

Ninth Regional 3R Forum in Asia and the Pacific

“3R as a way for moving towards sufficiency economy – Implications for SDGs”

4-6 March 2019, Bangkok, Thailand

Country Report

(Draft)

<Lao People’s Democratic Republic >

This country report was prepared by the Government of Lao People’s Democratic Republic as an input for the Ninth Regional 3R Forum in Asia and the Pacific. The views expressed herein do not necessarily reflect the views of the United Nations.

Country 3R Progress Report

Name of the Country: Lao People's Democratic Republic
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*Progress and achievements towards implementation of the Ha Noi 3R Declaration
-Sustainable 3R Goals for Asia and the Pacific (2013-2023)-*

With the objective of demonstrating renewed interests and commitments of Asia-Pacific countries towards realizing a resource efficient society, the Fourth Regional 3R Forum in Asia-Pacific in 2013 adopted the good-will and legally non-binding "***Ha Noi 3R Declaration – Sustainable 3R Goals for Asia and the Pacific 2013-23.***" The objective of the Country Reporting is to share among international community with various initiatives launched and efforts made (such as new policy instruments, legislations, regulations, institutional arrangements, investments or financing, technological innovation or intervention, partnership mechanisms, such as PPPs, etc.) by the member countries of the Forum in addressing each of the underlined goals of the Ha Noi 3R Declaration. This would help the member countries to share various best practices in 3R and resource efficiency areas across the region. In addition, it would also help bi-lateral and multi-lateral development agencies, donors, development banks in assessing the sustainable needs and challenges of those countries to better plan their existing as well as future capacity building programmes and technical assistance in the areas of 3Rs and sustainable waste management.

With the cooperation of other related ministries, organization and agencies, we request you to kindly fill in the below table as much as possible with relevant data/information. If additional spaces are required, separate sheets could be attached.

Thank you very much for your kind cooperation.

Secretariat of the Regional 3R Forum in Asia and the Pacific
United Nations Centre for Regional Development (UNCRD)
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I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

Goal 1 Significant **reduction** in the quantity of **municipal solid waste** generated, by instituting policies, programmes, and projects at national and local levels, encouraging both producers and consumers to reduce the waste through greening production, greening lifestyle, and sustainable consumption.

Q-1 What specific 3R policies, programmes and projects, are implemented to reduce the quantity of municipal solid waste?

A-1: 3Rs policies in Lao PDR are:

Strategies	Approach	Project
1."3Rs" are promoted at generation sources.	1.1 "3Rs" are promoted at generation sources to control the waste amount generation.	1.1.1 To reduce the amount of kitchen waste and garden waste at households, hotels, guest houses and restaurant
		1.1.2 To collect recyclable waste separated at generation sources.
		1.1.3 To avoid using excess packages such as plastic shopping bags.
2.Waste collection and transportation system is improved to keep the city clean and raise its efficiency.	2.1 Improvement of existing collection and discharge system	2.1.1 Improvement of existing collection system
		2.1.2 Improvement of existing waste discharge system
	2.2 Expansion of waste collection service area.	2.2.1 Expansion of waste collection system
2.2.2 Establishment of waste discharge rule in waste collection expansion area		
2.3 The sound finance of Solid Waste Management is established to manage proper waste collection and transfer.	2.3.1 To improve existing finance system regarding waste collection and transfer.	
3. Final disposal system is improved to mitigate adverse impacts on the surrounding areas.	3.1 The final disposal site is managed properly to discharge waste properly.	3.1.1 To instruct the proper management of existing final disposal site.
		3.1.2 To manage waste pickers and improve their working condition
	3.2 The sewage from septic tank is treated properly to mitigate around aquatic impact.	3.2.1 To introduce and manage the proper treatment facility for the sewage from septic tanks
3.3 The sound finance is established to manage the final disposal site properly.	3.3.1 To improve the finance system regarding the final disposal site.	
4. Health care waste management is improved.	4.1 Health care waste is separated properly to prevent the expansion of infectious pathogen at generation sources.	4.1.1 To establish the separation rule of health care waste at generation source and monitoring system.
	4.2 Health care waste is transferred properly to prevent the expansion of infectious pathogen in the town.	4.2.1 To establish the collection and transportation system of health care waste and monitoring system.
	4.3 Health care waste is disposed properly to prevent the expansion of infectious pathogen at the disposal site.	4.3.1 To establish the treatment and disposal system of health care waste and monitoring system.
	4.4 The sound finance is established to manage the treatment of health care waste properly.	4.4.1 To establish sound finance system regarding treatment of health care waste.
5. An official document that defines the solid waste management system is drafted.	5.1 The responsibilities that the relevant stakeholders should bear to achieve a goal of solid waste management are clarified.	5.1.3 To codify the responsibilities of each stakeholder and build consensus.

