 2013b). However, the implementation status of the roadmaps and strategy are not institutionally monitored and publicly available. To convert plans into real changes in national policy-making, allocating resources, political leadership, and institutionalization will be essential. Collaborating with CAMRE and Arab League to ensure high-level commitment and incorporating the regional particular needs and context into regional implementation of the 10-Year Framework of Programmes will be an opportunity.

Apart from the Arab process, few Mashriq countries participate in this process in the Mediterranean region. The first Mediterranean Roundtable on Sustainable Consumption and Production was convened in 2008, and later the process was further evolved to develop a specific regional Action Plan and include sustainable consumption and production objectives and approaches in the Mediterranean Strategy for Sustainable Development (MSSD). The process is connected to the Barcelona Convention, especially since its Contracting Parties reaffirmed their commitment to support Green Economy and sustainable consumption and production in 2012 and made a decision to prepare a specific regional Action Plan in 2013. After that, the Mediterranean Strategy for Sustainable Development was revised, incorporating sustainable consumption and production as one of the thematic areas in 2014-2015 (UNEP 2016b). The Sustainable Consumption and Production Action Plan for the Mediterranean Region was adopted at the meeting of the Barcelona Convention in 2016 (UNEP 2016a). An EU-funded programme, SwitchMed, has made significant contribution to mainstreaming this approach. Mainly covering 8 countries, including Lebanon, Jordan, and Palestine, SwitchMed led to the adoption of national action plans including in these three Mashriq countries. However, there is no particular technical support mechanisms such as Switch programmes covering Gulf countries where high consumption and footprint per capita is being intensified - unfortunately, no country has developed a specific action plan to advance sustainable patterns of consumption and production in Gulf countries. In addition to the continuous support to Mashriq and Mediterranean countries, further collaboration and dialogue with Gulf countries can be an opportunity.

In parallel, the green growth concept has also become regionally prominent in the last decade. In Asia-Pacific sub-region, Green Growth was initially launched by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in 2005 at the Fifth Ministerial Conference on Environment and Development in Seoul, Republic of Korea. It gained prominence due to its aim of achieving economic growth whilst ensuring environmental sustainability (UNEP 2011). UNESCAP then developed and launched the Low Carbon Green Growth Roadmap for Asia and the Pacific (UNESCAP 2012). Since 2012 other stakeholders have started to champion the concept - both the Global Green Growth Institute (GGGI, established initially in 2010 and then converted to an international organization in 2012 (GGGI 2016b)) and OECD, which has contributed two green growth studies: Green Growth in Cities (OECD 2013) and Urban Green Growth in Dynamic Asia (OECD 2016).

In West Asia, regional frameworks for Green Economy and Sustainable Development are still on the way to be officially adopted, but show an opportunity to create a synergy with sustainable consumption and production policies and processes. The Arab Strategic Framework for Sustainable Development 2015-2025 and the Arab Regional Roadmap for Green Economy
The current trend towards green economy and green growth issues across the whole Asian region represents a clear opportunity for consolidation of complementary strategies regionally.

Investment were proposed in the Arab High-level Forum on Sustainable Development in 2014, based on a request by CAMRE (ESCWA 2014b). The proposed Sustainable Development framework defines emerging priorities including water-energy-food nexus, sustainable cities, climate change, poverty alleviation, and waste management, which indicate clear linkages with core elements of the sustainable consumption and production approach, which is one of the priority itself (Gelil 2014). The proposed Green Economy investment roadmap - including financing strategy, investment plan, and analytical toolbox - is considered “one of the operational arms of the Strategic Framework” (ESCWA 2014b). After the adoption of the Sustainable Development Goals in 2015, it is expected to see further discussions of their regional implementation, with the objective of sustainable consumption and production as a core element; however, as of the time this report is being written, there is no confirmation of the endorsement of the proposed sustainable development and green economy regional frameworks.

Currently there are several forums dedicated to the promotion of sustainable consumption and production across the Asian region which are well-established and provide a platform for regional exchange and development. Nevertheless, there are opportunities for further development, both in West Asia and the Asia-Pacific. As the most prominent and longstanding regional fora, the roundtables should be further built and expanded upon. In the Asia Pacific, it is recommended that the roundtable explores integration with regional meetings on the 10-Year Framework of Programmes as part of a shift to a greater focus on reporting on and showcasing policies and initiatives at the national and local levels. National governments should be invited to present on progress towards the establishment of national plans and implementation. Further consideration of the technical aspects would also assist in improving regional understanding of sustainable consumption and production, as both an objective and as an integrated approach to sustainability. In West Asia, the Arab Roundtable Meeting on Sustainable Consumption and Production could serve as a regional coordination function supported by CAMRE to foster high-level commitments. Continuous efforts to strengthen the regional implementation mechanism of Arab Regional Strategy and 10YFP Implementation Strategy are necessary.

These platforms should be then used as means to encourage efforts to foster the synergies between sustainable consumption and production, green economy and green growth, and the Sustainable Development Goals, and avoid a risk of fragmentation as well as additional transaction costs. The Sustainable Development Goals should bee seen as an overarching and unifying framework. In the Asia-Pacific this has already started with the aligning of the region’s Sustainable Consumption and Production Roadmap. Within West Asia there is an opportunity integrate and mainstream sustainable consumption and production under the overarching framework of the Agenda 2030 for Sustainable Development through the development of the aligned regional framework. This opportunity across the region to streamline implementation and reporting mechanisms and collectively mobilize resources should be taken.
This report is the Asian chapter of a series dedicated to national sustainable consumption and production policies and initiatives worldwide – *Shaping the Economy of Sustainable Development*. It builds on the results of the pilot survey conducted by the Secretariat of the 10-Year Framework of Programmes on Sustainable Consumption and Production end of 2015, in close cooperation with National Focal Points, to collect information on policies and initiatives at country level. It also builds on information regularly collected by the Secretariat on national policy frameworks addressing sustainable consumption and production issues as well as on reliable sources of information including from key global and regional institutions and initiatives, including the EU-funded projects SWITCH Asia and SwitchMed.

Late 2015, only 7 countries from the Asian region participated in the pilot survey, including Japan, Malaysia, the Philippines and Thailand for the Asia-Pacific region, and Jordan, Lebanon and the United Arab Emirates for West Asia. This very low response rate explains why those two major regions are being looked at together within a single Asia chapter. It also justified more extensive research and use of external sources of information on national policy frameworks and instruments aimed at addressing sustainable consumption and production at national level. Altogether, Asia Pacific and West Asia count 30 countries with a nominated 10YFP National Focal Point. While paying attention to avoiding duplication of efforts, and considering the importance of national sustainable consumption and production policies as an indicator of success under the Sustainable Development Goals, it is therefore expected that more countries will participate in the future in such efforts to collect and share information.

Through *complementary sources of information*, as mentioned above, information on national policy frameworks addressing or relevant to sustainable consumption and production was collected for another 11 Asian countries, including Bangladesh, Bhutan, Cambodia, China, Indonesia, Pakistan, Republic of Korea, and Vietnam for Asia-Pacific, and Iraq, Qatar, and Palestine for West Asia.

With 18 countries out of a total of 51 countries in Asia Pacific and West Asia (the “greater Asia”), even this enlarged group should not necessarily be considered as representative. In addition, those countries remain extremely diverse in many ways. Their population size, economic and social development, production and consumption models as well as their environmental performance indicators vary greatly. A synthesis of their individual performance with regards to key socio-economic and environmental indicators, including resource efficiency indicators, is available in annex I of this document.

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2 To access the full report, check the Global SCP Clearinghouse at [www.oneplanetnetwork.org](http://www.oneplanetnetwork.org)
3 This inventory has been developed by the 10YFP Secretariat based on information collected through the Pilot Survey on National Sustainable Consumption and Production Policies and Initiatives, as well as through other key platforms. It is not exhaustive and is regularly being updated, and therefore may not reflect all the initiatives taken by Member States at policy level to advance sustainable consumption and production.
4 For more information, visit: SWITCH-Asia website (http://www.switch-asia.eu/) and SwitchMed website (http://www.switchmed.eu/)
**Enabling conditions for change:**

**The policy landscape for sustainable consumption and production in Asia**

**Sustainable consumption and production in national policy frameworks**

As previously mentioned, in the Asian region the conventional emphasis for sustainable consumption and production has been towards technical approaches, with social approaches being a more recent consideration. Often an efficiency approach is undertaken through focus on a particular resource such as energy and water or on a particular phase of product lifecycles such as on manufacturing and waste management. However, there has been an increasing number of policies and projects on lifestyles in recent years demonstrating an increased interest in socially oriented (lifestyles and sufficiency) approaches.

