



## CURRENT STATE OF SUSTAINABLE CONSUMPTION AND PRODUCTION IN LAO PDR: OPPORTUNITIES AND CHALLENGES

BACKGROUND DOCUMENT PREPARED FOR MULTI-STAKEHOLDER CONSULTATION ON 28 MARCH 2019 IN VIENTIANE, LAO PDR

# CURRENT STATE OF SUSTAINABLE CONSUMPTION AND PRODUCTION IN LAO PDR: OPPORTUNITIES AND CHALLENGES

# BACKGROUND DOCUMENT PREPARED FOR MULTI-STAKEHOLDER CONSULTATION ON 28 MARCH 2019 IN VIENTIANE, LAO PDR

## **Disclaimer:**

The information and contents in this background document are the sole responsibility of the authors and do not necessarily reflect the views of the European Union.

### Authors:

Peter King, Lewis Akenji, Caixia Mao, Ngoc-Bao Pham and Tran Thi Viet Nga

### Supervision:

Ira Larasaty, Key Expert Southeast Asia, including China and Mongolia

Design/Layout: John Chandratat

© 2019 SWITCH-Asia SCP Facility

## CONTENTS

1. INTRODUCTION	04
1.1 Socioeconomic background in Lao PDR	04
1.2 The evolution of SCP in Lao PDR	04
2. REVIEW OF NATIONAL POLICY FRAMEWORK ON SCP IN LAO PDR	05
2.1 Overall Policy Framework	05
2.2 Sectoral Policy Framework – Agriculture	06
2.3 Sectoral Policy Framework – Forestry	06
2.4 Sectoral Policy Framework – Tourism	06
2.5 Sectoral Policy Framework – Energy	07
2.6 Sectoral Policy Framework – Industry	07
2.7 Sectoral Policy Framework – Climate Change and Natural Resources	07
3. PREVIOUS SWITCH ASIA PROJECTS AND OTHER SCP PROJECTS INVOLVING LAO PD	R08
3.1 Regional projects	
3.1.1 Establishment of the ASEAN Energy Manager Accreditation Scheme	08
3.1.2 Efficient Air Conditioners / ASEAN SHINE	
3.1.3 Sustainable Production Innovation in Vietnam, Cambodia and Lao PDR	
3.1.4 Sustainable Freight and Logistics in the Mekong Region	
3.1.5 Sustainable Rattan Industries	
3.2 National Projects	
3.2.1 Improved Cook Stoves Programme Lao PDR	
3.2.2 Eat Greener	
3.2.3 Luang Prabang: Handle with Care	
3.3 Sustainable Consumption and Production Curriculum in Tertiary Education	09
4. RECOMMENDATIONS ON ADOPTING SCP IN LAO PDR	09
5. RECOMMENDATIONS TO MAINSTREAM SCP BASED ON MULTI-STAKEHOLDER	
CONSULTATION	
6. REFERENCES	11

## **1. INTRODUCTION**

#### 1.1 Socioeconomic background in Lao PDR

The Lao PDR Government opened its economy through the New Market Mechanism in 1986 (Kyophilavong, 2008). Compared to the global economy, the economy of Lao PDR has grown at a good pace, although has slowed down slightly in recent years. Real GDP growth was more than 7% between 2014 to 2016, 6.9% in 2017, and was estimated to be 6.5% in 2018 (World Bank, 2019). Industry, services, and agriculture sectors are the major GDP driving forces. In 2014 and 2015, the services sector contributed more than 3% to GDP growth. From 2016–2018, the industry sector outpaced services and contributed to more than 3% of the GDP growth. In 2018, industrial output was estimated to grow by 9.6%, supported by expansion of power, construction and mining activities. In 2018, the services sector, comprising wholesale, retail trade, and tourism, was estimated to grow at 5.5%, with growth in the agriculture sector estimated at 2.1% (ibid). Compared to the past growth patterns which were driven by natural resources, the development of labour-intensive sectors such as agriculture, manufacturing and services has benefited the people and contributed to poverty reduction (World Bank, 2018). The agriculture sector engages two thirds of labour and the commercialisation of agricultural commodities such as rubber and vegetables has benefited farmers. Gradually, the employment structure has shifted from agriculture to industry and service sectors (Government of Lao PDR, 2016). Job creation has increased since 2010, and 28% of households in urban areas have increased their income. Moreover, the population under the national poverty line has reduced from 45% in 1992 to 23% in 2012 (World Bank, 2018).

