

Development of the National Action Plan on Sustainable Consumption and Production (2021 – 2030) in Vietnam: An assessment of the progress in 2016 – 2020 and recommendations for 2021-2030



Disclaimer

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ACRONYMS AND ABBREVIATIONS

| | |
|--------|---|
| 3Rs | Reduce, Reuse, Recycle |
| 10YFP | 10 Year Framework of Programmes on SCP |
| ASEM | Asia-Europe Meeting |
| CIF | Cost Including Freight |
| CP | Cleaner Production |
| CSI | Sustainable Business Index |
| DoIT | Department of Industry and Trade |
| EDC | Earth Day Compostable |
| EIP | Eco-industrial park |
| EPR | Extended Producer Responsibility |
| EU | European Union |
| FDI | Foreign Direct Investment |
| FOB | Free on board |
| FTA | Free Trade Agreement |
| GCF | Green Climate Fund |
| GDP | Gross Domestic Product |
| GEF | Global Environment Facility |
| GPP | Green Public Procurement |
| HACCP | Hazard analysis and critical control points |
| HLPF | High Level Political Forum |
| IZ | Industrial zone |
| KEITI | Korea Environmental Industry and Technology Institute |
| LCA | Life Cycle Assessment |
| MARD | Ministry of Agriculture and Rural Development |
| MoC | Ministry of Construction |
| MoCST | Ministry of Culture, Sports and Tourism |
| MoET | Ministry of Education and Training |
| MoF | Ministry of Finance |
| MoIT | Ministry of Industry and Trade |
| MoLISA | Ministry of Labour, War Invalids, and Social Affairs |
| MoNRE | Ministry of Natural Resources and Environment |
| MoST | Ministry of Science and Technology |
| MPI | Ministry of Planning and Investment |
| NAP | National Action Plan |
| NGO | Nongovernmental Organization |
| NTPP | National Trade Promotion Programme |
| ODA | Official Development Assistance |
| OECD | Organization for Economic Cooperation and Development |
| Q&A | Questions and answers |
| R&D | Research and Development |
| RoHS | Restriction of hazardous substances |
| S&T | Science and technology |
| SCP | Sustainable Consumption and Production |

| | |
|---------|--|
| SDG | Sustainable Development Goal |
| SME | Small and Medium Enterprise |
| TOE | Tons of oil equivalent |
| TPP | Trans-Pacific Partnership |
| UK | United Kingdom |
| UN | United Nations |
| UNDP | United Nations Development Programme |
| UNIDO | United Nations Industrial Development Organization |
| VAT | Value-added tax |
| VBCSD | Vietnam Business Council for Sustainable Development |
| VCCI | Vietnam Chamber of Commerce and Industry |
| VietGAP | Vietnamese Good Agricultural Practices |
| VNR | Voluntary National Review |
| WEEE | Waste electrical and electronic equipment |
| WTO | World Trade Organization |

EXECUTIVE SUMMARY

Starting in August 2019, the SWITCH Asia SCP Facility has provided technical support to Vietnam's Ministry of Industry and Trade (MoIT) for development of the National Action Plan on Sustainable Consumption and Production (2021–2030) (NAP on SCP). The SCP Facility established a team of international and national experts to conduct an assessment on the current policy and implementation status of SCP in Vietnam. Based on the assessment outcome, the SCP Facility also assisted MoIT to complete the draft NAP on SCP (and submission documents), which was circulated to aligned ministries and organizations for their comments in October 2019. The assessment and development of NAP took a multi-stakeholder consultative process. There were three rounds of national multi-stakeholder consultations co-organized by Ministry of Industry and Trade and SWITCH Asia SCP Facility in Hanoi on April 23rd, September 20th and November 5th in 2019. In December 2019, MoIT submitted the NAP on SCP to the Prime Minister's Office for approval. In June 2020, the Prime Minister officially approved the National Action Plan on Sustainable Consumption and Production for the Period of 2021–2030.

Based on the assessment of Vietnam's progress on SCP implementation in 2016–2020, several lessons were drawn, leading to recommendations reflected in the draft NAP on SCP:

- The need to develop and improve baseline data collection to support policy targets. The target indicators in the old version of the National Action Plan on Sustainable Consumption and Production up to 2020, with a vision to 2030 are overly ambitious with little consideration of the baseline data.
- Awareness raising and capacity building programmes on SCP should be extended to provincial level officials and enterprise managers. Additionally, financial support from the Government to invest in joint R&D programmes involving provincial governments and enterprises is important to facilitate eco-innovation.
- In greening the distribution system, good practice should be extended beyond the agriculture sector to other industrial sectors and involve key actors, such as wholesalers and retailers. Farmers should be given more incentives to apply for the certifications issued by the Government, through awareness raising of consumers to recognize the value of the logos on the certified products.
- There should be more studies on the export market potential of green products from Vietnam. For enterprises, there should be guidelines and platforms to share the technical standards and requirements from importing markets, especially for green products.
- On sustainable consumption and lifestyles, green public procurement should be incorporated into existing legal documents guiding public procurement. Awareness raising programmes are important for consumers to recognize the availability of green products and services.
- For waste management, a market-based mechanism, such as waste collection fees from enterprises and households, needs to be developed. There is need to develop a market for secondary material use by enterprises to increase the value of recycled and reused products.

Based on an assessment using a holistic systems approach to SCP, the following 9 prioritised actions (later sub-divided into 15 specific areas for the approved NAP on SCP) were identified for implementation over the decade 2021-2030:

- **Sustainable resource management:** consider waste as resources. In addition, a comprehensive approach to resource management based on a life cycle assessment (LCA) approach is essential.
- **Cleaner production & resource efficiency:** introduce LCA approach in the Cleaner Production (CP) Programme. Also provide more hands-on training for officials of the Department of Industry and Trade (DoIT), especially staff designated to act as focal points of CP in their locality, as well as facilitating these officials to gain more experience in CP guidance. For enterprises, targeting of small and medium enterprises (SME) is especially important.
- **Design for sustainability:** consider innovative approaches such as nature-based solutions and bioregional planning to be part of green production and extended to other sectors such as the fashion industry, especially for waste reuse and recycling.
- **Green public procurement:** revise the existing Law on Environmental Protection 2014 and Article 47 of Decree 19/2015/ND-CP to introduce green public procurement (GPP). Supplement selection criteria of projects in the Public Investment Law, requiring investment projects to have a plan to purchase goods with energy labelling and eco-labelling and/or products that could be procured under GPP guidelines.
- **Sustainable transportation:** shift towards low carbon transportation and encourage cooperation among distributors of products and services to enhance efficiency. Also, the quality of public transport, especially in big cities, needs to improve to increase public transportation use.
- **Eco-labelling and certification:** promote eco-labelling certification for the service sector and enact a legal framework to promote GPP to incentivize business to produce green products.
- **Sustainable marketing:** include green marketing as part of greening the supply chain and sustainable lifestyles efforts towards SCP. Green marketing could also promote eco-tourism into cultural and heritage tourism sights.
- **Sustainable lifestyles:** increase consumers' knowledge on sustainable consumption through facilitating behaviour change, product lifetime extension, production sustainability information and social impact communication.
- **Waste management:** strengthen policies to promote 3Rs, and create economic values in recycling industry, promote extended producer responsibility (EPR) programme, management and control of marine waste and update CP guideline for specific industry sectors.

From international experiences on SCP policy development and implementation, Vietnam has the advantage in terms of the high political backing of SCP. The major tasks are on implementation. The vulnerability to climate change of Vietnam shows the shift towards SCP is an important task towards long term sustainability. The concept of a circular economy as a practical instrument would be useful to help Vietnam's socioeconomic transition in the SCP implementation process. As an emerging economy, Vietnam should strengthen R&D capacity of enterprises to facilitate eco-innovation for global competitiveness and incorporate SCP into both

import and export trade measures. Moreover, as urbanization is expanding in Vietnam, more focus on sustainable consumption targeting urban residents is vital during the rapid consumption pattern transition. Thus, SCP could be adopted in Vietnam's socioeconomic transition needs to holistically address emerging opportunities and challenges through the involvement of all actors in the society.

The newly approved NAP on SCP 2021-2030 introduces a holistic systems approach on SCP based on 15 areas specifically: policies, resource use, design, production, distribution, labelling, marketing, procurement, lifestyles, waste management, communication, database development, science and technology development, green finance and international cooperation. Critical issues of implementation arrangements are also included for different ministries, local governments, associations, enterprises, citizen and the civil society. In addition, a list of specific prioritized activities and tasks are provided.

The SDG Interlinkages Tool, developed by IGES, was used to conduct an SDG interlinkage analysis for the proposed targets and activities under the draft version of the NAP on SCP. A look into Vietnam's statistics reveals a very sharp increase in the country's domestic material consumption over the last two decades. By 2010, Vietnam was consuming about 15 times more material compared to 1990 levels (see Figure 8). This overexploitation of resources and unsustainable use will not only make future development uncertain but is likely to also have a detrimental effect on a wide range of areas throughout the lifecycle of those resources. As can be seen in Figure 10, the existing unsustainable trend of Target 12.2 on resource use has caused negative effects on water (Target 6.6) and on terrestrial ecosystems (Target 15.1, 15.3 and 15.4). It has also weakened the resilience of nature to climate change (Target 13.1) and constrained the provision of sufficient resources to meet the targets to end hunger (Target 2.1) and malnutrition (Target 2.2), access to sanitation and hygiene (Target 6.2) and other basic services (Target 11.1), as well as the sustainability of industrialisation. Making resource use more sustainable is another major priority area for Vietnam. The NAP on SCP should pay particular attention to this area.

Sustainable food production (related to Target 2.4) was proposed as an important measure in the draft NAP for SCP. However, existing trends for Target 2.4, measured by the indicator of fertiliser use by nutrient (see 8-3 in Figure 8), indicate an unsustainable pathway for agriculture production. It can be seen that unsustainable food production system is detrimental to achieving SCP in Vietnam. Unsustainable agricultural practices have caused negative impacts on water (Target 6.6), terrestrial (Target 15.1), land (Target 15.3) and mountain (Target 15.4) ecosystems. This has caused damage to nature and affected its resilience to climate change (Target 13.1), coupled with the degradation in forests (Target 15.2), loss of biodiversity (Target 15.5) and unsustainable resource use (Target 12.2). In addition, unsustainable agriculture impacts negatively on achieving other social and economic SDG targets, including ending hunger (Target 2.1) and malnutrition (Target 2.2), access to sanitation and hygiene (Target 6.2), economic growth (Targets 8.1 and 8.2) and employment (Targets 8.5 and 8.6). Transforming towards sustainable agriculture production is an urgent task for achieving SCP in Vietnam.

In the wake of the successful approval by Vietnam's Prime Minister on 25 June, 2020, the NAP on SCP (2021-2030) should be implemented with effective institutional arrangements and

financial resources allocated to address the degradation areas, including those related to Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.5, particularly the areas related to Targets 2.4, 9.4 and 12.2.

1. Status on the implementation of “the National Action Plan on Sustainable Consumption and Production up to 2020, with a vision to 2030”

Sustainable consumption and production (SCP) is defined as “the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product, so as not to jeopardize the needs of further generations”. Sustainable Development Goal 12 (SDG 12) of the 2030 Agenda for Sustainable Development aims to ensure SCP by “making fundamental changes in the way that our societies produce and consume goods and services” (United Nations. n.d.).

Vietnam has been implementing a “National Action Plan (NAP) on SCP 2016-2020, with a vision to 2030”. As completion of this term is approaching and global attention to SCP is increasing, a new NAP on SCP 2021-2030 has been prepared to (i) build on the achievements of the ongoing NAP (2016-2020), recognizing that not all of its objectives could be achieved in the short implementation period; (ii) align SCP strategies with ongoing and planned actions under related national and provincial strategies and action plans; and (iii) reflect international good practices.

The new NAP on SCP 2021-2030 outlines the current status of the ongoing NAP, identifies progress with related national and provincial programmes, and briefly describes good SCP examples internationally. A broad vision on SCP in Vietnam is described, key objectives are outlined, and the main tasks divided into 15 areas: policies, resource use, design, production, distribution, labelling, marketing, procurement, lifestyles, waste management, communication, database development, science and technology development, green finance, and international cooperation. Critical implementation arrangements are also included. In addition, a list of prioritized activities and tasks are provided in an annex.

1.1. Brief introduction about Decision No. 76/QD-TTg on Sustainable Consumption and Production

On January 11, 2016, the Prime Minister approved No: 76/QD-TTg, Decision approving of “The National Action Plan on Sustainable Consumption and Production up to 2020, with a Vision to 2030” (hereafter Decision 76). Decision 76 considers SCP as an instrument for sustainable economic development to be integrated into existing national programmes, strategies and plans. It aims to apply SCP thinking into the entire product lifecycles through innovative solutions and to include sustainable consumption. It also encouraged the participation of all societal actors in this process. The decision listed out priority action plans until 2020, while actions for the period 2021–2030, were expected to be developed later.

The objective of Decision 76 was to gradually change production and consumption patterns towards SCP to promote sustainable consumption, promote “reduce, reuse, recycle” (3Rs) in all product lifecycles. Particular objectives focused on strengthening policy, waste reduction in

distribution systems, increasing the availability of sustainable products in export products, disseminating information on sustainable products to consumers, and improving waste management. Quantitative indicators to track progress included percentage of enterprises applying clean technology, percentage of manufacturers applying energy saving solutions, contribution of the green/environmental industry sector in GDP, percentage of enterprises in distribution sector with adequate training, reduction of environmentally unfriendly bags in supermarkets, and percentage of scrap materials, urban solid waste, non-hazardous industrial waste, and construction solid waste recycled and reused.

Six key tasks were identified: legal frameworks and policies on SCP, promoting sustainable production, greening the distribution system, promoting sustainable export products, changing consumption behaviour and promoting sustainable lifestyles, and implementing 3Rs. Regarding legal frameworks and policies on SCP, the focus was to integrate SCP in relevant policy frameworks, incentivise investment on SCP, and develop trade policies to align with international standards and agreements. For production and economic restructuring, the focus was on sustainable natural resources use, implementing cleaner production, developing eco-innovation, and sustainable production for key green products. To green the distribution system, the focus was on policy development, applying cleaner production, enhancing research and linkages among actors in the supply chain, developing a sustainable programme for key products, and increasing awareness among stakeholders in the supply chain. For task 4 on promoting sustainable export products, the key actions were on accessing export market potential, trade promotion, improving competitive capacity, and developing sustainable export enterprise models for key export products. On changing consumption behaviour and promoting sustainable lifestyles, the main focus was on awareness raising, advertising through media and civil society groups, promoting green labelling, implementing green public procurement, and developing and disseminating sustainable lifestyle models. The final task 6 on implementing 3Rs focused on improving the policy framework, communication activities, developing guidance, and undertaking pilot projects.

Based on those the six tasks, eight prioritised programmes were developed:

1. On legal frameworks and policies on SCP, MoIT and MoNRE were appointed as chairs in coordination with MoF and MPI, to create a legal framework to encourage the participation of individuals, organizations and enterprises to invest in and implement sustainable production and consumption activities.
2. To promote sustainable production, MoNRE and MoE were appointed as chairs in coordination with MPI, MIC and local governments to raise awareness and implementation capacity of communities, officials, enterprises and related stakeholders about SCP.
3. On ecological innovation, MoIT was appointed as the chair in coordination with MPI, MoNRE, MARD, MoC and MoT to apply innovation at all stages of product lifecycles and to restructure industrial parks and clusters towards “ecological industries” development.
4. To develop sustainable production, MoIT was appointed as the chair in coordination with MoNRE and MoF to promote production and supply of sustainable products to meet sustainable consumption demand.

5. On greening the distribution system, MoIT was appointed to be the chair with the coordination of local governments to green the distribution system and develop sustainable products distribution channels.
6. For developing sustainable supply chains, MoIT and MARD were appointed as chairs to encourage sustainable supply of products from farm to table and encourage enterprises in all stages of the supply chain to employ sustainable practices.
7. To promote sustainable export products, MoIT was appointed as the chair in coordination with MARD, MoF, MoNRE, and MoST to improve the competitive capacity of export enterprises and open market access to participate in global sustainable supply chains for key export products.
8. On 3Rs, MoNRE was appointed to be the chair to coordinate with local governments to promote sustainable waste management.

1.2. Institutional arrangements for the implementation of Decision No. 76/QD-TTg on Sustainable Consumption and Production

Implementation arrangement in MoIT, line ministries and agencies

Management and coordination bodies for SCP implementation have been established from central to local government levels. At the central level, MoIT as the leading agency on NAP implementation has established an office for cleaner production (CP) and SCP. It is tasked to draft and coordinate an annual implementation plan. Several ministries and line agencies have assigned responsibilities and have allocated specific programmes for NAP on SCP implementation to its responsible departments.

Cities and provinces under state management have assigned tasks to the Department of Industry and Trade (DoIT) to draft local plans for NAP implementation. Hence, annually DoIT drafts plans and carries out NAP on SCP activities. In addition, in most cities and provinces there are support centres for implementation of SCP related activities e.g. EE centre, Co centre, Industry Promotion centre. These centres play important roles in supporting, directing and implementing activities for promotion of SCP and facilitate consumer selection of products and services which are safe, hygienic and environment friendly.

1.3. Detailed implementation progress on Decision No. 76/QD-TTg on Sustainable Consumption and Production

This review of the programmes under the current NAP on SCP (2016–2020) was based on implementation reports by provincial governments submitted to MoIT, studies conducted by MoIT, reports on SCP from responsible ministries, literature review on the policy framework, and interviews of key stakeholders. A summary of the progress is provided in Table 1, with detailed assessments following. Progress is assessed as “completed”, “ongoing”, “ongoing but limited”, or “uncertain (which indicates no relevant activities found related to identified areas)”. A quick glance at Table 1 would indicate that the majority of tasks are still “ongoing”, thus making the case for continuing these actions in the new NAP on SCP (2021-2030).

Table 1: Summary of Implementation Progress (2016-2019)

| MAIN TASKS | PRIORITY PROJECTS | MAIN ACTIVITIES (RESPONSIBLE AGENCY) - PROGRESS | RELATED PROGRAMMES (LEAD AGENCY) |
|-------------------------------------|--|---|---|
| Legal framework and policies | Legal framework and policy development | Integrate SCP into strategies, plans, and action plans at all levels (MoIT) – <i>Ongoing</i> | Green Growth Strategy (MPI); Climate Change Strategy (MoNRE); Sustainable Development Action Plan (MPI); Action Plan on Green Growth of Construction Industry (MoC); Action Programme of Natural Resources and Environment Sector to Implement the Green Growth Strategy (MoNRE); Exemption and reduction of export taxes on eco-friendly products (MoF); National Strategy on Integrated Management of Solid Waste (MoNRE) |
| | | Incentives to support investment in sustainable production (MoIT) – <i>Ongoing, but limited</i> | |
| | | Incentives for environment-friendly production and consumption (MoNRE) – <i>Ongoing, but limited</i> | |
| | | Policies to encourage investment in distribution channels, green purchasing networks, and sustainable supply chains (MoIT) – <i>Uncertain</i> | |
| | | Export and import policies to enhance sustainable product exports (MoIT) – <i>Ongoing</i> | |
| | | Improved coordination for public-private partnerships in SCP (MoNRE) - <i>Uncertain</i> | |
| Economic restructuring | Ecological innovation | Propose policies to promote eco-innovation in manufacturing enterprises, industrial parks, and industrial clusters (MoIT) – <i>Ongoing</i> | Eco-industrial park initiative (MPI) |
| | | Raise awareness and implementation capacity for eco-innovation in enterprises and related stakeholders (MoIT) – <i>Ongoing</i> | |
| | | Technical assistance and technical guidelines on eco-innovation (MoIT) – <i>Ongoing</i> | |
| | | Demonstrate eco-innovation models in manufacturing enterprises, industrial parks, and industrial clusters (MoIT) – Completed in some industrial parks, <i>Ongoing</i> | |
| | Sustainable production | Assess current status and propose list of priority sustainable products for investment | Circulars on Quality Control of Agricultural |

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| | | and development support (MoIT) – <i>Completed, but restricted to MoIT</i> | Materials and Food Safety (MARD) |
| | | Research and apply technological mastery on clean, sustainable technologies (MoIT) – <i>Ongoing</i> | |
| | | Incentives to attract enterprises into sustainable production and supply (MoIT) – <i>Ongoing but limited</i> | |
| Greening distribution system | Sustainable distribution system | Assess current situation of sustainable development in the distribution system (MoIT) – <i>Ongoing</i> | Vietnam Cooperative Union has organized a supermarket system linking more than 100 agricultural cooperatives to form chains in safe food supply |
| | | Expand sustainable products distribution models (MoIT) – <i>Uncertain</i> | |
| | | Deliver technical support on cleaner production, energy savings, and efficiency in the distribution system (MoIT) – <i>Ongoing</i> | |
| | | Develop standards and a certification body for sustainable distribution models (MoIT) – <i>Ongoing</i> | |
| | Sustainable supply chain | Assess current status of sustainable supply chain in agricultural and food products, beverages, textiles and footwear (MoIT, MARD) – <i>Uncertain</i> | Slaughterhouses and processing facilities are certified to meet food safety requirements and apply HACCP quality management system (MARD); Some farming, animal husbandry, and aquaculture establishments are VietGAP certified (MARD) |
| | | Support pilot application and disseminate sustainable supply chain of products in the economy (MoIT, MARD) – <i>Ongoing</i> | |
| | | Propose mechanisms and policies to strengthen sustainable supply chains and enhance linkages (MoIT, MARD) – <i>Ongoing</i> | |
| Sustainable exports | Sustainable exports and competitiveness | Assess potential export markets and capacity to supply sustainable products from Vietnam (MoIT) – <i>Completed</i> | Vietnam Business Council for Sustainable Development’s Corporate Sustainability Index and Centre for Circular Economy |
| | | Identify trade opportunities for export and participation in global sustainable value chains (MoIT) – <i>Ongoing</i> | |

| | | | |
|-----------------------------------|---|---|---|
| | | Support trade promotion and market access for key sustainable export products (MoIT) – <i>Ongoing</i> | |
| | | Databases and guidance on sustainable regulations and standards in export markets (MoIT) – <i>Uncertain</i> | |
| | | Technical support for export industries applying international sustainability standards (MoIT) – <i>Ongoing</i> | |
| | | Improve policies to support export enterprises applying sustainability standards (MoIT) – <i>Ongoing</i> | |
| Consumption and lifestyles | Raise awareness and implementation capacity | <p>Awareness raising on SCP (MoNRE) – <i>Ongoing</i></p> <p>Training officials, enterprises and employees on SCP (MoIT, MARD, MoNRE) – <i>Ongoing</i></p> <p>Awards to individuals and organizations successfully performing SCP (MoNRE) – <i>Ongoing</i></p> <p>Integrate SCP into formal education system (MoET) – <i>Ongoing but limited</i></p> <p>Replicate SCP practices in communities and enterprises (MoNRE) – <i>Ongoing, but limited</i></p> | <p>Vietnam Green Label Programme Advisory Council (MoNRE);</p> <p>Energy Label (MoIT);</p> <p>Green consumption programme (DoIT, DoNRE);</p> <p>Green buildings (Vietnam Green Council)</p> |
| 3Rs | 3Rs | <p>Pilot and disseminate 3Rs models from households, industrial production, distribution, consumption and disposal (MoNRE) – <i>Ongoing</i></p> <p>Implement waste sorting at source and replicate models at enterprises and in communities (MoNRE) – <i>Ongoing but limited</i></p> <p>Campaign to raise awareness of 3Rs (MoNRE) – <i>Ongoing</i></p> <p>Improve legislation and policies to promote waste reduction, recycling and reuse activities (MoNRE) – <i>Ongoing but limited</i></p> | <p>National Guidelines on Building Eco-Industrial Zones (UNIDO, MPI);</p> <p>Centre for Supporting Eco-Innovation for SMEs (ASEM);</p> <p>Earth Day Compostable campaign (supermarkets);</p> <p>Rethinking plastics - circular economy solutions to marine litter (EU, GIZ)</p> |

1.3.1. Progress on Task 1 “Develop and improve legal framework and policies to implement Sustainable Production and Consumption”

The review of the current legal framework and policies to implement sustainable production and consumption is summarized in Annex 1. Based on reviewing the policy areas of SCP in the current legal documents, some conclusions are as follows:

Priority SCP policy areas of Vietnam

There are 57 relevant documents in Laws, Decrees and Circulars, and Decisions related to SCP, of which 29 documents were introduced after Decision 76 of National Action Plan on Sustainable Production and Consumption up to 2020, with a vision 2030 (Figure 1). Some priority SCP policy areas of Vietnam are as follows:

- Renewable energy and resource use, waste collection, recycling and reuse are the highest priority and are mentioned in most of the policy documents relevant to SCP;
- Cleaner production, eco-labelling, sustainable consumption and lifestyles, and sustainable transportation have continued to be strengthened, especially in national strategies such as the Green Growth Strategy, Climate Change Strategy and Sustainable Development Strategy;
- Green public procurement (GPP), marketing on sustainable products and eco-design have not been strengthened sufficiently and are not yet clearly reflected in the current policies;
- Implementing GPP in Vietnam is currently quite limited. At present, there is only a public procurement requirement for energy-saving products complying with Decision 68/2011/QD-TTg on promulgating the list of energy-saving devices and equipment purchased or procured with state budget-using agencies and the Prime Minister's Directive No. 13/CT-TTg of April 4, 2017 on increasing the use of domestically produced materials and goods. Practical implementation guidelines for GPP in Vietnam need to be developed.
- Vietnam has not yet developed a separate programme for sustainable education. However, the results of this policy review demonstrate that education, consumer campaigns, and awareness raising activities on SCP have been implemented as an integral component in many related programmes.
- At present, there are almost no policy documents regulating sustainable design, probably because this sector relates to many other areas such as the use of materials and energy.

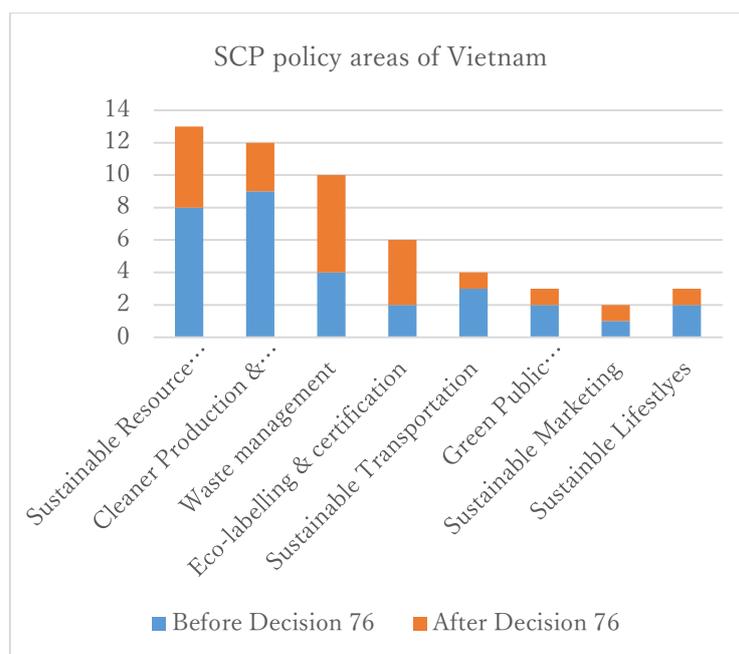


Figure 1: SCP Policies in Vietnam before and after Decision 76

Table 2: SCP Priority SCP areas in Selected National Strategies

| NO. | PRIORITY SCP AREAS | NATIONAL STRATEGIES | | | | |
|-----|--|---------------------|-----|-----|-----|-----|
| | | S 1 | S 2 | S 3 | S 4 | S 5 |
| 1 | Sustainable resource management | X | X | X | X | X |
| 2 | Design for sustainability | | | | | |
| 3 | Cleaner production and resource efficiency | X | | X | | |
| 4 | Sustainable transportation | X | | | | X |
| 5 | Green public procurement | X | | | | |
| 6 | Eco-labelling and Certification | X | | X | | |
| 7 | Sustainable marketing | | | | | |
| 8 | Sustainable lifestyles | X | | | | |
| 9 | Waste management | X | X | X | X | X |

Notes: 1. National strategy on Green Growth (GG) and National Action Plan on GG; 2. Socio-economic Development Strategy 2011-2020; 3. Sustainable Development Strategy for the period 2011-2020; 4. Strategy for Environmental Protection to 2020, Vision to 2030; 5. National Strategy on Climate Change and National Action Plan on Climate Change in the period of 2012-2020.

In conclusion, *some of the priority policy areas of Vietnam are similar to other countries*, such as the renewable energy sector (Table 2). Vietnam has been quite sensitive to international SCP

trends, incorporating new SCP sectors, such as GPP, greening supply chains, and sustainable marketing in recent policy documents. The difference of SCP policy in Vietnam from other countries is that some SCP areas such as network information on SCP, ecotourism, sustainable lifestyles, sustainable marketing, and sustainable design are still lacking.

(a) Progress on “Integrating sustainable production and consumption into development strategies, plans, programmes at all levels”

At the national level, SCP is incorporated into the National Action Plan on Implementation of Agenda 2030 for Sustainable Development, the Green Growth Strategy, and the Climate Change Strategy. Moreover, an “Action Plan on Green Growth of Construction Industry to 2020 and Orientation to 2030” has been issued by the Ministry of Construction (MoC) (Decision No. 419/QD-BXD dated 11/5/2017). That action plan focuses on (i) adjusting the construction industry development planning from a sustainable development perspective; (ii) adjusting urban renovation planning and planning according to sustainable development standards; (iii) improving technical infrastructure towards sustainability in selected cities; (iv) renovating construction technology and techniques towards greening; (v) encouraging the development of the green building materials industry; and (vi) economical and efficient use of energy in construction.

The “Action Programme of Natural Resources and Environment Sector to implement the National Strategy on Green Growth for the period of 2015-2020 and orientation to 2030” was issued by MoNRE (Decision No. 965/QD-MoNRE on April 23, 2015). Under this Action Programme, many tasks relate to SCP: (i) control, prevent and minimize the generation of pollution sources, and restore polluted areas; (ii) strengthen capacity to cope with climate change, reduce greenhouse gas emissions; (iii) encourage and support the rapid development of eco-product manufacturing and environmental services development; (iv) exploit, use effectively and sustainably use natural resources; and (v) biodiversity conservation and development of natural capital. One of the priority activities for institutional development is to promote the implementation of the Green Growth Strategy for 2016-2020, in addition to research on GPP regulations for the natural resources and environment sector.

At the **local government level**, based on the reporting from provincial governments, 30 out of 63 provinces and cities nationwide have integrated SCP contents into their 5-year plans and annual socioeconomic strategies, with one province also reporting integration of Agenda 2030 (see Annex 2 for details).

(b) Progress on “Develop and improve policies to encourage investment in the production and distribution of sustainable products; develop incentives to encourage sustainable products consumption; develop and improve coordinative mechanisms among stakeholders in implementation of SCP; promote public private partnership in the implementation of SCP; develop national indicator bundle of SCP to monitor and evaluate SCP implementation”

Develop and improve policies to encourage investment in the production and distribution of sustainable products: Currently, policies are mostly concentrated in the field of agriculture, viz. Resolution No. 53/NQ-CP of July 17, 2019, “solutions to encourage businesses to invest in agriculture effectively, safely and sustainably”, and Decree 98/2018/ND-CP on “policies to

encourage cooperation and cooperation associating in production and consumption of agricultural products”.

Develop incentives to encourage sustainable products consumption: The Ministry of Finance (MoF) has issued Circular No. 128/2016 regulating the “exemption and reduction of export taxes on eco-friendly products”, with “products from recycling and waste treatment activities” prescribed in Decree No. 19/2015/ND-CP. Accordingly, there is an exemption of export tax for eco-friendly products named in the Export Tariff and with a certificate of Vietnam Green Label and a 50% reduction of export tax for products from operating activities involving recycling and treatment of wastes named in the Export Tariffs as certified by competent state agencies. In addition, Green Label products and recyclable goods are also prioritized for procurement and use in investment items and recurrent expenditures of the state budget (Decision 1393/QD-TTg dated September 25, 2012). However, despite such incentives, the Green Label has been in place for a long time but enterprises have not paid much attention, mainly because preferential policies on export tax support, corporate income tax, price support or public procurement needs in Decree 19/2015/ND-CP detailing the implementation of articles of the Law on Environmental Protection 2014 are all quite complicated and difficult to implement. Generally, businesses have little motivation to carry out the complicated procedure of applying a Green Label to products.

Also, Vietnamese businesses are still hesitant to invest in, use technology, or apply appropriate management systems for products that meet the requirements of the Vietnam Green Label. The Vietnam Green Label criteria are still limited in number as MoNRE has only issued 17 sets of green label criteria and 112 types of products have been granted green labelling.

Develop a national indicator of SCP to monitor and evaluate SCP implementation: Initially mentioned in the policy documents as indicators of effective use of natural resources are rational exploitation and economical and sustainable use of mineral resources including reducing the loss of exploited coal by 2030, with less than 20% in underground mines and less than 5% in open areas (according to 681/QD-TTg of April 4) June 2019). In addition, a system of national indicators monitoring and evaluating production performance and sustainable consumption has been systematically studied by many parties (e.g. MoNRE and MoIT) and is being proposed for implementation.

(c) Progress on “Develop trade policies, export tax policies, tariff policies to promote sustainable export products in line with international integration roadmap, bilateral and multilateral trade agreements.”

On August 9, 2016, MoF issued Circular No. 128/2016/TT-BTC stipulating the exemption and reduction of export tax for eco-friendly products, with products from recycling and waste treatment activities prescribed in Decree No. 19/2015/ND-CP detailing the implementation of several articles of the Law on Environmental Protection.

Decree 32/2017/ND-CP dated March 31, 2017 on state investment credit (replacing Decree 75/2011/ND-CP on investment credit and export credit) stipulates a list of projects eligible for preferential investment loans from the State and compared with the older Decree 75 has added many investment projects in the field of green investment.

(d) Progress on “Implement green procurement; develop and improve policies promoting green public procurement; issue a list of priority sustainable products for public procurement; research, pilot application and widely extent green public procurement models”

As mentioned above, the current documents on GPP are quite limited. After Decision 76, Directive No. 13/CT-TTg dated April 4, 2017 of the Prime Minister was issued to promote the increased use of domestically produced materials and goods. However, GPP has not really been promoted sufficiently. Due to the Bidding Law and the implementation Decree of Vietnam's Bidding Law, the bidding procedures and requirements and the preferential conditions for contractors do not yet contain public procurement regulations, including for upcoming purchases. Therefore, it is difficult to propose a legal basis for GPP based on the Bidding Law. However, there are many regulations in the Decree on the implementation of the Law on Environmental Protection regarding GPP and financial incentives for environment-friendly products. Specifically, Article 47 (Consumption Assistance for Products) provides that, based on the State Budget Law, green label products must be given priority in the case of public procurement of such products. Article 47 also assigns responsibility to MoF to assume the prime responsibility for, and coordinate with MoNRE, in formulating a regulation on public procurement of eco-friendly products. Implementation of such regulations is a key element for successful implementation of GPP in Vietnam.

While it is difficult to incorporate public procurement regulations for eco-friendly products into the current legal system (i.e. the Procurement Law and the Decree implementing the Bidding Law), it has been proposed that a separate circular of the MoF in accordance with the Bidding Law should be issued to promote GPP.

(e) Progress on “Develop and improve policy framework to promote waste recycling and reuse activities; promote solid waste integrated management in accordance with market mechanism and apply volume-based charge rate for solid waste”

Currently, policies for development of the solid waste recycling industry have been formulated, including the policy of sorting solid wastes to create input materials and policies to support production (i.e. subsidies for loans, tax breaks, etc.) and policies to support product consumption (subsidizing and encouraging consumption of recycled products). These policies have been mentioned in many documents, notably the Law on Environmental Protection (2005 and 2014); National Strategy on Integrated Management of Solid Waste to 2025, vision to 2050; Decree No. 59/2007/ND-CP on Solid Waste Management, April 2009/ND-CP on Incentives and Support for Environmental Protection Activities; 19/2015/ND-CP guiding a number of articles of the Law on Environmental Protection 2014; and Decree No. 38/2015/ND-CP.

Several of these policies have been implemented and initially supported businesses to establish recycling facilities, such as preferential policies on production space, loan support, and tax reduction. Nevertheless, there are some shortcomings in the solid waste policy system that hinder achievement of the objectives of sustainable development as follows.

The feasibility of some policies is not effective, especially in the orientation policies, such as the "National Strategy for Integrated Management of Solid Waste until 2025, vision to 2050". The policy formulation has very high goals, while not taking into account the difficulty of implementation. These high targets can only be achieved when Vietnam has a good infrastructure system for recycling activities such as solid waste sorting technology, recycling plants, and a strict legal system, serving recycling activities. Moreover, the lack of accompanying financial policies also makes the feasibility of supporting policies for consumption of recycled products not very effective.

Some important policies to support a comprehensive approach to recycling activities are lacking. One important policy is for quality control of recycling activities, which is a very good tool and necessary to ensure recycling activities in accordance with the goal of sustainable development. In developed countries, such policies have been issued in parallel with the policies to encourage recycling activities, but currently in Vietnam these policies have not been issued. There has not been a specific policy to control recycling activities, resulting in some adverse impacts on the environment caused by recycling activities. In addition, policies to create a stable source of raw materials for this industry, including policies that attach responsibility to the manufacturer, such as enforcing recycling rates for manufacturers, packaging product recall policies, and policies to encourage people to recycle (e.g. sorting solid waste, returning used products and consuming recycled products) have not been developed yet.

The system of documents guiding the implementation of framework policies has not been adequately and promptly developed. According to Vietnam's policy practice, policies are provided for in many legal documents. Documents promulgated by the National Assembly and the Government, such as laws and decrees, are general and limited, and later concretized by ministries, branches, and localities by Circulars. Many studies show that the delay in promulgation of guiding documents of ministries, branches and localities is the main reason for limited results in the implementation of incentives for solid waste recycling activities.

There are no specific policies for some recycling materials such as biomass, as the production of organic fertilizer from food waste or agricultural by-products in Vietnam is not yet profitable and unable to compete on selling prices with other fertilizers. Hence, it is a challenge to produce organic fertilizer if no incentives nor assistance are provided.

1.3.2. Progress on Task 2: "Promote production and economic restructure toward sustainability"

(a) Progress on "Exploit and utilize natural resources sustainably; enhance renewable resources and energy, and clean energy development"

The state-level science and technology programme on "Application Research and Development of Energy Technology" implemented from 2011 to 2020 has conducted research on 27 topics and three production projects. Half of these are topics and projects on renewable energy and energy saving. Some of these research results have been applied in practice. Many research projects in industries and localities have been ordered in the direction of innovation, creation, and application of green technology (e.g. research on building materials, architectural designs, and

construction solutions in accordance with "green architecture" standards, etc.). For example, research on plant varieties has selected and developed high productivity seedlings resistant to diseases and adapted to changing environments.