As noted within the introduction, whichever approach is used, sustainable consumption and production is often undertaken through five main means, and Asia is typical of the global picture:

(i) a dedicated national strategy and/or action plan;
(ii) as part of a broader national strategy;
(iii) embedded in other sustainability frameworks (such as green growth);
(iv) mainstreamed into sectoral policies; and/or
(v) embedded in thematic programmes such as renewable energy.

With the inclusion of a specific target on national planning within the sustainable development goals (SDG 12.1 - number of countries with sustainable consumption and production national action plans or with sustainable consumption and production mainstreamed as a priority or a target into national policies) there is likely to be an increased focus in this area in coming years.

**There are currently few national plans specifically dedicated to sustainable consumption and production in the region. Examples include Indonesia, Malaysia, Pakistan, Thailand and Viet Nam**

For Indonesia, the national framework has three main goals, showing a lifecycle and lifestyle approach with an emphasis on lifecycle: (i) inclusion of sustainable consumption and production in national development planning; (ii) asset management and service to stakeholders for implementation; and (iii) quick win policies with thematic public programmes on ecolabel and green public procurement; green industry; green building; green tourism; and waste management (Castro-Hallgren 2017).

In Viet Nam’s national sustainable consumption and production action plan has a similar emphasis with its six main tasks being (i) development of legal framework and policies; (ii) promotion of production and economic restructuring; (iii) green distribution and supply chains; (iv) improving
market access; (v) changing consumer behaviour; and (vi) implementing reduce, reuse and recycle activities (Government of Viet Nam 2016).

Malaysia’s National Sustainable Consumption and Production Blueprint 2016 – 2030 is integrated into its national planning process. Building on a baseline report co-financed by the European Union, the blueprint has a holistic approach through ten different pathways (public procurement; households; industry; circular economy; buildings; mobility; food; tourism; communication, education and public awareness; and coordination and monitoring) with the current situation under each outlined and a clear description of how obstacles can be overcome and targets achieved.

Table 2. National frameworks addressing Sustainable Consumption and Production in Asia-Pacific

<table>
<thead>
<tr>
<th>Country</th>
<th>Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>National Sustainable Development Strategy (2010 – 2021)</td>
</tr>
<tr>
<td>Bhutan</td>
<td>11th Five Year Plan (2013 – 2018)</td>
</tr>
<tr>
<td>Cambodia</td>
<td>National Policy and Strategic Plan on Green Growth (2013-2030)</td>
</tr>
<tr>
<td>China</td>
<td>National Implementation Plan on 2030 Agenda</td>
</tr>
<tr>
<td>Indonesia</td>
<td>National 10 Year Framework Programmes on Sustainable Consumption and Production (2013)</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>National Strategy for Green Growth (2009-2050)</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>National Socio-Economic Development Strategy 2011-2020</td>
</tr>
<tr>
<td></td>
<td>National Environmental Strategy toward 2020</td>
</tr>
<tr>
<td></td>
<td>Industry and Commerce Development Strategy 2016-2020</td>
</tr>
<tr>
<td>Malaysia</td>
<td>National Sustainable Consumption and Production Blueprint (2016 – 2030)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>National Action Plan on Sustainable Consumption and Production (2017)</td>
</tr>
<tr>
<td>Thailand</td>
<td>National Sustainable Consumption and Production Roadmap (2017)</td>
</tr>
</tbody>
</table>

Source: Authors and UN Environment based on the 2015 Pilot Survey and UN Environment inventory of SCP framework. Due to the rapidly changing nature of the region, this list should not be considered exhaustive.

Outside of the development of national action plans or strategies, the approaches of each country in the region with regards to sustainable consumption and production are different. Some countries take a more holistic approach, such as China with its National Plan on the
Implementation of the 2030 Agenda for Sustainable Development. Others, such as the **Philippines**, focus on mainstreaming sustainable consumption and production into particular sectoral policies or embedding in thematic programmes without creating a specific national plan (SWITCH-Asia 2016e). Such approaches tend to be more production-oriented with social aspects less emphasized, such as the Philippine legislation for clean air, wastewater and solid waste management. However, an increasing interest in the social aspects can be seen in the Philippines through involvement in SWITCH-Asia projects which emphasis Small and Medium Enterprises and consumer-oriented approaches. Actual implementation of the solid waste management act at the local government level in the Philippines has also seen strong consideration of social aspects such as public awareness, and pro-poor activities, including assistance for waste pickers and support for cash-for-trash activities (Premakumara, Gilby, and Kataoka 2016). Thailand has also developed a sufficiency approach in line with the sufficiency economy philosophy of the late King Bhumipol Adulyadej and is currently developing a Thailand Sustainable Consumption and Production Roadmap.

**China’s National Plan on the Implementation of the 2030 Agenda for Sustainable Development is an example of how a country can integrate sustainable consumption and production into a broad sustainable development strategy.** The plan emphasizes that this commitment is a continuation of long-standing Chinese policy. Domestically this is through the development phase ushered in by the period of reform and opening-up from 1978. Internationally, China has supported the implementation of the Millennium Development Goals (MDGs) both within China and abroad through South-South cooperation. It describes China’s guiding thoughts for development as development which is innovation-driven, coordinated, green, open and shared, with its implementation principles being peaceful development, win-win cooperation, integration and coordination, inclusiveness and openness, sovereignty and voluntary action, and common but differentiated responsibilities (Ministry of Foreign Affairs of the People’s Republic of China 2016). The plan then details a table matching the Sustainable Development Goals (SDGs) with national non-numeric targets.

By explicitly aligning each of the goals and targets with actions under the national plan, China has developed a comprehensive plan for the implementation of sustainable consumption and production nationally. Numeric targets and a clear timeline will need to be further developed for a number of goals to ensure effectiveness. The national plan notes that various strategies have been formulated to this end and that progress will be monitored through the integration with the evaluation of the relevant Five Year Plans.

In West Asia - Mashriq countries in particular, **Jordan and Lebanon have developed Sustainable Consumption and Production national action plans in 2016 and 2015**, respectively (MoE & Mol Lebanon 2015), and Palestine published its assessment report in 2016 (EQA Palestine 2016). These are good examples of going beyond a particular sector with techno-oriented or single policy instrument solution and identifying opportunities in various sectors and engage with stakeholders to elaborate integrated roadmaps or strategies. These frameworks reflect the governments’ strategic motivation for promoting sustainable consumption and production of strengthening their industry while coping with the scarce natural resources. To illustrate, the objectives of frameworks in the sub-region include promoting investment and public-private partnership, addressing food security, water and energy scarcity (Jordan) promoting lifecycle approach and eco-design in export industry, and generation of green jobs (Lebanon). This recent development of national plans should be welcomed, and further emphasis on implementation of the plans are essential to make the plans vital and effective.
Table 3. National frameworks addressing Sustainable Consumption and Production in West Asia

<table>
<thead>
<tr>
<th>Country</th>
<th>Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iraq</td>
<td>National Development Plan 2013-2017</td>
</tr>
<tr>
<td>Qatar</td>
<td>National Development Strategy 2011-2016</td>
</tr>
<tr>
<td>The United Arab Emirates</td>
<td>The United Arab Emirates Green Growth Strategy 2012</td>
</tr>
</tbody>
</table>

Source: Authors and UN Environment based on the 2015 Pilot Survey and UN Environment inventory of SCP framework. Due to the rapidly changing nature of the region, this list should not be considered exhaustive.

Green growth has increasing prominence in Asia. The approach is welcomed by Asian countries who wish to both industrialize without going through a heavily polluting phase as well as placing economic growth in the context of sustainable development.

The Republic of Korea has been a regional leader in the area of green growth and is the home of the Global Green Growth Institute (GGGI). It should be further noted that two of the countries in the Asia-Pacific region which have developed national sustainable consumption and production plans, Malaysia and Viet Nam, have either also developed a green growth plan, or integrated green growth into their plan.

This development is also seen in Gulf countries, with the United Arab Emirates launching its Green Growth Strategy in 2012 with support from GGGI. The plan is innovative and comprehensive in terms of its integration of lifecycle and lifestyle perspectives such as footprint reduction and improving well-being (Ministry of Environment of the United Arab Emirates 2014).

Sustainable development plans are also another means by which sustainable consumption and production is considered under national planning. The sustainable development plans of the predominantly rural countries Bangladesh (National Sustainable Development Strategy (2010 – 2021)), Bhutan (11th Five Year Plan (2013 – 2018) and Cambodia (Government of Cambodia 2013), for example, feature policies such as the development of agriculture, energy, housing and transportation. Whilst an explicit lifestyle approach is absent, such development plans consider a broad range of approaches and issues related to sustainable consumption and production.