The heavy reliance on natural resources for economic growth in the past few decades, poses challenges to long-term development in Lao PDR. Domestic natural resources extraction increased from 10 million tonnes in 1990 to 71 million tonnes in 2015. Dependence on natural resources exports has also prevented the development of local industry (UNDP, 2017). Forest coverage has decreased from 70% in the 1940s, to 54% in the 1960s, 47% in the 1980s, and 41.5% in 2005 (Government of Lao PDR, 2005). Deforestation not only depletes valuable natural resources but also creates other major effects such as increased rainfall runoff, flash flooding, climate change, biodiversity loss, soil erosion and downstream siltation of rivers and wetlands, reduction of underground aquifer recharging, among other impacts (Government of Lao PDR, 1999). Moreover, the construction of dams for exporting hydropower energy to neighbouring countries has created significant social and environmental costs. Currently the Government controls 13 hydropower dams with installed capacity of 681.5 MW, while independent power producers own 25 dams with installed capacity of 5,577.45 MW (Ministry of Planning and Investment, 2016). The benefits from dam construction are not distributed to those whose livelihoods are impacted the most. Also, overreliance on dam construction diminishes longterm sustainability. It displaces populations, destroys cultural heritage and renders ecosystems unusable for irrigation, environmental services, fisheries and livelihoods, as well as altering the flow, temperature, quality, and sediment loads of rivers (Matthews, 2012).

From a social development perspective, disparities between the urban and rural populations remain. The poverty rate is estimated to be 40% in rural areas compared to 10% in urban areas, with poverty especially high in the remote highland area, where access to social services and infrastructure is lacking. Compared with other countries that are at the same income level, the Human Capital Index (HCI), a salient driver for sustainable development and poverty reduction, is low in Lao PDR. Children under the age of five that are stunted remains high in Lao PDR, although this indicator dropped from 48% in 2000 to 33% in 2017. Also, the quality of education remains relatively low. Thus, the lack of skilled labour in Lao PDR becomes a major challenge for continued economic growth and the development of the private sector (World Bank, 2019). In Lao PDR, most enterprises are micro-, small- and medium-scale and lack the capacity to invest in human resource development and technology, hindering competitiveness in global markets (Kyophilavong, 2008).

#### 1.2 The evolution of SCP in Lao PDR

SCP in the global context emerges as a practical approach to the development trajectories of each country seeking to achieve sustainable development and human wellbeing. Tracking the evolution of the SCP concept in UN processes, it emerged in the 1970s as an end of pipe solution to clean up pollution as a result of industrialisation. In the 1980s, it incorporated resource efficiency and waste reduction in the manufacturing sector through cleaner production. In the 1990s, it adopted a systemic approach to ecoefficiency which involves all supply chain stakeholders in the life-cycle analysis of production and consumption processes (Akenji, Bengtsson and Schroeder, 2017). Thus, SCP is instrumental not only in helping to achieve environmental sustainability, but also for industries to innovate, increase efficiency in resource use, and introduce new business models, such as embracing the digital economy. From a consumption perspective, SCP also addresses poverty eradication by helping to meet basic needs, as well as examining sustainable lifestyles to address over-consumption in developed economies. The systemic nature of SCP provides a practical framework for countries to decide their priorities in achieving sustainability.

In Lao PDR, GDP grew much faster than domestic material consumption until 2004, when domestic

material consumption grew rapidly, increasing by seven times from 1970 to 2009 (UNEP, 2015). For domestic extraction of metal ores, growth was slow until early 2000, and then quadrupled from 2003 in less than a decade (ibid). For pollution control, current measures on SCP still rely on end of pipe solutions. The broader SCP framework would not only address resource use and environmental sustainability of Lao PDR in the long-term, but also how to balance economic growth with natural resources use, introduce innovative approaches to facilitate private sector growth through the development of local talents, and achieve inclusive development for poverty eradication, enhancement of human development, and sustainable living within ecological limits. Thus, SCP could be positioned as the core of a sustainable development trajectory in Lao PDR towards sustainable prosperity.