Ecotourism, which has been developed by local agencies in recent years, has shown to be effective in promoting the natural landscape resources, creating jobs, and increasing income for a part of the local population. Some ecotourism projects have enriched the natural landscape, restored, and preserved ancient architectural works, especially traditional cultural works such as temples and shrines. However, many economic tourism projects and local communities themselves have harmed those valuable resources. Tourism development lacking conservation of the landscape and precious and rare biodiversity is seen in Son Tra peninsula (Da Nang) and the intention to open a cable car to Son Dong cave (Quang Binh). In addition, many projects hide under the name of ecotourism to encroach on the area of natural reserves and historical sites but have not been strictly controlled. This reflects weak awareness, weak roles and responsibilities of management agencies for sustainable development. To overcome this situation, it is imperative to conduct the development of more sustainable tourism forms.

Ecological industrial park model: An eco-industrial park (EIP) is a community of enterprises producing and providing services located at the same place, in which member businesses seek to improve economic, environmental and social efficiency through collaboration on the management of environmental and resource issues, developing an industrial symbiosis system through exchanging energy and raw materials among companies.

From 2015 to 2019, the Ministry of Planning and Investment (MPI) has been working with UNIDO to implement the project "Implementing an eco-industrial park initiative towards a sustainable industrial park model in Vietnam". The project is supported by the Global Environment Facility and the Swiss Federal Economic Bureau. The project is being piloted in Khanh Phu industrial park (Ninh Binh province), Hoa Khanh industrial park (Da Nang) and Tra Noc 1.2 industrial park (Can Tho).

At the end of November 2016, MPI submitted to the Government a draft decree regulating industrial parks, export-processing zones, and economic zones, emphasizing that the model of eco-industrial parks should be prioritized. On May 22, 2018, the Government issued Decree 82/ND-CP with regulations on eco-industrial parks, industrial symbiosis models, and priorities for enterprises in eco-industrial parks. In the near future, with more than 300 established industrial parks, of which more than 220 industrial parks are in operation, the task of converting all industrial parks towards ecological orientation will be a huge challenge for both state management and business circles. If the transition into EIPs is successful, even with a few industrial zones, the overall benefits will be significant not only for the country, but also for the economic benefit of businesses.

At the local level, many solutions to promote the use of depleted resources with renewable resources to promote the local economy in a sustainable manner have been implemented, including the following:

- Investment in solar, wind power, biomass power, and hydropower projects (Dak Lak, Hai Phong and Binh Dinh);
- Reusing ash, slag, gypsum of thermal power plants and chemical and fertilizer plants as raw materials for construction materials in the construction industry, plus supporting the owner of the ash and gypsum emission sources with treatment technology, bringing appropriate and effective solutions in the solid waste treatment process of the enterprise; and
- To utilize Industrial Zone (IZ) wastes, the EIP project implemented by MPI and UNIDO conducted research on co-processing of alternative fuels and materials at cement plants from the IZ wastes. The advantages of utilizing waste from industrial parks is that industrial waste which has been heated at high temperatures of 2,000°C can partially replace cement production materials, resulting in no secondary pollution, creating high processing capacity and benefits for the cement company due to lower fossil fuel consumption. This is also a better solution for the environment than landfill and incineration.

Several provinces/cities have implemented renewable resources and energy programmes, as shown in Table 3.

Table 3: Provincial/city Level Programmes on Renewable Resources and Energy

| PROVINCE/CITY | PROJECTS AND PROGRAMMES TO ENHANCE RESOURCE EFFICIENCY AND ENERGY |
|------------------------|--|
| Ba Ria Vung Tau | Developed 11 renewable energy projects including a hydroelectric project, a wind power project, and nine solar power projects with a total capacity of 397.4 MW. Replaced public lighting bulbs with LEDs. |
| Bac Giang | Wind power is being researched for future development (Bac Giang Department of Industry and Trade. (2019) |
| Binh Dinh | Five solar power projects with a total capacity of 529.5 MW and two wind projects with a total capacity of 51 MW have been approved by the Prime Minister and MoIT into the planning for the national electricity grid and provincial electricity. Two solar power plants and two wind power plants are under construction and will be operation in late 2019. |
| Dac Nong | Three solar power projects have been approved by MoIT to add the national plan and six investors were allowed to build wind meters to study wind power potential. |
| Dong Nai | Research on technological innovation and application of renewable and clean energy sources to help businesses improving business efficiency. |
| Gia Lai | Solar power: 33 projects are being studied with a total capacity of nearly 4,000 MW. Wind power: five projects are under investigation with a total estimated capacity of 756 MW. Biomass power: Two biomass power plants from bagasse with a capacity of 144.6 MW are in operation. |
| Ha Tinh | Raise awareness about application of renewable energy where the province has advantages and investing from various sources in renewable energy production such as wind and solar power. |

| | |
|------------------|--|
| Hai Phong | A 1 MW wind power project and a 0.5 MWp solar power project have been conducted by EVN in Bach Long Vi District |
| Hoa Binh | Installed 7 models using solar energy combined with electricity grid for lighting at four state agencies, replacing 600 low-efficiency fluorescent lamps (T10) with 600 LED bulbs (T8) at schools and agencies in the province |
| Lang Son | Installed four water heaters for schools and building a pilot model to supply electricity for households living in a remote area with solar energy |

The Green Growth Strategy reported that many solar power projects have been implemented by domestic and foreign companies as follows:

- First Solar Group (United States) in Ho Chi Minh City began rebuilding the plant in early 2017, while adjusting its investment capital to USD 1,066 billion.
- Thanh Thanh Cong Group (Vietnam) is expected to spend about USD 1 billion for 20 solar power projects in Tay Ninh, Binh Thuan, Ninh Thuan, Hue, and Gia Lai.
- JA Solar Group plans an investment of more than USD 1 billion, of which the first phase is about USD 300 million, to be invested in projects in the Northern region.
- Tan Cang Song Than installed the largest solar power system in Vietnam: Solar ESCO Joint Stock Company, a member of Polytechnic Solar Company (Solar BK) and Tan Cang - Song Than ICD Joint Stock Company (TCST) of Saigon Newport Corporation has inaugurated the first phase and put into use the solar power system with a total capacity of 500.96 kWp for the Logistics Centre of Song Than Port (Binh Duong Province). With this system, ICD Tan Cang - Song Than can save 4.5% of electricity cost per month during the contract period and 30% after the end of the contract, corresponding to savings of more than Dong 14 billion.

Projects in remote areas: A project is planned to build wind and solar energy systems for the Spratly Islands and oil platforms in the East Sea. By providing solar and wind power equipment, the army and people on the archipelago are guaranteed to have electricity for lighting, sea water purification, clean water supply and wastewater treatment, thus contributing to defence of national sovereignty over seas and islands.

- (b) Progress on “Continue to implement cleaner production, energy saving and efficient production; research and apply clean technologies and sustainable technologies; enhance technological innovation while phasing out intensive energy consumption, environmental pollution technologies”**

Specific objective: The rate of industrial production establishments applying cleaner production and energy-saving solutions will reach 50%.

Cleaner Production

Cleaner production activities are implemented at central and local levels through the Strategy for Cleaner production in Industry to 2020 (Decision 1419/QĐ-TTg dated September 7, 2009) focusing on training staff to raise awareness, disseminate knowledge and assess resource efficiency in factories. Table 4 below shows some updated results of cleaner production activities

from the Strategy for Cleaner Production Strategy for industry to 2020 (reported by MoIT) and the EIP project implemented by MPI and UNIDO.

The EIP programme conducted by MPI and UNIDO has (i) raised awareness and capacity to apply cleaner production; (ii) trained 240 provincial officials and technical managers from companies located in industrial zones; (iii) provided in-depth RECP training for 80 experts; and (iv) provided technical support on applying cleaner production application at factories through 45 case studies on cleaner production, quick assessment for 120 enterprises in industrial zones, detailed assessment for 73 enterprises, and maintenance assessment for 53 enterprises in industrial zones.

According to survey data from MoIT to implement the objectives of the Cleaner Production Strategy with 63 DoIT and 9,012 industrial enterprises in 2010 there were 11% of enterprises and in 2015, 32% of enterprises reporting that they were applying cleaner production (Table 4). According to a recent survey of MoIT from 36 DoITs, only 11 DoITs have surveyed the number of enterprises applying cleaner production solutions with the proportion of enterprises applying Cleaner Production ranging from 15% to 40%. Therefore, it seems possible to achieve the desired result (50%) by 2020.

Table 4: Implementation on Cleaner Production

| | AWARENESS RAISING AND CAPACITY TO APPLY CLEANER PRODUCTION | MEDIA COVERAGE | TECHNICAL SUPPORT ON CLEANER PRODUCTION APPLICATION AT FACTORIES | COMPLETE THE NETWORK OF ORGANIZATIONS SUPPORTING CLEANER PRODUCTION IN INDUSTRY |
|--|---|--|---|--|
| Central level at the Ministry of Industry and Trade | Training for managers at central level (2 courses); In-depth training for CP consultants and DoIT officials: 1-2 classes per year for provincial staff and consultants | 125 Television and radio reportage on VTV, TNVN, 404 Articles, newsletters on cleaner production on paper and online newspapers, 4-6 news bulletins on Cleaner Production "Green Technology" every year. A CP site has been developed, operated, and maintained. Website address: sxsh.vn | Developed, issued, and disseminated over 20 technical guidelines on cleaner production for different industries Carried out a quick assessment for 411 businesses Performed detailed assessment for 102 businesses Building two demonstration models | Steering Committee "Strategy of Cleaner Production in industry to 2020"; Deputy Minister of Industry and Trade is the Chairman; The main office was located at Department of Science and Technology (until 2017) / Department of Energy Efficiency and Sustainability (from 2018) Centre for Clean Environment and Production (ATMT Department) and Consulting companies (EPRO, VNCPC) |

| | | | | |
|---|--|--|---|--|
| Central level: At the Ministry of Planning and Investment (Ecological Industrial Park Project) | Train local officials and factories in industrial zones: 240 turns of people Intensive training on cleaner production: 80 experts | Has built and operated a website about eco-industrial zones: khucongghiepsinhthai.vn | Developed 45 case studies on cleaner production Carried out quick assessment for 120 enterprises in industrial zones Performed detailed assessment for 73 enterprises and maintenance assessment for 53 enterprises in industrial zones | 47 Centres (Energy Conservation, KC) across the country have activities to support cleaner production. Network of 355 experts on cleaner production in Departments of Industry and Trade of 63 provinces and cities |
| Local level | Cleaner production workshops and seminars: 337 workshops and training courses for over 25,000 people. Send staff to participate in intensive training courses on cleaner production | 134 television reports on local television stations; 256 articles and newsletters on cleaner production; 150,000 leaflets, panels, propaganda posters on cleaner production. | Supported quick assessment: 335 enterprises. Support for cleaner production application, models: 88 enterprises | |

Energy saving and efficient production

The national target programme on economical and efficient use of energy (2012-2015) (VNEEP 2) was approved by the Prime Minister in Decision No. 1427/QĐ-TTg of October 2, 2012. The target of saving 5-8% of the total energy consumption of the whole country in the period 2012-2015 compared to the forecast of energy demand under the National Electricity Development Plan for the period of 2011-2020 with a vision to the year 2030 was approved by the Prime Minister. Evaluation results show that the actual saving achieved is 5.65%, equivalent to 11.2 million tonnes of oil equivalent (TOE). Following the Programme's success, MoIT has developed and submitted a revised plan approved by the Prime Minister on the "National Programme on economical and efficient use of energy in the 2019-2030 period" in Decision No. 280/QĐ-TTg, dated 13 March 2019.

Programme objectives set out for achievement by 2025 are (i) achieving energy savings of 5.0-7.0% of the total national energy consumption from 2019 to 2025; (ii) reducing power loss to below 6.5%; (iii) reducing the average energy consumption for industries/sub-sectors compared to 2015-2018, specifically: (a) for steel industry: from 3-10% depending on type of product and production technology; (b) for chemical industry: at least 7%; (c) for plastic manufacturing: from 18-22.46%; (d) for cement industry: at least 7.50%; (e) for textile industry: at least 5%; (f) for the liquor, beer and beverage industry: from 3-6.88% depending on the type of product and production scale; (g) for paper industry: from 8-15.80% depending on the type of product and production scale; and (iv) 70% of industrial parks and 50% of industrial clusters will be provided with access to, and economically and efficiently use, energy.

To accomplish these objectives the programme set out the following main tasks:

- Review, develop and perfect mechanisms and policies on economical and efficient use of energy;
- Provide technical assistance, promoting investment projects on economical and efficient use of energy for activities of manufacturing, renovating, and transforming the market of vehicles, equipment, machinery and production lines. For exports, focus on priority activities such as: (i) performing energy audits and applying advanced energy management systems for energy users; (ii) improving technological processes of fuel conversion and energy saving, efficiency, environment friendliness, climate change mitigation; and (iii) application of new technologies with high energy efficiency;
- Build a Vietnam energy data centre, databases, application of information technology on energy and economical and efficient use of energy;
- Strengthen capacity on economical and efficient use of energy;
- Check, monitor and evaluate the results of implementation of economical and efficient use of energy;
- Communication to raise public awareness;
- Strengthen international cooperation and cooperation on economical and efficient use of energy;
- Establish a Fund to promote economical and efficient use of energy; and
- Ensure economical and efficient use of energy for each industry.

Activities at provincial level

Many localities have implemented activities to promote economical and efficient use of energy. For example, Hanoi has effectively implemented economical and efficient use of energy in the city according to Decision No. 656/QĐ-UBND dated December 3, 2018 of the City People's Committee, striving to achieve energy savings in 2019 from 2-3% of energy consumption compared to demand forecasts and the energy elasticity coefficient/GDP in 2020 to reach 0.95%. Some specific programmes are as follows:

- Disseminate information to raise awareness about economical and efficient use of energy using mass media;

- Develop and disseminate high-performance and energy-saving equipment; gradually eliminating low-performance equipment;
- Promote energy conservation in industrial activities and greening power distribution sources. Disseminate energy demand forecasting methods and tools and savings assessment for enterprises in the textile and garment industry group in Hanoi city; improve the efficiency of energy use for industrial production establishments; and disseminate energy demand forecasting methods and tools and evaluate energy savings for buildings; and
- Invest in economical and efficient use of energy in the field of transportation by investing in transport infrastructure, developing various forms of public passenger transport to ensure convenience and quality; reduce fuel consumption and environmental pollution; increase use of biofuels (E5); and improve fuel efficiency and set fuel consumption norms for CNG buses in the city.

Some specific results from the provinces are shown in Table 5 below.

Table 5: Energy Efficiency Activities at Provincial Level

| PROVINCE/CITY | ENERGY EFFICIENCY ACTIVITIES |
|------------------------|--|
| Ba Ria Vung Tau | Trained 48 staff on effective energy management. Organized five conferences to implement the programme of energy saving and efficient production in the province. Implemented the Earth Hour event. Replaced public lighting bulbs with energy-saving LED lights. Guided enterprises to determine actual energy consumption at production facilities and encouraged intensive energy users to implement energy audits, with currently 71 out of 94 key energy enterprises conducting energy audits (Ba Ria Vung Tau People Committee, 2019). |
| Binh Dinh | Supported three enterprises to conduct energy audits. Development of highly energy efficient devices. Developed and issued guidelines on energy saving skills. Implemented programme of energy-labelling of household appliances (Binh Dinh People Committee, 2019). |
| Binh Thuan | Many models of energy-saving uses are applied: classroom model, household model, public lighting model, programme implementation. Replaced 10 million incandescent light bulbs with electricity-saving bulbs in planting dragon fruit (Binh Thuan People Committee, 2019). |
| Cao Bang | Organized six training courses on energy saving and efficiency production for 355 trainees (Cao Bang People Committee, 2019). |
| Da Nang | Pilot replacement of public lighting system with LED lights. Developed guidelines on energy-saving for households in the city. Supporting 53 enterprises to evaluate energy efficiency to recommend solutions to install equipment (Da Nang People Committee, 2019). |
| Dong Nai | Decision 613/QĐ-UBND dated 2/03/2012 on Plan for energy saving and efficiency production for 2016–2020 (Dong Nai People Committee, 2019). |
| Hoa Binh | Promulgating Decision No. 1789/QĐ-UBND dated September 21, 2015 of the Provincial People's Committee on the “Programme of energy saving and efficiency production in Hoa Binh province in the period of 2016-2020”. Directive No. 13/CT-UBND dated October 31, 2018 on increasing electricity saving in Hoa Binh province. The Market Management Department regularly checks and supervises compliance with energy |

| | |
|-----------------|---|
| | labelling of import/production enterprises for the devices which must have energy labels when purchased in the market (Hoa Binh Department of Industry and Trade, 2019). |
| Ha Noi | Decision No. 656/QD-UBND dated December 3, 2018 of the People's Committee, striving to achieve energy savings in 2019 from 2-3% of energy consumption compared to demand forecasts, and the energy elasticity coefficient/GDP in 2020 will reach 0.95%. Organized many events, media activities, and fairs. Recognized 34 establishments that achieved the title of green energy facility (2017-2018). Supported energy audits of 171 organizations, evaluated energy efficiency for 10 enterprises, building 24 energy management models/systems for 14 organizations, and conducting pilot energy simulation for 8 buildings (Ha Noi People Committee, 2019). |
| Hung Yen | Plan 49/KH- UBND dated March 16, 2019 organized five inspections on energy labelling, organized two training courses on propaganda and dissemination of knowledge on efficient use of energy to 145 officials. Organized two seminars on solutions for efficient use of energy in the steel industry and households. Prepared reports on effective use of energy saving (Hung Yen Department of Industry and Trade, 2019). |
| Lang Son | Raising public awareness about energy saving and efficient production by printing and publishing 6,700 copies of Energy Saving Manuals for households, organized five propaganda conferences to popularize energy-saving solutions on some household appliances for 500 women members, and issued 3,550 leaflets on energy saving in schools for elementary students (Lang Son People Committee, 2019). |

Enhance advance technological innovation while phasing out intensive energy consumption and environmental polluting technologies.

Specific objective: The percentage of enterprises applying clean technology and sustainable technology in intensive energy consumption and environmental pollution sectors reach 60-70%.

In general, research and application of clean and environment-friendly technologies, technological innovation, and elimination according to the roadmap of outdated technologies, high fuel consumption, and environmental pollution have been implemented in many cities and provinces in Vietnam. Some results are as follows:

- The structure of industries in some areas has shifted towards rationality and modernity; industries in the field of high technology and high technology applications such as electronics, electrical appliances, and machinery and equipment production, rubber and plastic chemicals (paint for ships, plastic pipes, pharmaceuticals and medical equipment, automobile tyres, etc.) have been developing strongly and gaining a high proportion of total production.
- Industrial production including new industries has been increasingly developed in industrial zones with the provision of infrastructure like utility, water, and effluent treatment to contribute to protecting the environment

At provincial level, many provinces/cities have implemented activities/programmes to enhance advanced technology and encouraging the gradual phase out of intensive energy consumption and polluting technologies. Some results to date are shown in Table 5.

Table 6: Technological Innovation at the Provincial/City Level

| PROVINCE/CITY | ACTIVITIES |
|----------------------|--|
| Bac Lieu | Encouraged businesses to gradually phase out backward technology that consumes energy and apply prescribed standards, technical regulations and norms on energy use (Bac Lieu Department of Industry and Trade, 2019). |
| Binh Thuan | The province has supported investment in advanced machinery and equipment for 11 industrial and small-scale manufacturing establishments in the province and built a technical demonstration model to apply advanced technology in production. |
| Da Nang | Department of Science and Technology has supported four enterprises to renovate technology, improve productivity and quality of products in the direction of clean, environment-friendly technologies with a total budget of Dong 3.7 billion. The programme of transferring advanced technology has implemented 15 projects to support enterprises researching pharmaceutical and agricultural products, applying high technology in the direction of clean production. |
| Đak Nong | Creating conditions for all economic sectors to invest, innovate technologies and environment-friendly equipment, modern and advanced technologies, environment-friendly clean technologies, and energy-saving technologies into production to increase productivity, quality and decrease production costs. |
| Phu Tho | Mobilized businesses to invest in technological innovation, application of clean and environmentally friendly technologies. Supporting the development of technical models to apply new technologies to eight rural industry establishments in the fields of agroforestry and aquatic product processing, ancillary products, and construction materials (Phu Tho Department of Industry and Trade, 2019). |
| Ha Nam | Developed supporting industries and processing industries, focusing on attracting investment projects on industrial production with modern and advanced technologies and saving environmental resources (Ha Nam Department of Industry and Trade, 2019). |
| Bac Kạn | Propagated the application of cleaner production, efficient use of energy in distribution activities (Bac Kan Department of Industry and Trade, 2019). |

From the EIP project implemented by MPI and UNIDO, project support has been provided to companies located in three industrial zones (Khan Phi IZ- Ninth Bind; Hoe Khan IZ- Da Nang and Tar No 1&2 – Can Though) to implement 41 clean and low-carbon technology, energy efficiency and environmental protection projects. These technological innovations were invested by companies with a total amount of USD 11,101,570. Some prominent investments include (i) replacing the whole plate grid casting system (8 casting machines) by an automatic system with new technology; (ii) replacing a new glass furnace; (iii) installing a coal drying system which utilizes waste heat from a glass furnace; (iv) replacing aluminium furnaces; (v) installing capacitors with sufficient capacity; (vi) replacing lamps (T8-36W or T10-40W) by LED lamps (18W); (vii) investing in a new wastewater treatment plant for environmental protection; and (viii) investing in a vacuum pump for a heat exchange system and to recycle cooling water.

- (c) Develop and implement an eco-innovation programme. The product life cycle approach shall be applied in eco-innovation activities within enterprise, industrial parks, and industrial clusters in order to improve efficient resource utilization, prevent and reduce waste.

Specific objective: Eco-innovation activities have been successfully piloted in enterprises, industrial parks, and industrial clusters, gradually expanding the scope and extent of application.

Ecological innovation (or eco-innovation) is an approach to production and business that identifies challenges and takes advantage of environmentally sustainable opportunities to innovate, from business strategies and models to the operational level of companies, throughout the product lifecycle chain. This is one of the trends orienting production and business establishments towards sustainable development. In the past 3 years, within the framework of the National Action Programme on Production and Sustainable Development, several eco-innovation activities have been carried out, including:

- Evaluating the potential of implementing industrial innovation has been conducted in the key ministerial-level science programme in 2018 of MoIT on Sustainable Consumption and Production Programme. The studies focus on assessing the current status of policies and regulations related to ecological innovation, the potential of applying ecological innovation in industry, including in-depth evaluation for 15 industries and 30 industrial products which have been proposed for the roadmap for ecological innovation.
- Six industries have been surveyed, evaluated, and developed as pilot models to apply eco-innovation application, including beverage, paper and pulp, aquatic product processing, shoe and footwear production, ceramic and porcelain. Criteria for pilot enterprises selection, guidance on the application of ecological innovation, and training courses on the application of ecological innovation in industry have been developed.

(d) Develop sustainable products production to key sustainable products; enhance environmental industry development.

Specific objective: the contribution of green industries, environmental industries, and waste recycling in GDP to increase to 42-45%.

Developing environment-friendly products and services

In the key ministerial-level science and technology programme on production and sustainable development in 2017 and 2018, MoIT carried out several studies to develop the following environment-friendly products and services:

- Develop a list of eco-friendly products with the goal of building environment-friendly products that are prioritized to be developed by 2025 (i.e. build selection criteria, identify market needs, current status of production and supply capacity).
- Assess the status and propose programmes of priority activities to improve competitiveness for Vietnamese businesses to meet the conditions of export products in an environment-friendly manner to improve enterprises' capacity, help enterprises to identify groups of products which have potential export to EU and US markets, identify technical barriers and propose programmes to improve competitiveness for Vietnamese enterprises to meet the international requirements.

- Research and develop regulations on certification of products from recycling activities in the industry and trade sector in order to complete the legal policy on development of the recycling industry, and remove difficulties and problems for businesses on procedures for preferential treatment for products in accordance with the law. It is expected to develop a set of criteria and a process of evaluating product certification from waste recycling activities and apply these to two product groups.
- Research and propose solutions to promote low-carbon labelling activities for industrial products of Vietnam to complete the legal basis to encourage businesses to participate in the low-carbon labelling programme, develop a set of criteria for low carbon labelling industrial products and draft a low carbon label evaluation process for products, and plan to apply the test for two industrial products. Research and develop methods and applications to implement the calculation of carbon emissions in garment and footwear enterprises.

Ministry of Agriculture and Rural Development:

- Strengthen supporting mechanisms and policies in production of eco-friendly products in the direction of a complete system of documents to reform administrative procedures to create conditions for enterprises to participate in production. Produce and trade agricultural products and foodstuff safely and harmoniously with the world, contributing to overcome the cross-resistance situation of unclear responsibilities in assigning food safety management to enhance law enforcement.
- MARD has submitted to the Government and the National Assembly for approval four Laws on Forestry, Fisheries, Horticulture and Livestock and has submitted for promulgation four Decrees on Quality Management, Food Safety and policies to encourage the development of cooperation in production and consumption of agricultural products, as well as two Decisions of the Prime Minister, promulgating 23 Circulars on Quality Control of Agricultural Materials and Food Safety.

(e) Promote the application of clean and environment-friendly technologies

To promote clean and environment-friendly technologies, in the past 3 years, the National Action Programme on production and sustainable development has implemented the task of developing clean technology orientations and environment-friendly technology for textile-dyeing, paper and pulp industries, and the steel industry. These tasks focus on assessing the current state of manufacturing technology, trends in technology development, and orientation of clean, environment-friendly technologies for the three industries mentioned above.

For energy-efficient vehicles and equipment, on May 18, 2018, the Prime Minister signed Decision 24/2018/QĐ-TTg promulgating the list and roadmap of energy-consuming devices and devices and the amount to be removed. This decision stipulates that equipment imported into Vietnam must meet minimum energy efficiency standards, including 11 home appliances, four office and commercial products, three industrial equipment products, and newly built coal and gas generating sets.

1.3.3. Progress on Task 3: “Greening distribution system and develop supply chain of sustainable products”

- (a) Application of cleaner production, economical and efficient use of energy in the distribution of products and services; phase out non-biodegradable bags use in supermarkets, trade centres and traditional markets; enhance use of sustainable bags

Specific objective: Reduce waste generation in distribution activities: (i) 50% of the enterprises in distribution sector are trained and implement cleaner production and energy saving solutions; and (ii) reduce by 65% environment-unfriendly bags in supermarkets and shopping malls (in comparison with 2010).

Scientific research activities: In MoIT's key scientific programme on SCP in the 2017-2018 period, the following studies were carried out:

- Research, apply and disseminate solutions to improve the efficiency of energy resource use in supermarkets and trade centres. Research results for supermarkets and trade centres include two pilot models applying solutions to improve energy resource efficiency (one supermarket and one commercial centre), two manuals to guide the application of solutions to improve the efficient use of energy resources at supermarkets and trade centres, and training of relevant officials on improving the efficiency of using natural resources for supermarkets and shopping malls.
- Studying and assessing the status of production and distribution and the buying behaviour of E10 bio-petrol and diesel fuel in Vietnam to propose solutions to promote the development of E10 biofuel and biodiesel fuel in Vietnam.

Related programmes: The national plan on saving and efficiency energy use in the transport sector (Ministry of Industry and Trade, 2015). The transport industry has made great efforts to promote the use of energy-efficient transport, exploiting and expanding the application of liquefied gas, natural gas, electricity, mixed fuels and biofuels to replace petrol and oil. In recent years, pilot projects have created a good basis for the development of clean energy in transportation such as the application of electric passenger cars in Hanoi city, and pilot biofuel (E5 gasoline, biodiesel B5) for vehicles in Hanoi and Ho Chi Minh City. In Ho Chi Minh City, some taxi companies have switched to using cleaner fuels (i.e. LPG). Some businesses have applied technological measures to monitor the journey of passenger cars and heavy trucks to ensure traffic safety, save fuel and minimize pollutant emissions. The Vietnam Aviation Corporation has organized a study to shorten domestic and international routes; implementing solutions for flight management, emission management, etc. As a result, flight time is reduced, and fuel economy is improved. The Vietnam Railway Corporation has (i) issued regulations on the use of air conditioners in passenger cars; (ii) streamlined production management to make the most of the tractors' capacity; (iii) ensured periodic technical maintenance and assigned fuel consumption to units; and (iv) established fuel saving targets. As a result, every year, the Corporation reduces fuel costs by about 5%. In future, the transport sector will (i) increase the application of economical and efficient energy solutions through technical management and application of new science and technology; (ii) formulate and rationally adjust economic and technical norms in the process of production, maintenance and maintenance of means of transport; (iii) deploy electric

engines in cars, ships and trains; and (iv) disseminate energy-saving driving skills at driving training centres and through the mass media.

Activities to promote the reduction of the use of undegradable packages at supermarkets, trade centres and traditional markets; promote the use of non-biodegradable packaging with environment-friendly packages made from the central to local levels:

- At the central level, MoIT is the leading agency that has organized many conferences and propaganda workshops on environmental protection in production, business, conferences connecting the supply and demand of environment-friendly products into retail systems to point out the harmful effects of non-biodegradable plastic bags and the benefits of substitutes.
- At the local level, according to reports sent from the provinces and cities on the results of the implementation of the 2016-2018 period of the National Action Programme on Production and Sustainable Development to 2020, with a vision to 2030, some provinces and cities are carrying out these activities (Table 7). The whole country has carried out propaganda activities to raise awareness of implementing solutions for greening the distribution system. Most of these activities have DoIT as a focal point. Accordingly, local DoITs coordinate with other departments and agencies to guide and propagate to supermarkets, trade centres and people's markets to (i) limit the use of indestructible packaging to minimize generation of waste in distribution activities; (ii) replace the use of non-biodegradable packaging with eco-friendly packaging; (iii) raise awareness of the business community about the harmful effects of persistent plastic waste on the environment; and (iv) encourage the use of environment-friendly alternatives by each household. Through specialized inspections, some companies introduced environment-friendly bags and packaging products to local plastics manufacturers and traders. Some provinces and cities have implemented pilot programmes to reduce the use of plastic bags at supermarkets and confectionery shops to switch to using environment-friendly bags.

Table 7: Phasing Out Single Use Plastics at Province/City Level

| PROVINCES | ACTIVITIES |
|------------------|---|
| Hai Phong | Communicated to raise public awareness about the effects of persistent plastic bags and encourage the use of environment-friendly substitutes, introduction of eco-friendly bag packaging products to trading enterprises in the area. Piloting programme of reducing plastic bag use at some supermarkets and shops to gradually using environment-friendly bags with the quantity reduced from 450 kg/year up to 18,000 kg/year depending on the business (Hai Phong People Committee, 2019). |
| DakNong | Communicated to decrease using persistent plastic bags at supermarkets, traditional shops, and encourage using environment-friendly bags (Dak Nong Department of Industry and Trade, 2019). |
| Gia Lai | Communicated to supermarkets, trade centres, markets restricting the use of persistent packaging to minimize the generation of waste, environmentally friendly products combined with propaganda to raise production awareness and sustainable consumption for those involved in the distribution system and product supply chains (Gia Lai Department of Industry and Trade, 2019). |

| | |
|-------------------|--|
| Ha Nam | Communicated to supermarkets, trade centres, people's markets, consumers to limit using persistent packaging to minimize the generation of waste. |
| Binh Thuan | In 2018, 100% biodegradable plastic bags were used at supermarkets and commercial centres in the province (estimated at 30 tonnes/year). |
| Bac Kan | Implementing the programme of reducing the use of persistent packaging and replacing it with paper bags and no plastic lanes at supermarkets and daily life markets. |

(1) Research, pilot apply and expand distribution models of sustainable products; develop sustainable standards system and certification body for sustainable distribution models

Specific Objective: Apply green distribution certifications to distributors; successful develop and gradually expanse sustainable supply chain to key products in the economy.

Scientific research activities: In MoIT's key scientific programme on SCP in the 2017-2018 period, the following studies were carried out:

- Study and propose a draft document regulating the assessment and certification of green retail distribution system, including the criteria, criteria, processes, procedures for evaluation and certification of the system, and green retail system. At the same time, the model of state management and implementation of the green retail system is also proposed from the central level;
- Research and evaluate the current situation and propose solutions to develop a sustainable supply chain for the beverage industry in Vietnam;
- Research and develop regulations on product certification from waste recycling activities in the industry and trade sector;
- Research and propose policies to support the development of sustainable supply chain development for Vietnam's industry (focusing on two dairy and plastic industries) and developing a set of criteria and methods price and policy framework for sustainable chain development; and
- Develop a manual on environmental management in goods distribution establishments to (i) overview the environmental issues in the operation of the distribution system and state management organizations on environmental protection; (ii) promote environmental management and protection in the stage of preparing construction investment for the distribution system; (iii) guide environmental management and protection in the stage of building construction for the distribution system; and (v) ensure environmental management and protection in the operation phase of distribution systems.

Develop and disseminate replicable sustainable supply chains:

Currently, expanding distribution models of sustainable products is mainly concentrated in the agriculture sector. The supply chains of safe agricultural, forestry and fishery products are certified according to Decision No. 3075/QĐ-BNN-QLCL dated July 20, 2016 by MARD. To implement the national strategy for NAP on SCP, MARD has directed and urged localities to replicate the model of a safe agricultural, forestry and fishery supply chain nationwide, ensuring an increase in the number of chains, the number of safe products controlled by the chains, and the number of retail locations of products. According to MARD, up to now, 63 out of 63 provinces

and cities have developed the supply chain model with 1,249 chains, 1,450 products, and 3,181 sale locations with controlled products in series. Products on the market are stamped with information about the applied standard (VietGAP, HACCP, food safety requirements) and originating information.

(b) Promote sustainable links between raw material suppliers - manufacturers - distributors - consumers in the production, distribution and use of environment-friendly products and services

Currently, sustainable links have been established between raw material suppliers - manufacturers - distributors - consumers in the production, distribution and use of safe agricultural products by many businesses. Vietnamese companies such as Vingruop, Dabaca, Hung Nhon Company have invested in cooperative agriculture, so that farmers organize safe food and agricultural supply chains on a large scale. The Vietnam Cooperative Union has organized a supermarket system linking more than 100 agricultural cooperatives to form chains in safe food supply. Initial results show that this approach has created cohesion in production and business activities of actors in the supply chain. Also, many farming/animal husbandry/aquaculture establishments are VietGAP certified and slaughterhouse/processing facilities are certified to meet food safety requirements according to Circular No. 14/2011/TT-BNNPTNT and apply the HACCP quality management system. At the provincial level some related activities are shown in Table 8 below.

Table 8: Sustainable Links from Raw Material Suppliers to Consumers

| PROVINCE/CITY | PROMOTE SUSTAINABLE LINKS BETWEEN RAW MATERIAL SUPPLIERS-MANUFACTURERS-DISTRIBUTORS-CONSUMERS |
|------------------------|---|
| Ba Ria Vung Tau | Department of Agriculture and Rural Development of Ba Ria-Vung Tau province assigned subordinate units to implement the development of production cooperation links between enterprises, cooperatives, cooperative groups and farmers for production according to quality standards which have been certified and branded for consumption in the domestic and export markets. The results include developing a sustainable chain of pepper (with the participation of 903 farmers), rice (on an area of 10 hectares), banana trees (a group of 6 farmers with an area of 100 ha), corn (area of 200ha), and dragon fruit trees (30 ha). |
| Bac Kan | Facilitated promotion of sustainable links between raw material suppliers-distributors-consumers in the production, distribution and use of environment-friendly products and services. |
| Bac Lieu | Developed a chain of products in the model of linking production with consumption and developed a large field model for aquaculture associated with quality standards (ensuring no residues, clean and safe products). |
| Hai Phong | Mobilized to guide businesses to form chains of Vietnamese sales stores, giving priority to environment-friendly products (Huy Quang Food Export Joint Stock Company with 9 welding and meat products; World Milk Investment Joint Stock Company which opened 9 buffet shops on dairy products). |
| Quang Nam | Implemented pilot model of Enterprises-Cooperatives-Farmers to associate consumption and supply of agricultural materials and a pilot model of Enterprises-Business households-Farmers to link consumption of agricultural products and animals from agriculture. |

| | |
|------------------|---|
| Quang Tri | The Provincial People's Committee issued Plan No. 2255/KH-UBND dated May 31, 2018, on organising a Conference to connect the supply and demand of agricultural, forestry and fishery products in Quang Tri and the Plan No. 4280 / KH-UBND on supporting connection of agricultural products, handicrafts into supermarkets and retail chains (Quang Tri Department of Industry and Trade, 2019). |
|------------------|---|

1.3.4. Progress on Task 4 “Improving market access and promoting export of key products of Vietnam towards sustainability”

Specific Objective: To raise the proportion of environment-friendly products and services in key export products of Vietnam; and exporting enterprises are provided with information, guidance and support in application of importer’s standards in management, environment and sustainable development.

- (a) Assessing the market potential and the ability of Vietnamese exporting enterprises to provide environmental-friendly products; research for export opportunities and participating in global value chains for Vietnam’s key products labelled with Vietnam green, energy-saving and other labels

Eco-labels

MoIT presides over implementation of the National Trade Promotion Programme. The main objective of the National Trade Promotion Programme is to enhance trade promotion activities, develop exports, domestic markets, and trade in mountainous areas, border regions and islands. Within the framework of this programme, Vietnam has promoted the export of eco-friendly products such as biodegradable plastics, products from renewable materials (bamboo, wood, paper) and agricultural and fishery products (Vietnam Trade Promotion Agency, 2010). However, availability of eco-friendly products in Vietnam is still limited, estimated at only 5% of Vietnamese products eligible for eco-labelling (Nature net, 2018). In the National Environmental Protection Strategy up to 2020 and Vision to 2030, Vietnam strives to have eco-labels in accordance with ISO 14024 standard for 100% of exported products and 50% of domestic consumer goods by 2030. Related activities are also widely deployed in localities such as building websites to provide information for global integration and creating e-commerce platforms to facilitate businesses in products introduction and promotion. Under the National Programme on Green Growth, eco-labelling and energy labelling activities are also included under the section on “Changing consumption behaviour toward sustainability and boost sustainable lifestyles”.

To promote the export of eco-friendly products, MoF issued Circular No. 128/2016/TT-BTC of August 9, 2016, stipulating the exemption and reduction of export tax on environment-friendly products, and products derived from recycling and waste treatment activities as specified in Decree No. 19/2015/ND-CP. The Circular stipulates the exemption of export tax for environment-friendly products described in the Export Tariff and with a certificate of Vietnam Green Label in accordance with guidance of MoNRE and a 50% reduction of export tax for products derived

from recycling and waste treatment activities named in the Export Tariff Table certified by competent state agencies under the guidance of MoNRE.

In this regard, in 2017, the Import Export Department of MoIT was tasked to study and develop international trade policies for supporting the development of environment-friendly products, in line with Vietnam's roadmap for global integration (Ministry of Industry and Trade, 2018b). The study conducted surveys to find support for international trade policies for environment-friendly products of Vietnam's export enterprises (148 enterprises), as well as to propose import and export policies to promote the development of environment-friendly products in Vietnam.

Energy labels

To date, four groups of equipment are subject to compulsory energy labelling, including home appliances, office and commercial equipment, industrial equipment, and transportation vehicles. The energy labelling programme of MoIT has been successfully implemented in recent years, helping to gradually transform the market of energy consumption equipment and devices from low to high energy efficiency. Energy labels enable fair competition between available brands in respect of energy saving, particularly for export products. However, in accordance with Circular 36/2016/TT-BTC issued by MoF, export products are exempted from energy labelling requirements.