Where policies have been developed independently of national development plans, approaches can vary considerably. In West Asia, many countries address sustainable consumption and production through particular sectors such as energy, water, and waste management policies thereby taking a predominantly efficiency or lifecycle-based approach. Example of the countries taking this approach are Bahrain, Qatar, Kuwait, and Saudi Arabia. Each of these sector-based policies address specific elements aiming at introducing up-to-date technologies, incentive mechanisms, and/or ambitious national targets. In this approach, countries can
address the most serious issues in the local context – such as extremely high-energy consumption, water scarcity, and rapid urbanization through selection and concentration.

**Map 1: Sustainable consumption and production in national policy frameworks**

**Within the Asia-Pacific there is increasing prominence of socially oriented approaches in policies independent of national development plans.** One example is the “Cool Biz” campaign by Japan, which aims to encourage energy saving during the summer through encouraging office workers to dress lightly in a smart casual manner and air condition offices lightly. Singapore for example, in its Sustainable Singapore Blueprint focuses on livability as a key aim and considers leisure issues such as a diversity of green and blue spaces alongside consideration of more traditional aspects such as buildings and transportation. The Republic of Korea has also developed some innovative related policies and initiatives such as the launching of a green credit card, which enables consumers to receive eco-money points when undertaking environmentally friendly behaviour.

Farsighted efforts by industrializing and urbanizing countries such as Viet Nam and Thailand on lifestyles approaches, for instance through public awareness raising, are examples of the benefits of addressing the environmental impacts of urbanization at an early stage before a high consumption culture becomes ingrained.

The current development trend is that industrializing countries focus on the expansion of production initially with consumption following later as incomes and economies grow. This pattern can be broadly seen as Asia with industrializing countries frequently focusing on
resource and lifecycle approaches initially with lifestyle issues being addressed when countries become richer and more urban.

Initial steps towards more holistic approaches are welcome, and there will need to be a greater focus on this in the region as it moves towards the implementation of the 2030 Agenda. There is therefore likely to be a greater prioritization of the development of sustainable consumption and production national plans in the future. **As the region shifts from efficiency approaches towards increased consideration of more holistic approaches, the 10-Year Framework offers support through its six programmes** (sustainable public procurement, consumer information, sustainable tourism, sustainable lifestyles and education, sustainable buildings and construction, sustainable food systems). All of the programmes are pertinent to the issues facing the region, but with a rapidly urbanizing population with an increasing middle-class, the programmes on consumer information, sustainable tourism and sustainable lifestyles and education appear to have great importance.

It will be important to ensure such plans follow a broader understanding of consumption and production patterns. **Malaysia** is an example of how this might be achieved. Strong political commitment will be a vital component of such efforts. Substantial commitment and resources for holistic approaches including lifestyle aspects will need to be expanded upon to transform consumption and production patterns.

### Country Success Story

**Malaysia**

**Development of the National Sustainable Consumption and Production Blueprint 2016 – 2030**

Launched in 1991, Vision 2020 envisioned “Malaysia as a fully developed country along all dimensions - economically, politically, socially, spiritually, psychologically, and culturally - by the year 2020.” (Economic Planning Unit 2015). As Malaysia approaches its 2020 target of achieving high-income nation status, it is also focusing on the sustainability dimension of its development. This is done through the national plans, the most recent of which is the Eleventh Malaysia Plan 2016 – 2020 (Economic Planning Unit 2015) which notably aims at “pursuing green growth for sustainability and resilience”.

The draft **National Sustainable Consumption and Production Blueprint 2016 – 2030** (hereinafter referred to as the draft blueprint) is in line with this national plan. It was developed under the policy support component of the SWITCH-Asia programme (February 2012 – January 2016). The process involved over 120 stakeholders (representing the government, industry, consumer representatives, non-governmental organizations, research institutes and universities), and was supported by an international consultant team (SWITCH-Asia 2016c). The project initially developed a baseline study released in 2013, the findings of which were used to develop the final draft of the national blueprint on sustainable consumption and production.

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5 The Prime Minister’s Department, Malaysia kindly assisted in the development of this country success story.
The baseline report provided a comprehensive assessment of policies relevant to sustainable consumption and production in Malaysia. Numerous policies under the remit of numerous ministries were identified, demonstrating a clear interest in the country but also a lack of planning instruments (targets, indicators, timeframes, milestones and implementing tools) and some enforcement challenges. The report formulated six recommendations (Adham, Merle, and Weihs 2013):

(i) Consider the effectiveness of the voluntary policy instruments if made mandatory;
(ii) Sequence and phase the implementation of policy instruments;
(iii) Identify the targets and suitable indicators;
(iv) Identify other governmental and non-governmental stakeholders’ functions and connections to include and harness their strengths for sustainable consumption and production;
(v) Identify factors for low private sector response;
(vi) Increase public awareness and effect behavioural change.

The report was completed in 2016 and submitted to the National Steering Committee established under the SWITCH-Asia project. It was accepted as one of the reference materials in formulating Malaysia’s draft National Sustainable Consumption and Production Blueprint. Continuous stakeholder consultations would be needed to further raise awareness about sustainable consumption and production, create ownership and capture the practical and workable solutions to implement the strategy and plan of action.

The draft blueprint is structured into 11 sections - an introduction and 10 different pathways towards sustainable consumption and production. The introduction presents Malaysia’s approach to sustainable consumption and production as a means by which resource use can be made sustainable and green growth achieved, which is in line with other Asian countries that also tend to see sustainable consumption and production as a component of green growth. Malaysia’s draft Blueprint also aims at ensuring policy coherence at national and international level, as well as a broad, cross-cutting approach and an emphasis on communication, public awareness and education.

Each of the 10 pathways - public procurement; households; industry; circular economy; buildings; mobility; food; tourism; communication, education and public awareness; and coordination and monitoring – is based on an assessment of the current situation and identify specific means of implementation under the leadership of a clear focal point. The challenges ahead are clearly acknowledged, although standards and numeric targets could be further developed. Malaysia’s draft Blueprint is highly ambitious and the country aims at bringing its ecological footprint within biocapacity by 2050. However, standards and baseline data are still to be developed for each pathway, through baseline research, effective monitoring and evaluation, developing the tools for policy implementation, raising awareness, strengthening capacities and meeting targets by 2030. The strategy and plan of action for each of the identified pathways are still to be developed and finalized, through a multi-stakeholder and consultative process. Reporting will be completed biennially under the the MySCPI framework (similar to the one that has been successfully used by the European Environment Agency).

In terms of coordination, the draft blueprint will be under the Economic Planning Unit of the Prime Minister’s Department, each pathway having, as previously mentioned, an appropriate government focal point. Although government action is central to operating the shift to
sustainable consumption and production nationally, all sectors of society and citizens have a key role to play in achieving the objectives set by Malaysia for each of the pathways. This is why one of those pathways is specifically dedicated to communication, education and public awareness.

Malaysia’s draft blueprint is one of the first comprehensive national sustainable consumption and production plan developed in Asia-Pacific. It was designed through a strategic development process, which included the establishment of a clear and thorough baseline, stakeholder consultations and identification of gaps. This strategic approach demonstrates Malaysia’s potential to be not only a regional model of planning but also a regional model of implementation.

Coordination mechanisms and stakeholder engagement

The development of a national policy landscape for sustainable consumption and production, and the establishment of the operational conditions necessary to shifting unsustainable patterns, require strong coordination, including at the institutional level, and stakeholders’ participation.

The countries with institutional arrangements and stakeholder participation which are unambiguously linked to sustainable consumption and production in the Asia-Pacific are Indonesia, Malaysia and Viet Nam. All of the plans clearly indicate the need for multi-stakeholder approaches. However the coordination mechanisms are still new so their current effectiveness is hard to assess. Indonesia has developed its national 10YFP framework under the Ministry of Environment (now Ministry of Forestry and the Environment) and the Ministry of National Planning (BAPPENAS) (UNEP 2015) with joint planning for activities undertaken by government, NGOs, business and industry (Castro-Hallgren 2017). Malaysia has undergone a process of institutionalising sustainable consumption and production through the process of developing the National SCP Blueprint 2016 – 2030 and has highlighted the need for stakeholder participation from across society. Viet Nam has also released its national plan, which places the Ministry of Industry and Trade as the chair and lead coordinator tasked with establishing an executive committee of the plan. Other ministries involved include the Ministry of Environment and Natural Resources, Ministry of Planning and Investment, Ministry of Education and Training and the Ministry of Agriculture and Rural Development (Government of Viet Nam 2016).