## 2. REVIEW OF NATIONAL POLICY FRAMEWORK ON SCP IN LAO PDR

Although there is no comprehensive national policy framework on SCP in Lao PDR, this review of national policy frameworks suggests that the SCP principle has been incorporated into a lot of national policy and strategy development. The analysis of those policy frameworks suggests that (1) existing policy frameworks have touched upon a wide variety of entry points within SCP, but more detailed implementation mechanisms including coordination and resource allocation would be need for implementation at the local level; (2) incorporating SCP thinking into implementation of existing plans would generate bigger benefits, as the objectives of SCP overlap with the objectives of those frameworks not only for environmental sustainability but also for poverty eradication, economic development and inclusive growth; (3) monitoring and evaluation, and data collection mechanisms need to strengthened at all levels; and (4) nurturing local talent from policy making to private sector initiatives is a key factor in facilitating SCP implementation and generating cobenefits that will enhance human development.

#### 2.1 Overall Policy Framework

The <u>8th National Socioeconomic Development</u> <u>Plan</u> (2016 – 2020) (Ministry of Investment and Planning, 2016) outlines the national ambition to graduate from "least developed country" status by 2020 and to be an "upper-middle-income country" by 2030. The 8th Plan aims to address equitable and inclusive growth to reduce inter-provincial and regional development gaps, human resource development to ensure the access to basic needs, and the transition from the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs) (Ministry of Planning and Investment, 2016). To achieve inclusive development, the Plan acknowledges the development of the non-resource sector through private sector growth, infrastructure development, and agriculture productivity enhancement. Also, the significance of environmental management and efficient use of natural resources is emphasised to address climate change, resilience towards natural disasters, and preservation of the socioeconomic value of natural resources. By 2020, the Plan aims for the non-resource sector growth contribution to GDP to be more than the average sectors' growth. Although there were targets on natural resources management from land management and administration, water resources management, forest resources and biodiversity management, mineral resources management, environment quality and pollution control management, the thinking is focused on understanding the current state and trends through data collection that will underpin management plans for each area. For future plans, the concept of resource efficiency needs specific targets, and the 3R principles are currently under pollution control, rather than resource efficiency and cleaner production.

The **National Green Growth Strategy** (2018 -) (Ministry of Planning and Investment, 2018) has the motto "for achieving economic growth that is efficient, clean, comprehensive, inclusive, fair and resilient to climate change and global economic uncertainties". It covers four cross-cutting areas: (1) improvement of efficiency in investment environment and management system; (2) poverty eradication towards reduced inequality among urban-rural areas; (3) gender equity; and (4) resilience towards climate change and natural disasters. The environmental pillar in the strategy stresses the importance of efficient use of natural resources, pollution, greenhouse gas and waste reduction, and minimising the risks towards climate change and natural disasters. For efficient utilisation of natural resources, it focuses on (1) coordination among research, survey, allocation and planning of management and use with involvement of relevant stakeholders; (2) strengthening the roles and capacity of Ministry of Natural Resources and Environment and offices at provincial and district levels for better management; (3) better coordination among Ministry of Natural Resources and Environment and offices at the local government level in other sectors such as agriculture, forestry, energy, mines, tourism, public services and transport in completing the information collection on natural resources; (4) efficient, effective and sustainable use of water resources; and (5) pollution control.

Apart from this the Strategy also researches how to integrate green growth into strategies, policies, and plans of sectors and local authorities, systematically and efficiently. Establishment of centres and funds for promotion of national green growth of Lao PDR is suggested to become focal points and a financial mechanism to encourage and promote green socioeconomic development. Establishment of monitoring responsibilities and assessment of indicators in the Strategy need to be developed systematically for efficient and effective monitoring and evaluation.

The Circular Economy Strategies for Lao PDR

(2017 -) (Hoogzaad, 2017) recommended three specific concepts to facilitate resource efficient economic growth building on the geographical advantages and existing industries in Lao PDR. The three suggestions were to (1) become a regional recycling and remanufacturing hub among the neighbouring countries; (2) promote pilot circular construction methods to support tourism in a more sustainable way; and (3) promote algae farming to produce valuable bio-based material and to clean surface waters.

The first Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development SDG 12 (Government of Lao PDR, 2018) started from a waste management perspective. City dwellers generate on average 256 kg of waste annually and the policy and operational framework in Lao PDR is still inadequate. Waste collection

ranges from 42-70% and the solid waste recycling rate is about 10%. Efficient use and sustainable management of natural resources is a top priority that has been mainstreamed into the Eighth NSEDP under the third outcome of Environmental Protection and Sustainable Natural Resources Management. Eco-tourism has also been identified as an important contributor to sustainable development. Unfortunately, most targets and indicators under the SDGs lack a robust measurement system, so to systematically implement and monitor progress on SDG 12, data collection through surveying relevant stakeholders would be key.