Other labels

Currently, there are a lot of changes in export markets forcing export businesses to become more aware of those changes. In response to those changes, export businesses in Vietnam need not only to meet the requirements in terms of technical barriers to trade (TBT) but also to have appropriate certification (e.g. GlobalGAP, FairTrade etc.) to be able to expand their market share. Hence, there is a need to provide all TBT requirements and applicable certificates for product groups in particular markets to facilitate export businesses in accessing potential export markets.

Under the National Programme on Green Growth, the promotion of environment-friendly products related activities is also included under the section on “greening distribution and supply chains of environment-friendly products and services”. MoIT has assigned departments and entities under its control to conduct a number of studies in this field such as (i) “work out environment-friendly products in priority list for development till 2025”; (ii) “building up criteria, indicators and certification system for green distribution and retailer chains”; (iii) “assessment of status to propose programmes, priority tasks for enhancing competition capacity of Vietnam exporters in order to meet export requirements for environment-friendly products”; and (iv) “study, evaluate status in production, distribution and purchasing behaviour to propose solutions for organic farming of vegetables in Vietnam” (Ministry of Industry and Trade, 2018 b).

Assessment

To date, there is *no comprehensive study on the market potential* and the ability to supply environment-friendly products of Vietnam exporters, although various piecemeal studies have been undertaken.

(b) Enhance the competitiveness of key export products, improve market access and ability to meet standards in environmental and sustainable development of Vietnam's key products

The Export Competitiveness Enhancement Programme for Vietnamese SMEs aims to improve export competitiveness of Vietnamese SMEs, thereby promoting export turnover and developing the main export sectors of Vietnam through the Trade Promotion System. In addition, this Programme also aims to have other outcomes such as (i) strengthening and capacity building of local trade promotion centres and other trade promotion organizations to effectively support SMEs; (ii) establishing Vietnam National Export Council; and (iii) strengthening the capacity of Vietnam Trade Promotion Department, the focal point of the Vietnam Government on trade promotion activities at the national level (Cong Nghiep & Tieu Dung, 2018).

Decision No. 1137/QĐ-TTg dated March 8, 2017 approved a project on "Improving Vietnam's export capacity by 2020 and vision to 2030" with the goals in 2020 of (i) improving the quality and added value of in-demand export products; (ii) the added value of key agricultural and aquaculture export products to increase by an average of 20% per year compared to the present; and (iii) gradually increasing the proportion of agricultural and fishery exports to developed economies and striving to achieve an annual export growth of 8% over 2016–2020. The decision also provides a list of products for competitiveness improvement, which include agricultural and aquaculture products, of which in-demand export products are rice, coffee, rubber, aquatic products, and pepper. The processing industry sector currently has in-demand export products such as textiles, footwear, wooden products, phones and accessories, computers, electronic products and components.

The main solution to achieving the project objectives is to restructure production and export modes. For agricultural products, this involves a shift from scattered small production to large-scale concentrated production, and quality management throughout the supply chain (i.e. from farming to transportation, processing, storage, and consumption). For industrial products, transition from processing only to production with high value-added in the goods chain is required. Regarding export transformation, changing from export through intermediaries to direct export and transfer from export under FOB terms to export under CIF terms are required.

The project recommended various solutions: (i) restructuring production through changing production and export modes; (ii) restructuring export products towards increasing the proportion of high value-added products; (iii) improving the quality of exported products; (iv) developing supporting industries for industries having in-demand export products; (v) strengthening the role of FDI enterprises in improving the competitiveness of Vietnam's exports products; (vi) consolidating and expanding markets for export goods; (vii) strengthening development of national brands and brands of export products and enterprises; (viii) improving national competitiveness, creating favourable conditions and reducing costs for businesses; (ix) enhancing capacity of export production enterprises, especially small and medium-sized enterprises; and (x) improving capacity of industry associations and goods associations.

Assessment

The Vietnam Value Programme has yielded significant value to Vietnam's economy. Data from 81 out of 88 participating businesses has shown that turnover reached VND 718,000 billion, total export turnover reached approximately VND 70,000 billion and created more than 300,000 jobs. According to Brand Finance data, Vietnam's brand value was evaluated at USD 235 billion and Vietnam belongs to the world's strong brands (Ministry of Industry and Trade, 2018d).

In the trade promotion programme, to implement Decision 72/2010/QĐ-TTg issued by Prime Minister in November 15, 2010, MoIT has approved 177 projects with a total budget of VND 103 billion to assign trade promotion centres at central and local government levels to carry out trade promotion activities. This involved about 3,000 businesses with a total export value of USD 10 billion (Ministry of Industry and Trade, 2018d).

Under a project to encourage Vietnamese businesses to participate in global distribution chains, in addition to organizing workshops, training, seminars and exhibitions, one of the highlights was to set up a database to connect export businesses with the world's big distribution chains.

Therefore, the export sector has achieved significant progress in recent years. Reports for Import and Export issued by MoIT for 2018 and 2017 show that in 2018 the export of products and services increased by 13.2% compared to 2017 and in 2017 increased by 21.2% compared to 2016. In 2017, for the first time ever, Vietnam had a trade balance surplus of USD 2.1 billion and in 2018, the surplus rose to USD 6.8 billion.

(c) Providing technical assistance to enterprises in developing and applying for certification of international standards, and standards required by importers in environment and sustainable development, building sustainable development enterprises models

Detailed activities

- A handbook on implementation of Vietnam's environmental commitments in accordance with WTO, TPP, FTAs rules was developed, disseminating the latest knowledge to avoid risks for businesses involved in import and export.
- For agriculture, local governments have provided policies to support farmers in cultivation processes in line with advanced agricultural programmes such as VietGAP, System of Rice Intensification (SRI) and building sustainable production models for some agricultural products and for export. To date, 29 provinces have applied SRI with a total cultivation area of over 395,000 hectares (Ministry of Planning and Investment, 2018). Additionally, organic agriculture is now on the rise as Vietnam has potential in organic agriculture development with the total area available for organic farming in 2014 estimated at about 63,000 hectares (Khoa Hoc Cong Hghe Vietnam, 2017). Export of organic agriculture products has increased in quantity and in number of products.

- Under the National Programme on Green Growth attention was given to encouraging certification of GlobalGAP, EuroGAP, and VietGAP for export products as well as for meeting domestic markets for middle- and high-income consumers. As of June 2017, there were 1,390 agro-businesses having valid VietGAP certificates (Ministry of Planning and Investment, 2018).
- The Vietnam Business Council for the Sustainable Development (VBCSD) has been established in the Vietnam Chamber of Commerce and Industry (VCCI). This Council has launched a Corporate Sustainable Index (CSI), which started deploying from large corporations and engages the participation of SMEs. Every year on Vietnamese business day (October 13), this Council in cooperation with ministries such as the Ministry of Labour, War Invalids and Social Affairs (MoLISA) and the Vietnam General Confederation of Labour publishes a list of sustainable enterprises under CSI. In addition, VBCSD has established a Centre for Circular Economy (CE) to introduce the concept of CE to businesses in Vietnam.
- At provincial level, 8 out of 32 reporting cities and provinces carried out activities under this task. They mainly focused on trade promotion and increased market accessibility for environment-friendly products by organizing and participating in trade fairs, conducting training and workshops on productivity, environmental certification, and implementation of new generation free trade agreements (FTAs). In some provinces and cities, websites and e-commerce platforms were set up to facilitate international economic integration information and trade promotion. Local governments have actively developed chains which link production and consumption of agricultural and safe food products.

Assessment

- There are no baseline data for environment-friendly products and services in key export products. Based on MoNRE data, there are no green labels for key export products in 112 products certified with Vietnam green labels. The criteria for environment-friendly export products of Vietnam are mainly to comply with technical requirements set by importers.
- There is no comprehensive study on market potentials and ability to supply environment-friendly products from Vietnam exporters.

1.3.5. Progress on Task 5 “Changing consumption behaviour toward sustainability and boost sustainable lifestyles”

Specific Objective: Consumers and the community are provided with sufficient information on environment-friendly products, sustainable production, and consumption activities.

Communication is an important activity in the SCP NAP to build an environment-friendly lifestyle that promotes SCP in communities, businesses, and social organizations. From 2016 to 2019, ministries, departments and local governments have actively implemented communication activities as follows:

Activities at the central level

- Along with communication campaigns deployed in programmes of the Strategy for Cleaner Production in Industry there were about 125 television reports, 404 news items published in newspapers, online news and 4-6 bulletins with the topic "Green Technology" issued annually.
- The Cleaner Production and Sustainable Consumption Production Office also issued banners and leaflets which local DoITs can use to carry out communication activities in their localities. In addition, every year, the Office organizes a series of seminars for officials and experts to introduce cleaner production, sustainable consumption, and environmental protection.
- MoIT actively implements the "Vietnamese use Vietnamese goods" programme. In the past 10 years, the campaign carried out by the Industry and Trade sector has brought positive results, contributing to national socioeconomic development. The ratio of Vietnamese goods in domestic supermarkets is maintained at a high level of 90-95%. The proportion of Vietnamese goods in foreign supermarkets accounts for 60-90%. For traditional retail channels, the proportion of Vietnamese goods in markets and convenience stores accounts for at least 60%.
- Vietnam has issued and implemented regulations on criteria and procedures for certification of green labels. Green labels and green procurement are interconnected. Green labels or eco-labels help to adjust enterprise's goals for environment-friendly products and change consumer behaviour.

Green public procurement

Specific Objective: to increase the proportion of environment-friendly products and services in the Government's spending patterns; improving legal framework and guidance in the implementation of GPP.

GPP implementation can bring many benefits, of which the most commonly highlighted one is to motivate innovation and development of new environment-friendly products. GPP contributes to a shift to more sustainable consumption and production chains and at the same time, saves on procurement costs and supports the implementation of international environment and sustainable development agreements. Public procurement accounts for an average of 20% of Vietnam's annual budget (equivalent to US\$21-22 billion/year) (Taichinh Vietnam Online, 2018), but GPP is said to be in the initial stage (i.e. in the stage of "urge to apply") as a result of policy gaps for GPP. Specifically, in the Bidding Law 2013 there are no criteria or regulations on green procurement except for the technical requirements for construction packages or purchase of goods to comply with environmental standards. Public procurement is the largest consumer in the market for green products, but at present procurement and use of green products have not been prioritized. Although it is regulated that state authorities when purchasing public goods should give priority to environment-friendly products, enforcement so far has not been effective. Therefore, it is necessary to provide appropriate policies and mechanisms so that state agencies are at the forefront of green procurement, thus encouraging the private sector to participate. However, research results on green procurement conducted by Vietnam National Environment Administration and KEITI (2017) show that the efforts of relevant agencies to

implement sustainable public procurement remain inadequate. The project recommended amendment of the legal framework for GPP, preparing a draft guideline for GPP in Vietnam, and issuing a draft Roadmap for Green Public Procurement (Vietnam Environmental Agency, 2019).

Green label

The Vietnam Green Label Programme has been implemented nationwide since March 2009, aiming to continuously improve and maintain the quality of the living environment through reducing energy, material consumption and waste generated by the production, business, consumption processes and services. Vietnam Green Label is a certification to confirm that the products meet requirements set by MoNRE. Vietnam's Green Label attached to products signifies they are better products of the same type in respect to energy saving and cause less negative impact to environment. With the aims to enhance suitability in use of natural resource and environment protection through best practices in production and consumption of environment-friendly products, the certification mechanism of green products is considered as an incentive to encourage businesses to reduce emissions at the source, and this mechanism will also help raise consumer awareness when choosing to buy products. Accordingly, the integration of development and promotion of the Green Label Programme has an important role in raising awareness of businesses in environmental protection, minimizing the use and discharge of prohibited chemicals, including POPs, unintentional POPs (U-POP) and mercury (Hg).

To promote green label development, on December 23, 2013, MoNRE issued Decision No. 2604/QD-BTNMT on establishing an Advisory Council for the Vietnam Green Label Programme. So far, 17 sets of Green Label Criteria have been developed and published by MoNRE and 112 types of products have been certified with Vietnam Green Labels (Vietnam Trade Promotion Agency, 2010). Therefore, the results of research on green procurement in Vietnam conducted by Vietnam Environment Administration and KEITI (Korea) which has set the goal to reach 300 products certified with Vietnam Green Labels in period of 2020-2030 appears feasible.

However, so far, no green label has been certified and no green label criteria are available for distribution and supply chains. In this regard, MPI, in coordination with UNDP, has conducted in-depth research on green supply chains in Vietnam, which provided the current status of green supply chains in Vietnam, assessing the barriers and positive impact factors that help improve greening supply chains for three selected chains: cafe, textiles and cement (Ministry of Planning and Investment and UNDP, 2017).

Energy Label

The Government issued Decision No. 51/2011/QĐ-TTg dated December 12, 2011 providing a list of equipment and vehicles subject to energy labelling, applying minimum energy efficiency levels, and the roadmap for implementation. After that further equipment and vehicles were added in Decision 04/2011/QĐ-TTg dated March 9, 2017. To date, there are four groups of equipment subject to compulsory energy labelling, including home appliances, office and commercial equipment, industrial equipment, and transportation vehicles. The energy labelling programme of MoIT has been successfully implemented in recent years, helping to gradually

transform the market of energy consumption equipment and devices from low to high energy efficiency. By the end of 2015, MoIT had certified energy labels for over 8,000 product categories, affecting tens of millions of energy-consuming and energy-saving devices. Specifically, from 2011-2015, the saving rate is 5.65%, equivalent to the total energy saving of 11.2 million TOE, an increase of 2.25% compared to 2006-2010 (Ministry of Industry and Trade, 2019).

At the local level, provinces and cities have taken different approaches to propagate and motivate businesses and people to change consumption behaviour towards sustainable lifestyles and, at the same time, help consumers to access environment-friendly products and services. In addition, priority is given to provision of accurate information on products and services to consumers. Some typical activities in provinces and cities are as follows:

- Green consumption campaign: This campaign has been in operation for 10 years (2009-2019) with many activities to promote, propagate and engage consumers, manufacturers and distribution chains towards sustainable consumption and production (e.g. "say no to plastic waste, use alternative products that can be reusable and environment-friendly"). The campaign has gained a strong response from communities and promotes advocacy to help people in recognizing environment-friendly products as well as manufacturers and business enterprises to provide green products. The campaign supports communities to enjoy consumer rights on access to green businesses' products, which is good for the environment and the health of the community.
- Green buildings: Green buildings are considered a good solution to reduce energy and water consumption, reduce energy content and to bring benefits to the people and the investment cost is not increased much (about 5%) while also reducing operational costs. However, according to Vietnam Green Council, there are less than 100 certified green buildings in Vietnam (CAFEF, 2017) mainly due to low consumer awareness.
- Eco-tourism: Ecotourism has positive impacts in developing natural landscape resources, creating jobs and increasing incomes for local populations. Some ecological tourism projects have enriched the natural landscape, renovation and preservation of historical architectural works, especially traditional cultural works such as temples, shrines etc. There is a good example in promotion of eco-tourism in Cu Lao Cham peninsula where tourists are forbidden to use and bring plastic bags during their stay. However, in some places tourism development is not in harmony with preservation of natural landscapes e.g. tourism development in Son Tra Peninsula (Da Nang) which was not on the right track in regards of conservation of landscape and rare biodiversity). The intention to construct a cable car to access Son Doong Caves (Quang Binh) was opposed by social debate. Also, there are some projects claimed as ecological tourism, but they invade and cause negative impacts to nature reserves and historical sites (Ministry of Planning and Investment, 2018). This need to be addressed by authorities in charge and by raising awareness of local communities to preserve historical sites and natural landscapes.
- Promoting green services in hotels and the hospitality business is highlighted in some provinces which have a high number of tourists.
- Using only biodegradable plastic packaging is being practiced in supermarkets and commercial centres such as Vinmart, Lotte, BigC, Aeon Mall, L'Space etc.

- Design packaging, packaging for agricultural products, as well as creating markets for a number of consumer products manufactured from renewable materials, have been undertaken.
- Printing stamps on traceability of product origins and reducing the use of non-biodegradable packaging at supermarkets and trade centres is being replicated in supermarkets and trade centres of big cities e.g. Ho Chi Minh City set the goal by 2020 that all supermarkets and trade centres must say no to plastic waste (Moi Trung. Net, 2019).
- Provinces enhance development modes for supply chain and traceability of products origins, especially for agricultural products and foodstuffs, while transparent information with product origin stamps using QR codes is gaining in popularity.
- Training on SCP is being integrated in vocational training courses at colleges and vocational schools as well as in subjects at high schools.

Assessment

Green products, environment-friendly products, and sustainable living lifestyles are finding public interest in Vietnam. However, Vietnam does not have enough producers to meet the increasing demand for eco-friendly products such as enterprises producing biodegradable plastic products or green buildings. Awareness and resources for development of green supply chains is limited. This has been addressed in enterprises engaging in export, as described above, to meet stringent requirements set by importers. The legal framework on GPP needs to be revised and a guideline developed based on the outcomes of the project between MoNRE and KEITI on GPP.

1.3.6. Progress on Task 6 “Implementation of waste reduction, reuse and recycling”

- Organize communication activities, awareness raising about waste recycling and reuse for communities and businesses. Guide and provide technical support for conducting reducing, recycling, and reusing of solid wastes generated by households, production, trade, and services activities.**

Detailed Activities

Various activities in communication, awareness raising, technical training about “reduce, reuse and recycling” (3Rs) have been delivered to communities and businesses (e.g. information through mass media, educating the community, organizing training for businesses and integrating knowledge of waste reduction, reuse and recycling into general education programmes). Some detailed activities are:

- Cleaner Production and Energy Efficiency Programmes: MoIT has built, promulgated, and disseminated 20 technical guidelines on CP for different industries; organized 212 seminars and training courses; conducted 45 in-depth training events and built three databases for cleaner production in industry; supported rapid audits to identify opportunities to apply CP and EE for 419 enterprises; conducted detailed audits for 102 enterprises; and built two demonstration models to apply cleaner production. The programme so far has provided 134 reports and issued 135,000 leaflets on cleaner production and energy saving (Ministry of Industry and Trade, 2018a).
- A Q&A manual on environmental protection in the Industry and Trade sector has been prepared.
- EIA and recommended solutions for pollution control has been conducted in craft villages in Vietnam.
- A handbook for environmental management in metallurgy, leather and footwear, and goods distribution businesses has been prepared.
- Annually, four newsletters have been published on environmental protection and four newsletters on cleaner production.
- Several ministries, such as MoIT, regularly organize competitions such as “Environmental Protection in the Industry and Trade Sector” to promote the application of 3Rs.
- MoIT research has been undertaken to set up regulations for certification of products generated from waste in the industry sector.

Assessment

Technical support is mainly given to manufacturers, not to services and trade businesses (i.e. key elements of the supply chain). It is necessary to promote 3R awareness raising in rural areas where there are many environmental issues (e.g. waste from craft villages, packaging from pesticides and fertilizer) and also significant potential to develop 3Rs effectively (e.g. biomass generated from crop and animal husbandry).

(b) Develop and replicate 3R pilots in communities and enterprises

Detailed Activities

In manufacturing businesses and communities, 3R development has been increased, as follows:

- Ecological industrial parks (EIP) and industry symbiosis have been successfully deployed in some industrial parks such as industrial parks in Ninh Binh, Da Nang and Can Tho with participation of 72 enterprises (Tainguyen & Moi Truong, 2018). Especially, Hoa Khanh IP (Da Nang) is a successful pilot of converting an existing IP to an EIP and implementing industrial symbiosis solutions. This success has contributed to scaling up to 326 existing IPs (as of 2017) in Vietnam. Currently, this model has been applied in Ho Chi Minh City Hi-Tech Park and Sonadezi Long Thanh Industrial Zone (Dong Nai). In addition, the International Finance Corporation (IFC) has cooperated with MPI to research and develop a Technical Guideline Report on eco-industrial parks to provide the criteria and necessary steps to transform Vietnam's existing industrial zones to EIP. This technical report also points out ecological opportunities and solutions for industrial zones in Vietnam. The symbiosis opportunities in waste exchange, circulating and recycling is an effective solution for the environment protection and also creates new business opportunities. Starting in June 2018, IFC, together with the VNCP, started to develop the *National Guidelines on Building Eco-Industrial Zones* (SCP News, 2018).
- Eco-innovation is an effective solution to contribute to waste reduction, reuse, and recycling, especially for SMEs. Through projects such as the ASEM project on eco-innovation for SMEs, and the project of the Centre for Supporting Eco-Innovation for SMEs, eco-innovation has gained in popularity. MOIT has evaluated the implementation potential of eco-innovation in industry which includes: (i) a review of current policies and regulations related to eco-innovation, the potential for application of eco-innovation in industry, and evaluating and conducting in depth analysis for 15 industries; and (ii) a roadmap for eco-innovation implementation for 30 industrial products. In addition to assessing the potential for applying eco-innovation in industries, six industries have been surveyed, evaluated and built into a model of eco-innovation application covering the beverage industry, pulp and paper, aquaculture processing, footwear and footwear manufacturing, industrial porcelain and ceramics. In addition, criteria for selection of pilot enterprises have been developed, along with guidelines for application of eco-innovation, and training courses on application of eco-innovation in industry (Ministry of Industry and Trade, 2018c).
- The programme "for an ocean without plastics" was successfully implemented in Da Nang from 2018 to 2019 and may be replicated in the Central provinces. The programme has implemented more than 160 training and communication programmes for key people at district, ward, household, youth, student, and fishermen levels in Son Tra and Thanh Khe districts (Da Nang City) (Vietnam Environmental Agency, 2018).
- The Earth Day Compostable (EDC) campaign to reduce the use of plastic bags and replace plastic bags with biodegradable bags made from corn starch takes place on a nationwide scale. Participating in this campaign are dozens of retailers, businesses, urban communities, and organizations (e.g. supermarket chains Lotte, Big C, AEON Mall, Intimex, L's place, Unik Mart, Seika, Teekiu, V + Hoa. Binh and Nam An; Saint Honore restaurant chain, Fargreen sustainable green farming community; Clean & Green NGO, MCD; Ecopark and Ciputra urban areas).

- Biogas digesters are one of the solutions for sustainable management of animal and households waste in rural areas. They have numerous benefits such as generating energy for lighting, heating, and electricity, while the residues after fermentation can be used to reduce the use of chemical fertilizers. In addition, during fermentation under anaerobic conditions, bacteria that cause disease in humans are removed (Ministry of Industry and Trade, 2019). The national strategy on clean water supply and sanitation aims to have, by 2020, about 45% of farms using biogas digesters for waste management. The biogas programme for the livestock industry in Vietnam, funded by the Netherlands Government, built 15,678 biogas digesters by 2011 (Hoinondan Caobang, 2018). Nationally, about 252,000 small scale biogas digesters have been built.
- At provincial level, 6 out of 31 reporting cities and provinces carried out activities under this task, including: (i) issuance of plans for comprehensive management of solid waste with objective to promote SCP and to encourage participation of communities and business in source separation, waste collection, reuse and recycling; (ii) starting to apply market mechanisms to solid waste management; (iii) awareness raising on 3Rs and plans to stop using single-use plastic bags; (iv) setting up stringent measures for control of imported waste to minimize adverse impacts to the environment; (v) investment in construction of sanitary landfills and waste incineration for energy generation and compost; (vi) provision of incentives to businesses working in the field of waste treatment to promote 3Rs; and (vii) control of minerals exploitation to protect the environment and save natural resources.

Assessment

The model of eco-industrial parks, eco-innovation and plastic waste programmes are good models that need to be further developed and replicated. Especially the biogas digesters in rural areas are effective measures to recycle biomass waste into clean energy and need to be replicated.

(c) Integrated solid waste management in accordance with market mechanism

Detailed Activities

To date, the management and treatment of solid waste has received a lot of attention from all stakeholders. On May 7, 2018, the Government approved the adjustment of the National Strategy on Integrated Solid Waste Management by 2025, with a Vision to 2050 in which integrated solid waste management includes 3R as a principal approach in solid waste management. The strategy also stipulated the socialization of waste management activities.

According to MoNRE, the amount of waste collected includes domestic waste, industrial waste and medical waste in big cities like Hanoi and Ho Chi Minh City but only 10% is reused and recycled, while about 50-70% of the waste could be recycled and create new energy sources (Quochoi, 2019). Waste can be used as a resource by promoting reuse and recycling, contributing to resource efficient use and reducing negative environmental impacts. Currently the number of garbage treatment companies in Vietnam is too small, leading to a waste of "waste resources". With more than 90 million people, each year the volume of waste increases by 10%, meaning hundreds of thousands of tons of waste are wasted. Currently, most of the waste

(except hazardous waste) is collected and treated by landfilling which is very wasteful and causes adverse impacts to the environment. If most of the waste was recycled and reused, Vietnam would save a significant quantity of resources and this has been proven through the development of EIP and industrial symbiosis. Some examples are: (i) pulp and paper mills generated large volumes of non-hazardous industrial combustible waste, which if used for co-generation in the boilers for energy recovery, could supply more than 50% of the fuel needs in boilers (Ministry of Natural Resources and Environment, 2017); and (ii) slag can be used to produce building materials, pressed into high density concrete used for land reclamation in sea, dykes for river and sea or embankments for freshwater reserves during the dry season in the Mekong Delta (Ministry of Natural Resources and Environment, 2017).

Some specific activities include the following:

- Currently, there are 57 out of 63 provinces/cities with approved plans for solid waste management (B News, 2018).
- The project “Strengthening integrated waste management of urban solid waste (2014-2018) supported by the Japan International Cooperation Agency (JICA) in collaboration with the Department of Technical Infrastructure from MoC has implemented pilots in two areas: Hà Nội and Thừa Thiên Huế. The overall long-term goal of the project is to establish a nationwide integrated solid waste management system in accordance with the National Strategy for Integrated Solid Waste Management. Currently, JICA is also considering supporting Danang to implement a 3Rs project.

Assessment

Integrated management methods including solutions to reduce, reuse, recycle and recover energy from waste will be effective solutions for solid waste management in the context of sustainable development. Based on lessons learned from the JICA-funded 3R Project in Hanoi (2007-2009), 3Rs should be the right approach to be successfully applied and replicated.

(d) Weight-based charges for generated solid waste

Detailed Activities

The Government promulgated Decision No.174/2007-ND-CP regulating prices charged for solid waste (40,000 VND/t) and hazardous waste (not to exceed 4,000,000 VND/t). In practice, for domestic solid waste, only an environmental sanitation fee is applied, and this fee covers only 4% of the waste management costs (in Ho Chi Minh City) (A Chau Company, 2018). As for hazardous waste, due to a limited number of facilities available for treatment of hazardous waste, the treatment cost is elevated which leads many establishments to evade responsibility for handling hazardous waste generated. To address this problem, Decision 1570/QĐ-TTg dated August 09, 2016 was issued as a policy framework for development of environmental services. It stipulates that by 2020 (i) the price and environmental service fee will be based on a market mechanism and “the polluter needs to pay” principles; (ii) state subsidies for public environmental services will be removed; and (iii) fair competition will be ensured between service providers.

Assessment

Weight-based charges for solid waste generated is recommended to be applied for industrial waste on the basis of the total cost for integrated waste management. As for domestic waste, charging by weight generated might be not feasible, instead charges should be imposed per person/household based on the total cost for waste recycling and treatment. It is necessary to gradually reduce and eventually eliminate the subsidy for solid waste disposal, in accordance with the principle that “polluters need to pay”.

1.4. Assessment of implementation versus target indicators set for 2020

The following assessment of progress first evaluates the current status of the five specific objectives of the NAP on SCP (2016-2020) against the specified target indicators, recognizing that (i) some of the indicators are difficult to measure; (ii) often baselines were not available; and (iii) there has been a relatively short period of implementation to 2019. A “traffic light” system is used to provide a visual assessment of progress (green = achieved or achievable by 2020; orange = partly achieved; red = not achieved; and grey = unknown, usually due to insufficient data).

1.4.1. Improve policy and mechanisms to implement SCP

Table 9: Assessment on improve policy and mechanisms to implement SCP

| 2020 TARGET | ACHIEVEMENT | NOTES |
|---|--|---|
| The percentage of enterprises applying clean technology and sustainable technology in intensive energy consumption and environmental pollution sectors reach 60-70%. | Insufficient data to evaluate progress.  Unknown | By 2030, 60-70% of enterprises in fertilizers and pesticides manufacturing, pulp and paper mills, cement, coal mining, minerals exploration and processing, thermal power plants, sugarcane mills, and textile dyeing industries will complete roadmaps for technological innovation to apply clean technology. |
| 50% of manufacturing enterprises apply cleaner production and energy saving solutions; pilot application and gradually expand ecological innovation for enterprises, industrial parks, industrial zones, and industrial clusters. | In 2010, 11% of enterprises and in 2015, 32% of enterprises, reported applying cleaner production. Accordingly, 50% achievement by 2020 appears feasible.  Achievable | In 36 provinces, 11 DoIT reported that they can identify the number of enterprises applying cleaner production solutions, with the proportion ranging from 15% to 40%. |

| | | |
|---|--|---|
| Increase in contribution of green sector, environmental industry sector and waste recycle sector in GDP up to 42-45%. | Insufficient data to assess the level of achievement of this target. | Several studies and new policies support the development of the green, environmental industry, and waste recycling sectors. Also, there are premises for these activities at all levels and branches. |
|  Unknown | | |

1.4.2. Reduce waste in distribution activities

Table 10: Assessment on reduce waste in distribution activities

| 2020 TARGET | ACHIEVEMENT | NOTES |
|---|--|---|
| 50% of the enterprises in the distribution sector are trained and implement cleaner production and energy-saving solutions. | There are no statistics nor specific reports on the percentage of enterprises in the distribution sector which are trained in and implement cleaner production and energy-saving solutions. | There is a limited number of cleaner production programmes for enterprises in the distribution sector. |
|  Unknown | | |
| Reduce 65% of non-eco-friendly bags in the supermarkets and shopping malls, and 50% at the traditional markets (in comparison with the year 2010). | There are no statistical data on reduction of non-eco-friendly bags at supermarkets, shopping malls and traditional markets. Generally plastic bags composition in domestic solid wastes is 7-10%. | There are many campaign activities to raise awareness about environmental protection aimed at supermarkets and shopping malls to limit the use of non-eco-friendly bags and replace them with environment-friendly products. |
|  Unknown | | |
| Apply green distribution certification to distributors; successfully develop and gradually expand sustainable supply chains to key products in the economy. | Supply chains of safe agricultural, forestry and fishery products are certified according to Decision No. 3075/QĐ-BNN-QLCL dated July 20, 2016 by Ministry of Agriculture and Rural Development (MARD), and since then, 63 provinces and cities have developed the supply chain model with | These products have been stamped with information about the applied standard (VietGAP, HACCP food safety requirements) and originating information. In addition, numerous research studies and guidelines have been developed for green retail distribution systems, sustainable supply chain for Vietnam's beverage industry, sustainable supply chain for the Vietnamese industry and |

1,249 chains, 1,450 products, and 3,181 sale locations with quality-controlled products. environmental management in the distribution sector.



Achieved

1.4.3. Gradually increase the percentage of sustainable products in the total key export products volume of Vietnam

Table 11: Assessment on gradually increase the percentage of sustainable products in the total key export products volume of Vietnam

| 2020 TARGET | ACHIEVEMENT | NOTES |
|---|--|---|
| Provide information, instructions and support application of sustainable management systems, sustainable standards to meet environmental requirements of importing countries by Vietnam's export enterprises. | Achievement of his target is possible since Vietnam is a member of WTO, CPTPP and FTAs, and most relevant information, requirements, and guidelines are made available to exporters. | Also, the National Programme on Trade Promotion is led by MoIT and Fairtrade certification is presently under development for key export products such as coffee, handicrafts, and agricultural products. |



Achievable

1.4.4. Provide sufficient information to consumers about sustainable products

Table 12: Assessment on provide sufficient information to consumers about sustainable products

| 2020 TARGET | ACHIEVEMENT | NOTES |
|--|--|---|
| Consumers and the community are provided with sufficient information on environment-friendly products, sustainable production, and consumption activities. | Communication is an important activity in SCP NAP to build an environment-friendly lifestyle that promotes SCP in communities, businesses, and social organizations. Numerous activities were carried out at central and local levels. | Further work needs to be done to provide consumers and communities with sufficient and more reliable information on environment-friendly products and services. |



Partly achieved

| | | |
|---|---|---|
| Increase percentages of sustainable products in the public purchasing; improve legal framework and guidance about implementation of sustainable public procurement. | Green public procurement (GPP) is now at the stage of “urge to apply” due to inconsistency/gaps in the legal framework for GPP. Directive No. 13/CT-TTg dated April 4, 2017 of the Prime Minister was issued to promote and increase the use of domestically produced materials and goods but does not specify GPP. | The Bidding Law and its subsidiary decision (Decree of Bidding Law implementation) stipulates procedures, bidding requirement and conditions for some types of procurement but lacks the requirement for GPP. A new GPP guideline is under development by the Ministry of Natural Resources and Environment (MoNRE) and KEITI (under the Asia-Pacific GPP Partnership Project). |
|---|---|---|



Not achieved

| | | |
|--|--|--|
| Complete the legal framework and guideline on GPP. | There is a gap between the Bidding Law and Environmental Protection Law in respect to GPP. There are no specific regulations or guidelines on GPP. | There is a need to revise the legal framework on GPP and develop a guideline based on outcomes achieved by the project between MoNRE and KEITI on GPP. |
|--|--|--|



Not achieved

1.4.5. Reduce, Reuse, Recycle (3Rs)

Table 13: Assessment on reduce, reuse, recycle (3Rs)

| 2020 TARGET | ACHIEVEMENT | NOTES |
|--|---|---|
| 90% of paper waste and waste oil will be recycled and 75% of common industrial solid waste is recovered for reuse and recycling. | In industrial zones, the collection rate of solid waste is approximately 90% and most of this collected waste is sent for reuse or recycling. | The rate of solid waste collection in industrial zones is higher than in industrial clusters and outside industrial clusters. Outside the industrial zones, there are currently no data to assess this indicator. |
| 85% of urban solid waste is reused, recycled, recovered for energy or compost. | This target is not achieved because the rate of reuse and recycling is only 10% in big cities and 75% of collected urban solid waste is treated by landfilling. | Plastic bags in big cities account for 7-10% of the total solid waste generated (7-8% in Hanoi and 10% in Ho Chi Minh City). |



Partly achieved



Not achieved

50% of construction solid waste in urban areas will be recovered for reuse and recycling.

The rate of collection and treatment of construction solid waste is still low, especially for small works and household scale, and is often landfilled with domestic solid waste.

Construction solid waste accounts for 20-25% of urban solid waste and will continue to increase in big cities with high growth rates of development.⁽⁶⁾



Not achieved

1.5 Lessons learned on implementation experience, methods of implementation, and setting targets for the next period

- There is a need to develop and improve baseline data collection to support policy targets. Once target indicators are set, regular monitoring and evaluation needs to be conducted. A systematic target indicator setting based on lifecycle assessment and scientific data also facilitates coordination between ministries and avoids overlap between the proposed programmes and activities. Criteria for GPP in the existing public procurement law and decree are crucial, so that government organizations will follow. For 3Rs policy, more detailed guidance is needed to control the quality and improve the value of the 3Rs market.
- Raising awareness by provincial governments and enterprises, (especially micro-, small- and medium-enterprises) should acknowledge the economic benefits of sustainable production. Capacity building programmes for provincial level officials and enterprise managers on SCP should be provided. Additionally, financial support from the Government to invest in R&D programmes involving provincial governments and enterprises is important to facilitate eco-innovation.
- In greening the distribution system, good practice should be extended beyond the agriculture sector to other industrial sectors and involve key actors, such as wholesalers and retailers. Farmers should be given more incentives to apply for the certifications issued by the government, through awareness raising of consumers to recognize the value of the logos on the products. An extended producer responsibility system should be introduced for producers to collect and recycle their own packaging waste and used products for recycling or re-manufacturing.
- There should be more studies on the export market potential of green products from Vietnam. For enterprises, there should be guidelines and platforms to share the technical standards and requirements from importing markets, especially on green products. Enterprises should be encouraged and incentivized to apply for eco-labels and Fairtrade schemes for export products. Enforcement of SCP principles is needed for controlling import products and to foster international cooperation in green technologies import.

- In sustainable consumption and lifestyles, green public procurement should be incorporated into the existing legal documents guiding public procurement. Awareness raising programmes are important for consumers to recognize the availability of green products and services. Government agencies and enterprises should increase investment in infrastructure, products, and services to support consumers' sustainable decisions. For ecotourism, better awareness by local governments and communities and promotion by government is needed.
- For waste management, a market-based mechanism, such as waste collection fees from enterprises and households, needs to be developed. Local government should allocate sufficient budget for waste management and promote innovative solutions such as public-private-partnership with private waste collection companies. Lastly, there is need to develop a market for secondary material by enterprises to increase the value of recycled and reused products.



2. Overview of ongoing Vietnam programmes based on a holistic systems approach to SCP

2.1 Introduction of the holistic systems approach to SCP

In this section, a holistic systems approach to SCP was adopted based on the 9 areas suggested by UNEP (UNEP, 2012)¹. A holistic systems approach targets each step in the lifecycles of products and services. The nine areas for intervention identified by UNEP are: sustainable resource management, design for sustainability (D4S), cleaner production & resource efficiency, sustainable transport, eco-labelling and certification, sustainable procurement, sustainable marketing, sustainable lifestyles, and waste management. As illustrated below, the 9 areas work in a circular process. The following section reviews ongoing policies and projects based on the 9 SCP areas globally and in Vietnam.



Figure 2: Holistic systems approach to SCP (source: UNEP, 2012)

2.2 Overview of ongoing SCP areas in the world

Table 14: Overview of ongoing SCP areas in the world

| AREA | MAJOR INTERNATIONAL TREND | EXAMPLES OF PROGRAMMES |
|--------------------------------|---|--|
| 1. Resources management | Resource efficiency is a key focus for many countries to constantly improve the efficiency through a lifecycle approach in the programme design. In particular, | In China , concentration of production bases such as in eco-parks were utilized as the instrument to create industry symbiosis and to facilitate inter-companies and industries cooperation and resource efficiency. It has effectively used pilot projects in local government |

¹ These were further subdivided into 15 areas in the approved NAP on SCP (2021-2030).

enhancing SMEs' capacity in resource efficiency with targeted support is critical through knowledge sharing and transfer.

level to test new approaches to identify best practices before scaling up from cities to individual companies as well as in other parts of the country.

The **German** Resource Efficiency Programme II – Programme for the Sustainable Use and Conservation of Natural Resources has systematically applied resource efficiency into the lifecycle approach from resource extraction to production, consumption, and after-use stages. Specific programmes in supporting SMEs on resource efficiency is important when SMEs normally lacks the resources and capacity to adopt resource efficiency in the production process. Germany also utilize industrial symbiosis to increase its resource, service, and products circulation not only domestically but also with partnership countries to enhance eco-innovation.

Japan has implemented the Fundamental Plan for Establishing a Sound Material-Cycle Society since 2003 based on the Basic Act for Establishing a Sound Material-Cycle Society. It links with the challenges and new opportunities of Japan today, such as increasing global uncertainty, progress in international cooperation, regional decline in Japan, society 5.0, economic stagnation in Japan and declining population with an aging population and decreasing birth rate. Also, the Fundamental Plan considers recent issues in Japan, such as the nuclear plant accident, frequent natural disasters, changes in people's views from material towards spiritual wealth and shortage of human resources for waste treatment and recycling. The Fundamental Plan aims to not only address resource aspects, but also to address broader issues in the society at the same time.