As mentioned above, in other Asia-Pacific countries, sustainable consumption and production related policies tend to be part of broader national development plans and, as a consequence, is usually found as under the remit of high level national development committees. Examples of this are Thailand and the Philippines, who describe using a council or committee on Sustainable Development to serve as coordination mechanism for the participation of the business sector, NGOs, and/or academic institutions on sustainable consumption and production(source: pilot survey 2015). The increase in interest in green growth and the development of national green growth plans has also led to sustainable consumption and production related work falling under the remit of associated committees such as the National Council on Green Growth in Cambodia formed in 2012 and the Presidential Committee on Green Growth in the Republic of Korea. Cambodia’s National Green Growth Roadmap (Cambodia 2009) demonstrates a strong overlap with sustainable consumption and production concerns through its focus on the “seven As” – access to clean water and sanitation; renewable energy; information and knowledge; better mobility; finance and investments; food security; and sustainable land-use. The Republic of Korea’s Green Growth approach also comprises
three strategies with strong overlaps with sustainable consumption and production – mitigation of climate change and enhancement of security; creation of new growth engines (such as the development of green technologies and greening existing industry); and improvement in the quality of life and enhancement of international standing (GGGI 2015).

**The role of business and other stakeholder groups is critical to the sustainable development of the region.** Non-government stakeholders are increasingly frequently referred to in relevant national development plans, but the precise role of such stakeholders is not always clear. Nevertheless, there has been an increase in interest by business regionally as sustainable approaches are a potential cost cutting measure. As Small and Medium-sized Enterprises (SMEs) make up a prominent proportion of businesses within the Asia-Pacific, both within industrialising and industrialised countries, their engagement will be important.

**Development of these foundations will need to be pursued in the future through the implementation of the Sustainable Consumption and Production - Asia Pacific Roadmap 2016 - 2018.** The Roadmap is comprehensive and links the 10YFP to the 2030 Agenda through pairing the thematic areas (mainstreaming sustainable consumption and production, the six programmes under the 10YFP and Sustainable Industry and SMEs) to the relevant Sustainable Development Goals and targets. The Roadmap iterates the need for further support for national planning, capacity building and stakeholder involvement. As noted above, sustainable industry and SMEs is key to the development of sustainable consumption and production within the region and its addition and emphasis within the Roadmap will be important to ensure proper focus in this area.

The regional processes have also attempted to mainstream stakeholder approach in West Asia. The Arab Regional Strategy for Sustainable Consumption and Production emphasizes the roles of the major stakeholders such as governments, business and industry, media and advertising industry, civil society, individuals, and regional and international organisations (JSCEDAR 2009). The Arab Roadmap for Implementation of the 10YFP suggests institutionalization, governance, and partnership at national level, including the establishment of coordination body and distribution of clear responsibilities among government agencies (UNEP 2013b).

**In some cases, the preparation process of integrated frameworks plays a role to strengthen stakeholder participation.** For example, Lebanon hosted a Sustainable Consumption and Production roundtable meeting and established a sectoral working group (MoE & Mol Lebanon 2015); and Jordan established three technical working groups in a process to develop sustainable consumption and production action plans (MoE Jordan 2016). The United Arab Emirates established seven technical thematic task forces and a consultation process with federal and local government agencies, private sector, and civil society to develop an implementation plan of its Green Growth Strategy (MoEW The United Arab Emirates 2014).

The question is whether these stakeholder mechanisms are continued and institutionalized after the completion of the framework development. The answer is not yet clear. At least, the countries reported institutionalized mechanisms through the survey: e.g. High-level Steering Committee for Green Economy and Technical Committees for SCP in Jordan, Green Development Council in The United Arab Emirates, and National Environmental Committee in Lebanon. In case of the United Arab Emirates, the council has been continuously organized and contributed to the evaluation of the implementation status of the national Green Growth Strategy (MoCCE the United Arab Emirates 2015). Such linkage with existing national frameworks and indicators will be very important. Unambiguous allocation of responsibilities
and high-level commitments will be also essential. Specific achievements and effectiveness of such mechanisms in each country is to be further studied.

The presence of such coordination mechanisms is a solid foundation for further focused work, particularly towards the development of sustainable consumption and production national plans or the mainstreaming in policy frameworks and instruments. Nevertheless, to guarantee continuing development of focused policies and instruments it will necessary to ensure that specific mechanisms are supported. Engagement of and a role for non-government stakeholders is not always clear, though references to them are often made within plans and strategies. To ensure the most effective policy-making, non-government stakeholders should be engaged in the policy making process at the earliest possible opportunity. Multi-stakeholder approaches are a firm foundation, which can be built upon as countries seek to institutionalise sustainable consumption and production.

**Seizing ongoing efforts: taking stock of existing policy instruments**

In Asia, as in other regions of the world, sustainable consumption and production policies or initiatives, led by governmental entities, have developed over the last ten years. Through the pilot survey conducted by the 10YFP Secretariat, **7 responding countries in Asia reported on as many as 52 policies and initiatives**. Among them, 19 are considered “overarching policies” and “cross-cutting”, including policies focused on industry and technology, or on public procurement. This sample also includes 33 sectoral policies, such as on energy and climate change, waste and circular economy, tourism, biodiversity and natural resources, as well as on food and agriculture.6

Figure 1. Reported policies and initiatives per type (Asia)

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6 It should be noted that the reported policies are not representative of the entire region due to limited responses; thus this section will discuss the characteristic of national level SCP policies in Asia based on both reported policies in the survey and additional resources.
The analysis of these policies and initiatives shows a tendency to focus on efficiency and recycling, with emphasis being put on manufacturing (production) but also, to a certain extent, on demand-side and information-based policies such as eco-labeling and public procurement.

The efficiency approach, particularly in the energy sector, has been a prominent sustainable consumption and production policy area in the region. The Philippines introduced Renewable Energy Act and Philippine Energy Plan 2012-2030 to develop a low-carbon society (source: 2015 pilot survey). Qatar and Kuwait set ambitious national target of renewable energy as 20% and 15% (by 2030), respectively (IREA 2016). To respond the demands for renewable energy, massive renewable development project undergoes in West Asia: e.g. “Shams 1” in the United Arab Emirates - a solar energy power supply project to annually reduce 175,000 tonnes of CO₂ was cited by the United Arab Emirates in their response to the 10YFP pilot survey. Further integration of energy efficiency principle into sustainable building and transportation as well as demand side control can be a further policy opportunity in the region to tackle growing energy demand from massive urbanization.

In addition to energy, water is also an important resource issue particularly in West Asia to address water scarcity. Saudi Arabia aims at reducing electricity and water subsidies through its national water and energy efficiency programme (Asharq Al-awsat 2016).

The manufacturing sector, pollution control, and waste management amongst others have been a focus of sustainable consumption and production policy in the region. As a major global production centre, Asia has the potential to be a model for sustainable manufacturing, consumption, and takeback system. Introducing progressive circular economy instruments, such as remanufacturing and refurbishing, and developing the sharing economy or other service industries, will offer many opportunities.

For example, the Philippines has undertaken projects concentrating on support for business – either through support focused on small textile manufacturers (“Sustainable Hand Woven Textile (SHWET) Project” reported in the survey) or more broadly focused on small or medium-sized businesses (“SMART CEBU: Small Medium Enterprises (SMEs) for Environmental Accountability, Responsibility and Transparency” reported in the survey). Thailand, shares a similar profile through policies focusing on environmentally quality and use of recyclables in manufacturing (SWITCH-Asia 2016a). One example of this is the Promotion of Upcycle Carbon Footprint Products in Thailand. Upcycling is means by which waste is converted to products that have a greater value than the original item. The project ran from 2014 – 2015 and covered all sectors including furniture, home decoration, fashion and building and construction with the aim of reducing solid waste levels and promoting the creative design of innovative products from waste.

Many Asian countries address sustainable consumption and production in its Circular Economy or the 3Rs policy including in China and Japan (a Sound Material Cycle Society policy in case of Japan – as reported in the survey). In the survey, Japan reported its food loss reduction and food waste recycling policy. Through its Food Recycling law, Japan sets recycling targets for each of food product manufacturers, wholesalers, retailers, and restaurants, and utilize food waste as livestock feeds and fertilizers. In West Asia, waste is one of the priority areas in sustainable consumption and production plan or scoping study, such as in Jordan and Palestine (MoE Jordan 2016) (EQA Palestine 2016).
Along with energy efficiency and production-based initiatives, **labelling and public procurement have become popular policies in the region**. In the Philippines, green procurement (Establishing a Green Procurement Program for All Departments, Bureaus, Offices and Agencies of the Executive Branch – reported in the survey) and eco-labelling ("National Eco-Labelling Programme - Green Choice Philippines" reported in the survey), are emphasized in addition to clean energy and energy efficiency. **The United Arab Emirates** introduced Lighting Standard to promote energy efficient CFL/LED lamps, and mandatory energy rating and labelling system for household appliances, as reported in the pilot survey. The United Arab Emirates has also introduced a sustainable building framework (detailed in the Policy Case Study below). **Lebanon** also developed sustainable public procurement action plan, which was highlighted in their response to the pilot survey.