#### 2.2 Sectoral Policy Framework – Agriculture

The National Agriculture Development Strategy (2015-2030) (Ministry of Agriculture and Forestry, 2015) stressed poverty eradication and economic growth perspectives through four priorities: (1) ensure food security; (2) produce comparative and competitive agricultural commodities; (3) develop clean, safe, and sustainable agriculture; and (4) shift towards a resilient and productive agricultural economy to link with rural development and contribute to the national economy. Also, despite overall production sufficiency, malnutrition still affects height, weight, vitamin-A insufficiency and anaemia at rather high rates, particularly in rural areas, with about 12% of households having borderline consumption levels. Nationally, 40% of children under 5 years are stunted and 25% are underweight, with rates over 50% in the northern highlands.

#### 2.3 Sectoral Policy Framework – Forestry

The <u>National Forestry Strategy</u> (2005–2020) (Government of Lao PDR, 2005) aims to (1) restore forest coverage of 70% for rural livelihood support system with stable water supplies and prevention of natural disasters; (2) provide a sustainable flow of forest products to livelihood improvement, export, and employment creation; (3) preserve biodiversity; and (4) protect soil, watersheds and climate.

#### 2.4 Sectoral Policy Framework – Tourism

The <u>Lao PDR Tourism Strategy</u> 2006–2020 (Ministry of Information, Culture and Tourism, 2006) considered tourism as a source for economic growth and job creation but also noted efforts to develop ecotourism and sustainable tourism. It has four specific objectives: (1) strengthen tourism to be an industrial sector generating foreign exchange revenue; (2) employment creation; (3) conservation of cultural, national good norms and customs, including the protection of natural resources; and (4) promotion of sectoral products to contribute to poverty reduction.

#### 2.5 Sectoral Policy Framework – Energy

The **Renewable Energy Development Strategy** (2011–2025) (Government of Lao, 2011) aims to (1) ensure adequate supply of energy and energy efficiency, and promotion of fuel crops to produce bio-fuels in replacement of fossil fuels; (2) bring socioeconomic benefits through the development of the renewable energy industry; (3) ensure environmentally and socially sustainable development through safeguards to local communities' food security, access to adequate land for livelihoods, forest cover, biodiversity, agrobiodiversity, and soil and water quality; and (4) reduction of greenhouse gas emissions.

#### 2.6 Sectoral Policy Framework – Industry

There are several policies that promote industry and private sector development in Lao PDR. The Lao Industrial Development Strategies 2016–2030 (Nishimura et al., 2016) combines sectoral specific strategies with technology innovation for industry development in Lao PDR. It aims to (1) bring high value addition through "six industrialisation" technologies and efficient rice production in agriculture and food processing; (2) expand regional power interchange and promote bioethanol production in mining and energy; (3) produce high value added products and join the fast fashion supply chain with ASEAN nations; (4) produce electronic products with a relatively short commodity cycle and a flexibly adjusted production volume in electric and electronic machinery; (5) produce labour intensive components in transport equipment to export to Thailand; (6) promote Lao PDR products to markets such as Thailand, Vietnam and China and attract more visitors from Japan, Korea and China during summer vacations; (7) utilise international organisation funds and capacity building for commercial banks in credit assessment, and capacity building for SMEs; and (8) launch consolidation services and utilisation of railways in the transport sector.

The <u>Strategic Private Sector Development Plan</u> (2018–2020) (Lao National Chamber of Commerce and Industry, 2018) emphasised that the development and growth of the private sector would be the key to ensuring sustainable and inclusive economic development in Lao PDR. The Plan listed major focuses on: (1) through advocacy, national framework

development, development of dispute resolution mechanisms and capacity building to improve the business environment; (2) service provision to include SMEs, and development of SME service centres to support SME finance, market access, trade facilitation, an ecosystem for start-ups and business, and attract multinational corporations to invest; (3) promotion and marketing for Lao PDR products to establish Lao National Marketing and Coordination Office, to identify Lao PDR champion products and services; and (4) information system management and public relations for an integrated information database and registry system at Lao National Chamber of Commerce and Industry.