The **United Kingdom** has formulated the 25-year Environment Plan and a new Resources and Waste Management Strategy (2018), which are designed to “maximize the value of resources used, minimize the amount of waste created, cut emissions, and help create a cleaner, greener, healthier planet”. For plastic strategies for example, under extended producer responsibility (EPR), plastic producers directly and indirectly collect, treat, or dispose of the waste. A refund scheme is also applied for glass and metal beverage packaging and plastic PET bottles.

2. Design for sustainability

Sustainable product design is for companies to improve profit margins, quality, market opportunities, environmental performance, and social benefits².

An Eco-Design Programme implemented in the **South Korea** is an example of designing a product with consideration for the environmental impacts of the product during its life cycle. The eco-design programme is often comprised of the following:

- Ideas contest for innovative ideas of eco-products
- Financial and technical support for development of prototype models
- Technical support for the acquisition of patents and eco-labels
- Promotion of eco-designed products at ECO EXPO events.

A number of projects such as Cleaner Production for Better Products (CP4BP) and Sustainable Product Innovation (SPIN), carried out in Vietnam, Cambodia and Lao PDR are already demonstrating how “design for sustainability” can enable companies to decouple resource use from economic growth.

Germany and the United Kingdom developed a network with partner countries to create industrial symbiosis through resource and service sharing to enhance eco-innovation. In the EU, actions include strengthening market monitoring to check compliance with eco-design requirements and energy labelling, reviewing research projects addressing environmentally friendly product design. Expand and support the German Eco design Award.

3. Cleaner Production & Energy Efficiency

Cleaner production approach has been applied for several decades to accelerate the application of preventive environmental strategies, optimization of production process, improved efficiency, lower resource input and output substitution of materials (non-toxic and renewable), and reduce risks to human and environment, often at company level.

A number of countries in Asia have established national cleaner production centres over the last few decades, which mainly focus on supporting the government in developing cleaner production strategies. These centres often conduct training activities in the cleaner production area, targeting companies, industries, etc. to improve energy conservation and pollution reduction. These centres are committed to reduce pollution, including GHG emissions, and enhance resource efficiency in industry, agriculture and the service sector.

Recently, UNEP and UNIDO introduced resource efficiency alongside cleaner production (RECP) to advance production efficiency, environmental management, and human development. This strategy integrates a strengthened lifecycle perspective which looks at the point of extraction to the point of disposal, including the critical issue of resource scarcity.

Sectors where cleaner production has often been performed are textiles, pulp and paper, metal finishing and tanneries.

4. Sustainable Transport

In transportation, the efforts are on the improvement of public infrastructure and investment in public transport. In distribution systems, the focus is on the shift towards low carbon transportation and encouraging cooperation among distributors to enhance efficiency.

Sweden has focused on sustainable transport as one of the three key domains in sustainable lifestyles. It invested in improving public transport in rural areas and supporting municipalities to provide sustainable transportation in cities. Sweden also invested in cycling with a local cycling development strategy. The Government is also working on a proposal for a bonus-malus system to reward vehicles that emit relatively low CO₂ and impose a tax on those that emit higher CO₂ levels. It is also proposing to impose a tax on air travel.

Japan has a Law Concerning Integration of Distribution Operations and Promotion of Efficiency (Distribution Efficiency Act) to be integrated into distribution operations. It stipulates the approval of plans and support measures for business to streamline transportations such as shifts and community sharing. It introduced a programme on CO₂ reduction promotion in the logistics sector. Japan provides a subsidy to support businesses to introduce facilities and technologies to shift towards a low carbon distribution system, towards efficient and low carbon transportation modes, and building a low carbon delivery system through partnerships.

Korea also provide subsidies to shippers that shift from road to rail or coastal. Third party logistics are encouraged.

5. Eco-labelling

Eco-labelling is an important tool to support informing consumers to select products that are more environment- friendly. It also creates a business incentive for companies to innovate in developing ecologically sound products.

In **South Korea**, the Korea Eco-Label aims to encourage consumers to make an informed decision and develop an eco-friendly consumption pattern, increase marketability of eco-friendly products and encourage manufacturers to develop eco-friendly products, minimize adverse environmental impacts arising from production and consumption of goods or services, and contribute to green growth by developing the criteria for eco-labelling and certifying eco-labels for domestic green products. It also has a carbon footprint label on products to specify the CO₂ equivalent of GHG emissions generated in the entire lifecycle of the relevant products and services, from

production, transportation, distribution, and usage to the end of product life.

Sweden's eco-labelling aims to be more effective through keeping up to date with developments in the market. The Government intends to promote effective, independently certified eco-labelling schemes that gain good traction among companies and consumers. The Government will consult relevant actors on the potential and requirements of eco-labelling ahead of upcoming measures.

6. Sustainable Procurement Sustainable procurement is considered as a key instrument to drive a green economy. The share of public procurement is often a significant portion of overall domestic consumption. GPP stimulates the demand for greener products and creates a virtuous cycle of sustainable production and consumption.

Japan has a Green Purchasing Act introduced in 2001. Government agencies are required to purchase environmentally friendly goods and services to incentivise private companies to develop and deploy these goods and services. It also encourages eco-labelling of environment-friendly goods and services, so that consumers have sufficient information when selecting these goods and services.

The **European Commission** and several European countries have developed guidance on sustainable procurement to inform national criteria. The challenge is furthering take-up by more public sector bodies. Through ensuring the requirements to be compatible among member states, it helps to create and accelerate a single market for green products and services.

7. Sustainable marketing Sustainable marketing helps to inform consumers on the sustainable goods through open information sharing and communication programmes.

France encourages producers to market eco-designed products through bonuses which may exceed 10% of the sale price (ex. VAT). Through open data, consumers can access the information of eco-modulation based on technological benchmarks (sustainability, reparability, recyclability, use of recycled material, substitution with renewable resources etc.) validated by the Environment and Energy Management Agency (ADEME) to determine the best available technologies at an economically acceptable cost, and taking into account the specificities of overseas departments.

Sweden has proposed a Swedish Consumer Agency to actively promote more eco-smart consumption and lifestyles to “nudge” consumers by encouraging and making it easier to choose the best alternatives from an environmental perspective.

8. Sustainable lifestyles

Policies are focusing on more than awareness raising and enhancing the knowledge of people (e.g. through eco-labels or communication campaigns), by also supporting people in making easier sustainable choices with the provision of infrastructure (i.e. availability of goods and services), or as the default option.

Sweden (2016) introduced its “Strategy for Sustainable Consumption” which demonstrates what governments can do with other stakeholders to make it easier for consumers to act sustainably. The Strategy focuses on increasing knowledge and deepening cooperation, encouraging sustainable ways of consuming, streamlining resource use, improving information on companies’ sustainability efforts, phasing out harmful chemicals, improving security for all consumers, and focusing on food, transport and housing.

South Korea (2014) introduced a Policy Handbook for Sustainable Consumption and Production which focuses on consumer information, consumption and lifestyles, and sustainable business. Consumer information covers eco-labelling, carbon footprint labelling, green building certification, and green store certification. Consumption and lifestyles focuses on green public procurement, green credit cards and ECO-ECPO Korea. Sustainable business focuses on Eco-Business Award, GREEN-Up, and Eco-Design Programme.

9. Waste management

All types of waste in the product lifecycle should be managed through a circular economy approach. Strategies should focus on (i) definition of waste and responsibility sharing (e.g. for packaging waste, e-waste, hazardous waste, construction waste, industrial waste, industrial symbiosis and national waste grid, and organic waste); (ii) phasing out direct landfilling; and (iii) formalizing the informal waste management sector.

Many Asian countries have introduced 3Rs into their national waste management systems. **South Korea** has introduced the 4Rs (reduce, reuse, recycle, and recovery); and Phitsanulok Municipality, **Thailand** has introduced the 8Rs (reduce, reuse, reject/refuse, refill, repair, recycle, recovery, and rethinking).

The United Kingdom has introduced a landfill tax escalator, which resulted in a 50-60% reduction in waste going to landfill. Under the Landfill Directive, the UK will reduce landfilling of biodegradable municipal waste to 35% of the 1995 level by 2020.

Led by the Ministry of Ecology and Environment, **China** introduced a “Zero Waste City” pilot programme in 2019 to create an urban development model that minimizes the waste in the whole lifecycle. In the next two years, it will develop the indicators and a comprehensive management mechanism and standards for the pilot projects.

Singapore's Sustainable Singapore Blueprint aims to increase the national recycling rate to 70% by 2030. Some specific initiatives includes a mandatory e-waste management framework by 2021 based on extended producer responsibility, business reports on packaging plan reduction by 2021, waste-to-energy plants for municipal waste, donation of unsold food and food waste treatment facilities, separate collection of recyclable and general waste in public housing, 3R awareness programme, and a Singapore Packaging Agreement for packaging reduction in the supply chain.

2.3 Summary of SCP programmes and activities from line ministries and agencies

2.3.1 National programmes linked to SCP

SCP as defined by UNEP consists of 9 policy areas, which were later subdivided into 15 areas in the NAP on SCP (2021-2030). The table below describes how ongoing Vietnam national programmes are linked with these 9 SCP areas. The national programmes which are closely linked to SCP are the following:

S1. National strategy on GG and National Action Plan on GG; S2. Socio-economic development strategy 2011-2020; S3. Sustainable Development Strategy for the period 2011-2020; S4. Strategy for environmental protection to 2020, vision to 2030; S5. National Strategy on Climate Change and National Action Plan on Climate Change in the period of 2012-2020. S6: Strategy for Cleaner Production in the Industry sector until 2020.

Table 15: National programmes linked to SCP

| NO. | PRIORITY SCP POLICY AREAS | NATIONAL STRATEGIES | | | | | |
|-----|--|---------------------|-----|-----|-----|-----|-----|
| | | S 1 | S 2 | S 3 | S 4 | S 5 | S 6 |
| 1 | Sustainable resource management | X | X | X | X | X | X |
| 2 | Design for sustainability | X | | | | | |
| 3 | Cleaner production & resource efficiency | X | | X | | | X |
| 4 | Sustainable transportation | X | | | | X | |
| 5 | Green public procurement | X | | | | | |
| 6 | Eco-labelling & Certification | X | | X | | | |
| 7 | Sustainable marketing | | | | | | |
| 8 | Sustainable lifestyles | X | | | | | |
| 9 | Waste management | X | X | X | X | X | |

2.3.2 Sustainable resource management

Table 16: Progress on implementing sustainable resource management

| S | MAIN TASK/TARGETS RELATED TO SCP | PROGRESS: RELATED PROGRAMMES/ ACTIVITIES | REMARKS |
|----|--|---|--|
| S1 | <p>Greening production: main task 3, theme 3b: (i) Building and implementing priority policy for clean energy development</p> <p>(ii) Support for research and development of new energy (wind, solar, tide, geothermal, biomass, biodiesel)</p> <p>(iii) Sustainable and efficient use of water resources</p> <p>(iv) Sustainable and efficient use of mineral resources</p> <p>(v) Reforestation, increase forest quality and sustainable management of forest resources</p> | <p>Forestation: increase forest cover from 40.7% in 2012 to 41.45% in 2017 (Ministry of Planning and Investment, 2018)</p> <p>Completed a research project “Research to set up criteria for water resource management for green growth</p> <p>Eco-tourism: See 1.3.5</p> <p>EIZ implementation: See 1.3.5</p> <p>JICA ongoing project: Technical assistance for sustainable resource management:</p> <p>ODA completed project “Integrated management of Mekong water resources”</p> <p>Project “Research for application in efficient exploitation of natural resources in agriculture</p> <p>Vietnam is implementing reducing GHG emissions from deforestation and forest degradation (REDD). In May 2018, the Prime Minister established the State Steering Committee on the Sustainable Forestry Development Programme (2016-2020), which will direct, inspect and coordinate activities of ministries, sectors and localities during implementation of the programme. Some 41 provinces and cities have established Programme Steering Committees (12 provinces having REDD+) and a further 19 provinces and cities have prepared provincial action plans for REDD+ (PRAP) up to 2020-2030.</p> | <p>Waste as a resource was not included</p> <p>Suggested indicators for greening of sectors: (i) resource consumption rate (per capita), (ii) waste generation rates and how much of it is segregated and recycled and the proportion of waste used for energy recovery.</p> |

| | | | |
|-----------|---|---|---|
| S2 | Included in specific objective 2 and 6 | Electricity consumption in 2016 was 210 kWh/capita, in 2017 it was 2185 kWh/capita; Energy consumption in 2014 was 575.9 kgOE/capita and in 2015 it was 587 kg OE/capita, so not yet decreased (Nang Luong Vietnam, 2018). | No data from primary source of report on S2 implementation |
| S3 | Included in SDG 12.6 & 12.9; 14.2 & 13.3; 15.1 & 15.3 | Institutionalization of policy and legal framework e.g. (Law on Natural Resources and Environment of Sea and Islands, Law on Fisheries, Strategy for Fisheries Development, Strategy for Sustainable Exploitation and Use of Natural Resources and Protection of Marine Environment, and National Strategy on Bio-diversity until 2020 and Vision to 2030.) The Law on Fisheries (2017) includes new clauses to regulate illegal, unreported, and unregulated (IUU) fishing. The investigation, study and evaluation of biodiversity in the sea and islands of Vietnam have been paid special attention. However, mangrove eco-systems have been seriously degraded, with 67% lost compared to 1943. While the country has established 10 marine reserves, the slow pace of establishment and operation of new maritime reserves is a big challenge to fulfil SDG 14.5. More than 70% of vessels and boats in Viet Nam operate inshore, heightening fishing pressures and imbalances between fishing capacity and aquatic resources (Government of Vietnam, 2018). | Lacking a comprehensive approach to resource management based on the LCA approach or application of circular economy |
| S4 | Included in specific objective 2(b) and Vision 3: | Mineral extraction companies are required to deposit funds for environment clean-up and restoration e.g. in Thanh Hoa (Thanh Hoa, 2019). Adverse impacts caused by rapid urbanization, industrial activities and unsustainable minerals exploitation, and water, air, and soil pollution lead to degradation of natural resources (water, air, soil, forest cover, biodiversity). Hence Vietnam's natural resources are threatened by depletion and exhaustion due to unsustainable | No report available Vietnam Environment Report for 2017: no information on resource management. Lacking LCA approach to resource management |

| | | | |
|-----------|---|---|--|
| | | development, contamination, and poor management. | |
| | | Several severe environmental accidents/incidents have caused long-term, irreversible impact to the environment (e.g. Formosa in Ha Tinh, water pollution in Buoi river (Thanh Hoa), Cam Dan (Bac Giang; environmental pollution caused by collapse of sludge tank contained lead in Pac Mieu (Cao Bang); Rang Dong company. (Hanoi), among others). | |
| | | An Environmental Protection Fund was established to provide finance for protection of environment, natural resources, and biodiversity | |
| S5 | Mitigate degradation and depletion of natural resources; curb decrease of biodiversity Target indicator: increase share of renewable energy in total commercialized energy to 5% in 2010 and 11% in 2050 | Depletion of natural resources caused by degradation of environmental quality (see above) Programme in Mekong delta and Red river plateau for water resource management and climate change adaptation WB project (2012-2018): Resource management in coastal areas for sustainable development (World Bank, 2019) | See above (no reports available) No data available for share of renewable energy in total commercialized energy |
| S6 | Included in overall objective | CP is applied widely in the industry sector to increase efficiency use of natural resources, materials, and fuels. See CP activities below. | Lacking LCA approach which needs to be addressed in updated CP guidelines |

2.3.3 Design for Sustainability

Table 17: Progress on implementing design for sustainability

| S | MAIN TASK/TARGETS RELATED TO SCP | PROGRESS: RELATED PROGRAMMES/ ACTIVITIES | REMARKS |
|-----------|--|---|--|
| S1 | Under 3.2: Efficient use of energy (for transportation sector) | Green building: see 2.2.5 | Nature technology may be considered as part of greening production |

| | | | |
|-----------|--|---|---|
| | Under 4.2: Green technology (green design for building) | | Lacking eco-design in other sectors e.g. fashion industry especially in waste reuse and recycling Design for sustainability needs to be included and integrated in SCP activities e.g. in eco-innovation |
| S2 | NA | NA | NA |
| S3 | Included in SDG 9.4; 12.6 and 13.2 | Numerous sustainable industrial production models and sustainable product designs have been developed. However, they have been applied on a small scale, mostly due to development partners' support (Government of Vietnam, 2018) | No data available Lacking design for eco solutions which reduce waste over the life of the building or product Lacking bioregional planning |
| S4 | NA | NA | NA |
| S5 | Not included | Included in MoC's implementation plan such as (i) research and establish regulations, standards on design and construction of "energy saving and efficiency", "green buildings" "green city" and "eco-city"; green construction materials and product (energy saving, GHG reduction and pollution mitigation); and (ii) research and development activities on building green cities and green buildings. | No reports available |
| S6 | Not included | NA | NA |

2.3.4 Cleaner production and resource efficiency

National Strategy on Green Growth (Decision 1393/QĐ-TTg dated 25, September 2012):

The National Strategy on Green Growth sets out the goal of greening production by implementing a strategy to "clean industrialization" through cleaner production and resource efficiency. Two strategic plans have involved this goal: Vietnam's strategy on cleaner industrial production to 2020 (Decision 1419/QĐ – TTg dated 7, September 2019) and National Programme on economical and efficient use of energy for the period of 2019-2030" (Decision No. 280/QĐ-TTg dated 13 March 2019).

Vietnam's strategy on cleaner industrial production to 2020:

Vietnam's strategy on cleaner industrial production to 2020 has an overall objective as follows: cleaner production must be observed in all industrial production establishments to better the use of natural resources, materials and fuels; minimise emission and curb pollution; and protect and improve the quality of environment, human health and secure sustainable development.

Specific objectives include (i) to 2015: 50% of industrial production establishments shall become aware of benefits of cleaner industrial production; 25% of industrial production establishments shall adopt cleaner production; these establishments shall save 5–8% of energies, materials and fuels consumed per product and 70% of Departments of Industry and Trade shall have qualified staff specialising in guiding the application of cleaner production in industrial establishments; and (ii) from 2016 to 2020: 90% of industrial production establishments shall become aware of benefits of cleaner industrial production; 50% of industrial production establishments shall adopt cleaner production; these establishments shall save 8–13% of energy, materials and fuels consumed per product; 90% of large- and medium-scale enterprises shall have units specialising in cleaner production.

Table 18: Survey results on the implementation of the objectives of Vietnam's strategy on cleaner industrial production for the initial period of 2010-2015

| OBJECTIVES OF STRATEGY | PERIOD | | STATUS IN 2010 | STATUS IN 2015 |
|---|-----------|-----------|----------------|---|
| | 2010-2015 | 2016-2020 | | |
| 1. Percentage of industrial production establishments shall become awareness of benefits of cleaner industrial production | 50% | 90% | 28% | 55% |
| 2. Percentage of industrial production establishments shall adopt cleaner production | 25% | 50% | 11% | 24% |
| 3. Reduction of energy, fuel per unit of product | 5-8% | 8-13% | - | Raw materials and chemicals: 1-92%; Water: 1-99%; Coal: 2-98%; DO: 1-70%; Electricity: 1-68%; Biomass fuel (firewood, rice husk): 3-61%; FO: 7-43%; Gasoline: 5-34%; Gas: 3-30% |
| 4. Percentage of medium and large enterprises with a department in charge of cleaner production activities | | 90% | - | - |

| | | | | |
|---|-----|-----|-----|-----|
| 5. Percentage of departments of Industry and Trade shall have qualified staff specialising in guiding the application of cleaner production | 70% | 90% | 18% | 73% |
|---|-----|-----|-----|-----|

Source: Bộ Công Thương. <http://eprotech.vn/vi-VN/Home/tongquansanxuatsachhon-14/2016/San-xuat-sach-hon-tren-toan-quoc-874.aspx>

The Cleaner Production Strategy has achieved the goals set for period of 2010-2015, especially the targets on the percentage of Department of Industry and Trade with qualified staff to implement cleaner production guidelines for industrial enterprises (73%) and the percentage of enterprises becoming aware of cleaner production (55%). The achieved rates are higher than the target for these issues. However, the percentage of medium and large companies which have a department in charge of cleaner production is not available.

National Programme on economical and efficient use of energy for the period 2019-2030:

Programme objectives set out for achievement by 2025 are (i) achieving energy savings of 5-7% of the total national energy consumption from 2019 to 2025; (ii) reducing power loss to below 6.5%; (iii) reducing the average energy consumption for industries/sub-sectors compared to 2015-2018, specifically: (a) for steel industry: from 3.00 to 10.00% depending on type of product and production technology; (b) for chemical industry: at least 7.00%; (c) for plastic manufacturing: from 18.00 to 22.46%; (d) for cement industry: at least 7.50%; (e) for textile industry: at least 5.00%; (f) for the liquor, beer and beverage industry: from 3.00 to 6.88% depending on the type of product and production scale; (g) for paper industry: from 8.00 to 15.80% depending on the type of product and production scale; and (iv) 70% of industrial parks and 50% of industrial clusters will be provided with access to, and economically and efficiently use, energy.

One of the programme's main tasks is to build a Vietnamese energy data centre, as well as databases and information technology applications on energy and energy efficiency. Specifically, the programme will develop energy statistics and establish national and sectoral database systems on energy and economical and efficient use of energy, while building coordination and information sharing mechanisms between databases on energy and energy efficiency and other databases. In addition, the programme will develop and guide the use of software in managing and updating data on economic and efficient use of energy, ensuring that they are suitable to energy users and energy management agencies from the central to local levels.

Another major task of the programme is to strengthen capabilities in the economical and efficient use of energy, through training and building capacity for officials and focal agencies on economical and efficient use of energy in organizing the management and implementation of the State's regulations on economical and efficient use of energy.

Furthermore, the programme will implement other major tasks, including inspecting, supervising, urging and guiding the implementation and evaluation of the implementation results of legal regulations on economical and effective use of energy; boosting communication to raise public

awareness about economical and efficient use of energy; and strengthening international cooperation in the field of using energy economically and effectively.

2.3.5. Sustainable transportation

National Strategy on Green Growth (Decision 1393/QĐ-TTg dated 25, September 2012):

With the goal of greening lifestyles and promoting sustainable consumption, the National Strategy on Green Growth set two solutions for the transportation industry: (i) raising the efficiency and effectiveness of energy using, reducing the rate of energy consumption in the activities of production, transportation and commerce; and (ii) changes in the fuel structure in transportation.

Action plan of transport sector for climate change response and green growth for climate change response and green growth (Decision 1456/QĐ-BGTVT dated 11 May, 2016):

To implement the green growth strategy, the transport sector has developed an Action Plan to respond to climate change and green growth for the period 2016-2020 to proactively develop transport in a synchronized and sustainable and environment-friendly manner, thus reducing GHG emissions.

One of the important goals is "promoting the use of renewable energy, clean energy and means, equipment and technologies with high energy efficiency in transportation; By 2020, 5-20% of buses and taxis will use compressed natural gas (CNG), liquefied petroleum gas (LPG) and solar energy; Improve and expand the application of emission standards to motor vehicles. Building management capacity, inventorying greenhouse gas emissions from transportation activities".

The Action Plan outlines six tasks and solutions: (i) developing the transport infrastructure system in the direction of improving climate resilience and reducing environmental pollution; (ii) managing transportation activities towards low emissions, economical and efficient use of energy; (iii) promoting the application of environment-friendly technologies, encourage the use of renewable and clean energy sources in transport; (iv) implementing synchronous solutions to control emissions of motorized vehicles; (v) propagating, raising awareness for organizations and individuals about climate change, and green growth in transportation; and (vi) strengthening international cooperation and diversifying resources to implement activities on climate change responses and green growth in transport.

Some results from the Green Growth report for the period 2013-2017:

(a) Raising the efficiency and effectiveness of energy use, reducing the rate of energy consumption in transportation activities

The transportation sector has reviewed the planning, design, construction of the transport structure, studied and optimized the network of roads, railways, waterways, aviation and harmonized and synchronized coordination among transport modes, looked for solutions to reduce traffic congestion, promoted the development of public passenger transport in urban areas, developed fast buses, and researched and developed logistics in multimodal transport activities.

In the management of production activities, Vietnam is promoting the application of new technologies, clean fuels, new energy friendly to the environment, reducing GHG emissions, and building reasonable adjustments to economic norms, technology, reuse, and recycling of materials to limit resource costs. Many transport enterprises and local authorities have implemented economic, technical and management measures such as rationalizing the management and administration of production activities, shortening distance and transport time, making the most of the capacity and properly using the functions of transport machinery and equipment, ensuring proper maintenance, and using energy-efficient devices, etc.

Effort is underway to reduce fuel consumption in all transportation sectors including road, air, sea, and rail. Most transportation sectors have implemented solutions to reduce fuel consumption such as (i) piloting the development of clean energy in transportation such as biofuels (E5 gasoline, bio-diesel B5) for vehicles and since January 2018, E5 gasoline has been put into common use throughout the country; (ii) using the system of solar signal lights with 5,165 units put into use on inland waterways (accounting for 76% of the total number of signalling lights), replacing the old electric lights; and (iii) completing "a handbook on implementation of energy saving measures in transport operation and manufacturing railway industry". Airlines have conducted research and deployment applications solutions (to shorten domestic and international flight routes, optimize flight speed, implement solutions for flight management, and manage emissions etc.). The fleet of cargo planes is also constantly being renovated to exploit more efficient use of fuel.

(b) Changes in fuel structure in transportation

There have been no specific statistics yet to confirm if the target has been met. However, some provinces have implemented a pilot model in changing the fuel structure in transportation, such as Ho Chi Minh City which has put 300 buses using CNG to use in public transport. People's Committees of some provinces and cities like Hanoi, Da Nang, Thua Thien - Hue, Hai Phong and Lao Cai have piloted the use of electric cars to transport tourists. To date, the whole country has about 1,000 electric vehicles operating.

(c) Developing public transport towards greening system

According to the Institute of Transport Strategy and Development, in 2015, 57 out of 63 provinces and cities had public passenger transport systems (PPTS) by bus, of which Hanoi and Ho Chi Minh City had the strongest network. Regarding the route network, there have been 684 bus routes across the country with a total length of 26,599 km. The basic bus network has been developed, but the network coverage is uneven, concentrated in the central urban areas. It is difficult for people to access buses in suburban areas with poor coverage.

In 2015, the whole country had 9,264 buses. Hanoi and Ho Chi Minh accounted for 46% (4,268). The structure of vehicles was mainly small and medium buses (accounting for 78.7%), in accordance with traffic conditions and road infrastructure of Vietnam. Regarding mechanisms and policies to develop and improve the quality of public transport, passenger transportation by bus is subject to (i) VAT reduction; (ii) exemption of import tax for spare parts and components for manufacturing and assembling buses if they cannot be domestically produced; and (iii)

exemption of land rent, maintenance, repair, and parking lots. These policies have helped businesses reduce operating costs, reduce ticket prices and support PPTS users. There are also other forms of support such as price subsidies; Exemption and reduction of tickets for users, support of fees (berths, ferries, road use) depending on local policies.

Gaps: Public transport is still a weakness of most urban areas, especially in big cities. PPTS can only meet a small percentage of the travel needs of citizens, while they have to buy personal vehicles for daily transport. Traffic congestion is becoming serious in big cities, causing significant economic losses and reducing the quality of life. The implementation of priority mechanisms and policies to encourage the development of public transport by bus (Decision No. 13/2015 / QD-TTg) is still inadequate due to the lack of guidance from relevant ministries and agencies. There is no set of criteria for assessing the quality of public transport by bus, so there is lack of baseline information to evaluate the quality of PPTS and propose solutions to improve the quality. The major projects of improving public transportation are facing difficulties, such as two major urban railway projects that are expected to create a new face for public transport of two major cities. The Cat Linh - Ha Dong highway in Hanoi and Metro Project No. 1 Ben Thanh - Suoi Tien in Ho Chi Minh City have been implemented with many problems and delays. The pilot BRT Fast Bus Line in Hanoi in operation has proved that this new type of public transport is not suitable for Hanoi city's conditions: speed and number of passengers are no more than regular buses, while investment and operating costs are too high, as well as wasting space on the already narrow space for other means of transportation.

2.3.6 Eco-labelling and certification

Table 19: Progress on implementing eco-labelling and certification

| S | MAIN TASK/TARGETS RELATED TO SCP | PROGRESS: RELATED PROGRAMMES/ACTIVITIES/PROJECTS | REMARKS |
|-----------|--|---|--|
| S1 | Task 42: Building up and issuing standards on product eco-labels. Products and services included for eco-label certification for period 2013-2030 are: construction materials; foodstuff; transportation; energy; computer and office equipment; paper and printing materials; detergents; and medical equipment Task 64: Complete the legal framework on GPP | December 23, 2013, MoNRE issued Decision No. 2604/QD-BTNMT on establishing an Advisory Council for Vietnam's Green Label Programme. So far, 17 sets of Green Label Criteria have been developed and published by MoNRE and 112 types of products have been certified with Vietnam Green Labels. See 2.2.5 To date no specific legal documents on GPP | Lacking eco-labels certification for services sector To date, no specific legal document on GPP |
| S2 | Not included | NA | NA |
| S3 | Included in 12.7 (for GPP) | See S1 | See S1 |

| | | | |
|-----------|--|-----------|---------------------|
| S4 | Not included | NA | NA |
| S5 | Under “GHGs mitigation”: Energy labelling | See 2.2.5 | No report available |
| S6 | Not included | NA | NA |

2.3.7 Green public procurement

National Strategy on Green Growth (Decision 1393/QĐ-TTg dated 25, September 2012):

Green public procurement has been mentioned in the Green Growth Strategy (Decision 1395/QĐ-TTg dated 25, September 2012) which recommended developing a roadmap from 2012 until 2020 to apply green procurement covering: building materials; food and foodstuff; traffic and transportation; energy; computers and office machines; textiles; paper and printing; furniture; detergents; and medical devices. From 2015, all works and public investment projects must apply the green economic standards. According to the relevant sectoral structure, investment should use energy efficiency standards, raw materials conservation, design appropriate to ecological conditions, and impact of climate change. From 2017, all new motor vehicles purchased with public funds must meet emissions standards, giving priority to vehicles using clean fuels (electricity, liquefied gas) and hybrid cars. Further study is needed to promulgate regulations on green public expenditure, including investment expenditure and recurrent expenditure of the state budget which must prioritize procurement and use of eco-labelled goods, and goods capable of being recycled.

Currently very few GPP activities have been reported. Only MoNRE has implemented the project "promoting consumption and production of green products through sustainable public procurement and eco-labelling" to improve the capacity of competent government agencies in Vietnam to develop policy on sustainable public procurement and eco-labelling.

As mentioned in the part 2.2.1 the current legal documents on GPP are quite limited to promote GPP being implemented sufficiently. Green public procurement is mentioned in the Environment Protection Law (Article 44), but in the Decree of Bidding (No. 64/2014/ND-CP) and Implementation of Bidding Law (No. 43/2013/QH13) which provide the legal requirements for public procurement, GPP practice is not reflected. To promote GPP, the most important requirement is a comprehensive and consistent system of policies and laws.

2.3.8 Sustainable marketing

Table 20: Progress on implementing sustainable marketing

| S | MAIN TASK/TARGETS RELATED TO SCP | PROGRESS: RELATED PROGRAMMES/ACTIVITIES/ PROJECTS | REMARKS |
|-----------|---|--|--|
| S1 | Not included | NA | Green marketing needs to be included in SCP programmes. For green growth, it |

| | | | |
|-----------|---------------------------|---|---|
| | | | needs to be part of greening supply chains and greening lifestyles |
| | | | Lack of sustainable marketing in cultural and heritage tourism |
| S2 | Not included | Strategy for development of Vietnam tourism to 2020, vision to 2030 was issued in 2011 by MoCST | The strategy is out of date. Sustainable marketing especially for cultural and heritage tourism was not included |
| S3 | Not specifically included | Indirectly included in programme for promotion of eco-tourism | As in S1, Sustainable marketing needs to be part of promotion programme for eco-tourism |
| S4 | Not included | NA | NA |
| S6 | Not included | NA | NA |

2.3.9 Sustainable lifestyles

Table 21: Progress on implementing sustainable lifestyles

| S | MAIN TASK/TARGETS RELATED TO SCP | PROGRESS: RELATED PROGRAMMES/ACTIVITIES /PROJECTS | REMARKS |
|-----------|---|--|---|
| S1 | Objective 3: Greening lifestyles and sustainable consumption Task 4: Implementation of greening lifestyles and sustainable consumption that includes (i) development of green and sustainable cities: 4 activities; and (ii) promotion of green lifestyles: 3 activities | MoC is finalizing criteria for green cities. Some 36 criteria were established to achieve 3 main objectives: (i) GHG mitigation; (ii) ensure climate change resilience; and (iii) appropriate and efficient use of natural resources The number of green cities is on the rise e.g. Ecopark and Gamuda Gardens in Hanoi; Phu My Hung, Va Phuc, Riverside City, Cladon city in Ho Chi Minh City. Conducting awareness raising programme for promotion of green lifestyles | Increase number of green buildings in green cities Promote consumer information programme e.g. behaviour change; product lifetime extension; product sustainability information; and social impact communication |

| | | | |
|-----------|--|--|--|
| | | Green buildings; Green labels; Energy labels, other labels (See I.3.5) | |
| S2 | Included in development of new countryside | New countryside activities focus on providing adequate infrastructure and increase quality of life in rural areas. | Value of traditional lifestyles in harmony with nature needs to be promoted Sustainable lifestyle needs to be tailor-made to rural life e.g. organic agriculture; making the most of living creatures and plant (Furukawa and Suto, 2019) |
| S3 | SDG 12.1; SDG 4.7 and DG. 8.4 | See I.3.5 | Consider integrating nature technology to sustainable lifestyles |
| S4 | Includes one of the comprehensive solutions: propaganda, motivating environment- friendly lifestyle, sustainable consumption, awareness raising on environmental protection and environmental sanitation | See I.3.5 | The message “environmental degradation and we need to change our lifestyle” needs to be addressed |
| S5 | Change the community’s behaviour and lifestyles toward climate change resilience and mitigate GHGs emission. | No data available | Building up models of climate change resilience and disseminate best practices |
| S6 | NA | NA | NA |

2.3.10 Waste management

Table 22: Progress on waste management

| S | MAIN TASK/TARGETS RELATED TO SCP | PROGRESS: RELATED PROGRAMMES/ACTIVITIES/PROJECT | REMARKS |
|-----------|--|--|---|
| S1 | Objective 2 Task; Greening production: main task 4 | Institutionalization of policy and legal framework e.g. (i) strategy for integrated solid waste management to 2025, vision to 2050; (ii) investment programme for solid waste treatment for period 2011-2020; (iii) list for green investment proposed by Vietnam national bank; (iv) support mechanism for development of solid waste-based power plant (Decision 31.2014/QD-TTg and Circular 32/2015/TT-BTC) | No progress reports from ministries/cities/provinces Lacking policy for promotion of 3R Need to emphasize to development of large-scale recycling industry Lacking EPR programme |

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| | <p>Under (ii) to date 54 out of 63 cities and provinces have drafted and approved plans for solid waste management of which 9 are in the process of implementation: Da Nang, Ho Chi Minh city, Bac Ninh, Gia Lai Hai Duong, Lai Chau, Nam Dinh Vinh Long, Yen Bai (Academy of Managers for Construction and Cities, 2015); also biogas production from animal husbandry activities (Binh Thuan)</p> <p>Under (iii): sustainable waste management includes domestic solid waste, industrial solid waste, and wastewater</p> <p>Waste recycling in EIZs, household waste recycling in craft villages which accounts for 15-20% of total household solid waste generated</p> <p>JICA project “Strengthening capacity for integrated solid waste management” and related programme lead by MoC. Example Hai Phong (solid waste for composting); Can Tho, Thanh Hoa (solid waste for electricity generation); Ho Chi Minh, Da Nang citie (solid waste source separation) (Ministry of Natural Resources and Environment, 2019b)</p> | | |
| S2 | <p>Under target indicator (specific objectives 2.3) for percentage of treated hazardous waste (85%) by 2020, including medical waste (95-100%)</p> | <p>Hazardous waste treated, approx. 75% industrial waste app. 90% (MoNRE data May, 2019); medical hazardous waste treated approx. 90% (MoH data 2015)</p> | <p>Lacking 3R promotion programmes</p> |
| S3 | <p>Waste related contents included in SDG 8.4; 11.6; 12.1 to 12.5</p> | <p>In 2016, 64.2% of industrial parks met solid waste and wastewater treatment standards and 54% of hospitals had sewage treatment systems. By 2017, up to 41 concentrated wastewater treatment plants were in operation with a total design capacity of 950,000 m³ /day-night. The ratio of collected and treated wastewater is 12% and 50 wastewater treatment plants are being designed or constructed with total designed capacity of 2.2 million m³ /day. Among 781 municipalities, only 44 have sewage treatment facilities up to required standards (equivalent to</p> | <p>No specific legal documents for management and control of marine waste.</p> <p>No primary source of reports available on S3 implementation</p> |

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|-----------|--|---|---|
| | | 5.63% in 2016) (Government of Vietnam, 2018). | |
| S4 | <p>Solution 4: Enhance socialization of environmental protection services</p> <p>By 2020 (i) collection rate of solid waste for municipalities 95%, for rural areas 85%; (ii) rate of solid waste collected for reuse, recycling and energy recovery 85% (iii) rate for hazardous waste treated 85%; (iv) rate for production and consumption non-biodegradable plastic bags decreased 30% compared to 2010; (v) rate of hazardous medical waste treated 100%; and (vi) rate of sanitary landfills 100%.</p> | <p>Decision 1570/QĐ-TTg/2016 was issued as a policy framework for development of environmental services. It stipulates that by 2020 (i) the price and environmental service fee will be based on a market mechanism and “the polluter needs to pay” principles; (ii) state subsidies for public environmental services will be removed; and (iii) fair competition will be ensured between service providers.</p> <p>MONRE data (May, 2019): rate of municipal waste collected and treated: 86% of which 70% is landfilled; hazardous waste treated, approx. 75%, industrial waste approx. 90%, medical hazardous waste treated approx. 90% (MoH data 2015)</p> | <p>Implementation of Decision 1570 is still limited</p> <p>No data for waste in rural areas</p> <p>No baseline data for plastic bags in 2010</p> <p>No activities for construction waste</p> |
| S5 | <p>In relation to reduction of GHG emissions: electricity co-generation of industrial waste; biogas generation from agro-waste; energy recovery from solid waste incineration; 90% of generated municipal solid waste is collected, 85% of which is treated for energy recovery</p> | No data available | <p>Lacking support policy for promotion of 3R</p> <p>MoNRE requested to send progress reports on S5 implementation only in Sept., 2019 (Ministry of Natural Resources and Environment, 2019a)</p> |
| S6 | <p>Target indicator: 50% industries applied CP; 8-13% energy saving and 13% energy saving/unit of product for industries applying CP</p> | <p>2015: 32% among 9,000 surveyed industries applied CP; 34% industries applied CP having 5% energy saving/unit of product</p> | Lacking update CP guideline for specific industry sectors |

2.4 Recommendations on the programmes and activities for the NAP on SCP (2021-2030)

- Policies on sustainable consumption and production:** The assessment above has revealed that Vietnam has many policies related to SCP, but there are still some gaps. Some of the key policy areas that could be strengthened are in relation to extended producer responsibility, promotion of the 3Rs and the circular economy, recycling of construction

waste, sustainable consumption and environmentally responsible lifestyles, design for environment (e.g. in the fashion industry), and life cycle assessment in CP.