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**United Arab Emirates**  
**Estidama and Pearl Rating System**

**Context and objectives**

Abu Dhabi has experienced rapid annually population growth of 7.3% (2005-2015) with constant economic growth of 4.4% (2014 in constant prices). The massive growth resulted in the significant increase of construction demands; e.g. growth of real estate sector reached 17% in 2014 (SCAD 2016). Being in the Arabian Peninsula, unique environmental challenges, extremely high ambient temperature and scarcity of water resources, results in excessive demands of energy for air-conditioning and water desalination. Addressing the sustainability in building and construction sectors has become a priority.

“Estidama” - an Arabic word for sustainability - is a sustainable building framework introduced in April 2010 as a key component of the Abu Dhabi Vision 2030, the Emirate’s vision announced in 2008. The framework is operated with its unique standard, **Pearl Rating System**.

**Institutional mechanism and resources**

Estidama is developed and promoted by the urban planning agency of the Emirate, the Abu Dhabi Urban Planning Council (UPC). **The mechanism successfully brings out the potential of private sector in sustainability actions and investments by collaboration of public and private sectors**. There is unique certified professionals serving as catalysts in the system – the Pearl Qualified Professionals, the certified serving for the design and development team in the development firm. While UPC serves as a Pearl Assessor to review and assess the submitted documents, the Pearl Qualified Professionals facilitate the rating process and communication between the government and development firms. The government provides the series of trainings and exams to build capacity and certify these professionals who serves key roles within the private sector (UPC 2010; UPC n.d.). Through this mechanism, the domestic public budgets

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7 Green procurement was one of the focuses of the SWITCH-Asia support (10/2011 – 09/2014) (SWITCH-Asia 2016b).
spent for operation of this policy will be leveraged, to direct the private investment into ensuring sustainability practices in the actual development projects.

**Instruments**

The unique feature of the Estidama framework is its *policy mix of voluntary and regulatory instruments with emphasising the role of public procurement*. From regulatory perspective, all new buildings, villas and community development should achieve at least One Pearl requirements based on an Executive Council Order in 2010 (UPC 2010a). The building codes of Abu Dhabi is being redrafted to integrate the requirements of Estidama, which means achieving a minimum set of the codes will ensure rating of One Pearl (Karim Elgendy 2016). From the voluntary perspective, any private projects can achieve higher five-level certificate depending on their ambitions and the rating system can work as information signals to the investors and clients. From public procurement perspective, all government funded buildings and villas are required to achieve minimum rating of Two Pearl, which shows the stronger leadership of the government considering the impacts of public procurement (UPC 2010a).

The Pearl Rating System is not only applied to a single type of building or narrow sustainability aspect. Instead, it covers various type of buildings to the whole community development with comprehensive sustainability criteria. The certificate system consists of three rating system for building, villa, and community. The building rating system applies to all building types including offices, warehouses, retail shops, hotels, schools, and hospitals. In addition, the villa rating system is specifically designed to certify residential villas to improve its quality of life, and the community rating system aims at integrating sustainability principle in the community development projects with 1,000 people or more (UPC 2010a). The coverage of sustainability aspects being evaluated include natural systems (including land use and habitat creation), livability (comfortability, temperature, ventilation, transport, and community facility), and water, energy and materials (including material reduction, reuse and recycle) (UPC 2010b).

The framework ensures sustainability practice at every stage of development through the Estidama Integrated Development Process. Projects will be assessed, and rating will be issued in every phase of design, construction and operation. Furthermore, the certificate for the operational rating will be only provided after two years of operation with 80% minimum occupancy to ensure actual effectiveness of the measures (UPC 2010b). This mandatory operational phase assessment makes the Pearl Rating System different from other conventional building standards (Karim Elgendy 2016).

**Impacts, challenges and key success indicators**

Through a combination of voluntary and regulatory schemes, and integrated approaches throughout the life cycle with focuses on environmental sustainability and livability both at individual building and community levels, Estidama is one of the unique, innovative policy cases of the sustainable building promotion framework.

The key success factors of Estidama are i) comprehensive approach beyond single building, ii) integration with building codes, and iii) government supported training. First, Estidama is not a simple building rating system but taking comprehensive approach to change the way of living and surrounding infrastructure through 234 mandated developments, equivalent to 6,630,000 m² ground floor area, have been certified or assessed, with 197 construction audits. The government trained 5,800 professionals and certified 890 Pearl Qualified Professionals (UPC, n.d.).
This approach has an enormous potential to promote sustainable living and infrastructure which lock-in the way people live. Second, Estidama has an effective mixture of regulatory, information provision, and voluntary instruments. Information provision itself may not be effective to change the behavior of stakeholders, but the combination with other instruments led this policy to be effective. Estidama achieved this by integrating the criteria of rating system with building codes, and set mandatory ratings for private and public buildings. Finally, government-led training of professionals who serve as a catalyst of the process is a successful factor to facilitate a collaboration between public and private sectors. These key approaches can be i) scaled-out in other cities and countries for national or sub-national building and community rating schemes, ii) mainstreamed into other globally recognized building rating scheme, or iii) diffused in any other sustainable consumption and production policies and initiatives other than building sector.

For further information: Estidama official website
http://estidama.upc.gov.ae/

Sustainable consumption and production policies based on social concerns, moving beyond technical considerations, needs to be further developed in the Asian region. With encompassing a large number of low to middle-income countries and population in poverty, these lifestyle domains have been traditionally addressed as a part of conventional development and poverty alleviation strategy – such as construction of transport infrastructure, supplying affordable housing, and rural development.

Now the region is at a turning point to broaden the focus of such policy to integrate sustainable consumption dimensions to prevent industrialisation and urbanisation leading to an unsustainable high consumption culture. Recent estimates of the global middle class conducted by the OECD estimate the Asia Pacific as having a middle class of 525m (28% of global share) in 2009 growing to 3.2bn (66%) by 2030. With consumption of USD 4.952bn (23% of global share) in 2005, it is also estimated that purchasing power parity (PPP) would grow to USD 32.6tn (59% of global share) by 2030 (Kharas 2010). This unprecedented shift in size and rapidity will require an equally strong change to sustainable consumption within the region.

Viet Nam, for example, has considered this social aspect through consumption and lifestyle focused policies through its National Action Plan on Green Growth, which incorporates green lifestyle promotion and has also undertaken lifestyle initiatives through the Get Green project which aims to increase green consumerism through the recruitment of 1,000 change agents who help the public make more environmentally friendly choices.
Viet Nam

Get Green

Context and objectives

Viet Nam has already a variety of projects relating to sustainable production, but awareness of sustainability in consumers is low. This project therefore aims to increase the share of sustainable consumption by Vietnamese consumers via building the capacity of consumer groups, consumer organizations and government organizations to convince and support consumers in making more environmentally friendly choices. The programme aims to recruit 1,000 Get Green change agents who will be trained to reach out to the general public using information materials and tools created by the project which will include a GetGreen Guidebook and a social media interaction platform (SWITCH-Asia, n.d.)

Institutional mechanism and resources

The lead partners are Delft University of Technology, Vietnam Cleaner Production Centre (VCPC) and Asian Institute of Technology in Vietnam (AIT-VN) with the project being funded by the SWITCH-Asia programme. The VCPC and AIT-VN were established through international agreements with the Government of Viet Nam, but both are independent of the government. Outside of the funds utilized, the main resource base are the change agents themselves who will spread sustainable consumption practices within their cities.

Instruments

The programme utilized both workshops in 5 cities across Viet Nam (in Hanoi, Da Nang, Ho Chi Minh City and Can Tho) to recruit change agents. The agents were also supported by the creation of a Get Green guideline as well as the establishment of a web presence through both the project website and a Facebook page. The project also established links between consumers and producers towards the development of environmentally friendly products. 16 co-creation sessions were held on a variety of topics such as sustainable food processing, transportation and tourism, which led to producers developing new products and services for customers (Thong et al. 2017).

The website (http://getgreen.vn/) mirrors the Get Green guideline through dividing into 8 sections – general waste; in and around supermarket; live like a farmer in the city; kitchen and bathroom of the future; energy efficiency; on the road again; 3R in the office; and towards a green office. There is also an online exhibition with a variety of related videos.