Among the promotion of private sector growth, emphasis has been placed on SMEs. The <u>SME</u> <u>Development Plan</u> (2016–2020) (Ministry of Industry and Commerce, 2016) aims to (1) promote productivity, technology and innovation; (2) promote finance access; (3) promote access to business development services; (4) enhance market access and expansion; (5) strengthen entrepreneurial development; (6) create favourable environment for business through policy; and (7) establish policies on customs and taxation.

### 2.7 Sectoral Policy Framework – Climate Change and Natural Resources

The National Resources and Environment Strategy (2016–2025) (Ministry of Natural Resources and Environment, 2015) acknowledges that natural resources are pivotal in people's livelihood and economy. It aims to (1) make Lao PDR green to ensure people's livelihoods, biodiversity, and mitigate global warming; (2) make Lao PDR clean and beautiful to ensure good quality for all people; (3) contribute to the green growth economy for sustainable development and climate change mitigation; and (4) prepare for climate change adaptation and reduction of natural disaster impacts.

The National Climate Change Strategy (2010 -) (Government of Lao PDR, 2010) considered that climate change would also impact the national economy, thus incentivising stakeholders to take action. It aims to (1) reinforce sustainable development goals including to achieve low-carbon economic growth; (2) increase resilience of key sectors, economy and natural resources to climate change; (3) enhance cooperation and partnerships with national and international stakeholders to implement the national development goals; and (4) improve public awareness about the vulnerabilities of climate change and its impact on the economy.

## 3. PREVIOUS SWITCH ASIA PROJECTS AND OTHER SCP PROJECTS INVOLVING LAO PDR

## 3.1 Regional projects

# 3.1.1 Establishment of the ASEAN Energy Manager Accreditation Scheme

The project's objective was to cut energy consumption in the manufacturing sector through the ASEAN Energy Management Scheme (AEMAS). It trained and certified energy managers to conduct sustainable energy management system in their companies. The project increased the number of certified accredited energy managers and the companies that implemented an Energy Management System could receive certification under the AEMAS scheme.

## 3.1.2 Efficient Air Conditioners / ASEAN SHINE

The project aimed to increase the market uptake of higher energy efficient air conditioners in ASEAN through the standardisation of test methods and energy efficiency standards, introduction of Minimum Energy Performance Standards (MEPS), and changing consumer behaviour towards the purchasing of more energy efficient units.

# 3.1.3 Sustainable Production Innovation in Vietnam, Cambodia and Lao PDR

The project aimed to enhance the innovative power and improve environmental and social sustainability of products produced in Vietnam, Cambodia and Lao PDR. The project aimed to reach out to at least 500 companies in those countries in sectors such as food processing, food packaging, textiles, footwear, handicraft and furniture. The project implemented a series of activities providing branding and marketing skills for SMEs and promoting sustainable public policy and procurement with 30 government organisations.

# 3.1.4 Sustainable Freight and Logistics in the Mekong Region

Trucking efficiency is a challenge in the Greater Mekong Subregion. For instance, in 25–50% of trips trucks are empty, and the average fleet is over 10 years old (which is much older than other countries). The project targeted at least 500 SMEs in Cambodia, Lao PDR, Myanmar, Vietnam and Thailand to enhance sustainable freight transport and logistics in the Mekong Region through energy efficiency and safety measures.

## 3.1.5 Sustainable Rattan Industries

The project was implemented in Cambodia, Lao PDR and Vietnam to increase the export of sustainable rattan products from those countries in 2009–2011. The project aimed to ensure sustainable rattan processing which could lead to environmental improvement, poverty reduction and enhanced competitiveness of the sector providing economic benefits for the producers and the selected countries.

## 3.2 National Projects

## 3.2.1 Improved Cook Stoves Programme Lao PDR

The project developed cleaner and fuel-efficient Improved Cook Stoves (ICS) to replace 50% of the market share of cook stoves. Moreover, it focused on five provinces to improve the awareness and access to ICS. It provided training to various stakeholders including producers, retailers and consumers in product design, certification of producers and labelling of products for consumers.

## 3.2.2 Eat Greener

Currently, small scale farmers in Lao PDR face many challenges to compete in the local market due to factors such as non-sustainable agriculture, dependency on chemical inputs which raise the costs, and air and water pollution. The project aimed to increase the demand for sustainable food products from Lao PDR such as organic rice and tea in ASEAN and European countries, benefiting farmers in Lao PDR and contributing to poverty eradication.