- **Sustainable resource management:** All sectors need to consider waste as resources. Some suggested indicators could be (i) resource consumption rate (per capita), and (ii) waste generation rates and how much of it is segregated and recycled and the proportion of waste used for energy recovery. A comprehensive approach to resource management is needed based on the LCA approach (e.g. application of circular economy and data for the share of renewable energy in total commercialized energy).
- **Design for environment:** Nature-based technology and bioregional planning could be considered to be part of green production and extended to other sectors such as the fashion industry especially in relation to waste reuse and recycling. Ecologically sound solutions are needed that could reduce waste throughout the product lifecycle. Design for environment should also consider the possibilities of repair and repurposing at the product end of life, rather than become waste destined for landfills.
- **Cleaner production and resource efficiency:** Vietnam lacked using LCA approaches in previous CP programmes and this needs to be addressed in updated CP guidelines. Additional capacity building is needed for focal points of CP. To improve the quality of enterprise guidance in CP application, thereby increasing the saving of raw materials and fuel for industrial enterprises, in the coming time, more hands-on training for officials of the DoIT, especially those designated to act as focal points of CP in the locality, as well as facilitating these officials to gain more experience in CP guidance so that they can not only conduct quick assessments but provide detailed evaluation and implementation of the CP model. Also, CP needs to increase in small and medium enterprises. According to the General Statistics Office in 2017, there were nearly 517,900 active enterprises, of which, small and medium enterprises account for 98.1%. Among them, many businesses are very small scale (accounting for 60%, 2015) with limited capital as well as very backward technical conditions. SMEs account for up to 40% of total energy consumption in industry. The potential for energy conservation in SMEs is huge (e.g. energy savings in ceramic and brick factories are 30-70%, in seafood processing enterprises 10-60%). However, local policies to promote the use of energy savings and material savings for SMEs have not been very effective to date.
- **Sustainable distribution and transport systems:** Vietnam needs to improve the quality of public passenger transport by buses especially in big cities, developing a set of criteria for evaluating public passenger transport quality by bus with the participation of passengers to identify solutions to improve service quality. It is also recommended to expand the coverage of the public transportation network not only concentrating in the urban centre but also covering suburban areas to enable people in this area to access the bus. Also, a communication campaign to raise public awareness about the benefits of public passenger transport and improve the safety of this type of transport is needed. For the distribution system, efficiencies need to be found in fuel use, timing to avoid traffic congestion, and the age of the transport rolling stock. Refrigerated transport and cool rooms associated with logistics centres need to be upgraded to become energy efficient.

- **Eco-labelling:** Currently Vietnam needs more effective eco-labelling certification for the service sector (e.g. for eco-tourism) and to issue a revised legal framework to promote GPP to incentivize business in producing green products. If the certified products are not routinely available in the market, then it is much harder to convince consumers to buy eco-labelled products.
- **Consumer information:** An identified weakness in Vietnam's approach to SCP is the lack of attention paid to sustainable consumption. Consumers need to have access to reliable information on the benefits of sustainable consumption, comparison of different products, and how purchase of sustainably produced local products will not only benefit local suppliers but also the entire economy. Consumer information programmes need to be carried out at all levels, starting with school children, who need to establish sustainable habits early in life, as well as taking the SCP messages home to their parents.
- **Green public procurement:** In Vietnam's policy framework, it is necessary to amend Article 44, Law on Environmental Protection 2014 and Article 47 of Decree 19/2015 / ND-CP, thereby revising the phrase "responsible for *prioritizing* the use of eco-friendly products and services certified with eco-labels under the provisions of law" with the phrase "responsible for *using* eco-friendly products and services with environment certified eco-labelling as prescribed by law". Supplement the selection criteria of projects in the Public Investment Law, so that investment projects which need to have a plan to purchase goods are mandated to purchase energy-labelled and eco-labelled goods and services. Criteria requiring public procurement goods being labelled with energy and ecological labels need to be included in contractor selection in the Bidding Law 2013, and in guiding documents of the Bidding Law such as Decree No. 63/2014 / ND-CP guiding the Bidding Law on contractor selection. For Decree No. 84/2015 / ND-CP on monitoring and assessing investment, it is necessary to supplement the requirements to supervise the contractor's fulfilment of green commitments during the procurement process. While it may be difficult to incorporate public procurement regulations for eco-friendly products into the current legal system (i.e. the Procurement Law and the Decree implementing the Bidding Law), it has been proposed that a separate circular of the MoF in accordance with the Bidding Law should be issued. In implementation, Ministry of Finance and Ministry of Planning and Investment should take the initiative and coordinate with other ministries and agencies to issue regulations on promoting GPP. The legal framework should clearly define the objectives of GPP, implementation steps, products to be prioritized in GPP, incentives and sanctions for violations of non-compliance with regulations on GPP.
- **Sustainable lifestyles:** Greater attention needs to be paid to increasing consumers' knowledge on sustainable consumption. Sustainable lifestyle information should be promoted through campaigns facilitating behaviour change, product life time extension, production sustainability information and social impact communication. Some specific areas could be to increase the number of green buildings in green cities, promote the value of traditional lifestyles in harmony with nature, sustainable rural living through organic agriculture, and incorporating nature-based solutions into sustainable lifestyles.

- **Waste management and circular economy:** While progress has been made in relation to waste management there is still a need to strengthen policies to promote 3Rs, create economic values in the recycling industry, promote a comprehensive EPR programme, improve management and control of marine and building construction waste, and update CP guidelines for specific industry sectors.
- **Communication campaigns:** Green marketing campaigns should be included as part of greening supply chain and sustainable lifestyles efforts in SCP. Improved communication campaigns could be incorporated in the hospitality sector to promote eco-tourism in cultural and heritage tourism sites.
- **Information technology and databases:** There is a need build basic information on: percent of industrial enterprises with awareness of cleaner production; percent of enterprises applying cleaner production; percent of medium and large enterprises with a department in charge of cleaner production activities; reduction of energy and fuel per unit of product. Advanced information and communication technology should be developed in all stages of supply chains, especially at the point of consumption, where consumers need to know the details of environment-friendly products.
- **Science and technology for SCP:** Vietnam has advanced science and technology capacity that can be applied to SCP, especially in areas like renewable energy, materials science, agriculture, and manufacturing. Additional incentives may be needed for university researchers to link with the private sector and jointly address sustainable production measures, energy efficiency, and improved waste management systems.
- **Sustainable finance for SCP:** Of course, none of the above recommended changes can take place without finance. There is an urgent need to track public and private expenditures on SCP so that gaps and weaknesses can be identified and rectified. Finance from all sources that is being directed to environmentally damaging investments also needs to be identified and those sources convinced to redirect their funding to pursuit of Vietnam's SDGs. Earmarked funding, such as the Environment Fund, needs to be expanded in national and provincial budgets. For companies, sustainable financing needs to go beyond corporate social responsibility and be fully integrated into their business models. The linkage between companies seeking SCP-related funding and the commercial banking sector needs to be improved through enhanced communication systems and awareness campaigns.
- **International cooperation:** As a major trading partner in the global market, Vietnam is well placed to attract international cooperation for its SCP programmes. Particular attention needs to be paid to making sure that companies offering environment-friendly export products are fully aware of the import restrictions in their key markets. For importers, access to information on reliable suppliers of environment-friendly products can be facilitated by the Government and through free trade agreements with like-minded countries.

3. International trends and experience in SCP

Sustainable consumption and production (SCP) emerged as a practical and systemic approach to sustainability issues in the global context. It started in the 1970s as an end-of-pipe solution to address the effects of industrialization on the environment and society, culminating in the first UN Conference on the Human Environment in 1972 (Akenji et al., 2017). Gradually SCP evolved towards a cleaner production approach to policy making in the 1980s to increase the efficiency of natural resources use and waste minimization and to reduce pollution impacts in the manufacturing sector. Towards the 1990s, SCP shifted towards a more systemic approach involving eco-efficiency through the life-cycle approach to analyse the impacts of products and services through the involvement of all stakeholders and in all stages of production and consumption. Moreover, the modern concept of SCP considers integration of the environment and development to address the dual challenges of environmental crises caused by modern civilization and to improve the living and wellbeing of those in low-income countries. SCP also enriches and broadens the discussion on national development trajectories to open the conversations about different options in different countries (Akenji et al., 2017). Thus, the framing, needs, priority areas and means to achieve SCP or sustainable development differ from one country to another.

The Asia-Pacific region has emphasized sustainable consumption and production through programmes such as the 10-Year Framework for SCP, the Asia-Pacific Roundtable on SCP, and the Asia-Pacific Roadmap for SCP (2017-2018), amongst others. The European Union has had an SCP Action Plan since 2008 and a Roadmap Towards a Resource Efficient Europe since 2011. These platforms provide comprehensive information on SCP actions regionally and internationally.

3.1. China

A circular economy is the key concept introduced by China to enhance SCP. The development of a circular economy in China has progressed in four stages (Li and Lin, 2016). Before 1992, the focus was on the comprehensive utilization of resources of waste gas and water and solid waste. In the second stage 1991–2002, the approach focused on cleaner production and shifted towards sources of prevention. The third stage 2002–2008 marks the pilot stage of a circular economy in selected cities and provinces. From 2009 until the present, these pilot projects have been scaled up and developed more rapidly. China introduced its Circular Economy Promotion Law in 2009, followed by State Council Communication Regarding the Circular Economy Development Strategy and Action Plan in 2013. The action plan focused on industrial, agricultural, and service sectors. The key targets are to increase major resources which are three energy resources, nine mineral resources, and wood and industrial grain output rate by 15% and to expand the circular economy industry's total output to 1.8 trillion yuan as indicated in the Twelfth Five Year Plan (2011–2015) (China State Council, 2013). Other than production instruments, China also introduced a “Zero Waste City” pilot programme in 2019 to create an urban development model that minimizes waste in the whole lifecycle. Led by Ministry of Ecology and Environment, in the next two years, it will develop the indicators and a comprehensive management mechanism and standards for the pilot projects.

The experience from China on the circular economy emphasises that it was implemented as mandatory measures through law enforcement in which detailed regulations and indicators are determined. It combined top-down approaches and the knowledge gained from domestic talents and international experience (Zhu et al., 2018). In application, it applied a broad scope on utilizing circular economy as the key concept for transformation of the economy and society beyond resource management to be incorporated into socioeconomic development strategy (McDowall et al., 2017). Moreover, China identified industry specific targets and action areas in the action plan. It utilizes the concentration of production bases such as in Eco-parks, which were utilized to create industry symbiosis and to utilize the concentration of production to ease inter-company and industry cooperation and resource efficiency. China has effectively used pilot projects at the local government level to test new approaches to identify best practices before scaling up from cities to individual companies as well as in other parts of the country.

3.2. Germany

Germany's main SCP framework emphasizes resource efficiency on the production side. Germany introduced the Closed Cycle Management Act in 1996 to improve resource efficiency through waste prevention and management. The broader framework is the National Action Plan for Sustainability that provides measures for textile, recycling paper and car fleets with targets by 2020. The German Resource Efficiency Programme II – Programme for the Sustainable Use and Conservation of Natural Resources (Progress) promotes sustainable use of natural resources (Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, 2016). The key target indicators include (i) to double raw material productivity by 2020 relative to 1994; (ii) increase the recycling rate of municipal solid waste to over 65% from 2020; (iii) increase the collection rate of waste electrical and electronic waste to 65% from 2019; and (iv) 50% increase in the quantity of separately collected organic waste and high-quality recycling and recovery by 2020 relative to 2010. For area specific instruments to promote sustainable procurement, the Competence Centre for Sustainable Procurement works on criteria from environment, economic and social aspects in public procurement. To enhance the innovation of industries, especially SMEs, the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Association of German Engineers (VDI) established the VDI Centre for Resource Efficiency (VDIZRE) to support SMEs in enhancing resource efficiency, through knowledge transfer. At the international level, Germany and UK developed a network with partner countries to create industrial symbiosis through the resource and service sharing to enhance eco-innovation. For plastic strategies, under extended producer responsibility (EPR), plastic producers directly and indirectly collect, treat or dispose of the waste. A refund scheme is also applied for glass and metal beverage packaging and plastic PET bottles.

Improving resource efficiency has been the key objective in Germany's SCP practice. The programme design has systematically applied resource efficiency into the lifecycle approach from resource extraction to production, consumption, and after-use stages. Specific programmes supporting SMEs on resource efficiency are important as SMEs normally lack the resources and capacity to adopt resource efficiency in the production process. Germany also utilizes industrial symbiosis to increase its resource, service and products circulation not only domestically but also with partner countries to enhance eco-innovation. For promoting public procurement, criteria

setting and incorporating of broader criteria beyond environmental, but also social and economic criteria are the key efforts.

3.3. Japan

Japan has been a frontrunner in relation to SCP as it is a resource scarce nation with a strong manufacturing capacity so careful stewardship of materials has been an overarching economic necessity (Government of Japan, 2017). The key concept for SCP in Japan is based on the “Sound Material-Cycle Society” to reduce the consumption of natural resources and minimize environmental load to the extent possible (Aoki-Suzuki, Kato and Miyazawa, 2019). Japan has implemented its Fundamental Plan for Establishing a Sound Material-Cycle Society since 2003 based on the Basic Act for Establishing a South Material-Cycle Society. In June 2018, Japan adopted its 4th Fundamental Plan. Other relevant legal frameworks include an Act on the Promotion of Effective Utilization of Resources to Promote Extended Producer Responsibility. Japan also introduced an Act on Promoting Green Procurement in 2001 to require government agencies to purchase environment-friendly products and encourage eco-labelling for customers to recognize such products (Ministry of the Environment, 2001). For specific emerging issues such as food waste and plastics, Japan has an Act for Promotion of Recycling and Related Activities for Treatment of Cycling Food Resources since 2001 (Ministry of the Environment, 2007) and a Resource Circulating Strategy for Plastics in 2019 (Ministry of the Environment, 2018). In the 4th Fundamental Plan for Establishing a Sound Material-Cycle Society, there are four indicators to achieve in 2025 compared to the 2000 level, which are approximately double resource productivity, achieve cyclical rate (inflow) of 18% and cyclical use rate (outflow) of 47%, and cut 77% final disposable landfill amount (Ministry of the Environment, 2018).

The Fundamental Plan links with the challenges and new opportunities of Japan today, such as increasing global uncertainty, progress in international cooperation, regional decline in Japan, society 5.0, economic stagnation in Japan and declining population with an aging population and decreasing birth rate. Also, the Fundamental Plan considers recent issues in Japan, such as the nuclear plant accident, frequent natural disasters, changes in people’s views from material towards spiritual wealth and shortage of human resources for waste treatment and recycling. The Fundamental Plan aims to not only address resource aspects, but also broader issues in the society at the same time. In target settings, the collection of baseline data to set realistic targets and to systematically monitor the progress is crucial to achieve the goals under each programme. Moreover, due to the broad actions needed throughout the supply chain, which sometimes involves different ministries and agencies, actions through inter-ministerial and multi-stakeholder cooperation with local governments and business sector is the key to holistically address resource efficiency.

3.4. Republic of Korea

The Third Basic Plan for Sustainable Development (2016-2035) is Korea’s attempt to mainstream the SDGs (Government of the Republic of Korea, 2016). Other key documents relevant to SCP are the Second Five Year Plan for Green Growth, Fourth Master Plan for New Renewable Energy, Second Master Plan for Energy, First Master Plan for Resource Circulation, and the Fifth Comprehensive Midterm Plan for Environmental Protection. The SCP legal framework in the

Republic of Korea consists of two acts: Environmental Technology and Industry Support Act and the Act on Promotion of Purchase of Green Products. The Environmental Technology and Industry Support Act provides the legal grounds for the provision of support for research and development of environmental technologies and the environmental industry. The Act on Promotion of Purchase of Green Products was legislated by the Ministry of Environment in 2005 to stimulate demand for environment-friendly products. The Act also serves as the basis for implementation of green public procurement, voluntary agreement on green business procurement, and green store certification. The SCP policy frameworks are on green growth, new renewable energy, resource circulation, environmental protection, recycling technology programme, resource efficiency programme, and energy recovery programme. Green growth has been a key concept in Korea's SCP promotion. The National Strategy for Green Growth (2009-2050) emphasizes development of a green economy. The first 5-year plan (2009-2013) was expected to create 1.6-1.8 million jobs, have global green technology product market share increase from 2% in 2009 to 10% in 2020, green goods exported to grow from 10% in 2009 to 22% in 2020, SME green partnership with large enterprise grow from 685 in 2009 to 2,900 in 2020, green industrial complex to expand from five to twenty in 2020, and the type of goods with carbon footprint labelling grow from 50 in 2009 to 1,000 in 2020.

SCP has been implemented in Korea with special focus on the creation of new markets for green products and services. The investments in environmental R&D and eco-innovation of products have been driven to respond to the product-based environmental regulations and standards led by industrialized countries. In many cases, EU-led environmental directives such as the Restriction of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment (WEEE) serve as key environmental standards for Korean enterprises to follow in order to enter the European market. The adoption of sustainable production practices is considered as a strategy for enterprises to increase their competitiveness in the international market. In addition, the emergence of green-conscious consumers is another influential factor on the change of consumption and production patterns by the promotion of green public procurement, voluntary business green procurement, eco-labelling and the provision of reliable and credible information on eco-products (KEITI, 2014).

3.5. Malaysia

The key SCP strategy in Malaysia is listed in the National SCP Blueprint 2016–2030 (Economic Planning Unit, 2016), “The Pathways for Sustainable Consumption and Production in Malaysia”. The blueprint was developed after the baseline study Sustainable Consumption and Production in Malaysia (Economic Planning Unit, 2013), which identified the gaps and key instruments to promote SCP in Malaysia. The blueprint connects the 10 dots through SCP on green public procurement, household actions, business practice, circular waste system, energy wise building, low carbon mobility, sustainable food, sustainable tourism, communication and education, and coordinating and monitoring for implementation. There are some target indicators to increase GPP up to 20% in 2020, 50% in 2025, and 100% in 2030 in selected groups of products, and phase out landfill by 2030. In addition, other efforts include integrating SCP into the national education curriculum, increasing the recycling rate to 22% by 2020 from 17.5% in 2016. Also, the Malaysian Carbon Reduction and Environmental Sustainability Tool is used to quantify emissions reduction and sustainable impacts on the environment (Economic Planning Unit, 2016).

SCP in Malaysia is well positioned as the country is moving toward becoming a high-income country during the Eleventh Plan with increased consumption and production. It aligns with existing national policies of the Eleventh Plan and international progress on SCP by utilizing SCP as the instrument to achieve green growth of the economy. It aims to facilitate different stakeholders including households and businesses, and industry sectors such as tourism to understand the benefits of adopting SCP and to mobilize actions.

3.6. Sweden

Providing a good living environment and sustainable consumption by science based ambitious targets has been Sweden's core component of SCP. The Strategic Environmental Goals listed the specific goals to achieve by 2020 which includes reducing the country's ecological footprint through tackling climate and air pollution, land and water conservation, protection of sensitive habitats, and sustainably managing natural resources. In 2017, Sweden introduced a new climate policy framework for the country to become carbon neutral by 2045 and to be a negative emitter by mid-century. An Action Plan for a Toxic-free Everyday Environment 2011–2020 was adopted to reduce the exposure of hazardous substances in the everyday environment with a focus on children. In 2016, Sweden introduced a National Procurement Strategy which includes GPP. It addresses central government, municipalities, county councils and government owned companies. In 2017, Sweden introduced its Strategy on Sustainable Consumption to promote greater environmental, social and economic sustainability in consumption which focused on food, transport and housing in people's daily living (Ministry of Finance, Government Offices of Sweden, 2017). The Strategy emphasized increasing knowledge on eco-smart consumption and environmental education, encouraging sustainable ways of consuming through a sharing economy and eco-labelling, streamlining resource use by a circular economy and extending product life and waste management, improving information on companies' efforts, and phasing out harmful chemicals in daily living. Other specific measures include the establishment of a Forum on Eco-Smart Consumption for networking and knowledge sharing, increased taxes on some hazardous chemicals, and reduced VAT for selected products such as shoes and clothes when recyclable and repairable.

Sweden's SCP policies focus on science based ambitious goals to improve the living environment and foster sustainable consumption. The improved knowledge by consumers on products lifecycles could incentivize more provision of such products on the market. There are also some innovation incentives, such as tax reduction for repair, using behavioural economics and nudging based techniques, and good consumer statistics. In the promoting efficient resource use, plastics, food, and textile industries are selected with leading initiatives. Lastly, the active involvement and responsibilities of companies are emphasized through a sustainability report rule to facilitate their roles in SCP.

3.7. Other ASEAN Countries

Cambodia has issued important sub-decrees on municipal solid waste management, social environment fund, management of electrical and electronic waste, plastic bag management, and management of sewage system and water treatment (Government of Cambodia, 2019).

Indonesia's approach to SDG12 is measured by two main indicators (i) the number of "Proper" (a business environmental performance index) businesses that achieve a minimum blue (i.e. middle) ranking; and (ii) the number of companies that apply ISO 14001 certification. For 2002-2016, companies contributing positively to the environment grew from 60% in 2002 to 85% in 2016. The number of certified ISO 14001 companies increased from 1,028 in 2010 to 2,197 in 2017 (Government of Indonesia, 2019).

The **Philippines** is formulating a National Action Plan for Sustainable Consumption and Production to assess how a circular economy can be adopted in the national context (Government of the Philippines, 2019). The Advanced Sustainable Consumption and Production Project (2015-2018) aimed to reduce GHG emissions through (i) promotion of SCP; (ii) identification and development of SCP mitigation actions; (iii) provision of incentives for "green" products; and (iv) transition to a low-carbon economy through green procurement and specific standards. The Philippines has also implemented an ecological solid waste management programme through the Ecological Solid Waste Management Act, a 10-year solid waste management plan, establishment of material recovery facilities, and an environmentally-sound disposal system, implemented primarily at the local government level.

In **Thailand**, 27 agencies have formed the Taskforce for SDG12 under the Steering Committee on Natural Resources and Environment for the Implementation of Sustainable Development Goals (Government of Thailand, 2017). The Taskforce prepared the Sustainable Consumption and Production Roadmap 2017-2036, building on an earlier SCP Roadmap prepared under SWITCH Asia. Some key initiatives include in education, public transportation, evaluation and accreditation for environment-friendly goods, Green Industry Policy, Smart Cities-Clean Energy project, green public procurement, National Master Plan on Waste Management (2016-2021), and Corporate Governance Code integrating sustainability into the business sector.

Singapore is similar in many ways to Japan as a small island nation with limited natural resources and land area and a vibrant manufacturing and export-oriented economy (Government of Singapore, 2018). Singapore intends to become a zero-waste nation, in the same way as it has closed the loop in recycling water. This zero-waste philosophy is built into the Sustainable Singapore Blueprint. The goal is to increase the national recycling rate to 70% by 2030. Some specific initiatives includes a mandatory e-waste management framework by 2021 based on extended producer responsibility, business report on packaging plan reduction by 2021, waste-to-energy plants for municipal waste, donation of unsold food and food waste treatment facilities, separate collection of recyclable and general waste in public housing, 3R awareness programme, and Singapore Packaging Agreement for packaging reduction in the supply chain.

3.8. SCP Examples from Other Countries

Table 23: SCP Examples from other countries

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| <p>Australia (Government of Australia, 2018)</p> <p>(1) The Australian Circular Fashion Conference, which focused on responsible fashion practices.</p> <p>(2) The Australian Water Partnership, Alliance for Water Stewardship, and Better Cotton Initiative are collaborating on improving water stewardship throughout the supply chain, so consumers know where their clothes come from and how they are made.</p> <p>(3) Australia’s Environment Ministers, together with the Australian Packaging Covenant Organization, agreed to make 100% of packaging reusable, recyclable, or compostable by 2025.</p> <p>(4) A waste to energy plant in Victoria converts 33,000 tons of food waste into energy powering a neighbouring sewerage treatment plant, with the surplus going into the grid.</p> <p>(5) The National Television and Computer Recycling scheme is targeting 80% of e-waste by 2026-2027.</p> <p>(6) The National Food Waste Strategy is aiming to halve the \$20 billion/year food waste by 2030, through circular economy approaches and heightened consumer awareness (e.g. through the Love Food, Hate Waste campaign).</p> <p>(7) Financial incentives supported establishment of an oil recycling</p> | <p>United Kingdom (Government of the United Kingdom of Great Britain and Northern Ireland, 2019)</p> <p>(1) The 25-year Environment Plan and a new Resources and Waste Management Strategy (2018) are designed to “maximize the value of resources used, minimize the amount of waste created, cut emissions, and help create a cleaner, greener, healthier planet”.</p> <p>(2) A landfill tax escalator has resulted in a 50-60% reduction in waste going to landfill. Under the Landfill Directive, the UK will reduce landfilling of biodegradable municipal waste to 35% of the 1995 level by 2020.</p> <p>(3) The UK Plastics Pact has brought together sources of over 80% of plastic packaging on the UK market targeting by 2025 (i) eliminating unnecessary single use packaging; (ii) 100% of plastic packaging to be reusable, recyclable, or compostable; (iii) 70% of plastic packaging to be effectively recycled or composted; and (iv) 30% average recycled content in all plastic packaging.</p> <p>(4) A Food Waste Reduction Roadmap has been introduced to achieve SDG12.3.</p> <p>(5) The Greening Government Commitments have achieved a 39% reduction in emissions, diverted 87% of waste from landfills, halved paper consumption, and reduced the number of domestic flights by 28%.</p> | <p>New Zealand (Government of New Zealand, 2019)</p> <p>New Zealand’s declared ambition is to “lead the world in environmental guardianship” and to transition to a circular economy. To this end, some of the key SCP initiatives underway include:</p> <p>(1) The New Zealand Plastic Packaging Declaration, in which business is committed to 100% reusable, recyclable or compostable packaging by 2025.</p> <p>(2) New Zealand has banned certain products containing microbeads and single-use plastic shopping bags, while developing a longer-term Plastics Action Plan.</p> <p>(3) New Zealand’s Sustainable Business Council has 91 member organizations representing 29% of the private sector GDP.</p> <p>(4) The tourism sector has launched the New Zealand Tourism Sustainability Commitment which aims at having all tourism businesses committed to sustainability by 2025.</p> <p>(5) Auckland’s Waste Management and Minimization Plan (2018) envisages New Zealand’s largest city to have zero waste by 2040.</p> |
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| <p>industry that recycled 286 million litres of oil in 2016-2017.</p> <p>(8) On the international stage, Australia is the largest donor to the Extractive Industries Transparency Initiative and the Extractives Global Programmatic Support trust fund in the World Bank.</p> | <p>(6) The Sustainable Clothing Action Plan is a voluntary, industry-led initiative aiming to minimize the environmental impacts of the clothing industry.</p> <p>(7) The UK Plan for Shipment of Waste more strictly controls waste destined for disposal, generally prohibiting both export and import.</p> | |
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3.9. The Framing of SCP for Vietnam from International Trends

Since its first adoption in the 1970s, SCP has evolved from an end-of-pipe solution to a lifecycle approach to the whole supply chain. Moreover, the application of SCP has become more holistic to address specific socioeconomic issues that countries are facing. For China, the circular economy has become the key instrument for socioeconomic transition to gradually evolve based on the capacities the industries have developed over the years. Eco-industrial parks have played an important role to concentrate the production to facilitate industry symbiosis in implementation stage. Resource efficiency is the key focus for Germany to constantly improve efficiency through a lifecycle approach in the programme design. To enhance SMEs' capacity in resource efficiency, Germany provided targeted support for SMEs. Japan considers achieving of a Sound Material-Cycle Society as the goal in SCP and has systematically developed and monitored indicators to measure progress over the years. Moreover, it incorporates challenges and emerging opportunities of Japanese society to address broader social issues. Green growth has been the focus for Korea to increase the global competitiveness of its industry with specific economic goals. Market share, green goods export, and job creation are the major objectives for Korea. For Malaysia, the main goal is to become a high-income country during the Eleventh Plan. SCP becomes the instrument to connect the dots of actions by different stakeholders to achieve green growth. Swedish experience shows that a good living environment for people and sustainable consumption are the major objectives backed by its ambitious target to be carbon neutral by 2045. Specific measures emphasize consumer knowledge improvement and innovative solutions.

Economic progress in Vietnam has generated multiple environmental and social challenges. The volume of CO₂ emissions has doubled from 4 million tons in 1980 to 80 million tons in 2005 (World Bank in Shahbaz, Haouas and Hoang, 2019). In a densely populated country, Vietnam is already facing challenges due to the lack of arable land and environmental degradation from rapid economic growth will keep adding pressure to the natural environment (Clausen, Vu and Pedrono, 2011). Extensive logging and slash and burn agricultural practices cause deforestation and soil degradation, water pollution threatens marine life, groundwater contamination limits potable water supplies, and air pollution damaging health, especially in rapidly-urbanizing and industrializing cities such as Hanoi and Ho Chi Minh, which provide ample evidence the environment is degrading rapidly (CIA, n.d.). Moreover, Vietnam is identified as among the 5 to 10 most climate-vulnerable countries in the world (Bruun, 2012) particularly because of the socioeconomic damages that would occur (McElwee et al., 2010) from natural disasters. Moreover, land degradation due to industrial development is making coastal zones more vulnerable to flooding (Davis, 2016). SMEs still have limited capacity to comply with environmental

laws and regulations in Vietnam. For instance, among the 615 industrial clusters, only 5% of the SMEs have concentrated wastewater treatment systems (ASEAN CSR Network, 2017). For social challenges, most of the population has benefited from the economic prosperity and yet some ethnic minority groups still have slower progress and a larger poverty rate compared to the national average (World Bank, 2018). The improved technological capacity of SMEs would be vital for the improvement of environmental and social issues, but also an opportunity for Vietnam to upgrade its industries to enhance its competitiveness in the global economy.

Based on the high political backing of SCP in Vietnam, the major tasks are on implementation. The vulnerability to climate change of Vietnam shows the shift towards SCP is an important task towards long term sustainability. The concept of a circular economy as a practical instrument would be useful help Vietnam's socioeconomic transition in the SCP implementation process. As an emerging economy, Vietnam should strengthen R&D capacity of enterprises to facilitate eco-innovation for global competitiveness and incorporate SCP into both import and export trade measures. Moreover, as urbanization is expanding in Vietnam, more focus on sustainable consumption targeting urban residents is vital during the rapid consumption pattern transition. Thus, SCP could be adopted in Vietnam's socioeconomic transition needs to holistically address emerging opportunities and challenges through the involvement of all actors in the society.



4. The approved National Action on Sustainable Consumption and Production for the period of 2021 – 2030

THE PRIME MINISTER

No.: 889/QĐ-TTg

SOCIALIST REPUBLIC OF VIETNAM

Independence – Freedom – Happiness

Hanoi, June 24th 2020

DECISION

Approving the National Action Plan on Sustainable Consumption and Production for the period of 2021-2030

THE PRIME MINISTER

Pursuant to Law on Organization of the Government dated June 19th 2015;

Pursuant to Decision no. 76/QĐ-TTg dated January 11th 2016 of the Prime Minister regarding approving the National Action Plan on Sustainable Consumption and Production (SCP) by 2020, with a vision to 2030.

Pursuant to Decision no. 622/QĐ-TTg dated May 10th 2017 of the Prime Minister regarding promulgating the National Action Plan on Implementation of the 2030 Agenda for Sustainable Development;

Pursuant to Decision no. 681/QĐ-TTg dated June 4th 2019 of the Prime Minister regarding promulgating the implementation roadmap for Vietnam’s Sustainable Development Goals (SDGs) by 2030;

At the request of Minister of Industry and Trade.

DECIDES

Article 1: Approve the National Action Plan on Sustainable Consumption and Production for the period of 2021-2030 (hereinafter referred to as the Plan) with the following main contents:

1. Viewpoints

- a) Sustainable consumption and production aims to achieve efficiency of economic development; protect the environment; reduce poverty and restructure the economy; promote the circular economy and sustainable development; implement sustainable consumption and production activities synchronously, with a focus on breakthrough actions; and supplement as well as mainstream contents into current relevant programmes.

- b) The Plan is developed as an approach to product life cycles, to enhance linkage among stages from exploitation of natural resources, fuel, materials to production, distribution, consumption and disposal, with a focus on repair and maintenance, reuse and recycling in stages of the product life cycle; attach importance to innovation and creativity, application of eco-friendly technologies, improvement of equipment, management process with the aim to effectively utilize natural resources, fuel, materials, reduce generation of waste; and promote production and consumption of domestic products.
- c) Sustainable consumption and production is conducted with participation and contribution of all sectors in the society, in which enterprises and consumers play a central role.

2. Objectives

a) General objectives

To promote efficient and sustainable management, exploitation and utilization of natural resources, fuel, materials; incentivize development of eco-friendly resources, fuel, materials, products which are renewable, reusable and recyclable; promote sustainable consumption and production on the basis of innovation, creativity, practice and development of sustainable consumption and production models; and promote sustainable consumption and production of domestic products, create stable and green jobs, enhance sustainable lifestyle and improve quality of people's life towards a circular economy in Vietnam.

b) Specific objectives

Period between 2021 and 2025

- Develop legal policy with regards to sustainable consumption and production, specifically: technical regulations, standards on sustainable production, sustainable design, ecological design, reuse-, recycle-oriented design for production sectors; technical regulations, standards on ecolabelling; standards on sustainable tourism; standards on eco-friendly material and products, recyclable products; elaborate at least 10 technical handbooks, and manuals on sustainable consumption and production; policy on promotion of production, distribution and consumption of eco-friendly packaging which replaces single-use, non-degradable plastic items; and regulations on green public procurement.
- A 5–8% decrease in resources and materials used for production sectors such as textile, steel, plastics, chemical, cement, alcohol and beer, beverage, paper and seafood processing;
- 70% of industrial parks, clusters, trade villages organize communication to raise awareness on sustainable consumption and production;
- Develop and apply 20–30 models of sustainable consumption and production; disseminate and replicate models of cleaner production, sustainable consumption and production;
- 80% of provinces and cities directly under the Centre organize communication to raise awareness on sustainable lifestyles and consumption;

- 85% of supermarkets, commercial centres distribute and use eco-friendly packaging which gradually replaces single-use, non-degradable plastic items; develop and promote sustainable supply chains; encourage distribution of eco-friendly, eco-labelled products at supermarkets and commercial centres;
- 70% of provinces and cities directly under the Centre develop relevant action plans for implementing the National Action Plan on Sustainable Consumption and Production or integrate contents of the Plan implementation into local policies, legal documents; 50% of provinces and cities assign a relevant body to take charge of and assume prime responsibility for the Plan implementation;
- Encourage mainstreaming of contents of sustainable consumption and production into training curricula at all levels of training.

By 2030

- Effectively improve and implement legal policies on sustainable consumption and production;
- A 7 – 10% decrease in resources and materials used by major production sectors such as textile, steel, plastic, chemical, cement, alcohol and beer, beverage, paper, seafood processing and some other production sectors;
- 100% of industrial parks, clusters, trade villages organize communication to raise awareness on sustainable consumption and production;
- Disseminate, replicate models of cleaner production, sustainable consumption and production;
- 100% of provinces and cities directly under the Centre organize communication, to raise awareness on sustainable lifestyles and consumption;
- 100% of supermarkets, commercial centres use eco-friendly packaging which gradually replace single-use, non-degradable plastic items;
- 90% of provinces and cities directly under the Centre develop relevant action plans for implementing the National Action Plan on Sustainable Consumption and Production or mainstream contents of the Plan implementation into their local policies, legal documents; 70% of provinces and cities assign relevant bodies to take charge of and assume prime responsibility for the Plan implementation.

3. Main tasks

a) Improve legal policies on promoting sustainable consumption and production

- Develop and improve policies, technical handbooks with regards to sustainable consumption and production, develop targets for assessing SDG 12 regarding sustainable consumption and production according to the 2030 Agenda for Sustainable Development;

- Finalize and improve legal instruments with regards to sustainable consumption and production; establish regulations on public procurement and extended corporate social responsibility; develop and apply regulations, standards and guidelines on ecolabelling including green label, energy label, carbon label, recyclable label and other kinds of ecolabels; formulate regulations and guidelines on sustainable design, ecological design, reuse-, recycle-oriented design; standardize linkage standards for products, services with purpose of saving natural resources, materials, fuel and reduction of waste in production and consumption;
- Develop and implement incentive policies for the green industry, environmental industry, waste recycling industry; formulate policies on promotion of investment, production, distribution, import, export of eco-friendly products, technologies; formulate policies on development of international trading and sustainable development in alignment with the roadmaps of international integration and commitment, performance of bilateral and multilateral trade agreements.

b) Sustainably manage, exploit and use resources, develop renewable, recyclable materials, and fuel

- Implement, provide technical manuals, and apply the most state-of-the-art methods, technologies, environmentally best practices, with the purpose of rational exploitation and reduced loss of resources in industrial sectors;
- Develop, apply and disseminate models of collection, reuse and recycling of waste, integrated management models of sustainable exploitation, processing and manufacturing, production and utilization of resources, materials, fuel and renewable energy for industrial sectors.

c) Sustainable design, ecological design, reuse-, recycle-oriented design

- Develop, instruct, train, disseminate, and replicate good models, practices of sustainable design, ecological design, reuse-, recycle-oriented design for textiles, handicrafts, packaging, household products and other potential products;
- Organize competitions and awards with regards to good initiatives, introduction of creative and sustainable design products which fully meet national and international regulations and standards.

d) Promote cleaner production, production of eco-friendly products, apply sustainable linkage models following product life cycles.