Impacts, challenges and key success indicators

The programme successfully recruited 1,099 sustainable consumers in Hanoi, Da Nang, Ho Chi Minh City and Can Tho through the training of 52 groups of urban consumers (SWITCH-Asia, n.d.). It furthermore established links between consumers and producers which led to the development of new packaging by one company and the establishment of a green market by another. Prior to the project office worker groups were the most sustainable but at the end student and community groups had the most change (Thong et al. 2017). Given the relative youth of Viet Nam this is a very positive outcome. The project demonstrates the strong potential impact of a lifestyles approach even within lower consuming countries.
Key to the sustainability and scalability of the project is the emphasis on volunteers as change agents and the links to the private sector creating incentives for businesses to join by seeing the market potential for green products, demonstrating that the project can be sustained beyond the end of funding. The success of the project across a variety of cities within Viet Nam also demonstrates the capacity to scale both within and beyond Viet Nam.

Japan has a long tradition of behavioural change focused national awareness raising programme such as “Cool-Biz” to lower indoor temperature and reduce energy consumption from air-conditioning in Summer and the “No-Food Loss Project” to reduce food loss by different stakeholders including households, restaurants, and food processing industry and distributors. Malaysia has consumer based sectors such as food, households and mobility included with its National Sustainable Consumption and Production Blueprint – as reported in the pilot survey. Among Gulf countries in West Asia, The United Arab Emirates took the leadership to address “Green Life” and “Green City” in its Green Growth Strategy – promoting water and electricity saving, efficient household and buildings, and sustainable transport (MoEW The United Arab Emirates 2014). In Mashriq region, Jordan identifies transport as one of the three priority are in its Sustainable Consumption and Production action plan – prioritizing public transport such as light train and fast bus and energy efficient transport models such as zero emission vehicles (MoE Jordan 2016).

It is recommended that the region should move forward to transitional and progressive policies addressing lifestyle domain and consumption side with systemic approach building up to the excellent existing efforts in the production side and infrastructure. This can lead to address sustainable consumption and production in broader sectors including food, mobility, housing, lifestyle and education. Enhancing such initiatives and transition would be urgent in high-income countries, where consumption and footprint hits the highest level in the world. Middle to low income countries with its rapidly growing consumer class also have the urgent necessity to identify means by which increase wellbeing while keeping the footprint within biocapacity at city and national levels as their economies grow and populations become wealthier. As mentioned above, such approaches can and are being integrated into a broad range of sustainable consumption and production policies from poverty reduction to energy efficiency and resource use reduction even if they are not explicitly described as such. It is important that low to middle income countries understand the positive role of sustainable consumption and production in their development - it is not a means of austerity, but of improving the quality of growth and thereby the quality of life.

Philippines

Promotion of Green Economic Development (ProGED)

Context and objectives

The programme finds its origins in the Philippine-German Cooperation Program Private Sector Promotion, a joint undertaking of the Department of Trade and Industry, the Regional Operations and Development Group and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) which concluded in December 2012 and assisted the Philippines in
improving the conditions for private sector development. During the final phase, the programme supported the Department of Trade and Industry in integrating the green economy concept into the Small and Medium Sized Enterprises Development Plan 2011 to 2016. (GIZ 2016b).

Against this background, the Promotion of Green Economic Development (ProGED) – Philippines was launched as a three-year project in 2013 targeting Small and Medium-sized Enterprises with emphasis on the tourism sector, with the aim of making businesses more environmentally and climate aware. Small and Medium-sized Enterprises were particularly targeted as they comprise 99.6% of registered businesses in the Philippines and 60% of the jobs. Due to their size such businesses are particularly vulnerable to price hikes or supply issues for electricity, fuel, water or other materials caused by natural disasters and extreme weather events. The programme aimed to assist Small and Medium-sized Enterprises in considering and working to offset such risks, with the co-benefits of lowering costs and environmental impact. (GIZ 2016a)

Institutional mechanism and resources

The project was implemented by GIZ in collaboration with the Department of Trade and Industry, Philippines and funded under the SWITCH-Asia project. It was developed using GIZ’s management tool Capacity WORKS and jointly implemented. The Department of Trade and Industry established a Green Growth Core Group and has also supported the training of its regional offices to ensure continuity following the end of the project.

Instruments

To support Small and Medium-sized Enterprises in overcoming such issues the project worked within three areas – (i) information and awareness raising; (ii) business promotion and matchmaking; and (iii) development of a green policy framework for the Department of Trade and Industry. The project began with two pilot provinces, Cebu and Bohol, prior to expanding to 30 further provinces with the initial focus on tourism expanding to processed foods, coffee and cacao, organic fertilisers, and household goods. (GIZ 2016a)

Impacts, challenges and key success indicators

Around 60 environmentally friendly projects were implemented by different enablers due to the Green Economic Development networks and 300 people from both the public and private sector underwent capacity building.

Much of the reason for this success is the involvement of the Department of Trade and Industry which has demonstrated its commitment to green economic development through the establishment of an inter-departmental Green Growth Core Group and the integration of green measures into industry roadmaps. (GIZ 2016e). Having been evaluated as very successful based on OECD DAC criteria by an assessment conducted by a third-party consultant, in-phasing events were held in provincial offices during the closing period of the project to further integration of green economic development into the work of the Department of Trade and Industry. A replication toolkit has been developed to further assist with the promotion of Green Economic Development beyond the end of the programme (GIZ 2016d). Since the evaluation, the Green Economic Development training has commenced for regional staff of the Department of Trade
and Industry (GIZ 2016f) and a memorandum of understanding has been signed between The Global Green Growth Institute and Department of Trade and Industry, with the aim of supporting the development of business cases, the mainstreaming green growth into planning processes and capacity building (GIZ 2016c).

These efforts demonstrate the keys for sustainability and scalability on the ground – this initial project has been held as a pilot in a number of areas and with the proof of concept established through the success of the project. This being established the concept is being scaled up through support by the national government making it sustainable. The other keys to sustainability has been the involvement of both the public and private sector ensuring full stakeholder buy-in and also capacity building of local staff. This buy-in and capacity building ensures sustainability beyond the end of funding.

Funding and Technical Resources

In the Asian region, technical and funding supports for national-level policy-making on sustainable consumption and production, such as development of overarching strategies and establishment of coordination mechanisms, have been strongly supported by different international schemes and organizations. This includes the SWITCH Asia, SwitchMed and Global Green Growth Institute (GGGI) programmes funded by the European Union (EU).

One of the largest single sources of funding and technical resources towards the establishment of sustainable consumption and production within the region is the SWITCH programmes funded by the EU, which provides support through policy component, pilot projects, and a network facility.

In Asia-Pacific, the EU-funded programme “SWITCH-Asia” provides supports to 19 eligible countries, but with a focus on Bhutan, Cambodia, China, India, Lao PDR, Myanmar, Nepal, Pakistan and Viet Nam. Five countries received specific policy support during the first phase: in Indonesia, Malaysia, Philippines, Thailand and Sri Lanka (SWITCH-Asia 2016).

SWITCH-Asia is addressing the need to integrate with the 10YFP by requesting that potential projects reflect the themes of the 10YFP programmes. At the time of writing, 95 projects were approved, among which around 60 have a non-Asian lead partner. The projects are diverse in their theme with 46 (almost half) being categorized under more than one theme. As can be seen below, initiatives in the region focus strongly on production aspects with cleaner production being the single largest theme. Unambiguously consumption oriented themes of eco-labels and demand for better products comprise around a quarter.

Although SWITCH-Asia does not cover all 39 countries in the Asia-Pacific sub-region, it is worth noting that the countries not covered are either high income countries or Pacific island nations who have very particular developmental needs.

With support of the SWITCH-Asia programme, UN Environment has also developed country-based regional resource indicators and has commenced delivering training to national statisticians.
In West Asia, particularly in Mashriq countries, **SwitchMed Programme** provides support for sustainable consumption and production policy-making. The SwitchMed Programme is funded by the European Union, and implemented with United Nations Industrial Development Organisation (UNIDO), UN Environment and the Regional Activity Centre for Sustainable Consumption and Production (SCP-RAC). The programme focuses on eight countries including three countries in West Asia. Under the policy component, all of the target countries – including Jordan, Lebanon and Palestine - have developed Sustainable Consumption and Production National Action Plans, building on existing work and projects such as Green Economy and Sustainable Development, and engaging with national stakeholders (Ministry of Environment of Jordan 2016).

The **Global Green Growth Institute (GGGI)** also provides networking and technical support in the region. Within the Asia-Pacific sub-region, the institute has worked with subnational and national governments, target countries having been Cambodia, China, Fiji, India, Indonesia, Mongolia, Philippines, Thailand, Vanuatu and Viet Nam (GGGI 2016a). Within the West Asia sub-region, GGGI supports the development of national green growth plans in the United Arab Emirates and Jordan. It also provides networking and information sharing opportunities to the sub-region, such as workshops and online training through the Green Growth MENA Network (GGGI, n.d.-b; GGGI, n.d.). Within the Asia-Pacific, the OECD has been assessing green growth at the sub-national level, examined cities include Kitakyushu, Japan; Bangkok, Thailand; Hai Phong, Viet Nam; Bandung, Indonesia; Metro Cebu, the Philippines; and Iskandar Malaysia, Malaysia between 2012 and 2016 (OECD 2016). This is an encouraging start into understanding the barriers faced by sub-national actors.