## 3.2.3 Luang Prabang: Handle with Care

The project aimed to promote sustainable tourism in Luang Prabang, a world heritage site. Through the engagement of all stakeholders in the provision and consumption of products in the tourism sector, the project aimed to ensure private sector uptake and benefits, responsible use of natural resources and protection of cultural heritage and minorities for inclusive economic participation.

#### **3.3 Sustainable Consumption and Production Curriculum in Tertiary Education**

With the support from United Nations Development Accounts (UNDA), the curriculum on SCP was introduced into tertiary education in Lao PDR in 2017. The course includes the introduction of SCP in global and local contexts and the role of sustainable lifestyles. It focused on five prioritised sectors: building and construction, mobility and transport, tourism, food and agriculture, and industry. It also addresses the need for an inter-sectoral approach to SCP in Lao PDR.

## 4. RECOMMENDATIONS ON ADOPTING SCP IN LAO PDR

SCP in Lao PDR is emerging simultaneously as the country's production and consumption volumes start to speed up due to the rapid economic growth. Moreover, SCP is linked with livelihood development, meeting basic needs and poverty eradication, development of a sustainable private sector for sustainable economic development while diversifying the economy away from natural resources utilisation, and enhancing the competitiveness of the private sector, especially SMEs in the global economy.

Thus, some suggested areas to consider in mainstreaming SCP in Lao PDR are as follows:

- Invest in human development through nutrition programmes, formal and informal education to enhance the knowledge and skills so people can engage in the labour force;
- Improve the efficiency of the farming and handicraft sectors to produce SCP products with higher quality, such as organic agriculture products and high-quality fabrics for export;
- Improve the market access and demand of Lao PDR products both domestically and in global markets through marketing and branding of local products;
- Support youth and start-ups in launching innovative ideas to encourage innovation in Lao PDR industries;
- Develop a SCP platform for relevant stakeholders from government organisations, associations, private sector, academia, and civil society to exchange resources and knowledge on implementing SCP;

- Enhance the awareness, finance accessibility and economic benefits of incorporating SCP in SMEs for upgrading the industry and competitiveness of their businesses;
- Implement sustainable management of natural resources and incorporate resource efficiency thinking in relevant stakeholders in the supply chain;
- Strengthen waste management in industrial waste and household waste management through promoting the 3R concept;
- Improve the quality of life and manage sustainable consumption through introducing sustainable lifestyles by incorporating good virtues from Lao PDR traditional living and culture, especially for urban residents with an increasing consumption appetite.

## 5. RECOMMENDATIONS TO MAINSTREAM SCP BASED ON MULTI-STAKEHOLDER CONSULTATION

On 28th March 2019, the SWITCH Asia SCP Facility co-hosted the National Kick-off Workshop of SWITCH Asia Programme Phase II on Sustainable Consumption and Production with the Ministry of Natural Resources and Environment (MoNRE) of Lao PDR and European Union Delegation (EUD) to Lao PDR. About 80 participants attended, with representatives from government ministries and agencies, international organisations, industrv associations, research institutes, NGOs and the private sector. Discussions focused on the current state and needs for promoting and implementing sustainable consumption and production (SCP) under SWITCH Asia Programme Phase II in Lao PDR. As the outcome of the discussion, potential prioritised areas for implementation are identified as following:

- Policy: Integration of SCP policies into national development strategies and plans such as the next National Socioeconomic Development Plan. Development of SCP indicators should be more inclusive considering not only urban and industrialised settings, but also the rural context. It is important to consider "meeting the basic needs" and "leaving no one behind" aspects when talking about SCP in countries with people that have yet to meet their basic needs. Promoting sustainable public procurement / green public procurement, should fit into the Lao PDR context through a green industry policy to support local producers in industries such as handicrafts and food production.
- 2. Business: Stress economic benefits to engage business, not only approaching SCP from a socioeconomic perspective. Creating market demand for SCP products, data collection, and access to technology and finance are key for SMEs and micro-enterprises. Assistance on branding and communication for specific industries where Lao PDR produces good products could help to gain access to markets and comply with international standards. Provision of technical support and capacity building is needed for access to finance, coordination with value chains, access to markets and product information.