- Develop economic/technical norms, guidelines on audit of use efficiency of fuel, materials; apply, disseminate, and replicate good practices on efficient use of resources and cleaner production for production establishments in the sectors of textiles, steel, paper, plastics, chemicals, cement, alcohol/beer, beverages, electronics, food processing and other economic sectors;

- Support enterprises in developing sustainable business strategies; develop sustainable linkages following the product life cycle; develop, disseminate and replicate eco-innovation models in the sectors of food processing, beverages, leather footwear, packaging, and other economic sectors; develop technical manuals on good management of the product life cycle, chemical products according to international practices and commitments;
- Develop, apply, disseminate, and replicate industrial symbiosis models; model of sustainable industrial parks, clusters, trade villages; develop sustainable linkage networks between handicraft production and industrial production;
- Support enterprises in building capacity with the aim to implement technical requirements, regulations on environment and sustainable development for relevant stakeholders of the supply chain; develop manuals, training materials, and provide support in implementing and replicating models of sustainable supply chains, traceability-based supply chains; models of organic agriculture and sustainable farming;
- Support in developing, applying, disseminating, and replicating good practices of cleaner production; models of efficient water management and use; models of reduction, collection, reuse and recycling of waste; and circular economy models of resources, fuel, materials in production and consumption.

e) Develop system of sustainable distribution, sustainable import/export

- Establish and develop the logistics service system of green, sustainable distribution including green logistics centres, green warehouse system, as well as promote the use of clean, eco-friendly biofuel in delivery and transport of goods;
- Encourage manufacturing and use of eco-friendly means of transport which generates low greenhouse gas emissions; develop and implement solutions for developing and expanding the market share of public passenger transport in cities, urban areas, the market share of water-based cargo transport, as well as coastal and rail transport, apply exhaust gas treatment technologies, new technologies, new energies in replacement of traditional fuels, use eco-friendly fuel in the transport sector, with priority for public transport.
- Support to establish service centres for repair, maintenance, restoration, withdrawal of used products; pilot the model of leasing products and equipment following the sharing economy model with activities covering production, distribution, lease, maintenance, repair, replacement, restoration, and withdrawal conducted by relevant manufacturers;
- Develop and organize a sustainable linkage system between distributors, retailers and suppliers of eco-friendly materials, goods, products; design a green stand area to introduce eco-friendly products; promote sustainable distribution and consumption of eco-friendly domestic products; and limit use of single-use, non-degradable plastic items at wet markets, supermarkets & commercial centres, and outlet stores of enterprises;
- Develop criteria, guidelines on certification of sustainable distributors, enterprises; certification and labelling of green commercial building; as well as provide information to identify green and sustainable distribution channels and systems;
- Instruct and implement models of using eco-friendly materials and products; reduce, collect and reuse wastes; apply eco-friendly, energy-efficient solutions at commercial centres & supermarkets, and outlet stores of enterprises;

- Support enterprises in implementing sustainable import/export activities; develop manuals for enterprises with regards to international requirements, regulations, commitments on environmental protection and sustainable development; provide information on eco-friendly, eco-labelled markets, products.

f) Promote labelling and certification of ecolabels

- Establish, operate the system of ecological certification and labelling including green label, energy label, carbon label, recycling label, and other kinds of ecolabels;
- Develop and apply methodologies, tools for assessing, calculating emissions according to the product life cycle, tools for calculating consumption of fuel, materials;
- Develop manuals, training materials on ecolabels; regulations, requirements on ecolabels for export markets of Vietnam; communicate, provide information, build capacity on ecolabelling for enterprises, organizations and consumers;
- Develop, apply and operate the certification system of a sustainable tourism label, green label for tourist accommodation establishments, restaurants which satisfy tourist service standards; green label for construction structures, commercial centre buildings.

g) Promote development of sustainable markets and provide information for consumers

- Develop manuals and instructions to apply and disseminate good practices of sustainable market access and development; provide instruction to communicate sustainable consumption for organic products, ecolabel products, and eco-friendly products;
- Develop and implement activities of trade promotion, supply/demand matching, promotion and marketing of eco-friendly products, organic products, ecolabel products in specialized and integrated trade fairs;
- Develop manuals on preparing reports on sustainable development in accordance with international practices and national regulations, provide information about sustainable production and business for consumers.

h) Promote sustainable procurement

- Develop manuals and instructions to apply sustainable procurement for ecolabels, eco-friendly products in alignment with international and national regulations;
- Instruct, disseminate and replicate good practices of green public procurement.

i) Build capacity, enhance education and implement sustainable lifestyles

- Develop and apply models of sustainable lifestyles, guide good practices of sustainable lifestyles; organize communication, mobilization to follow sustainable lifestyles, harmonize with the nature and protect the environment;
- Develop and implement good models, practices of sustainable tourism, combine with marketing and introduction of traditional and eco-friendly products;
- Develop national, international short-term, online training curricula with regards to sustainable consumption and production; integrate contents of sustainable consumption and production into training curricula at all levels;

- Organize activities for training and capacity building with regards to sustainable consumption and production for relevant organizations, entities and enterprises;
- Organize activities for capacity building with regards to development and implementation of instruments, policies of sustainable consumption and production; integrate and mainstream such contents into current training, as well as further training programmes by ministries, sectors, and localities.

j) Promote application of circular economy for waste

- Promote application, dissemination and replication of models for classifying, collecting, reusing, recycling waste; develop training materials, deliver training, communication, and guidelines on implementation of circular economy models for waste, particularly waste in sectors of agriculture, fisheries, electronics, chemicals, thermal power, plastics, paper, construction materials and waste of other economic sectors;
- Promote supply/demand matching, market development for environmental products and technologies, recycle products and technologies and low-carbon technologies;
- Step-by-step development and application of circular economy models in consumption activities, and encourage a change from goods consumption and ownership to service consumption and use in life.

k) Promote communication on sustainable consumption and production

- Develop manuals and handbooks, as well as disseminate policies, laws, knowledge and information on sustainable consumption and production;
- Organize communication and raise awareness of sustainable consumption and production for organizations, entities and enterprises, consumers at central and local levels.

l) Develop a database system on sustainable consumption and production

- Develop a system, a centre for the database, and information on sustainable consumption and production, as well as develop an online platform to connect the Vietnamese network of sustainable consumption and production with regional and international networks;
- Develop a connected platform, promote application of modern, digital technology, e-commerce solutions for dissemination, provide matching of supply and demand for ecolabels, eco-friendly technologies, and products; develop a sustainable supply chain; and develop and apply a traceability system;
- Promote application of information technology, artificial intelligence in management of waste sources and application of biotechnology in waste treatment; develop robotics and artificial intelligence, state-of-the-art design technology to reduce consumption of resources, materials, fuel; apply electronic information systems which use codes, barcodes for purpose of traceability, and transparent information for consumers;
- Develop a database to conduct the circular economy model for energy, materials and waste in industrial parks, clusters, and economic zones.

m) Develop science and technology to promote sustainable consumption and production

- Develop and implement the focal scientific and technological programme for sustainable consumption and production, circular economy from 2021 to 2030; provide support for studying and applying modern and innovative science, technology in the field of sustainable consumption and production;
- Organize matching events and participate in national and international workshops, conferences with regards to research, development, and application of modern technologies in the field of sustainable consumption and production, as well as promotion of circular economy.

n) Promote access to and support of green finance

- Develop, improve green finance instruments, policies with the aim to promote models of sustainable consumption and production; support funds for production of eco-friendly, recyclable products;
- Develop manuals, handbooks, build capacity of green finance aiming to promote sustainable consumption and production; provide support to relevant enterprises, organizations so they can access green finance;
- Develop cooperative networks for national and international partners with regards to green finance with the aim of promoting sustainable consumption and production, as well as circular economy.

o) Promote international cooperation on sustainable consumption and production

- Develop a platform for connection between national and international sustainable consumption and production; promote a circular economy, organize and participate in regional and international networks, forums, workshops with regards to sustainable consumption and production;
- Develop a sustainable matching programme between national enterprises & organizations and international entities in the field of sustainable consumption and production in alignment with international integration regulations and commitments.

4. Implementation solutions

a) Implementation of the Plan

Implement prioritized activities of the Plan in a synchronous, effective manner; mainstream and integrate the Plan's tasks into national strategies on green growth, national action plans for implementation of the 2030 Agenda for Sustainable Development and national programmes and plans, as well as those of relevant ministries, sectors, and localities.

b) Ministries, ministerial-level agencies, and governmental agencies rely on their assigned tasks & functions to review, mainstream, and integrate contents of sustainable consumption and production into development strategies and plans of the relevant sectors and fields, as well as further promoting the implementation of contents for sustainable consumption and production in current relevant programmes.

c) Implementation of funds for the Plan

- Funds for the Plan are mobilized from various sources including state budget, assistance funds, donor funds, investment funds of national and international organizations, enterprises, individuals and other legal funds;
- Ministries, sectors, and localities according to their assigned functions and tasks, are responsible for mobilizing and managing the funds raised from the aforementioned sources in line with current regulations in order to implement the Plan's tasks;
- On an annual basis, arrange funds from the state budget for implementation of the Plan's tasks.

Article 2. Implementation organization

1. Ministry of Industry and Trade assumes prime responsibility, and coordinates with relevant ministries, sectors, and localities to:

- Organize implementation of prioritized tasks and activities of the Plan; develop annual plans for the Plan implementation;
- Develop and improve policies, regulations, standards on ecolabels, sustainable design, ecological design, reuse-, recycle-oriented design; policies on promoting production and consumption of ecolabels, eco-friendly products; policies on sustainable distribution, trade promotion, and sustainable imports/exports; policies on development of green industry, environmental industry, and waste recycling industry towards a circular economy; and formulate other relevant legal regulations on sustainable consumption and production in line with state management functions, and tasks of the Ministry of Industry and Trade;
- Develop and provide guidance to implement, apply, and disseminate models of efficient use of resources and cleaner production, models of sustainable design, ecological design, reuse-, recycle-oriented design, models of sustainable consumption and distribution; improve competitiveness, and promote the export of products for sustainability, circular economy and other models of production and consumption in line with state management functions & tasks of the Ministry of Industry and Trade;
- Develop and implement international cooperation programmes, develop a database and information system, build capacity and enhance communication on sustainable consumption and production in line with state management functions & tasks of the Ministry of Industry and Trade;
- Encourage, monitor, and examine Plan implementation; on an annual basis, summarize the situation and report to the Prime Minister; organize preliminary summaries, final summaries, review of results, effectiveness of the Plan implementation and propose to the Prime Minister ways to revise and supplement contents & tasks of the Plan if necessary.

2. Ministries, sectors of: Natural Resources and Environment; Planning and Investment; Education and Training; Agriculture and Rural Development; Construction; Information and Communication; Labour, Invalids and Social Affairs; Transport; Science and Technology; Culture, Sports and Tourism; Foreign Affairs; and the State Bank of Vietnam are responsible for developing plans and organizing implementation of relevant tasks of sustainable consumption and production mentioned in the Plan.

3. Ministry of Finance is responsible for balancing and arranging annual funds for implementing the contents of the Plan according to legal regulations on the state budget.

4. People's Committees of provinces, cities directly under the Centre

- Proactively organize the Plan implementation; develop relevant action plans and finalize the Plan's tasks to ensure mainstreaming into relevant local socioeconomic development plans on five-yearly and annual bases;
- Raise funds from local budgets and other legal sources for implementing the Plan's tasks in relevant localities in line with regulations;
- Monitor, encourage and examine implementation of assigned tasks of the Plan; submit annual reports to Ministry of Industry and Trade for synthesis, and report to the Prime Minister.

5. Responsibilities of socio-professional organizations, relevant associations, agencies, enterprises, communities and individuals: proactively propose and coordinate with ministries & other sectors in implementing communication and awareness-raising programmes with regards to sustainable consumption and production; provide support and participate in implementation of sustainable consumption and production activities in alignment with functions and tasks.

Article 3. This Decision takes effect from the signing date.

Article 4. Ministers, Heads of ministerial-level agencies, Heads of Governmental agencies, Chairmen of People's Committees of provinces, cities directly under the Centre and relevant organizations and individuals are responsible for implementing this Decision./.

Recipients:

- Secretariat of Party Central Committee;
- Prime Minister, Deputy Prime Ministers of the Government;
- Ministries, ministerial-level agencies, Governmental agencies;
- People's Council, People's Committee of provinces, cities directly under the Centre;
- Central Office and Commissions of the Party;
- Office of the State President;
- Council of Ethnic Affairs and Committees of the National Assembly;
- Office of the National Assembly;
- National Financial Supervisory Commission;
- State Audit Office of Vietnam;
- Central Committee of Fatherland Front of Vietnam;
- Central agency of mass organizations;
- Vietnam Chamber of Commerce and Industry;
- Vietnam Environmental Industry Association;
- Vietnam Consumers Protection Association;

**FOR THE PRIME MINISTER
THE DEPUTY PRIME MINISTER**

(signed and sealed)

Trinh Dinh Dung

- Office of the Government: Minister – Chairman; Vice Chairmen, Assistant to the Prime Minister, General Director of electronic portal, subordinate departments, divisions, units;
- - Archive: Secretariat, Accounting – General Affairs (03 copies).

Appendix

THE LIST OF PRIORITIZED ACTIVITIES, TASKS FOR IMPLEMENTATION OF THE NATIONAL ACTION PLAN ON SUSTAINABLE CONSUMPTION AND PRODUCTION IN THE PERIOD OF 2021-2030

(In attachment with Decision no. 889/QĐ-TTg dated June 24th 2020 of the Prime Minister)

1. Develop and improve policies on sustainable consumption and production

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| a Objective | Promote implementation of national, international regulations, implement SDGs, efficiently manage implementation of the Plan of Sustainable Consumption and Production; create legal avenues to incentivize participation of individuals, organizations, enterprises in conducting sustainable consumption and production. |
| b Main contents | <ol style="list-style-type: none">1. Develop manuals, handbooks on sustainable consumption and production, promote circular economy; guide to develop implementation plans, mainstream contents of sustainable consumption and production into current policies, documents.2. Develop the system of implementation evaluation norms for SDG 12 with regards to sustainable consumption and production.3. Develop, improve, implement policies, specifically:<ol style="list-style-type: none">a. Policies, standards, guidelines on ecolabels, sustainable design, ecological design, reuse-, recycle-oriented design;b. Criteria on recyclable products; policies on development of green industry, environmental industry, waste recycling industry;c. Policies on promotion of production, distribution, import, export of eco-friendly products in alignment with roadmaps of international integration and commitments;d. Develop incentive policies, regulations on green public procurement;e. Develop regulations and roadmaps for applying incentives to contractors who use eco-labelled products in the field of bidding, procurement;f. Develop regulations, mechanisms on extended responsibilities of manufacturers; revise regulations and standards on import of waste and refused materials as raw materials according to Vietnamese and international laws;g. Develop and promulgate the list of green-labelled products;h. Policies, standards on sustainable tourism.4. Develop local action plans for implementing the Plan, mainstream contents of sustainable consumption and production into local policies, documents. |
| c Presiding and coordinating entities | - Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 1, 2, 3a, 3b & 3c; coordinate in implementing other relevant tasks. |

- Ministry of Natural Resources and Environment: assume prime responsibility for implementing tasks no. 3e & 3g; coordinate in implementing other relevant tasks.

- Ministry of Finance: assume prime responsibility for implementing the task no. 3d (for non-business budget).

- Ministry of Planning and Investment: assume prime responsibility for implementing task no. 3d (for development investment budget) and no. 3e, coordinate in implementing other relevant tasks.

- Ministry of Culture, Sports and Tourism: assume prime responsibility for implementing task no. 3h; coordinate in implementing other relevant tasks.

- People's Committees of provinces, cities directly under the Centre: assume prime responsibility for implementing the task no. 4; coordinate in implementing other relevant tasks.

d Implementation duration 2021 – 2030

2. Sustainably exploit and use natural resources, develop renewable, recyclable fuels, materials

a Objective Promote sustainable exploitation and use of natural resources, develop renewable, recyclable fuels, materials in response to production requirements.

b Main contents 1. Develop, research and disseminate methods, technologies, models of collection, reuse, recycle of waste; apply the state-of-the-art technologies, best practices of environmental management in the sectors of mining, metallurgy, processing and manufacturing.

2. Develop, guide, disseminate models of rational management, exploitation and economic, sustainable use of natural resources; integrated management models of sustainable exploitation, use at mineral mines.

c Presiding and coordinating entities - Ministry of Industry and Trade: assume prime responsibility for implementing the task no. 1; coordinate in implementing other relevant tasks.

- Ministry of Natural Resources and Environment: assume prime responsibility for implementing task no. 2; coordinate in implementing other relevant tasks.

d Implementation duration 2021 – 2030

3. Ecological design, sustainable design, reuse-, recycle-oriented design

a Objective Promote ecological design, sustainable design, reuse-, recycle-oriented design, contribute to decreased greenhouse gas emissions according to product life cycles, improve competitiveness, promote sustainable exports.

b Main contents 1. Develop technical manuals, training materials on application of models of sustainable design, ecological design, reuse-, recycle-oriented design for potential products which have advantages of export, such as packaging, beverages, textiles, handicrafts, household furniture products.

2. Disseminate, introduce products of sustainable design, ecological design, reuse-, recycle-oriented design.

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| c Presiding and coordinating entities | <p>- Ministry of Industry and Trade: assume prime responsibility for implementing task no. 1; coordinate in implementing other relevant tasks.</p> <p>- Vietnam Environmental Industry Association: assume prime responsibility for implementing task no. 2; coordinate in implementing other relevant tasks.</p> |
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| d Implementation duration | 2021 – 2030 |
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4. Promote cleaner production, production of eco-friendly products and application of sustainable models and linkages following product life cycles

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| a Objective | Apply solutions, approaches to product life cycles to promote innovative activities in production, business, enhance sustainable linkage with the aim to efficiently, sustainably use resources and energies, protect the environment, contribute to higher efficiency of production and competitiveness. |
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| b Main contents | <ol style="list-style-type: none"> 1. Develop economic/technical norms, guidelines on audit of use efficiency of resources, materials, fuel, energies for production establishments, enterprises of food, seafood processing, plastics, paper, textiles, leather footwear, alcohol, beer, beverage, packaging, chemicals, furniture, and construction materials. 2. Support enterprises in developing sustainable business strategies; develop sustainable networks following product life cycles; develop, disseminate and replicate models of ecological innovation for enterprises in production sectors, give priority to the sectors of food processing, beverages, leather footwear, packaging. 3. Develop, apply, disseminate, and replicate model of eco- and sustainable industrial clusters. 4. Develop, disseminate, and replicate models of eco-industrial parks. 5. Support enterprises in satisfying technical requirements, regulations on environment and sustainable development of parties involved in the global supply chain; conduct traceability of products, especially exported products in line with international requirements and regulations; conduct good management of chemical life cycles in line with international regulations and commitments. 6. Develop manuals, handbooks, training materials, support to implement and replicate models of sustainable trade villages, models of sustainable supply chain, traceability-based supply chains; models of organic agriculture. 7. Develop the network for linkage, cooperation in sustainable consumption and production in the supply chains. 8. Support to develop, apply, disseminate and replicate good models, examples of efficient use of resources and cleaner production; models of management, collection, reuse of water and efficient use of water; models of waste recycling, models of circular economy for materials and energies. |
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| c Presiding and coordinating entities | <p>- Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 1, 2, 3, 5 & 8; coordinate in implementing other relevant tasks.</p> <p>- Ministry of Agriculture and Rural Development: assume prime responsibility for implementing task no. 6; coordinate in implementing other relevant tasks.</p> |
|---------------------------------------|--|

- Ministry of Planning and Investment: assume prime responsibility for implementing task no. 4; coordinate in implementing other relevant tasks.

- People's Committees of provinces, cities directly under the Centre: assume prime responsibility for task no. 7; coordinate in implementing other relevant tasks.

d Implementation duration 2021 – 2030

5. Develop system of sustainable distribution, sustainable imports/exports

a Objective Green the distribution system of products, goods, develop sustainable distribution channels; promote import and export of eco-friendly products.

b Main contents

1. Establish and develop the logistics service system for green and sustainable distribution including green logistics centres, green warehouses and delivery of goods, promote the use of clean, eco-friendly biofuel in delivery and transport of goods.
2. Encourage to produce, use eco-friendly transport vehicles; reduce greenhouse gas emissions; use clean, eco-friendly biofuel in logistics and transport of goods and services; apply exhaust gas treatment technologies, modern technologies, renewable energies in replacement of traditional fuels, change fuel use in the transport sector.
3. Establish and develop the network for sustainable linkage and cooperation between retailers and suppliers of eco-friendly products.
4. Develop manuals, handbooks on reduction, collection, reuse of waste; use eco-friendly materials, products, packaging; apply eco-friendly solutions, solutions for collection, reduction and reuse of waste, solutions of energy efficiency at distribution centres, facilities; solutions of green labels for commercial buildings; organize to guide, disseminate, replicate good models, practices of green and sustainable distribution; guide enterprises, distributors with regards to green labels for green commercial buildings.
5. Develop criteria, guidelines on certification of sustainable distributors; provide information for customers to identify green, sustainable distribution systems, channels.
6. Guide to apply and replicate models of distribution and use of eco-friendly, ecolabel products, especially those which replace single-use, non-degradable plastic items at supermarkets, commercial centres.
7. Support enterprises in implementing sustainable import/export, develop manuals for enterprises with regards to international commitments on environmental protection and sustainable development, support, provide information on eco-friendly, ecolabel markets, products.

c Presiding and coordinating entities

- Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 1, 4, 5, 6 & 7; coordinate implementation of other relevant tasks.
- Ministry of Transport: assume prime responsibility for implementing task no. 2; coordinate implementation of other relevant tasks.
- People's Committees of provinces, cities directly under the Centre: assume prime responsibility for implementing task no. 3; coordinate in implementing other relevant tasks.

d Implementation duration 2021- 2030

6. Promote ecolabelling and certification of ecolabels

a Objective Raise awareness, knowledge of ecolabels and promote sustainable production, consumption and export of eco-friendly products meeting international regulations, requirements on ecolabelling for export markets of Vietnam.

b Main contents

1. Develop, guide to apply and operate the system of certification of recyclable label, carbon label for products, especially potential ones which are planned for exportation.
2. Provide, disseminate information, build capacity with regards to ecolabel for enterprises, organizations and consumers.
3. Promote to implement the activity of ecolabelling and certification of ecolabels for eco-friendly products.
4. Develop, guide to certificate and apply green, sustainable tourism label.
5. Implement the activity of ecolabelling and certification of ecolabel for industrial parks which meet criteria on eco-industrial park and for enterprises in the industrial park which meet criteria on eco-industrial enterprise.
6. Develop manuals, guidelines on applying tools for calculating consumption rate of fuel, materials; tools for calculating emissions according to the product life cycles.

c Presiding and coordinating entities

- Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 1, 2 & 6; coordinate implementation of other relevant tasks.
- Ministry of Natural Resources and Environment: assume prime responsibility for implementing task no. 3; coordinate implementation of other relevant tasks.
- Ministry of Culture, Sports and Tourism: assume prime responsibility for implementing task no. 4; coordinate implementation of other relevant tasks.
- Ministry of Planning and Investment: assume prime responsibility for implementing task no. 5; coordinate implementation of other relevant tasks.

d Implementation duration 2021 - 2030

7. Develop sustainable markets, provide information for consumers

a Objective Build capacity of identification, provide information on eco-friendly products, ecolabel products, contribute to promoting sustainable consumption; improve, enhance position and competitiveness of enterprises which manufacture eco-friendly products.

b Main contents

1. Develop manuals, support enterprises in approaching to and developing sustainable markets.
2. Provide information, guidelines, dissemination for consumers with regards to organic products, ecolabel products, eco-friendly products.

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| | <p>3. Develop and implement activities of trade promotion, supply and demand matching, marketing of eco-friendly products at integrated and specialized trade fairs.</p> <p>4. Develop manuals, support enterprises in preparing reports on sustainable development in alignment with international practices and Vietnamese regulations, provide information on sustainable production activities for relevant stakeholders.</p> |
| c Presiding and coordinating entities | <p>- Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 1 & 3; coordinate implementation of other relevant tasks.</p> <p>- Vietnam Consumers Protection Association: assume prime responsibility for implementing task no. 2; coordinate implementation of other relevant tasks.</p> <p>- Vietnam Chamber of Commerce and Industry: assume prime responsibility for implementing task no. 4; coordinate implementation of other relevant tasks.</p> |
| d Implementation duration | 2021 – 2030 |

8. Sustainable procurement

| | |
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| a Objective | Promote application of sustainable procurement, establish sustainable consumption habits; create motivation for manufacturing of eco-friendly products. |
| b Main contents | <p>1. Develop manuals, provide guidelines, dissemination with regards to sustainable procurement for ecolabel products, give priority to energy label, ecolabel products in line with national and international regulations.</p> <p>2. Disseminate, provide guidance on green public procurement.</p> |
| c Presiding and coordinating entities | <p>- Ministry of Industry and Trade: assume prime responsibility for implementing task no. 1; coordinate implementation of other relevant tasks.</p> <p>- Ministry of Finance: assume prime responsibility for implementing task no. 2 (for non-business budget); coordinate implementation of other relevant tasks.</p> <p>- Ministry of Planning and Investment: assume prime responsibility for implementing task no. 2 (for development investment budget).</p> |
| d Implementation duration | 2021 – 2030 |

9. Build capacity, enhance education and promote sustainable lifestyles

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| a Objective | Build capacity, technical qualifications, skills with regards to sustainable consumption and production; promote to conduct sustainable lifestyles, in harmonization with the nature and environmental protection. |
| b Main contents | <p>1. Develop manuals, handbooks on sustainable tourism; organize the implementation of models for sustainable tourism, ecotourism in combination with introduction of traditional, eco-friendly products.</p> <p>2. Guide, educate, disseminate, and practice sustainable lifestyles, in harmony with nature and to protect the environment.</p> |

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| | <p>3. Organize activities of capacity building with regards to developing and implementing polices, tools of sustainable consumption and production; mainstream and integrate contents of sustainable consumption and production into training, further training programmes of ministries, sectors, localities.</p> <p>4. Develop and organize short-term training courses, national and international online training courses with regards to sustainable consumption and production; training courses on efficient use of resources and cleaner production, ecolabel, and sustainable design, on access to and development of sustainable markets.</p> <p>5. Develop and mainstream contents of sustainable consumption and production into training, teaching for curricula, majors of university and other levels.</p> <p>6. Develop and mainstream contents of sustainable consumption and production into vocational education and training.</p> <p>7. Develop training programmes, organize training courses on sustainable tourism.</p> |
| c Presiding and coordinating entities | <ul style="list-style-type: none"> - Ministry of Culture, Sports and Tourism: assume prime responsibility for implementing tasks no. 1 & 7; coordinate implementation of other relevant tasks. - Vietnam Consumers Protection Association: assume prime responsibility for implementing task no. 2 in line with type of business; coordinate implementation of other relevant tasks. - Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 3 & 4; coordinate implementation of other relevant tasks. - Ministry of Education and Training: assume prime responsibility for implementing task no. 5; coordinate implementation of other relevant tasks. - Ministry of Labour, Invalids and Social Affairs: assume prime responsibility for implementing task no. 6; coordinate implementation of other relevant tasks. |
| d Implementation duration | 2021 – 2030 |

10. Promote circular economy for waste

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| a Objective | Promote the circular economy, contribute to efficient use of energy and materials, fuel, environmental protection. |
| b Main contents | <p>1. Develop manuals, train, disseminate, guide to implement models of circular economy which promotes efficient use of energy and materials, fuel in the sectors of food processing, beverage, textile, leather footwear, plastics, paper, electronics.</p> <p>2. Disseminate and replicate good practices of collection, reduction and reuse of waste.</p> <p>3. Match supply with demand, develop consumption markets, environmental technologies, recyclable, low-carbon products.</p> |
| c Presiding and coordinating entities | <ul style="list-style-type: none"> - Ministry of Industry and Trade: assume prime responsibility for implementing task no. 1; coordinate implementation of other relevant tasks. - Ministry of Natural Resources and Environment: assume prime responsibility for implementing task no. 2; coordinate implementation of other relevant tasks. |

- Vietnam Environmental Industry Association: assume prime responsibility for implementing task no. 3; coordinate implementation of other relevant tasks.

d Implementation duration 2021 – 2030

11. Communication on sustainable consumption and production

a Objective Raise awareness of community, enterprises, organizations, individuals with regards to sustainable consumption and production.

b Main contents 1. Develop manuals, handbooks, organize communication, dissemination of policies, laws, knowledge, information with regards to sustainable consumption and production.

2. Develop materials, communicate, disseminate to raise awareness of efficient use of resources, sustainable design, sustainable production, sustainable distribution, sustainable imports/exports, sustainable market development, sustainable procurement and sustainable waste management, promote circulation of materials, fuel in production and consumption; of science, technology to promote sustainable consumption and production.

3. Organize activities on information, communication, awareness raising with regards to sustainable lifestyle and consumption, concretize contents of efficient and economic use of natural resources and energies, good practices of reduction, collection, reuse of waste, eco-friendly, ecolabel products, distribution centres, tourist establishments, construction buildings with green label for enterprises, organizations and consumers.

4. Develop materials, organize communication, dissemination of policies, laws, good models and practices of sustainable consumption and production at localities.

c Presiding and coordinating entities - Ministry of Communication and Information: assume prime responsibility for implementing task no. 1; coordinate implementation of other relevant tasks.

- Ministry of Industry and Trade: assume prime responsibility for implementing task no. 2; coordinate in implementing other relevant tasks.

- Vietnam Consumers Protection Association: assume prime responsibility for implementing task no. 3; coordinate implementation of other relevant tasks.

- People's Committees of provinces, cities directly under the Centre: assume prime responsibility for implementing task no. 4; coordinate implementation of other relevant tasks.

d Implementation duration 2021–2030

12. Develop the database, apply modern information technology to promote sustainable consumption and production

a Objective Establish and develop the modern database to meet requirements of management, practice of sustainable consumption and production.

b Main contents 1. Develop the database, information system with regards to sustainable consumption and production.

2. Develop a platform to establish a connection between Vietnamese networks on sustainable consumption and production, and regional and international networks; develop

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| | <p>a platform for connecting, supporting enterprises in applying digital technologies, e-commercial solutions for sustainable production, business and sustainable supply chain linkages.</p> <p>3. Develop, implement an electronic portal, system of traceability, apply electronic information system using codes, barcodes for traceability of eco-friendly products.</p> <p>4. Support and provide guidance to apply and disseminate smart technology solutions of Vietnamese digital companies to promote sustainable consumption and production.</p> <p>5. Promote the application of information technology, artificial intelligence in management of waste and apply biotechnology in waste treatment; develop robotics and apply artificial intelligence, modern design technology to reduce use of materials and resources.</p> <p>6. Develop the database to implement the model of circular economy for materials, waste, energy sources for industrial parks & economic zones.</p> |
| c Presiding and coordinating entities | <p>- Ministry of Industry and Trade: assume prime responsibility for implementing tasks no. 1, 2 & 3; coordinate implementation of other relevant tasks.</p> <p>- Ministry of Science and Technology: assume prime responsibility for implementing task no. 4; coordinate implementation of other relevant tasks.</p> <p>- Ministry of Information and Communication: assume prime responsibility for implementing task no. 5; coordinate implementation of other relevant tasks.</p> <p>- Ministry of Planning and Investment: assume prime responsibility for implementing task no. 6; coordinate implementation of other relevant tasks.</p> |
| d Implementation duration | 2021 – 2030 |

13. Science, technology for sustainable consumption and production

| | |
|---------------------------------------|---|
| a Objective | Promote innovation and apply modern science, technology towards a circular economy with the aim to improve efficiency of production, enhance efficient and sustainable use of natural resources and environmental protection. |
| b Main contents | <p>1. Develop focal scientific, technological programmes to promote sustainable consumption and production in the period of 2021 – 2030.</p> <p>2. Research, apply modern and innovative science, technology in sustainable consumption and production.</p> <p>3. Organize national, international workshops, and conferences on technologies related to sustainable consumption and production, promotion of circular economy.</p> |
| c Presiding and coordinating entities | <p>- Ministry of Science and Technology: assume prime responsibility for implementing tasks no. 1 & 3; coordinate implementation of other relevant tasks.</p> <p>- Ministry of Industry and Trade: assume prime responsibility for implementing task no. 2; coordinate implementation of other relevant tasks.</p> |
| d Implementation duration | 2021 – 2030 |

14. Green finance for sustainable consumption and production

| | | |
|---|-------------------------------------|--|
| a | Objective | Create favourable conditions for enterprises, organizations, and entities to access funds for sustainable production, business activities, implementation of models of sustainable consumption and production. |
| b | Main contents | 1. Develop manuals, handbooks & training materials, and apply green finance for implementing models of sustainable consumption and production. 2. Support and connect relevant enterprises & organizations to access green finance for implementing models of sustainable consumption and production. |
| c | Presiding and coordinating entities | - State Bank of Vietnam: assume prime responsibility for implementing task no. 1; coordinate in implementing other relevant tasks. - Ministry of Industry and Trade: assume prime responsibility for implementing task no. 2; coordinate implementation of other relevant tasks. |
| d | Implementation duration | 2021 – 2030 |

15. International cooperation in sustainable consumption and production

| | | |
|---|-------------------------------------|---|
| a | Objective | Attract international resources for implementing sustainable consumption and production in Vietnam. |
| b | Main contents | 1. Develop a platform for connecting sustainable consumption and production, implement international cooperation programmes with the aim to provide information, disseminate knowledge, experience and good practices with regards to sustainable consumption and production; promote a circular economy. 2. Develop, mainstream contents of sustainable consumption, production into bilateral and multilateral international cooperation programmes. |
| c | Presiding and coordinating entities | - Ministry of Industry and Trade: assume prime responsibility for implementing task no. 1; coordinate implementation of other relevant tasks. - Ministry of Foreign Affairs: assume prime responsibility for implementing task no. 2; coordinate implementation of other relevant tasks. |
| d | Implementation duration | 2021 - 2030 |

5. SDG interlinkages analysis for the National Action Plan on Sustainable Consumption and Production in Vietnam

5.1 Position of the SDG interlinkage analysis in the development of the NAP on SCP in Vietnam

Sustainable consumption and production aims to satisfy basic needs for all and provide a better quality of life not only for the current generation but also for future generations. This can be achieved through the provision and use of goods and services while minimising the use of natural resources and toxic materials as well as reducing any emissions and pollutants over the lifecycle of a particular product, a concept provided by the Oslo Symposium (1994). By cutting across the three dimensions of sustainable development, namely social, economic and environmental aspects, and meeting broad development objectives, SCP has the potential to serve as a practical means for achieving the Sustainable Development Goals (SDGs) (Zhou, et al., forthcoming).

Adopted by world leaders in 2015, the SDGs have been recognised as an overarching framework with actionable targets guiding national development strategies and sectoral plans at the global and national levels. Most countries are at varying stages of integrating the SDGs into their national and sectoral development plans. The SCP sector is a clear example where alignment with the SDGs is an urgent requirement. While the SDGs include a stand-alone goal (Goal 12) on SCP, the cross-cutting nature of this sector suggests that how the strategies and implementation plans for consumption and production are designed will affect many other sectors and developmental objectives. Depending on a range of factors including the past trends of a country's consumption and production patterns and the design of SCP plans, the effect on other sectors can be either positive (synergistic) or negative (causing trade-offs). An integrated approach takes full account of synergies and trade-offs and this is indispensable to guarantee policy integrity across all sectors, ensuring that no one is left behind. It is essential to embrace the interlinkages between SCP and other SDGs in national action plans to achieve sustainability from both scientific and practical perspectives.

In this regard, on the one hand, successful implementation of the NAP on SCP in Vietnam depends on progress made in achieving the broader SDGs. For example, sustainable management and efficient use of natural resources (SDG Target 12.2) is an important target and one of the main tasks under the approved NAP on SCP. Meeting this target depends on the progress made in achieving Targets 6.4 and 6.a on the increase of water-use efficiency across all sectors, Targets 7.3 and 7.a on energy efficiency improvement, and Target 8.4 on the improvement of resource efficiency in consumption and production, and decoupling economic growth from environmental degradation, to name a few. On the other hand, implementing the NAP on SCP may have an impact on whether many other SDG goals and targets are achieved. Conservation and efficient use of resources enable sufficient and stable provision of goods. With equitable allocation, SCP can help address basic needs for all, thus achieving zero hunger and

ending malnutrition (Targets 2.1 and 2.2), universal access to safe and affordable water and sanitation (Targets 6.1 and 6.2) and universal access to affordable and reliable modern energy (Target 7.1) (Zhou, et al., forthcoming). By improving resource efficiency and maintaining environmental integrity, SCP can enhance economic productivity (Target 8.2) by doing more with less. Understanding the interlinkages of SCP with other SDG targets is thus crucial for achieving SCP effectively.

Vietnam's NAP on SCP 2020-2030 was developed following a series of cross-agency and cross-sectoral consultations, several rounds of review and revisions before reaching consensus and finalisation. While the Ministry of Industry and Trade (MOIT) acted as the leading agency, all the relevant line ministries were consulted and involved in the drafting process. An SDG interlinkage analysis was conducted for the draft version of the NAP on SCP to serve the following two purposes:

- i) to inform policymakers, including the leading agency, MoIT and other ministries about the implications of the proposed NAP on SCP for SDGs so as to take account of the major synergies and trade-offs, particular the trade-offs, in the finalisation of the document through consultations and consensus reaching; and
- ii) to provide guidance on the major synergies and trade-offs in the implementation stage of the NAP on SCP.

The interlinkages analysis was conducted using the IGES SDG Interlinkages Analysis & Visualisation Tool (V3.0). Developed by the Institute for Global Environmental Strategies, the IGES SDG Interlinkages Tool helps identify, quantify and visualise the linkages across the SDG targets to support coherent SDG planning processes. The interlinkages analysis was conducted for the draft version of the NAP on SCP. The analysis was underpinned by the guiding policies related to the existing NAP on SCP (2016-2020) and SDG-related policies in Viet Nam, and it aimed to achieve the overall objectives of the new SCP action plan agreed through inter-agency consultations in the policymaking process. The SDG interlinkage analysis emphasised the importance of decoupling economic growth from resource use and ecological degradation which is the overall goal of achieving long-term sustainable consumption and production. The SDG interlinkage analysis was conducted to identify and visualise the interlinkages among the specific objectives and concrete actions proposed for sustainable production and consumption in the draft version of the NAP on SCP. In doing so, the impacts were identified of these proposed objectives and actions on other SDG targets related to basic needs satisfaction, reducing inequalities, sustaining economic growth and creating jobs, and bringing about well-being. These interlinkage perspectives helped to make a further review of the draft version of the NAP on SCP and fine-tune the specific objectives, as well as identify 15 priority tasks relating to legal policies on SCP, life-cycle based production and consumption activities and the related means of implementation. The approved NAP on SCP thus incorporates the overarching SDG framework and relevant interlinkage perspectives. The results of the SDG interlinkage analysis on major synergies, trade-offs and priority setting can be used to guide the implementation of the NAP on SCP (2021-2030), approved on 25 June 2020 by Vietnam's Prime Minister, through effective institutional arrangement and financial resource allocation to address those synergies and trade-offs.

5.2 Methodology: IGES SDG Interlinkages Analysis & Visualisation Tool

The SDG Interlinkages Tool was used to conduct the SDG interlinkage analysis for the proposed targets and activities under the draft version of the NAP on SCP. Details of the proposed targets and activities of the draft version of the NAP on SCP and their mapping with relevant SDG targets are provided in Section 5.3. In this Section, the methodology underpinning the SDG Interlinkages Tool is provided based on the “Methodology” tab of the SDG Interlinkages Analysis and Visualisation Web Tool (V3.0) (Zhou, et al., 2019), accessible at <https://sdginterlinkages.iges.jp/visualisationtool.html>.

SDGs form an integrated and indivisible framework consisting of 17 goals and 169 targets which interconnect through their intrinsic relations. Thus, achieving one goal or target may contribute to achieving other goals or targets. For example, enhanced food security (Goal 2), full and productive employment and decent work (Goal 8) and the reduction of inequality (Goal 10) will help achieve poverty eradication (Goal 1). Conversely, the pursuit of one goal or target may conflict with the achievement of others. For example, an increase in agricultural production to help end hunger (Goal 2) can result in an increase in water use for irrigation that may compete with the water demand for achieving universal access to drinking water (Goal 6).

Goals, targets and their interactions form a complicated network of interlinkages. Understanding the interlinkages among the goals and between the targets can help identify potential synergies and trade-offs. Removing the trade-offs and maximising the synergies are key elements for SDG integration and policy coherence.