As one of the objectives under SDG 12 of Agenda 2030, the 10-Year Framework of Programmes should also be a platform for further sustainable consumption and production development in the region with funding and technical resources being made available by international partners. At the time of writing, **10 projects implemented in Bangladesh, China, India, Indonesia, Malaysia, Nepal, the Philippines, Sri Lanka and Vietnam have received support from the Trust Fund established under the 10-Year Framework**. It is expected that, in collaboration with other initiatives, the 10-Yea Framework and its six thematic programmes can further facilitate
mobilisation of resources and provide technical supports in the region. In addition, sustainable consumption and production policy-making efforts should be continued and up-scaled by domestic and regional budgets with domestic resources mobilisation and commitments by the national governments and stakeholders being emphasised.

**Mobilising private sector investments in the area of sustainable consumption and production can be further promoted.** One opportunity is the promotion of green investment in West Asia. For example, the proposed Arab Regional Roadmap for Green Growth Investment includes a green economy financing strategy and investment plan (ESCWA 2014a). The Global Green Growth Institute and United Arab Emirates jointly hosted the Middle East and Africa Green Financing Policy Dialogue to advance the regional attempts to increase green finance and address challenges of bankable projects in 2016 (Ministry of Cabinet Affairs and the Future of United Arab Emirates 2016). **With the Asia-Pacific, an example from ASEAN-5 shows that both public and private sector investment face considerable difficulties, such as tax collection difficulties, national rules concerning Foreign Direct Investment and a lack of capacity in designing public-private partnerships.** There is however an opportunity to expand public and private investment at the sub-national level due to increasing sub-national incomes and an increasingly favourable regulatory environment for PPP at the national level (OECD 2016). Such mechanisms should be further emphasised to mobilise resources from the private sector for sustainable consumption and production.

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**Japan**

“Chiiki Okoshi Kyoryokutai” – Community Revitalization Cooperation Squads

**Context and objectives**

Depopulation has been recognized one of the most imminent threat to the sustainability of Japanese society. Many municipalities are in danger of disappearing; it is predicted that 49.8% of the municipalities would experience halving young women population by 2040 (Japan Policy Council 2014). The decline of local economy and society in this context makes it difficult to maintain the infrastructures and services. **On the other hand, increasing number of urban youth feel uncomfortable with living in the cities, and become interested in living in the country side, working with communities which tackle societal challenges.**

National ministries, as well as local governments introduced a number of unique policies addressing the decline of the country side, including the community revitalization cooperation squads. The objective is to support the local communities who want to attract people, and the urban youth who want to live and work in these areas for the local challenges, including the maintenance and revitalization of the local society and economy, or natural resources.

This scheme can be also effective in promoting the sustainable production and consumption of primary products, through the activities of some of the resettled youth in promoting so called “sixth industry,” standing for the creation of specialty products and services through the combination of the local primary products with the secondary and tertiary sectors.
Institutional Mechanisms and Resources

The Community Revitalization Cooperation Squads is a scheme introduced by the Ministry of Internal Affairs and Communications since 2009, to support the urban people (mainly youth) to be resettled to the country side and secure livelihoods, while engaging themselves in the local activities that address unique social and economic challenges. They work in the local governments, or other local organizations for one to three years, where to cooperate with the local farmers, business, government and other organizations toward the revitalization of the community taking advantage of their skills acquired while they worked in the cities. During this three-year period, the Ministry supports up to JPY four million per person to cover their activity costs, including salary (Ministry of Internal Affairs and Communications of Japan 2016).

The Creation of the Sixth Industry is a policy of the Ministry of Agriculture, Forestry and Fisheries. It was one of the two pillars of “the act for creation of new businesses and promotion of use of agricultural and fishery products through utilizing local resources” enacted in December 2010, along with the “local consumption of local products”. Small businesses or cooperatives in the primary sector (i.e. agriculture, forestry, and fishery) are encouraged to cooperate with the secondary (manufacture) or tertiary (service and commerce) sectors to create new business cases to better utilize their produce (“The Sixth Industry” means that “1 times 2 times 3 equal 6”). The produce of “the sixth industry” includes, such as, the local specialty made of farm or fishery products, green tourism, and so on. Farmers’ groups, Agricultural Cooperatives, SMEs, etc. propose their business cases to gain governmental support, including extension of the deadlines of payment of loans, and financial support and professional advice on marketing (Ministry of Agriculture Forestry and Fisheries of Japan 2016).

Impacts

The number of people moved to the country side using the scheme of cooperation squads have continuously increased since it was initiated in 2009, and reached 2,625 as of March 2016. After the termination of the period, 60% of the squad members succeed in creating their own livelihoods, and become settled to the local or surrounding areas (Ministry of Internal Affairs and Communications of Japan 2016, Ministry of Internal Affairs and Communications of Japan 2016).

The number of business cases enlisted as the “6th industry” has also increased. In 2016, about 2,100 cases received the governmental supports. The ministry estimates that the total value generated by these business cases add up to JPY 2 trillion a year (Ministry of Agriculture Forestry and Fisheries of Japan 2016).

The above illustrations indicate that local communities do not necessarily require innovative technologies or strong skills when they address the social and economic challenges. The sixth industry does not create totally new goods or services from the very beginning. In most cases they try to enhance market opportunities through creating new linkages between the existing ones. The community revitalization cooperation squads do not always develop the local communities simply using their skills and knowledge imported from the urban areas, but work in tandem with the local people. New values of the existing resources are identified through their efforts to be accepted by the local communities, to address the local challenges together with them, and to create their own livelihoods. In the successful cases, they contribute to make people recognize the capacities of the local resources, create better options of livelihoods, while addressing their own challenges without investments to infrastructures nor extraction of huge
amount of natural resources. The keys to scalability and sustainability in these projects are the support offered by the local governments and the effective collaboration between the public, the private sector and the government, which is based on the attitudes of the local stakeholders to welcome and cooperate with people from different regions and sectors.

As discussed above, the Asian region is mostly receiving support from international and regional organisations. That said, countries in the region are increasing their roles as international donors. For example, Saudi Arabia, the United Arab Emirates, and China are estimated to be 5th, 9th, and 16th contributors of ODA as gross disbursements in 2014, respectively (OECD 2016b). The United Arab Emirates and Qatar became participants (non-members) in the OECD Development Assistance Committee (DAC) in 2014-2016 (OECD 2016c; OECD 2016a). Although the current focus of these ODA from the region is more on the conventional development projects, there is an enormous potential of these emerging donors to contribute on mainstreaming and foster the shift towards sustainable consumption and production inside and outside of the region.

Funding both for national-level policy-making and concrete policies and initiatives are essential to ensure the shift toward sustainable consumption and production in the region. Technical expertise is also the key to ensure policy-making with regional coordination. Currently, support for national policy-making seems to be mainly externally driven. As discussed above, there are many opportunities in the region to utilize regional experts, private investments, and integrate sustainable consumption and production in the growing international donors from the region. The 10-Year Framework of Programmes on Sustainable Consumption and Production, its regional processes and implementing partners can serve as catalysts to enhance mobilization and coordination of donors and regional resources.
Monitoring and Indicators

Overview of Regional SCP Indicators

The regional indicator frameworks related to sustainable consumption and production have been developed but not institutionally adopted in the Asian region. In the Asia-Pacific, under the Indicators for a Resource Efficient and Green Asia and Pacific programme, UN Environment has coordinated the development of a database detailing the last 40 years of resource use through 118 different indicators. In addition to the report, a booklet of infographics has been developed and the data has been added to UN Environment Live, UN Environment’s online database (Heinz Schandl et al. 2015). In addition, country analyses for Thailand, Viet Nam, Mongolia, China, India, Bangladesh, Bhutan, Pakistan, Nepal, Cambodia, Lao PDR, Malaysia, Philippines, Indonesia and Sri Lanka have been drafted and infographics developed aligned to the Sustainable Development Goals indicators. Policy – data workshops and training of statistics officers in Lao PDR, Mongolia and Viet Nam is on-going (Salem 2016).