- 3. Awareness raising: Advocacy and awareness raising of stakeholders should be matched with capacity building to enable different stakeholders to adopt SCP options, such as for business and consumers. To promote consumer behavioural change, waste management is a tangible entry point for intervention when individuals think about daily living and SCP. Also, the provision of infrastructure is important to enable consumers to choose sustainable options.
- 4. **Community:** There is an urgent need to shift from top level towards implementation of SCP at municipal and community levels. In engaging farming communities, the assessment of local conditions, enhancement of information sharing and creating valuable information with farmers and consumers are important.
- 5. Cooperation: Development of a SCP coordination and cooperation platform to invite different stakeholders through peer-to-peer learning will facilitate a more holistic approach to SCP. SWITCH Asia can cooperate with international organisations that are working on similar initiatives, such as working with GGGI on waste management issues.

## 6. REFERENCES

Akenji, L. Bengtsson, M. and Schroeder, P. 2017. Sustainable consumption and production in Asia – Aligning human development and environmental protection in international development cooperation. European Union.

Government of Lao PDR. 1999. The Government's Strategic Vision for the Agricultural Sector. Ministry of Agriculture and Forestry, Vientiane.

Government of Lao PDR. 2005. Forestry Strategy to the Year 2020. Government of Lao PDR, Vientiane.

Government of Lao PDR. 2010. Strategy on Climate Change of the Lao PDR, Government of Lao PDR, Vientiane.

Government of Lao PDR. 2011. Renewable Energy Development Strategy in Lao PDR. Government of Lao PDR, Vientiane.

Government of Lao PDR. 2018. Lao People's Democratic Republic: Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development. Government of Lao PDR.

Hoogzaad, J. 2017. Circular Economy Strategies for Lao PDR: A metabolic approach to redefine resource efficient and low-carbon development. Ministry of Energy and Mines Lao PDR and United Nations Development Programme.

Kyophilavong, Phouphet. 2008. SME Development in Lao PDR, in Lim, H. (ed.), SME in Asia and Globalization, ERIA Research Project Report 2007-5, pp.191-215.

Lao National Chamber of Commerce and Industry. 2018. Strategic Private Sector Development Plan 2018 – 2020. Lao National Chamber of Commerce and Industry, Vientiane.

Matthews, Nathanial. 2012. Water grabbing in the Mekong basin – an analysis of the winners and losers of Thailand's hydropower development in Lao PDR

Ministry of Agriculture and Forestry. 2015. Agriculture Development Strategy to 2025 and Vision to the Year 2030. Ministry of Agriculture and Forestry, Lao PDR.

Ministry of Industry and Commerce. 2016. SME Development Plan 2016 – 2020. Ministry of Industry and Commerce, Lao PDR.

Ministry of Information, Culture and Tourism. 2006. Lao PDR Tourism Strategy 2006 – 2020. Ministry of Information, Culture and Tourism, Lao PDR.

Ministry of Natural Resources and Environment. 2015. Natural Resources and Environment Strategy, 10 Years 2016-2025. MoNRE Vision towards 2030. Government of Lao PDR, Vientiane.

Ministry of Planning and Investment. 2016. 8th Five-Year National Socio-Economic Development Plan (2016-2020).

Ministry of Planning and Investment. 2018. National Green Growth Strategy, Ministry of Planning and Investment, Lao PDR.

Nishimura, H. Kimura, F. Ambashi, M. and Koela, S. 2016. Lao PDR at the Crossroads: Industrial Development Strategies 2016 – 2030. Economic Research Institute for ASEAN and East Asia.

UNEP. 2015. Indicators for a Resource Efficient and Green Asia and the Pacific - Measuring progress of sustainable consumption and production, green economy and resource efficiency policies in the Asia-Pacific region, Schandl, H., West, J., Baynes, T., Hosking, K., Reinhardt, W., Geschke, A., Lenzen, M. United Nations Environment Programme, Bangkok.

UNDP. 2017. Circular economy strategies for Lao PDR: A metabolic approach to redefine resource efficient and low-carbon development, UNDP

World Bank. 2018. Lao PDR Economic Monitor, Safeguarding Stability: an Ongoing Agenda, Thematic section: How can farmers get more for their rice and consumers pay less? World Bank.

World Bank. 2019. Lao PDR Economic Monitor, Macroeconomic Stability amidst Uncertainty, Thematic section: Building Human Capital for Poverty Reduction. World Bank.





Jointly implemented by:









www.switch-asia.eu



EUSWITCHAsia

SWITCHAsia