IGES initiated a project on “SDG Interlinkages and Indicators,” under which a four-step methodology was developed to identify and quantify the linkages between relevant SDG targets. This methodology was then applied to 27 selected countries from East Asia (China, Japan, Republic of Korea and Mongolia), South Asia (Afghanistan, Bhutan, Bangladesh, India, Maldives, Nepal, Pakistan and Sri Lanka), and Southeast Asia (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam), as well as from Africa (Ethiopia, Ghana, Malawi, South Africa and Tanzania). To enable policymakers and other relevant stakeholders to explore the potential synergies and trade-offs between the SDG targets, IGES developed the SDG Interlinkages Analysis & Visualisation Tool, a web-based interface with free access in 2017, updated to V3.0 in 2019 (Zhou, et al., 2019).

The methodology has four steps (see **Figure 3**):

- **Step I:** Identification of the interlinkages between relevant SDG targets based on causalities through a comprehensive literature review, expert consultations and stakeholder consultations;
- **Step II:** Selection of the indicators with trackable data for corresponding SDG targets based on the Global SDG Indicators and other proxy indicators (e.g. the World Bank’s World Development Indicators);
- **Step III.** Collection of the time-series data (1990-2019) for the indicators in selected countries;

- **Step IV.** Quantification of the interlinkages identified by **Step I** based on statistical methods using the time-series data collected for the selected countries.

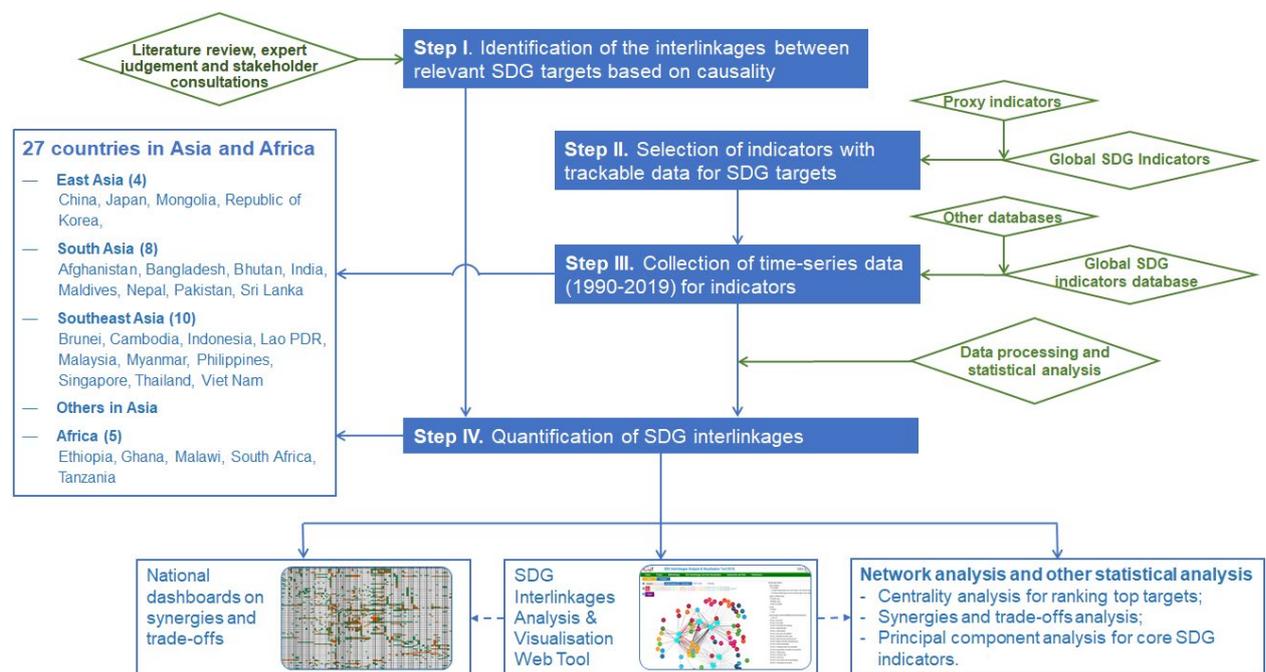


Figure 3: Methodology for analysis and visualisation of SDG interlinkages

Source: Zhou, et al. (2019)

The SDG interlinkages can refer to those between goals, between a goal and relevant targets, or between targets. Interlinkages include direct relations between two targets or indirect relations that connect two targets via a third target or via more intermediate routes. A causal link also has a direction from the cause to the effect. Furthermore, interlinkages can be defined by causalities or by other types of relations. For the SDG Interlinkages Analysis & Visualisation Tool (V3.0), interlinkages are defined as direct causal relations between the targets.

Identifying the causal relations between relevant SDG targets is a challenging task. Existing knowledge and literature in this area is fragmented and context-based. For the SDG Interlinkages Analysis & Visualisation Tool (V3.0), interlinkages identified at the target level are mainly based on a comprehensive literature review related to specific goals or targets (see Zhou and Moinuddin, 2017) as well as the knowledge obtained from relevant international consultation processes on SDG indicators, such as the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs) (2015), expert consultations, and stakeholder consultations related to specific case studies.

The identified linkages based on causalities are further quantified to indicate how strong the links are and the nature of the links, i.e. positive or negative. Quantification is based on a correlation analysis of the indicator-level time-series data. For the SDG Interlinkages Analysis & Visualisation Tool (V3.0), a set of indicators with trackable data based on the Global SDG Indicators was used as the main measurement for 113 targets. Time-series data covering the time period from 1990 to 2019 was collected from publicly available and internationally recognised sources for each of the selected countries. The UN Statistics Division's SDG Indicators Global Database (UNSD,

2019) was used as the primary data source, and some additional data was collected from the World Bank SDGs database and other international organisations. All the data was compiled into a database that is publicly available from the SDG Interlinkages Analysis & Visualisation Tool (accessible at <https://sdginterlinkages.iges.jp/visualisationtool.html>).

The correlation coefficients, ranging from [-1, 1], indicate the linear relationship between relevant targets. In the SDG interlinkage analysis, the correlation coefficients represent the strength and attributes of the linkages. Positive coefficients represent positive linear relations and negative ones represent negative linear relations. Coefficients with a larger absolute value (e.g. 0.9) indicate strong linear relationships between targets and those with a smaller absolute value (e.g. - 0.2) indicate weak linear relationships.

5.3 An overall framework of the SDG interlinkages analysis for the NAP on SCP

As introduced in Section 5.1, SDG interlinkages analysis was conducted to inform the policy process of the NAP on SCP (2020-2030) regarding potential synergies and trade-offs to achieving the SDGs in Vietnam. To implement this task, an overall framework was developed, guiding the interlinkage analysis and connecting the analysis with the implementation of the final governmental policy (see **Figure 4**).

The existing NAP on SCP (2016-2020), as well as SDG-related national policies, including the National Action Plan for the Implementation of the 2030 Agenda for Sustainable Development in Vietnam and the Roadmaps for Achieving the SDGs, were set as the guiding policies for the development of the new NAP on SCP (2021-2030).

SDG interlinkages were analysed for the draft version of the NAP on SCP, an intermediate product during the policymaking process. The proposed actions under this draft version were structured into three parts: i) specific objectives with quantified targets; ii) proposed major activities for the promotion of sustainable production and sustainable consumption based on a life-cycle thinking; and iii) means of implementation. The proposed actions were mapped with relevant SDG targets for this analysis.

The social and economic implications of the proposed actions for SDGs were broadly categorised into the following four aspects:

- i. satisfying basic needs for all (Goal 2 on zero hunger and food security, Goal 6 on universal access to safe drinking water and sanitation, and Goal 7 on universal access to modern energy);
- ii. reducing poverty and inequalities (Goal 5 on gender equality and Goal 10 on reducing income and other inequalities);
- iii. ensuring economic prosperity and job creation (Goal 8 on sustained economic growth and decent works for all); and
- iv. improving human well-being (Goal 1 on poverty elimination, Goal 3 on healthy life and well-being, Goal 9 on universal access to essential infrastructure and basic services, and Goal 11 on universal access to housing and slum upgrading).

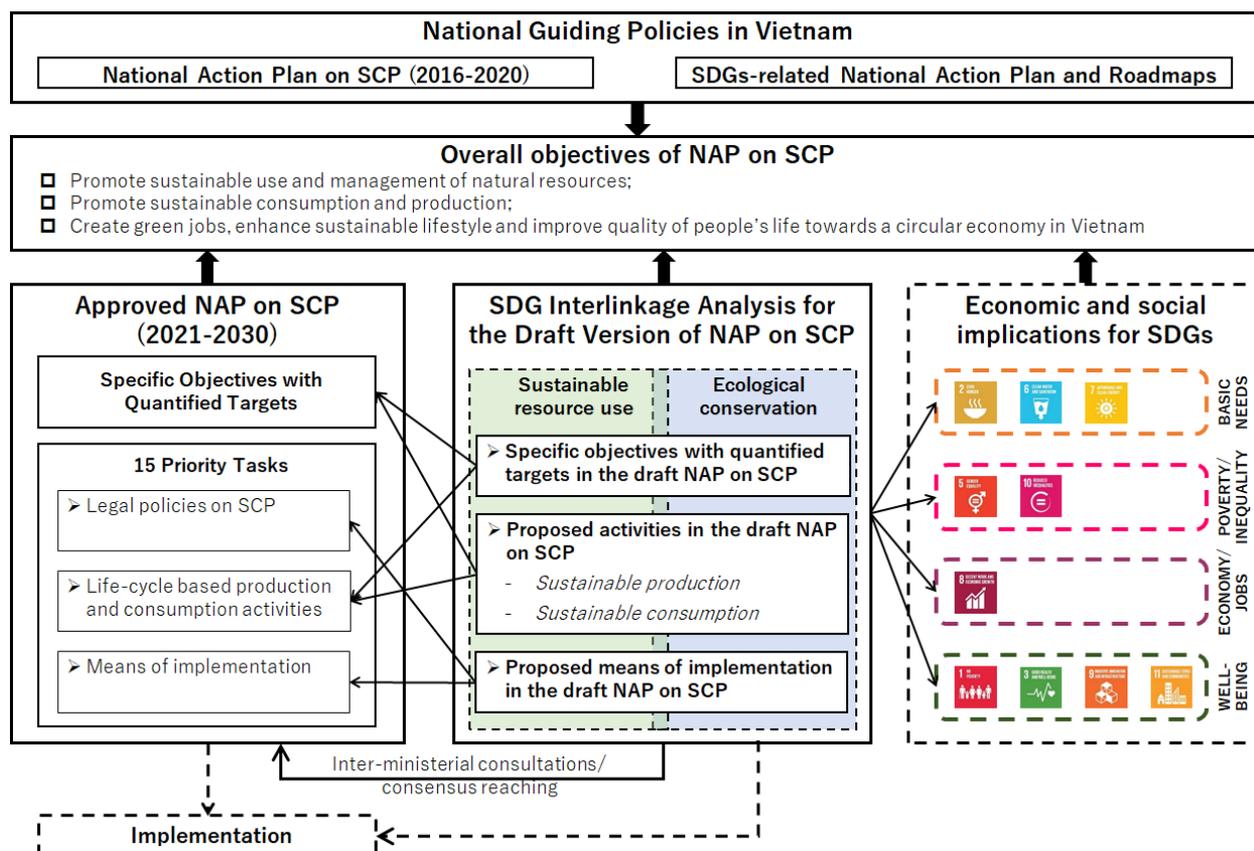


Figure 4: Overall framework of SDG interlinkage analysis for the development of the NAP on SCP
 Source: Zhou, et al. (2019)

The four aspects were identified based on the concept of SCP, which aims to satisfy basic needs for all and provide a better quality of life not only for the current generation but also for future generations through the provision and use of goods and services while minimising the use of natural resources and toxic materials as well as reducing emissions and pollutants over the lifecycle of a product (Oslo Symposium, 1994). The four aspects also incorporate the overall objectives of the NAP on SCP in the context of Vietnam. These include: i) promoting sustainable use and management of natural resources; ii) achieving sustainable consumption and production based on a life-cycle approach; and iii) creation of green jobs, enhancing sustainable lifestyles and improving quality of people's life towards a circular economy in Viet Nam.

For the SDG interlinkages analysis, the environmental dimension of SDGs focusing on decoupling economic growth from resource use and ecological degradation was considered as an integral part of the NAP on SCP. Decoupling economic growth from resource use and environmental degradation is an overall goal of achieving SCP in general and for Vietnam specifically, which has been experiencing high economic growth, high material consumption (tripled since 2000), and serious environmental degradation (such as biodiversity loss). Effective decoupling should be pursued, not limited to the production side, but throughout the lifecycle of products and services. This perspective was reflected in the proposed principles of the draft version of the NAP on SCP. For the SDG interlinkages analysis, sustainable resource use and management (Goal 12) and maintaining the ecosystems services, including aquatic ecosystems (Goal 6), climate system

(Goal 13), marine and coastal ecosystems (Goal 14) and terrestrial ecosystems (Goal 15) were set as the overall goals for achieving SCP in Vietnam.

As part of the policymaking process, the draft version of the NAP on SCP was discussed and reviewed in the follow-up inter-ministerial consultations to reach a consensus for the preparation of the final document of the NAP on SCP for its approval. The results of the interlinkages analysis on SDG implications were used to inform the leading ministry and other agencies on the potential synergies and trade-offs of the proposed SCP actions during the process of consultation and consensus.

Going one step further, SDG interlinkages analysis can also be used to inform on the priority areas of SCP, as well as what the drivers and potential consequences might be. This information will guide relevant institutional arrangements and financial allocation by addressing the synergies and trade-offs at the implementation stage (2021-2030) of the NAP on SCP.

5.4 Results of SDG interlinkages analysis for the draft NAP on SCP

SDG interlinkages analysis was carried out for the proposed actions provided in the draft version of the NAP on SCP using the IGES SDG Interlinkages Tool (see Section 5.2 for detailed methodology). The proposed actions in the draft version of the NAP on SCP included specific objectives, major activities for both sustainable production and sustainable consumption, and means of implementation. All these were mapped with relevant SDG targets. Then the SDG Interlinkages Tool was used to analyse the interlinkages among the mapped SDG targets and between the mapped SDG targets and other targets. The results were visualised and incorporated into the analytical framework developed for the SDG interlinkages analysis (see Figure 4).

5.4.1 Alignment of the proposed actions in the draft NAP on SCP with the framework of SDG interlinkages analysis

The overall goals for achieving SCP in Vietnam and their mapped SDG targets for achieving economic decoupling from resource use (Targets 8.4 and 12.2) and ecological degradation, including aquatic ecosystems (Target 6.6), climate system (Targets 13.1 and 13.2), marine and coastal ecosystems (Target 14.2) and terrestrial ecosystems (Targets 15.1, 15.2, 15.3, 15.4 and 15.5) are aligned at the top of “**TARGETS**” in the framework for the interlinkages analysis (see Figure 5). The proposed specific objectives in the draft version of the NAP on SCP and their mapped SDG targets (see Table 24) are aligned as part of “**TARGETS**” under the overall decoupling goals and as part of the “**MEANS**”.

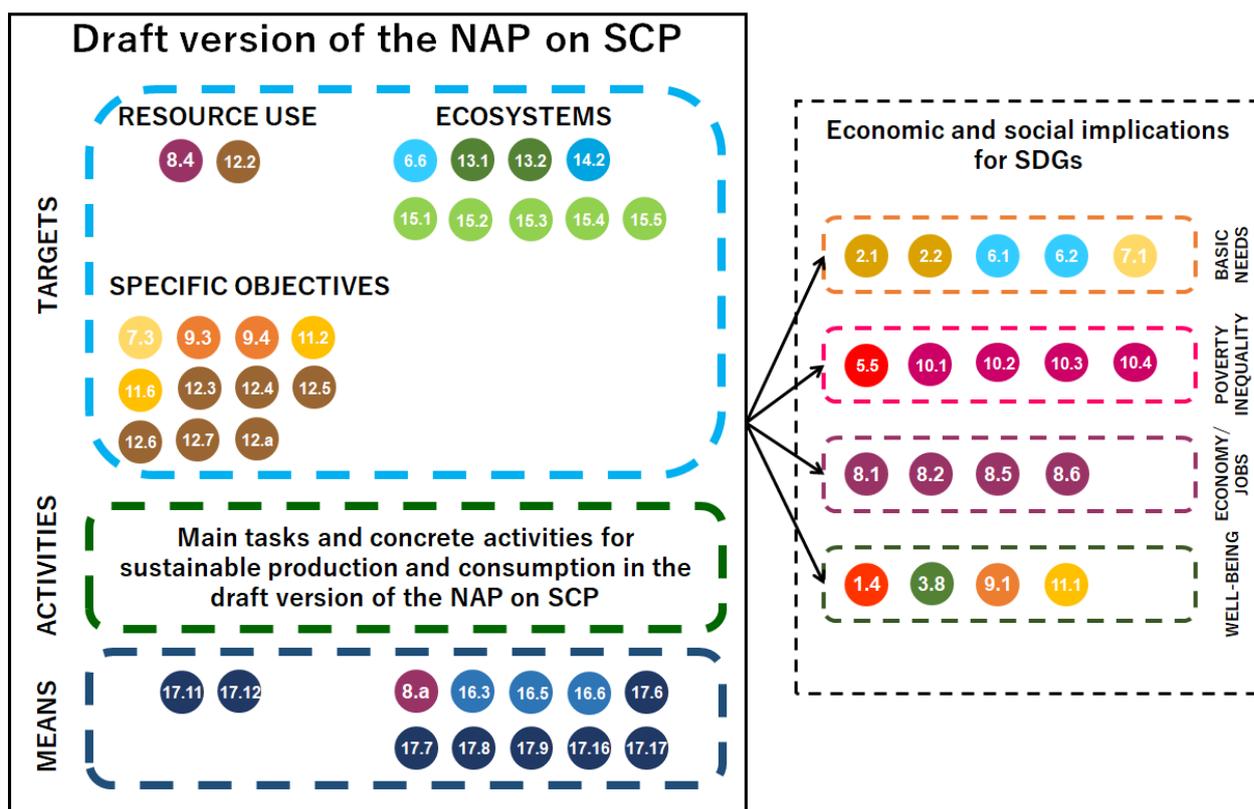


Figure 5: Framework of SDG interlinkages analysis for the draft version of the NAP on SCP in Vietnam

Source: The authors.

Table 24: Proposed specific objectives and targets in the draft NAP on SCP and their mapped SDG targets

| SPECIFIC OBJECTIVES IN THE DRAFT VERSION OF THE NAP ON SCP | RELEVANCE TO THE APPROVED NAP ON SCP | MAPPED SDG TARGETS |
|---|--|---------------------------|
| Applying cleaner production by enterprises; | i) Specific objective on the development and replication of models on cleaner production and SCP and disseminate; and ii) Priority Area 4; | 7.3, 8.4, 9.4, 12.4, 12.6 |
| Urban solid waste and construction waste shall be recycled or reused and produce energy or organic fertilizer; non-hazardous industrial solid waste in industrial parks shall be collected for reusing and recycling; | Priority Area 10; | 11.6, 12.5 |
| Reducing food waste in the pre-consumption phase | Priority Area 5; | 12.3 |
| Promoting public transportations in major cities; | | 11.2 |
| Promoting green public procurement by government organisations at the national and provincial levels; | Priority Area 8; | 12.7 |
| Export producers should meet relevant technical standards for exports. | Priority Areas 3, 6 and 15. | 9.3, 12.a, 17.11, 17.12 |

To achieve these specific objectives, the draft version of the NAP on SCP proposed the main tasks and concrete activities to promote sustainable production and sustainable consumption, respectively. The proposed tasks and activities as well as their mapped SDG targets, are aligned as “**ACTIVITIES**” in the framework of SDG interlinkage analysis.

Several enabling institutions and policies were introduced in the draft version of the NAP on SCP which are aligned as “**MEANS**” in the framework of the SDG interlinkage analysis. These include strengthening governance (Targets 16.3, 16.5 and 16.6), enhancing international cooperation on technology development and transfer (Targets 17.6, 17.7 and 17.8), building capacity for the implementation of the NAP on SCP and other NAPs (Target 17.9), increasing exports (Targets 17.11 and 17.12), and promoting multi-stakeholder partnerships (Targets 17.16 and 17.17) .

5.4.2 Results of the SDG interlinkages analysis for achieving sustainable production in the draft NAP on SCP

To achieve sustainable production, the draft version of the NAP on SCP proposed some main tasks and concrete activities on promoting sustainable raw material use and production process (see **Table 25**), as well as a sustainable product distribution system (see **Table 26**), respectively.

Table 25: Main tasks and concrete activities for sustainable raw material use and production process proposed in the draft version of the NAP on SCP and their mapped SDG targets

| MAIN TASKS IN THE DRAFT VERSION OF THE NAP ON SCP | RELEVANCE TO THE APPROVED NAP ON SCP | MAPPED SDG TARGETS |
|--|--|--|
| Plan and manage the processes of natural resources exploitation and utilisation; | i) General objectives; ii) Specific objective on material and resource use in major sectors; iii) Priority Area 2; | 12.2 |
| Promote eco-design and the overall environmental performance of products and services; | Priority Area 3; | 9.4, 12.6 |
| Promote integrated water resource management and increase efficient use of water in agriculture, irrigation, industry, services and domestic purposes; | Priority Area 2; | 6.5, 6.4 |
| Promote innovative and accessible resources for energy efficiency; | Priority Area 2; | 7.3 |
| Deploy eco-innovation activities in businesses, industrial zones, and industrial clusters; | i) Specific objective on awareness raising among industrial parks and clusters; ii) Priority Area 3; | 9.5, 9.b |
| Motivate to invest in agricultural technology, organic agriculture, and water efficiency in order to increase agricultural production; | Priority Areas 2, 14; | 2.a, 10.b, 17.5 and may be indirectly 2.3, 2.4 and 6.4 |
| Adopt and implement a lifecycle management approach to all types of chemical and waste beyond merely disposing; | Priority Areas 2, 3 and 10; | 12.4 |

| | | |
|--|---|-----------|
| Improve agricultural productivity over the life cycle of food over processing, distributing, consuming to reducing waste; | Priority Areas 4, 5, 9; | 12.3 |
| Reduce waste generation and increase the economic value of waste resources through prevention, reduction, recycling, reuse, and recovery of energies. | Priority Areas 3, 10; | 12.5 |
| List of concrete activities in the draft version of the NAP on SCP | | |
| Set the criteria for eco-innovation for selected products under Ministry of Industry and Trade's eco-innovation program; | Priority Area 3; | 9.5, 9.b |
| Develop a guideline on circular economy to distribute to selected eco-industrial parks to promote resource circulation, 3Rs, and industrial symbiosis applying big data through the entire lifecycle approach; | i) Specific objectives on awareness raising among industrial parks and clusters and on the development and replication of models on cleaner production and SCP; ii) Priority Areas 1, 3, 10, 11 | 12.6, 9.4 |
| Launch a voluntary extended producer responsibility (EPR) program for large corporation for chemical, electronic and packaging industries; | i) Specific objective on awareness raising among industrial parks and clusters; ii) Priority Areas 4, 10 | 12.6 |
| Conduct training activities and development of technical guidance on resource efficiency for SMEs in pulp paper, textile and leather industry in industrial clusters and zones; | i) Specific objective on awareness raising among industrial parks and clusters; ii) Priority Areas 4, 9, 13 | 12.a, 8.4 |
| Launch a platform to disseminate best available technology (BAT) for improving water use efficiency in agricultural production; | Priority Areas 4, 12, 13 | 6.a |
| Conduct a voluntary energy efficiency and cleaner production audits in steel, cement, and brewery industries; | i) Specific objective on awareness raising among industrial parks and clusters; ii) Priority Areas 2, 3, 4, 11 | |
| Launch awareness raising programme on eco-system restoration to mining extraction sites in coal mining sector. | i) Specific objective on awareness raising among industrial parks and clusters; ii) Priority Areas 2, 3, 4 | |

Table 26: Main tasks and concrete activities for sustainable product distribution system and their mapped SDG targets

| MAIN TASKS IN THE DRAFT VERSION OF THE NAP ON SCP | RELEVANCE TO THE APPROVED NAP ON SCP | MAPPED SDG TARGETS |
|--|---|---------------------------|
| Enhance linkage among raw material suppliers, manufacturers, distributors, and consumers to sustainable products production and consumption; | Priority Areas 3, 4, 5, 6, 7, 9 | 12.4, 17.11, 17.12 |

| | | |
|--|---|-----------|
| Establish and develop sustainable supply chains for agricultural products, reduce post-harvest loss; | Priority Areas 2, 5, 7, 8, 9; | 2.c, 12.3 |
| Increase the purchase of green products by distributors in the supply chain; | Priority Areas 6, 7, 8, 9, 11; | |
| List of concrete activities in the draft version of the NAP on SCP | | |
| Establish and implement a guideline for the green distribution of agricultural products; | Priority Areas 1, 5, 7, 8, 9, 11; | 2.c |
| Establish sustainable and green supply chains/networks for distribution of green and clean agricultural & food products, according to Viet Nam's GAP Standards, and reduction of post-harvest losses; | Priority Areas 5, 7, 8, 9, 11; | 12.3 |
| Establish an information-sharing website on environmentally-friendly products and services nationwide to enhance interlinkages among raw material suppliers, manufacturers, distributors, and consumers utilising IT and database; | Priority Areas 12, 13; | 17.6 |
| Launch a voluntary commitment scheme by supermarkets or shopping malls to increase the purchase of green products from producers; | i) Specific objective for supermarkets using eco-friendly packaging; ii) Priority Area 5, 6, 7; | |
| A collection and recycle scheme for the packaging and distribution waste for food producer, carrier, warehouse, and retailers; | Priority Areas 2, 3, 5, 11; | 12.5 |
| Conduct trainings for distribution enterprises in implementing cleaner production and energy saving solutions; | Priority Areas 5, 9 | 12.a, 9.4 |

Using the SDG Interlinkages Tool, the interlinkages of the proposed main tasks and concrete activities for achieving sustainable production (represented by their mapped SDG targets) in Vietnam were analysed and visualised (see **Figure 6**). The interlinkages include: i) those among the mapped SDG targets for sustainable production themselves; ii) those between the mapped SDG targets and the “**TARGETS**” (including the overall decoupling goals and the specific objectives); and iii) those between the mapped SDG targets and the four aspects of the social and economic dimensions of SDG implications. The solid black lines indicate synergies between a given pair of targets (the arrow indicating the direction of the flow of influence), while the red lines indicate the existence of trade-offs. Dotted lines mean that while two targets have causal links, the nature or strength of the links could not be estimated due to data unavailability.

The rise in greenhouse emissions and pollution from production and business establishments has precipitated the need to realign their supply chain operations with the aim of conserving scarce resources. Supply chain management is an important factor, and it is directly linked to productivity and competitive position.

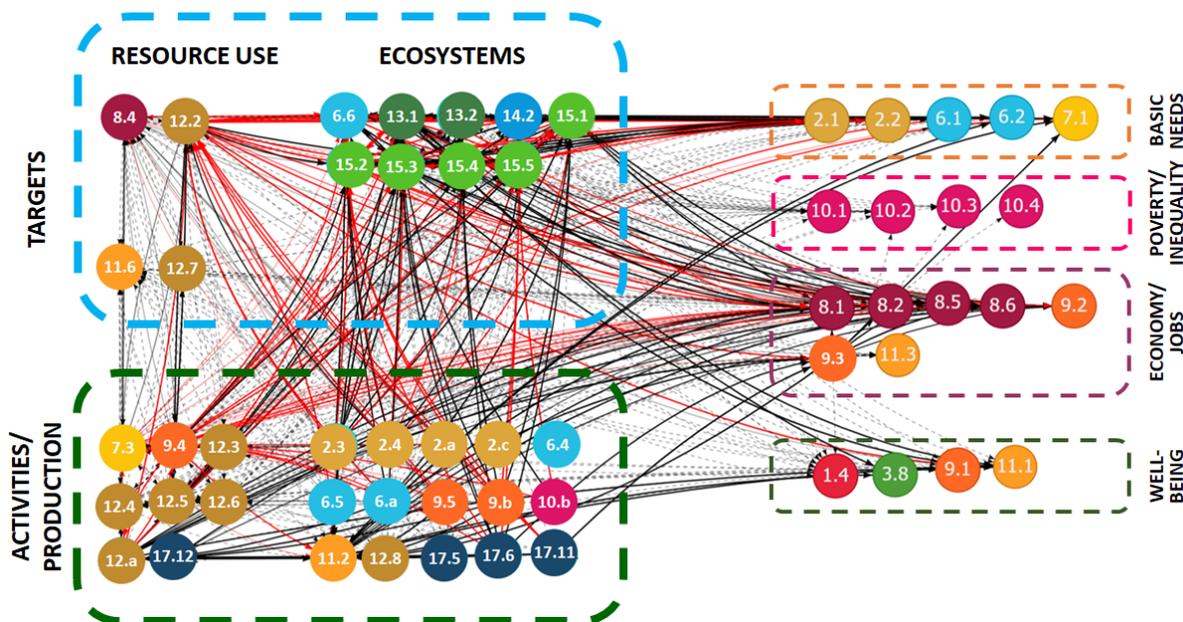


Figure 6: SDG interlinkages of main tasks and concrete activities for achieving sustainable production proposed in the draft version of NAP on SCP

Source: Figure generated using the SDG Interlinkages Analysis & Visualisation Tool (V3.0) (Zhou, et al. 2019)

Note: Each node represents a SDG target. The solid black lines indicate synergies between a given pair of targets (the arrow indicating the direction of the flow of influence), while the red lines indicate the existence of trade-offs. Dotted lines mean that while two targets have causal links, the nature or strength of the links could not be estimated due to data unavailability.

5.4.3 Results of the SDG interlinkages analysis for achieving sustainable consumption in the draft NAP on SCP

In the draft version of the NAP on SCP, achieving sustainable consumption focuses mainly on promoting the consumption of environmentally-friendly products through public procurement, lifestyle changes and sustainable exports. It can also be achieved by reducing chemicals, hazardous waste and municipal solid waste through the promotion of 3R activities, and by carrying out lifestyle changes and sustainable imports. The main tasks and concrete activities for sustainable lifestyles and consumption and for sustainable exports and imports and their mapped SDG targets, are shown in **Table 27** and **Table 28**, respectively.

Table 27: Main tasks and concrete activities for sustainable lifestyles and consumption and their mapped SDG targets

| MAIN TASKS IN THE DRAFT VERSION OF THE NAP ON SCP | RELEVANCE TO THE APPROVED NAP ON SCP | MAPPED SDG TARGETS | MEANS OF IMPLEMENTATION |
|---|--------------------------------------|--------------------|-------------------------|
| Ensure sustainable public procurement practices; | Priority Area 8; | 12.7 | |

| | | | |
|---|---|---------------------------|-------------------|
| Provide better infrastructure and information to support consumers for making better consumption choices; | Priority Areas 6, 7, 9, 11; | 4.7, 12.8 | |
| Support consumers in taking 3Rs activities in their daily live; | Priority Areas 6, 7, 9, 11; | 12.8, 12.5 | |
| Strengthen eco-tourism in tourist destinations to reduce environmental impact of tourism; | Priority Areas 9, 11; | 8.9, 12.b | |
| Discourage the consumption of non-environmentally-friendly products; | Priority Areas 1, 6, 7, 8, 9; | 4.7, 9.2, 9.4, 12.8, 12.c | |
| Develop and disseminate sustainable and responsible consumption models in harmony with nature; | i) Specific objective on the development and dissemination of models on SCP; ii) Priority Areas 4, 9; | 4.7, 12.8 | |
| List of concrete activities in the draft version of the NAP on SCP | | | |
| Revise the public procurement regulations and set up special green criteria in the public procurement bidding law. Develop a guideline on green public procurement to decide the criteria and set a list of prioritised green products manufactured domestically, to distribute the guideline to all government ministries, agencies and public owned companies and projects. | Priority Areas 1, 8; | 12.7 | 16.3, 16.6, 17.16 |
| Develop an online supply chain transparency platform through consumer information association network to provide consumers with information on safety and environmental impacts (green label) of products of supply chain in making purchase decisions and prevent inaccurate claim of green products. | Priority Areas 5, 6, 7, 9, 11; | 4.7, 12.8 | 17.8, 9.c |
| Launch a local government-led multi-stakeholder food waste reduction platform to invite retailers, restaurants and hotels to control the current level of food waste in the consumption phase and to set voluntary reduction target and report the progress regularly. | Priority Areas 5, 7, 9, 11; | 12.3, 12.5 | 17.16 |
| Select five major cities to develop a public transportation expansion plan and delegate a certain public area in the downtown area as “car-free day” once a month to encourage walking and cycling among residents. | i) Specific objective on the development and dissemination of models on SCP; ii) Priority Area 9; | 11.2, 12.8 | 11.3 |
| Set-up electronics (mobile phone and PC) and home appliances (washing machine, refrigerator, TV) repair and E-waste collection system through public-private-partnership between municipalities and manufacturers in providing information on repair and reuse to extend the lifetime of products, and for consumers to dispose of used products for | Priority Areas 3, 6, 7, 9, 10, 11 | 12.5, 12.8 | 17.8, 17.16 |

| | | | | |
|---|--|------------------|------|--|
| manufacturers to collect for recycling and remanufacturing. | | | | |
| Promote eco-tourism through the development of eco-tourism activities and partnership with hotel associations to certify Green Lotus Label among hotels | Priority Areas 4, 9, 11 | 8.9, 12.8, 17.16 | | |
| Impose environmental fees on non-environmentally-friendly products such as plastic bags in supermarkets and convenience stores. | i) Specific objective on eco-friendly packaging; ii) Priority Area 1 | 12.2, 12.5, 12.8 | 12.c | |

Table 28: Main tasks and concrete activities for sustainable exports and imports and their mapped SDG targets

| MAIN TASKS IN THE DRAFT VERSION OF THE NAP ON SCP | RELEVANCE TO THE APPROVED NAP ON SCP | MAPPED SDG TARGETS | MEANS OF IMPLEMENTATION |
|---|---|-------------------------------|--------------------------------|
| Improve the market access of green products to export in the global markets | Priority Area 5 | 2.4, 2.b, 8.a, 9.2, 9.4, 10.a | 17.11, 17.12 |
| Enhance the eco-labelling certification for export products; | Priority Area 6 | 2.4, 9.2, 9.4, 12.8 | |
| Improve access to markets to promote the sustainable exportation of Viet Nam's key products and closely control the importation of waste materials (scrap); | Priority Area 5 | 12.4, 12.5 | 16.3, 16.6, 17.11, 17.12 |
| Enhance international cooperation on resource circulation and industrial symbiosis | Priority Area 15 | 12.2, 12.5 | 17.16 |
| Enforcement of regulations on importing scraps and waste from other countries; | | 12.4, 12.5 | 16.3, 16.6, 17.11, 17.12 |
| Promote the sustainable import of clean technology from other countries; | Priority Areas 13, 15 | 9.4, 9.5, 12.a | 17.6, 17.7 |
| List of concrete activities in the draft version of the NAP on SCP | | | |
| Develop an online database to improve the market access for key green exporting products focusing on electronics, textile and clothing, wood products, agricultural and seafood products; | Priority Areas 5, 11 | 2.4, 2.b, 8.a, 9.2, 9.4, 10.a | 12.8, 17.8 |
| Launch a supporting programme for export-oriented producers to apply for eco-labelling and fair trade certification scheme; | Priority Areas 5, 6 | 2.4, 9.2, 9.4, 12.8 | |
| Launch a "SCP" products section during the export-oriented trade shows in the target industries such as electronics, textile and food processing; | Priority Area 5 | 2.4, 9.2, 9.4 | |

| | | | |
|--|---|----------------|--------------------------------|
| Participate in international resource and waste circulation platform to enhance cooperation and industrial symbiosis; | Priority Areas 2, 3, 10, 15 | 12.5 | 17.11, 17.12, 17.16 |
| Revise the regulations and standards on importing of scraps and waste as raw material for production according to Vietnamese law and international agreement; | Priority Area 1, 5, 15 | 12.4, 12.5 | 16.3, 16.6, 17.11, 17.12 |
| Conduct awareness-raising and capacity building programmes for local authorities, trading companies and custom to strengthen the enforcement of the regulations on importing scraps and waste; | i) Specific objectives on awareness raising for local authorities and on local action plans; ii) Priority Area 1; | 12.4, 12.5 | 16.3, 16.6, 16.7, 17.9, 17.17, |
| Develop bilateral and international agreement with countries to import clean technology. | Priority Area 15 | 9.4, 9.5, 12.a | 17.6, 17.7 |

Using the SDG Interlinkages Tool, the interlinkages of the proposed main tasks and concrete activities for achieving sustainable consumption (represented by their mapped SDG targets) in Vietnam were analysed and visualised (see Figure 7). The interlinkages include: i) those among the mapped SDG targets for sustainable consumption themselves; ii) those between the mapped SDG targets and the “TARGETS” (including the overall decoupling goals and the specific objectives); and iii) those between the mapped SDG targets and the four aspects of the social and economic dimensions of SDG implications.

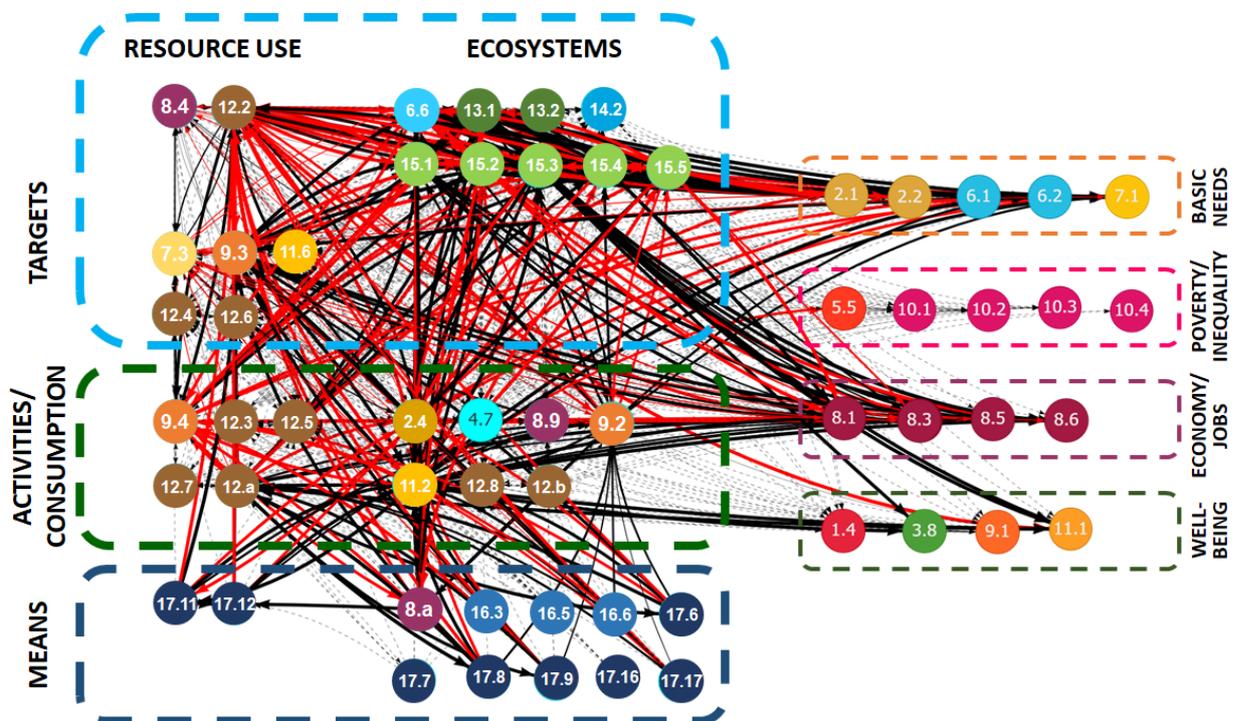


Figure 7: SDG interlinkages of main tasks and concrete activities for achieving sustainable consumption proposed in the draft version of NAP on SCP

Source: Figure generated using the SDG Interlinkages Analysis & Visualisation Tool (V3.0) (Zhou, et al. 2019)

Note: See Figure 6.