In West Asia, the Arab Sustainable Development Indicator Framework has developed in 2011 at the request of the parties to the Sustainable Development Initiative in the Arab Region, which is a regional process endorsed by the Arab summit. This framework consists of 13 themes with consumption and production patterns as one of the themes (including energy consumption per capita, share of renewable energy, generation of waste, generation of hazardous waste, waste treatment and disposal by treatment method, and share of cars). There are 84 voluntary indicators and 44 indicators intended to be compulsory for the countries in the region - a specific working group under the Arab League became responsible for overseeing the indicators. However, very limited number of countries have been actually monitoring and reporting these indicators (ESCWA 2015). The Arab Regional Strategy for Sustainable Consumption and Production also suggests indicator-based monitoring including the degree of decoupling as a key indicator, and includes regional indicators ranging from energy, water, waste, rural development, poverty, to education and lifestyle (JCEDAR 2009).

These set of regional indicators are comprehensive, well defined, and vital in establishing the current situation and trends, but the level of integration with Sustainable Development Goals indicators and establishment of the monitoring and reporting mechanisms may be different between the sub-regions. In the Asia Pacific, the Sustainable Consumption and Production Roadmap clearly links its thematic areas to the Sustainable Development Goals (SDGs) and also demonstrates a variety of key policy dialogues and delivery platforms. The most specifically focused is the Thematic Working Group on Resource Efficient Growth under the Asia-Pacific Regional Coordination Mechanism, which is convened by the UN Economic and Social Commission for Asia Pacific (ESCAP), and co-chaired by UN Environment, the UN Development Programme and ESCAP. The opportunity therefore exists within the Asia-Pacific at the regional level to monitor sustainable consumption and production patterns through said indicators (UNEP 2016). In West Asia, on the other hand, no clear mechanisms for monitoring, reporting, and evaluation were defined at the regional level. This is also the reason why actual implementation status and progress of the Arab Regional Strategy for Sustainable Consumption and Production is not clearly reported and documented. Effective mechanisms of regional monitoring and evaluation, which is harmonized with the Sustainable Development Goals indicators, would be necessary in the sub-region.
Overview of National-level SCP Indicators

At the national level, only a limited number of countries established clear and eligible national sustainable consumption and production indicators.

Bhutan includes baseline data as well as clear targets its 11th Five Year Plan (2013 – 18). Jordan defines progress indicators with targets to be achieved by 2021 – both output and impact levels in its National Strategy and Action Plan for Sustainable Consumption and Production (Ministry of Environment of Jordan 2016). There are more positive signs in countries such as China, which has in its 12th Five Year Plan (2011 – 15) adopted clear targets regarding carbon and energy-intensity as well as other indicators such as forest coverage, water consumption and arable land (Heinz Schandl et al. 2013). Nevertheless, there is a lack of a comprehensive sustainable consumption and production perspective such as integrating basic needs, well-being, and lifestyles, and including all aspects of natural resources, socio-economy, and policies at both process and impact levels.

Among the countries that established monitoring mechanisms on SCP, further improvements have been identified. One issue is that specific and clear indicators are often lacking or unclear. For example, Viet Nam’s National Plan on Sustainable Consumption and Production has a target of 60-70% enterprises applying clean technology, but what clean technology means still needs to be clearly defined. In other countries, such as in in Bangladesh (Planning Commission of the Government of the People’s Republic of Bangladesh 2013) and Cambodia (Yassin Mohammed, Wang, and Kawaguchi 2013), which have created plans thematically relating to sustainable consumption and production, the development of clearly defined indicators appears to remain a problem. Malaysia has developed a comprehensive blueprint covering 10 different pathways. Specific indicators are under development, with Malaysia utilizing the question-based system used by the European Environmental Agency (Malaysia 2016). In Lebanon and Palestine, the sectoral Sustainable Consumption and Production action plan or scoping study do not define clear indicators for monitoring and evaluation.

The United Arab Emirates is an exceptional case of establishing comprehensive and clear indicators. The Green Economy Indicators covers natural resources consumption (inputs), footprint, intensity, and behavior in production and consumption (efficiency), expenditure, regulations, and subsidies (policies), and standard of living, quality of life, and human development (outputs). The monitoring is annually conducted with publication of the the United Arab Emirates State of Green Economy Report (Ministry of Environment and Water of the United Arab Emirates 2014). Development of indicators within Asia is occurring at the regional level, but actual monitoring and evaluation is less clear cut. At the national level, the picture is more uneven – in line with a lack of clear policies and initiatives, it is unsurprising that the development of monitoring and indicators is also nascent. On-going efforts will need to be further supported and expanded, and the unifying framework provided by the Sustainable Development Goals should be fully utilized.
The Way Forward

With the twin challenges of rapid industrialization and a growing middle class, the further development of sustainable consumption and production in Asia is an urgent need. This report has identified that a sound foundation exists within the region, and that with the unifying framework of the Sustainable Development Goals (SDGs) as well as with the support of the 10-Year Framework of Programmes (10YFP), Sustainable Consumption and Production can be further advanced. Initial recommendations with regards to the way forward include:

**Unification of approaches under the Sustainable Development Goals**

Currently there is a fragmented approach to sustainable consumption and production with countries approaching it under a variety of concepts and frameworks. Continuing on this path could create unnecessary replication of work and continued conceptual confusion. It is therefore recommended that sustainable development plans and those related to it be brought under the SDGs framework and, whenever relevant, under the 10YFP.

**At the national level, the opportunity to develop national sustainable consumption and production plans, as mandated under SDG indicator 12.1.1, should be used to conduct baseline research to understand the current national situation and then develop holistic national plans using a multi-stakeholder approach such as with our country success story, Malaysia.** That said, other methods of integration such as through national development plans such as with China without a separate strategy or plan could also be an effective means of unification.

**Broaden focus of sustainable consumption and production policy towards more holistic approaches**

With the rising middle class and increasing accompanying consumption, it is advised that a more balanced approach, including a greater role for sustainable consumption, be pursued. A holistic approach with the inclusion of priority sectors will be necessary for sustainable development, as seen in countries such as Viet Nam, which is already making efforts towards considering social as well as technical aspects through the promotion of consumer awareness and behavioural change. **With many of the countries within Asia already owning an ecological footprint per capita beyond biocapacity and with substantial urbanization still come, a greater emphasis on sufficiency approaches will be necessary.**

**Increase in capacity building, technical and financial support**

Sustainable consumption and production is currently externally driven with many processes requiring technical assistance from and funding of external actors. While there are opportunities for governments to increase funding available for sustainable development, it is likely that external actors will be needed for the near future to provide capacity building and funding. However, **external funding is currently insufficient to meet needs and will need to be expanded dramatically if the Sustainable Development Goals and the 10-Year Framework of Programmes on Sustainable Consumption and Production are to be successfully implemented in Asia.** All of the programmes of the 10-Year Framework, in particular those on programmes on consumer information, sustainable tourism and sustainable lifestyles and education, must be further utilized towards that transition.
Increase in domestic support and further consolidation of sustainable consumption and production policies and initiatives

Although external support will need to be required for the near future, there will need to be an increase in domestic support.  **Primarily is the need for the consolidation of policies and initiatives through a clearly defined centralized mechanism.**  As noted above, one efficient method of achieving this could be through the development of sustainable consumption and production national plans in line with SDG 12.  There are also opportunities for governments, both national and sub-national to increase their level of financial resource through the development and increase of financial instruments such as public-private partnerships, increased taxation and improvements in tax collection.  Financial support of industries to assist in the shift towards cleaner production and awareness raising and public support are also seen as key.

Greater involvement of other stakeholders

In addition to national and regional frameworks, it will be necessary to consider sub-national actors, especially regarding lifestyle and education aspects as this can frequently fall under the remit of local governments who have an important role to play as being the closest to citizens.  OECD’s initial work in examining this issue through a green growth perspective is welcome, and further research and engagement with cities should be pursued.

In addition, the role of non-government stakeholders is not always clear and should be focused on.  **Multi-stakeholder involvement at the earliest possible stage of policy making will be necessary to ensure successful implementation.**  Partners working in related sectors such as sustainable development or green growth/green economy planning should be actively collaborated with.  The challenges of the 10YFP and the SDGs cannot be taken lightly and will need as many partners as possible.

Monitoring and measuring progress

A lot of progress has been made, especially in Asia Pacific, to create the conditions for monitoring and measuring progress on sustainable consumption and production, including through the identification of key indicators and development of broad databases.  In West Asia, on the other hand, no clear mechanisms for monitoring, reporting, and evaluation were defined at the regional level.  Nevertheless, at the national level, only a limited number of countries established clear and eligible national sustainable consumption and production indicators.  Identifying such indicators and collective data while adopting a comprehensive sustainable consumption and production perspective - such as integrating basic needs, well-being, and lifestyles, and including all aspects of natural resources, socio-economy, and policies at both process and impact levels – will be crucial.
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