5.5 Major synergies and trade-offs of the proposed actions

Major synergies and trade-offs of the proposed actions, including “TARGETS”, “ACTIVITIES” and “MEANS” in the NAP on SCP are analysed based on the historical trend of relevant indicators for the mapped SDG targets of the proposed actions, using the SDG Interlinkages Tool. Due to data unavailability, only some of the proposed actions (presented by their mapped SDG targets) can show their historical trend. A summary of data availability and trends (improving vs. degrading trend) of the proposed actions is shown in **Table 29**.

Table 29: Summary of data availability and relevant trend (improving vs. degrading trend) of targets and measures proposed in the draft SCP-NAP

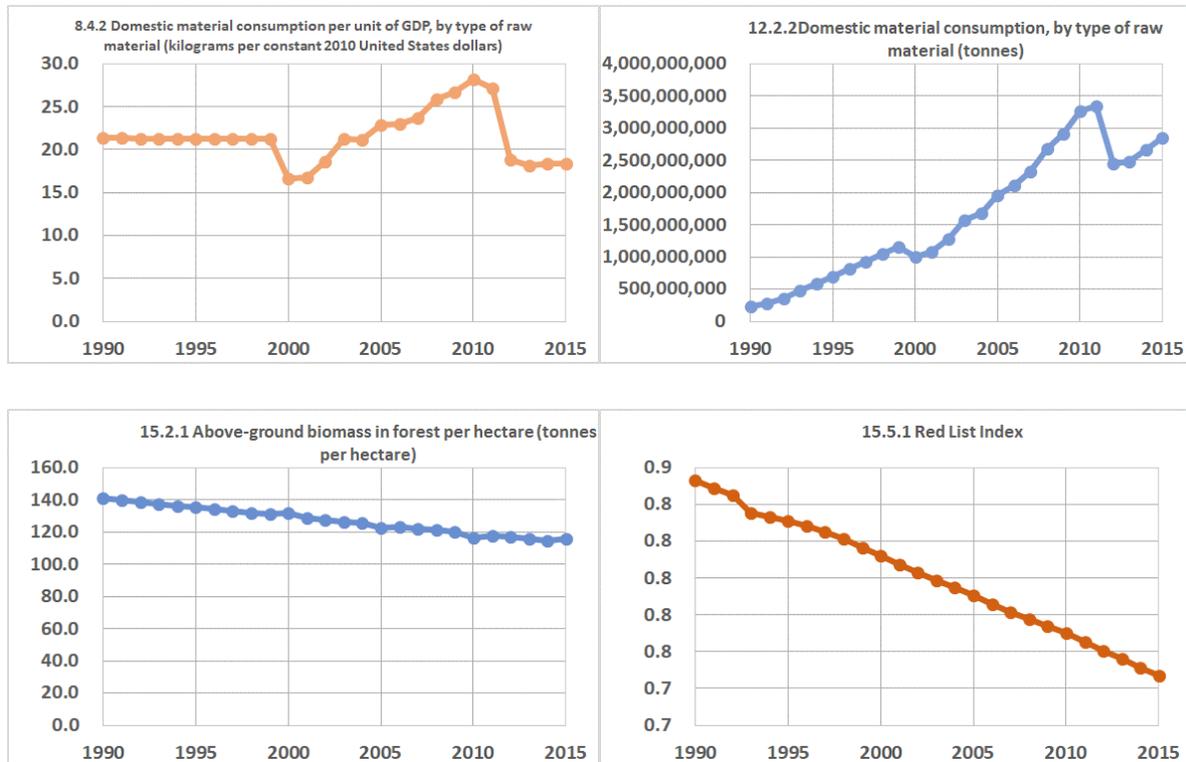
| FRAMEWORK OF THE SDG INTERLINKAGE ANALYSIS | PROPOSED ACTIONS IN THE DRAFT VERSION OF THE NAP ON SCP | MAPPED SDG TARGETS WITH AN IMPROVING TREND | MAPPED SDG TARGETS WITH A DEGRADING TREND | DATA NOT AVAILABLE FOR RELEVANT INDICATORS |
|--|--|---|---|---|
| TARGETS | Overall decoupling goals | 6.6, 13.1, 15.1, 15.3, 15.4 | 8.4, 12.2, 15.2, 15.5 | 13.2, 14.2 |
| | Specific objectives | 9.3, 11.2, 12.a, 17.11, 17.12 | 7.3, 9.4 | 11.6, 12.3, 12.4, 12.5, 12.6, 12.7 |
| ACTIVITIES and MEANS | Main tasks and concrete activities for achieving sustainable production | 2.3, 2.a, 2.c, 6.a, 9.5, 9.b, 10.b, 17.6, 17.11 | 2.4 | 6.4, 6.5, 12.8, 17.5 |
| | Main tasks and concrete activities for achieving sustainable consumption | 8.a, 9.2, 11.2, 16.6, 17.6, 17.8, 17.9, 17.17 | 2.4 | 4.7, 8.9, 12.8, 12.b, 16.3, 16.5, 17.7, 17.16 |
| Four aspects of SDGs | | 2.1, 2.2, 3.8, 6.2, 7.1 8.3, 8.5, 8.6, 11.1 | 5.5, 8.1 | 1.4, 6.1, 9.1, 10.1, 10.2, 10.3, 10.4 |

Source: Based on the mapping provided in Table 11, Table 12, Table 13 and Table 14 and the database for Vietnam provided by the SDG Interlinkages Tool (V3.0).

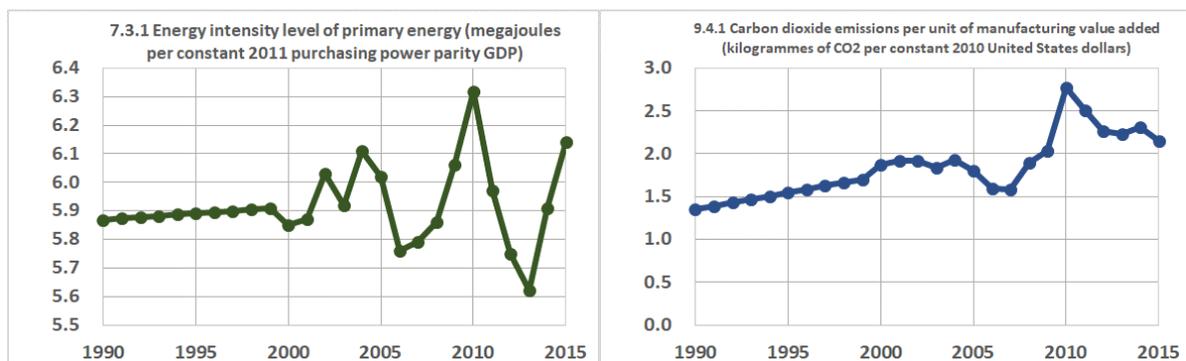
From a historical trend, it can be found that many of the SCP areas related to the proposed actions in the draft version of the NAP on SCP have made certain progress indicated by their improving trend (see **Table 29**). These include, for example, Target 2.3 on improving agricultural productivity and Target 17.11 on increasing exports for achieving SCP from the production side, as well as Target 11.2 on access to sustainable transport systems from the consumption side and Target 16.6 on the development of accountable and transparent institutions at all levels in terms of the enabling policy environment and means of implementation. Implementation of the proposed actions will contribute to the acceleration of progress in these areas. However, some areas related to the proposed actions are not on track as indicated by their downward trend (these include, for example, Target 8.4 on decoupling economic growth from resource use and environmental degradation, Target 15.5 on halting biodiversity loss for achieving the overall

decoupling goals, and Target 2.4 on sustainable food production system for both the production and consumption sides. Reversing the downward trend in these areas should be a priority for achieving SCP and SDGs in Vietnam.

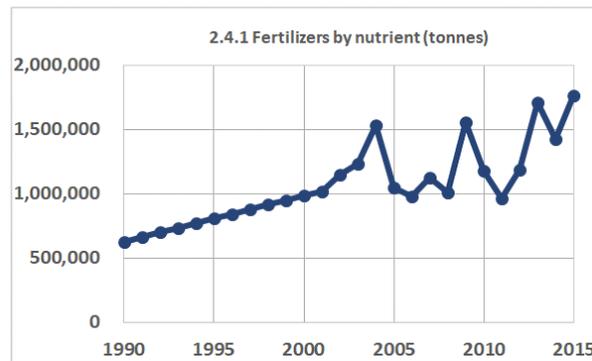
8-1 Overall decoupling goals for achieving SCP in Vietnam and trend of relevant indicators



8-2 Proposed specific objectives in the draft version of the NAP on SCP and trend of relevant indicators



8-3 Sustainable production and consumption-related actions proposed in the draft version of the NAP on SCP and trend of the relevant indicator



8-4 SDG social and economic implications and trend of relevant indicators

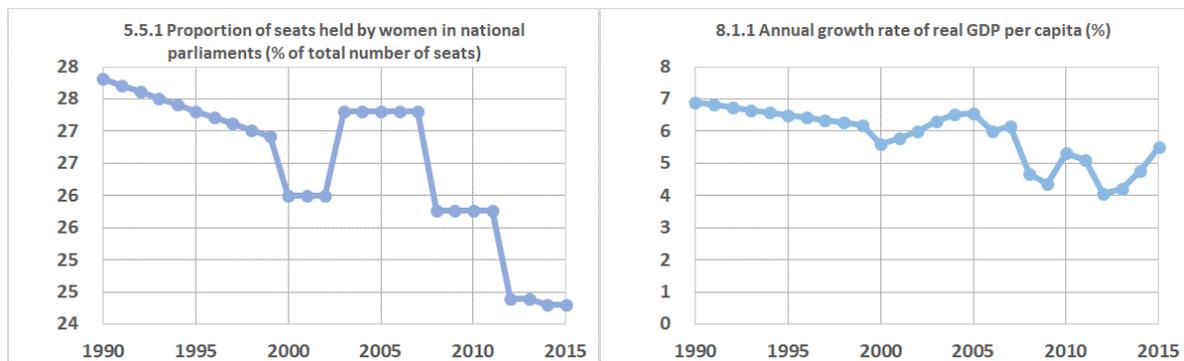


Figure 8: Degrading trend in areas related to proposed actions in the draft version of the NAP on SCP

Source: IGES SDG Interlinkages Tool (V3.0) and its database for Vietnam.

Through the SDG interlinkages analysis and based on data availability, it was found that increased agricultural productivity (Target 2.3), improved basic needs satisfaction (including Target 7.1 on access to energy and Target 11.1 on access to affordable housing and basic services in cities), economic growth (Targets 8.1 and 8.2), industrialisation (Target 9.2) and the development of the transport system (Target 11.2), among others, have driven the negative changes, or trade-offs, in the areas related to Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.4 (indicated by the red links in **Figure 9**). These drivers are mainly on the production side or related to the four aspects of social and economic dimensions of SDGs, and they should be urgently addressed by promoting sustainable agricultural practices, clean and renewable energy, sustainable industrialisation and urbanisation so that SCP can be achieved in Vietnam.

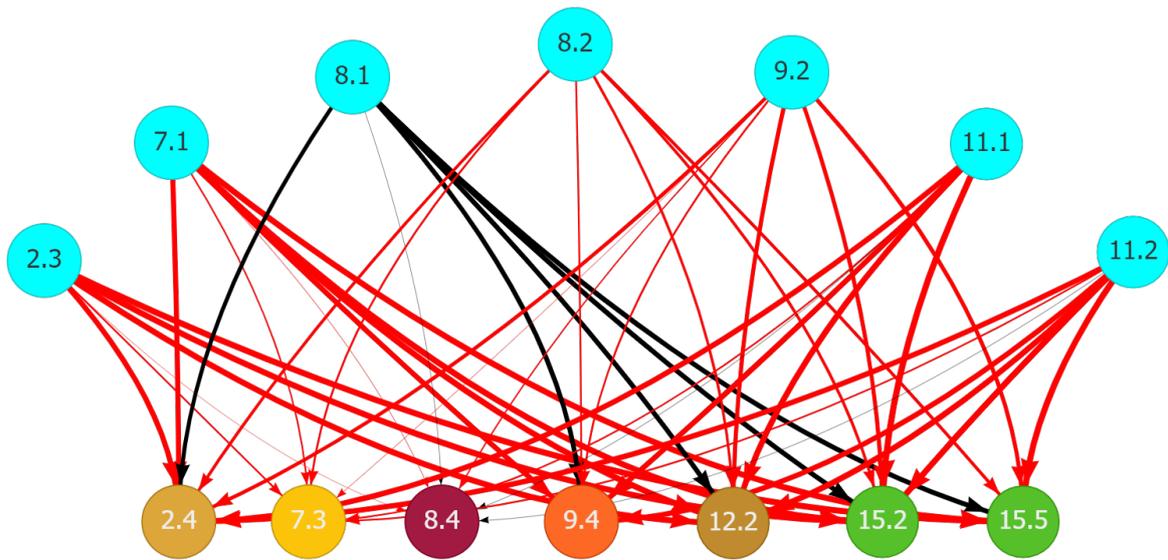


Figure 9: Drivers of degradation in areas related to Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.5

Source: IGES SDG Interlinkages Analysis Tool (V3.0) and its database for Vietnam.

Note: See Figure 6.

Degradation in the areas related to Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.5 will have a negative impact on achieving other proposed actions in the draft version of the NAP on SCP and therefore will affect the progress in achieving SCP as a whole in Viet Nam. The degradation areas will also drag down development in other social and economic dimensions of SDGs (see **Figure 10** indicated in the red links between these degrading areas and other areas).

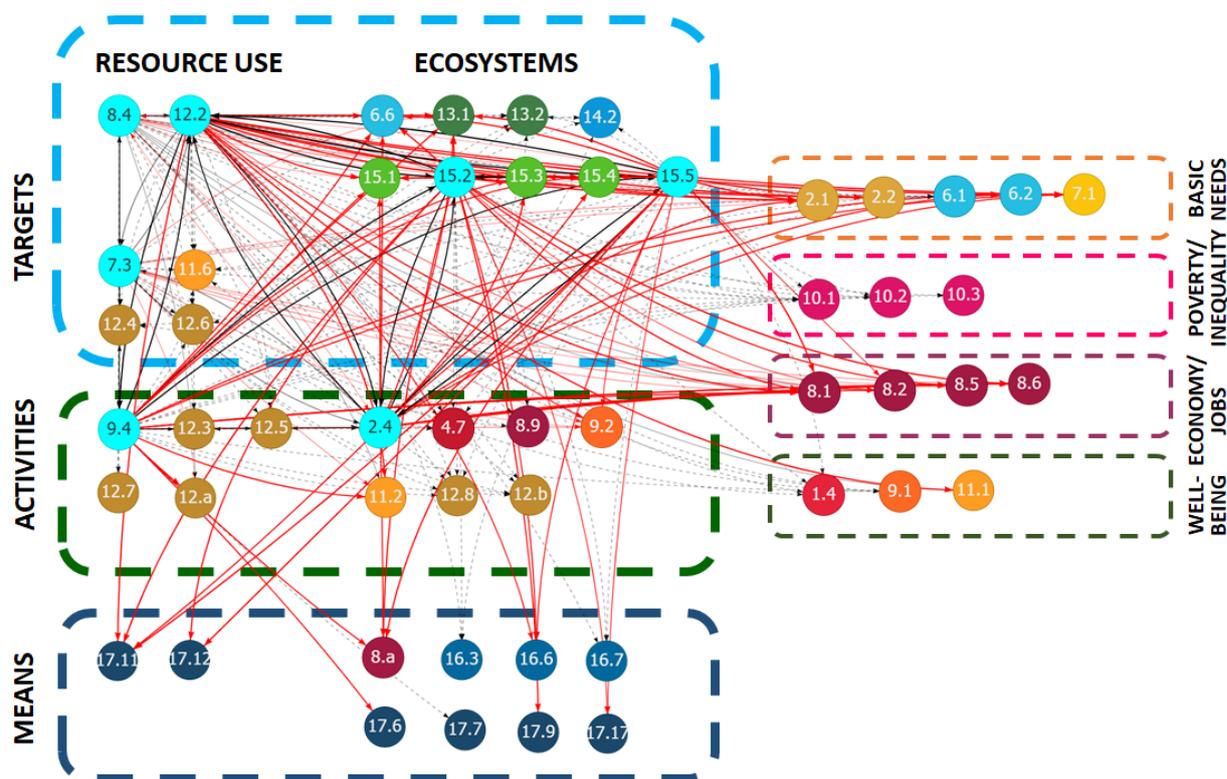


Figure 10: Negative impacts of degradation in areas related to Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.5 on achieving SCP and SDGs in Vietnam

Source: IGES SDG Interlinkages Analysis Tool (V3.0) and its database for Vietnam.

Note: See Figure 6.

5.6 Policy implications of SDG interlinkages analysis for priority setting

Based on the results of major synergies and trade-offs of the proposed actions from Section 5.5, areas with an improving trend or a degrading trend were identified (**Table 29**). Areas with a degrading trend include Targets 2.4 (sustainable food production system), 7.3 (energy efficiency improvement), 8.4 (decoupling economic growth from resource use and environmental degradation), 9.4 (infrastructure upgrade and industrial retrofit), 12.2 (sustainable resource use and management), 15.2 (sustainable forest management) and 15.5 (loss in biodiversity). Some major drivers to regression in these areas are increased agricultural productivity (Target 2.3), improved basic needs satisfaction (including Target 7.1 on access to energy and Target 11.1 on access to affordable housing and basic services in cities), economic growth (Targets 8.1 and 8.2), industrialisation (Target 9.2) and the development of the transport system (Target 11.2).

Due to their intensive linkages with other areas, degradation areas will not only impact negatively on achieving the proposed actions in the draft version of the NAP on SCP and therefore drag down the whole process of achieving SCP in Viet Nam, but they also are likely to damage efforts made in achieving other SDG targets. Reversing the downward trend in the areas related to

Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.5 and putting them back on the right track should be addressed urgently so that SCP and SDGs can be achieved in Vietnam. In particular, Targets 2.4, 9.4 and 12.2 should take priority.

Among these degradation areas, Target 9.4 on industrial retrofit, has a wide range of negative impacts on many areas related to the overall decoupling goals as well as other specific objectives proposed in the draft NAP on SCP. The indicator for Target 9.4, carbon dioxide emissions per unit of manufacturing value added, has seen an overall increasing trend in Viet Nam since 1990, reaching its peak in 2010 (see 6-2 in **Figure 8**), attributable to rapid industrialisation and polluting technologies. Consequently, it has created a vicious circle with unsustainable resource use (Target 12.2) and negatively affected terrestrial ecosystems (such as Targets 15.1, 15.3 and 15.4). Areas related to basic needs such as sanitation and hygiene (Target 6.2) and energy access (Target 7.1) have also been negatively affected. In this regard, special attention should be paid to policies related to Vietnam's industrial development, especially on curbing emissions.

Like in other countries, Vietnam has taken the conventional development path to eliminating poverty, achieving economic growth, improving living standards, and making progress with industrialisation and urbanization, with unavoidable and heavy dependency on resource use. A look into Vietnam's statistics reveals a very sharp increase in the country's domestic material consumption over the last two decades. By 2010, Vietnam was consuming about 15 times more material compared to 1990 levels (see **Figure 8**). This overexploitation of resources and unsustainable use will not only make future development uncertain but is likely to also have a detrimental effect on a wide range of areas throughout the lifecycle of those resources. As can be seen in **Figure 10**, the existing unsustainable trend of Target 12.2 on resource use has caused negative effects on water (Target 6.6) and on terrestrial ecosystems (Target 15.1, 15.3 and 15.4). It has also weakened the resilience of nature to climate change (Target 13.1) and constrained the provision of sufficient resources to meet the targets to end hunger (Target 2.1) and malnutrition (Target 2.2), access to sanitation and hygiene (Target 6.2) and other basic services (Target 11.1), as well as the sustainability of industrialisation. Making resource use more sustainable is another major priority area for Vietnam. The NAP on SCP should pay particular attention to this area.

Sustainable food production (related to Target 2.4) was proposed as an important measure in the draft NAP for SCP. However, existing trends for Target 2.4, measured by the indicator of fertiliser use by nutrient (see 8-3 in **Figure 8**), indicate an unsustainable pathway for agriculture production. It can be seen that unsustainable food production system is detrimental to achieving SCP in Vietnam. Unsustainable agricultural practices have caused negative impacts on water (Target 6.6), terrestrial (Target 15.1), land (Target 15.3) and mountain (Target 15.4) ecosystems. This has caused damage to nature and affected its resilience to climate change (Target 13.1), coupled with the degradation in forests (Target 15.2), loss of biodiversity (Target 15.5) and unsustainable resource use (Target 12.2). In addition, unsustainable agriculture impacts negatively on achieving other social and economic SDG targets, including ending hunger (Target 2.1) and malnutrition (Target 2.2), access to sanitation and hygiene (Target 6.2), economic growth (Targets 8.1 and 8.2) and employment (Targets 8.5 and 8.6).

In the wake of the successful approval by Vietnam's Prime Minister on 25 June, 2020, the NAP on SCP (2021-2030) should be implemented with effective institutional arrangements and financial resources allocated to address the degradation areas (those related to Targets 2.4, 7.3, 8.4, 9.4, 12.2, 15.2 and 15.5), particularly those related to Targets 2.4, 9.4 and 12.2.



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ANNEX 1: OVERVIEW OF SCP-RELATED LEGAL AND POLICY FRAMEWORKS IN VIETNAM

| SCP AREA | DOCUMENT | MAIN CONTENT / FIELD | DRAFTING BODY |
|--|---|---|---------------|
| Waste Management | Decree No. 59/2007/ND-CP of April 9, 2007, on solid waste management | Provisions on planning for management, investment, sorting, collection, storage, transportation and disposal of solid waste | MoNRE |
| | 04/2009/ND-CP dated January 14, 2009 on incentives and support for environmental protection activities | Preferential support on capital, equipment import tax, imported machinery, product price and consumption for waste recycling businesses/projects | MoNRE |
| | Decree 38/2015/ND-CP dated 24/4/2015 on waste and scrap management | Management of hazardous waste, daily-life solid waste, ordinary industrial solid waste, liquid waste products, industrial exhaust fumes and other specific waste products, and environmental protection in scrap import | MoNRE |
| | Decision 16/2015/QD-TTg dated May 22, 2015 | Recall discarded products | MoNRE |
| Sustainable resource management | Decision No. 1570/QD-TTg dated September 6, 2013 Strategy for sustainable exploitation and use of natural resources and protection of marine environment by 2020, with a vision to 2030 | Proper management and use of marine and island environment protection resources | MoNRE |
| | Mineral Law and Decree No. 158/2016/ND-CP of November 29, 2016 detailing the implementation of the Mineral Law | Management of mineral resources | MoNRE |
| | Law on water resources No. 17/2012/QH13 | Comprehensive management of water resources is legalized and specified | MoNRE |
| Renewable energy | Government Decision No. 2608/QD-TTg dated November 25, 2015: Strategy for renewable energy development in Vietnam until 2030 and vision to 2050 | | MoIT |
| | Circular No. 32/2012/TT-BCT dated November 12, 2012 and No. 6/2013 / TT-BCT of March 8, 2013 | Mechanism for planning, appraisal and approval of wind power projects, wind power purchase and sale contracts | MoIT |
| | Government Decision No. 31/2014/QD-TTg dated May 5, 2014 and the Circular of the Ministry of Industry and Trade No. 32/2015/TT-BCT dated October 8, 2015. | Mechanism to support development of power projects from solid waste | MoIT |

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| | (Government Decision No. 24/2014/QĐ-TTg dated March 24, 2014 and Circular of the Ministry of Industry and Trade No. 29/2015/TT-BCT dated August 31, 2015 | Mechanism to support the development of biomass-powered power projects (biomass) | MoIT |
| Resource efficiency and cleaner production | Decision 79/2006/QĐ-TTg dated 14 April 2006: National target programme on economical and efficient use of energy in the 2006-2015 period | Set specific energy- saving targets for each industry and field, partially reduce investment in the development of energy supply systems, bring socio-economic benefits, and contribute to protecting environment, rational exploitation of energy resources, implementing sustainable socio-economic development | MoIT |
| | Decision No. 1419/2009 / QĐ-TTg dated 07 September 2009: Strategy for cleaner production in industry to 2020 | | MoIT |
| | Law on Economical and Efficient Use of Energy 2010 | | MoIT |
| | Circular 02/2014/TT-BCT: Regulating measures to use energy efficiently for industries | | MoIT |
| | Information Circular 09/2012/TT-BCT: Plan, plan report energy use TK & HQ. | | MoIT |
| | Q SETTLEMENT No. 51/2011/ QĐ-TTg: List of vehicles and equipment to energy labelling. | Ministry of Industry and Trade | MoIT |
| | Q SETTLEMENT No. 40/2005/ QĐ-BXXD Vietnam construction standards | The building uses energy efficiently | MoC |
| | T hips No. 64/2011/TT-BGTVT | Defining measures for economical and efficient use of energy in transport activities. | MoT |
| Decision 2612/2013 / QĐ-TTg dated December 30, 2013: Strategy of using clean technology in the period from 2020, with a vision to 2030 | Utilizing clean, environmentally friendly technologies, increasing the efficiency of energy, resources, and low emissions in industrial production to promote green growth, mitigate climate change and improve public life copper | MoIT | |
| Ecological labels | Decision No. 253/QĐ-BTNMT of March 5, 2009 of the Ministry of Natural Resources and Environment approving the programme of eco-labels | | MoNRE |
| | Decision No. 154/QĐ-BTNMT dated January 25, 2014 | Green label criteria: 1. NXVN 01: 2014 - Washing powder; | MoNRE |

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| | | <p>2. NXVN 02: 2014 - Fluorescent light;</p> <p>3. NXVN 03: 2014 - Biodegradable plastic packaging;</p> <p>4. NXVN 04: 2014 - Synthetic paper packaging for food packaging;</p> <p>5. NXVN 05: 2014 - Roofing, cladding and paving materials of construction ceramic materials;</p> <p>6. NXVN 06: 2014 - Batteries;</p> <p>7. NXVN 07: 2014 - Office paper;</p> <p>8. NXVN 08: 2014 - Hair care;</p> <p>9. NXVN 09: 2014 - Soap;</p> <p>10. NXVN 10: 2014 - Dishwashing liquid by hand;</p> <p>11. NXVN 11: 2014 - Coatings used in construction;</p> <p>12. NXVN 12: 2014 - Laptop computers;</p> <p>13. NXVN 13: 2014 - Toner cartridges for printers, copiers and fax machines;</p> <p>14. NXVN 14: 2014 - Printer.</p> | |
| Transport | Circular 64/2011/TT-BGTVT: Stipulating measures to use energy efficiently in transport activities | Measures to use energy to save energy in transport activities | MoT |
| | Circular No. 33/2015/TT-BGTVT on National Technical Regulation on emission level 4 for new, assembled and imported cars. | National technical regulation on level 4 emissions for new, assembled and imported cars. | MoT |
| | Decision No. 49/2011/QD-TTg dated September 1, 2011 and Official Letter No. 436/TTg-CN dated March 28, 2017 | Guiding contents on the application of level 4 emission standards, to ensure that from January 1, 2018 all cars meet Euro emission standards. | MoT |
| Lifestyles | Decision No. 153/2004/QD-TTg: Orientation of sustainable development strategy (Agenda 21) in Vietnam | Developing a clean and environmentally friendly production system; building a healthy, harmonious, close and loving nature lifestyle | MPI |
| | Decision No. 1393/QD - TTg dated September 25, 2012: green growth strategy | Greening lifestyles and promoting sustainable consumption | MPI |
| Public procurement | Decision No. 1393/QD - TTg dated September 25, 2012: green growth strategy | Regulations on making the roadmap to 2020 apply green procurement with eco-labels | MPI |
| | Decision No. 68/2011/QD-TTg dated 12 December 2011 | List of energy-saving devices and equipment equipped and procured for agencies and units using the state budget. | MoT |

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| Decree 19/2019 of February 14, 2015 details the implementation of environmental protection laws | Article 47 of the Decree stipulates that Heads of agencies and units using the state budget shall prioritize the procurement of public products. The Ministry of Finance shall assume the prime responsibility for, and coordinate with the Ministry of Natural Resources and Environment in, elaborating a regulation on public procurement of environmentally friendly products according to the provisions of this Clause. | MoNRE |
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Legal documents issued after Decision 76

| SCP AREA | NAME OF DOCUMENT | MAIN CONTENT | DRAFTING BODY |
|--------------------------------|--|---|---------------|
| Sustainable Development | Decision No. 622/QĐ-TTg dated May 10, 2017: National Action Plan to implement the 2030 Agenda for Sustainable Development. | Sustainable production and consumption has been identified as one of the important objectives Agenda. In particular, confirming the continued implementation of the National Action Programme on sustainable production and consumption to 2020, with a vision to 2030. | MPI |
| | Decision 681/QĐ - TTg of June 4, 2019: Roadmap for the implementation of Vietnam's sustainable development goals by 2030, | efficient use of natural resources; rational exploitation and economical and sustainable use of mineral resources: a roadmap to reduce the loss of exploited coal by 2030: less than 20% in the kiln and open less than 5% | MPI |
| Waste management | Decision No. 491/QĐ-TTg dated May 7, 2018: Adjusting the national strategy for integrated management of solid waste by 2025, vision to 2050 | Integrated management of solid fetuses according to life cycle from arising to treatment | MoNRE |
| | Circular No. 34/2017/TT-04 BTNMT October 2017 of the Minister of Natural Resources and Environment regulations on the recovery, processing waste products. | Regulations on location, transportation, handling and reporting of discarded products | MoNRE |
| | Circular No. 01/2019/TT-BCT dated January 9, 2019 of the Ministry of Industry and Trade stipulating the scrap import border gate. | Stipulating import gates according to regulations, except for rail and waterway import gates | MoIT |
| | Circular No. 41/2018/TT-BCT dated November 6, 2018 of the Ministry of Industry and Trade on the list of scrap temporarily suspended from trading in temporary import for re-export and border-gate transfer. | List of scrap temporarily suspended from trading in temporary import for re-export and border-gate transfer | MoIT |

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| | Decree No. 82/2018/ND-CP dated May 22, 2018 of the Government on management of industrial parks and economic zones | To collect memories and criteria of eco-industrial parks, promote the symbiotic model of industrial reuse of treated waste and wastewater. | MPI |
| Efficient cleaner production resources | Decision No. 280/QD-TTg of March 13, 2019: National Programme on economical and efficient use of energy in the 2019-2030 period | | MoIT |
| | Decree No. 82/2018/ND-CP dated May 22, 2018 Management of industrial parks and economic zones | Define the concept and criteria of eco-industrial parks, promote resource efficiency and cleaner production in industrial zones. | MPI |
| Sustainable transport | Circular No. 36/2016/TT-BCT dated December 28, 2016 regulating energy labelling for vehicles and equipment under the management of the Ministry of Industry and Trade. | Prescribing the order and procedures for registering and implementing energy labelling and smooth recovery of means and equipment under the management of the Ministry of Industry and Trade | MoIT |
| | Circular No. 59/2018/TT-BGTVT dated December 17, 2018 | Guidance on energy labelling for motorcycles, motorbikes manufactured, assembled and imported. | MoT |
| | Decision No. 42066/QD-BGTVT dated December 28, 2016 | Action plan to reduce CO ₂ emissions in civil aviation activities | MoT |
| Ecological labels | Decision No. 2186/QD-BTNMT dated 11 September 2017 of the Ministry of Natural Resources and Environment | Promulgating Vietnam Green Label criteria for products: batteries (NXVN 15: 2017), photocopiers (NXVN 16: 2017), LED bulbs and LED modules for common lighting (NXVN 17: 2017). | MoNRE |
| Carriage | Decision No. 04/QD-TTg dated March 9, 2017 of the Prime Minister stipulating the list, means and equipment subject to energy labelling, application of minimum energy efficiency level and implementation schedule | The Decision specifies the list of means and equipment subject to energy labelling and applies the minimum energy efficiency, including: 1. Group of home appliances, including; 2- Group of office and commercial equipment 3- Group of industrial equipment, including: distribution transformers, electric motors; 4. Group of means of transport | MoT |
| Energy | Decision No. 11/2017/QD-TTg April 11, 2017 of the Prime Minister on the mechanism to encourage the development of solar power projects in Vietnam. | Encourage development and development of solar power projects in Vietnam | MoT |
| | Circular No. 05/2019/TT-BCT dated 11 March 2019 | Influential in developing the project and power purchase contracts applied to the solar power project | MoIT |
| | Circular 16/2017/ TT-BCT dated 12 September 2017 | Influential in developing the project plan and contract for power purchase applies to solar power projects. | MoIT |

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| | Circular No. 02/2019/TT-BCT dated January 15, 2019 | Regulations on implementation of wind power projects development and Standardized Power Purchase Agreement for wind power projects. | MoIT |
| | Circular No. 19/2018/TT-BNNPTNT guiding the protection and development of aquatic resources | Protection of aquatic resources | MARD |
| Sustainable lifestyle | Consolidated Document 01/ VBHN-BNNPTNT 2018 dated May 18, 2018 of the Ministry of Agriculture and Rural Development merging the Circular stipulating traceability, recall and handling of unsecured agricultural and forestry food products secure. | Traceability and withdrawal of food are not guaranteed to be safe | MARD |
| | Decision No. 100/QĐ-TTg dated January 19, 019 of the Prime Minister. | Scheme on the implementation, application and management of the traceability system | MARD |
| Green public procurement | Directive No. 13/TT-TTg of April 4, 2017 of the Prime Minister | Increasing use of domestically produced materials and goods in bidding for development investment projects and regular procurement activities using state capital | MPI |
| Other: Marketing | Circular 21/2018/TT-BCT dated August 20, 2018 of the Ministry of Industry and Trade Amending a number of articles of Circular No. 47/2014 / TT-BCT dated December 5, 2014 of the Ministry of Industry and Trade . | Authority for the management of e-commerce sites and Circular No. 59/2015 / TT-BCT dated 12/31/2015 of the Ministry of Trade regulations on the management of e-commerce activities through applications on mobile devices dynamic | MoIT |
| | Decree No. 81/2018 / ND-CP dated May 22, 2018 of the Government detailing the Commercial Law regarding trade promotion activities | | MoIT |
| | Circular No. 212/2015/TT-BTC dated December 31, 2015 of the Ministry of Finance, guiding the enterprise income tax policy for environmental protection activities prescribed in Decree No. 19/2015 / ND-CP February 14, 2015 of the Government detailing the implementation of several articles of the Law on Environmental Protection; | | MoF |
| | Circular No. 03/2017/TT-BTNMT dated 21 March 2017 of the Ministry of Natural Resources and | | MoNRE |

Environment Guiding the lending with preferential interest rates, post-investment interest rate support from Vietnam Environment Protection Fund

Decree 98/2018/ND-CP on policies to encourage cooperation and cooperation in production and consumption of agricultural products

MARD

Resolution No. 53/NQ-CP of July 17, 2019 on solutions to encourage businesses to invest in agriculture effectively, safely and sustainably

MARD

ANNEX 2: LIST OF PROVINCES/CITIES WITH SCP PROGRAMME INTEGRATED INTO 5-YEAR AND ANNUAL SOCIOECONOMIC PLANS

| NO | PROVINCE/CITY | NUMBER OF DOCUMENT LETTER | ISSUANCE DATE | ISSUING BODY |
|----|-----------------|---------------------------|---------------|-------------------|
| 1 | Bà Rịa Vũng tàu | 2149/UBND-VP | 14/3/2019 | Peoples committee |
| 2 | Bắc Kan | 37/BC-SCT | 25/1/2019 | DoIT |
| 3 | Bắc Giang | 20/BC-SCT | 31/1 /2019 | DoIT |
| 4 | Bạc Liêu | 28/BC-SCT | 11/1/2019 | DoIT |
| 5 | Bình Định | 535/UBND-KT | 29/1/2019 | Peoples committee |
| 6 | Bình Thuận | 51/BC-UBND | 5/3/2019 | Peoples committee |
| 7 | Cao Bằng | 500/BC-UBND | 21/2/2019 | Peoples committee |
| 8 | Đà Nẵng | 1264/UBND-SCT | 4/3/2019 | Peoples committee |
| 9 | Đắk Nông | 66/BC-SCT | 13/3/2019 | DoIT |
| 10 | Đồng Nai | 3102/BC-UBND | 22/3/2019 | Peoples committee |
| 11 | Gia Lai | 43/BC-SCT | 20/2/2019 | DoIT |
| 12 | Hà Nam | 135/BC-SCT | 31/1/2019 | DoIT |
| 13 | Hà Nội | 447/SCT-TTKC | 25/1/2019 | DoIT |
| 14 | Hà Tĩnh | 125/SCT-KHTCTH | 28/1/2019 | DoIT |
| 15 | Hải Phòng | 48/BC-UBND | 19/2/2019 | Peoples committee |
| 16 | Hậu Giang | 198/SCT-QLCN | 1/1/2019 | DoIT |
| 17 | Hòa Bình | 115/SCT-KHTCTH | 25/1/2019 | DoIT |
| 18 | Hưng Yên | 228/BC-SCT | 4/3/2019 | DoIT |
| 19 | Khánh Hòa | 353/SCT-QLNL | 19/3/2019 | DoIT |
| 20 | Kiên Giang | 131/SCT-KHTCTH | 31/1/2019 | DoIT |
| 21 | Lạng Sơn | 77/BC-UBND | 28/2/2019 | DoIT |
| 22 | Phú Thọ | 199/SCT-KHTC | 4/3/2019 | DoIT |

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|----|----------------|--------------|-----------|-------------------|
| 23 | Phú Yên | 37/BC-SCT | 22/2/2019 | DoIT |
| 24 | Quảng Nam | 151/SCT-QLCN | 15/2/2019 | DoIT |
| 25 | Quảng Trị | 125/BC-SCT | 25/1/2019 | DoIT |
| 26 | Sóc Trăng | 47/BC-UBND | 4/3/2019 | Peoples committee |
| 27 | Thái Bình | 10/BC-SCT | 31/1/2019 | DoIT |
| 28 | Thừa thiên Huế | 291/BC-SCT | 26/2/2019 | DoIT |
| 29 | Tiền Giang | 241/SCT-QLCN | 1/2/2019 | DoIT |
| 30 | Vĩnh Long | 128/BC-SCT | 31/1/2019 | DoIT |
| 31 | Yên Bái | 323/BC-SCT | 6/3/2019 | DoIT |

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