Voluntary Progress/Achievements/Initiatives in Implementing Ha Noi 3R Declaration (2013~2023)

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I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)	
Goal 1	Significant reduction in the quantity of municipal solid waste generated, by instituting policies, programmes, and projects at national and local levels, encouraging both producers and consumers to reduce the waste through greening production, greening lifestyle, and sustainable consumption.
Q-2 What is the level of participation of households in "source" segregation of municipal waste streams? (Please check the appropriate box)	
<input type="checkbox"/> Very High (> 90%) <input type="checkbox"/> High (>70%) <input checked="" type="checkbox"/> Average (50~70%) <input type="checkbox"/> Low or not satisfactory (< 50%) <input type="checkbox"/> Does not exist	
Q-3 Total annual government expenditure per capita (US\$ per capita) in municipal solid waste management in 2014-2015	
About 1- 1.5 USD per capital	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
Lake of financial and technical support, challenges in public private partnership involvement	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant	
1. Laos Pilot Program for Narrowing the Development Gap towards ASEAN Integration Environmental Management Component. Can be reached at https://www.jica.go.jp/laos/english/activities/pdf/activity_31.pdf	
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)	
Overall policy and legislation at the national level, there is the act issued to cover the general MSW management, treatment, recycling, and resource recovery. There also are regulations issued on source reduction, segregation of waste at source, collection, transportation, landfills, incinerator, as well as Industrial waste, healthcare waste and others management.	
1. Environment Protection Law No. 29/NA, date 18 December 2012; and 2. National Action Plan (2016-2021) on Solid Waste Management which aim to encourage citizens, including children, and the private sector to reduce waste at the source by following the 3Rs concept (Reduce, Reuse, Recycle)	
Is this Goal relevant for your country? <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)	
Goal 2	Full-scale utilization of the organic component of municipal waste, including food waste, as a valuable resource, thereby achieving multiple benefits such as the reduction of waste flows to final disposal sites, reduction of GHG emission, improvement in resource efficiency, energy recovery, and employment creation.
<p>Q-1 Does the central government have policies or support to utilize or reduce the organic waste such as composting, energy recovery and improving efficiency in food processing?</p> <p>Yes, we the National government is responsible to propose for promulgating the law whereas specify the local government and private sector cooperation to provide municipality solid waste management (MSW) service throughout the waste stream from collection, transportation, disposal, recycling. Likewise, Industrial waste will be dealing by local authority and private sector.</p>	
<p>Q-2 What is happening to country's organic waste? (Please check the appropriate box)</p> <p><input type="checkbox"/> mostly landfilled</p> <p><input type="checkbox"/> mostly incinerated</p> <p><input type="checkbox"/> both landfilled and incinerated</p> <p><input checked="" type="checkbox"/> mostly open dumped or open burned</p>	
<p>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</p> <ul style="list-style-type: none"> ○ MSW are disposed properly not less than 65% of waste generated by year 2021; ○ All of improper waste dumping ground must be handled properly by 2020; ○ Inadequate numbers of knowledgeable staff to operate large anaerobic digestion system; ○ Slow growth of private investors and understanding from financial sector; ○ Difficulties in obtaining consistent source segregated of organic waste. 	
<p>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</p> <p>Solid Waste Management in Vientiane, Lao PDR. Can be reached at http://www.greengrowthknowledge.org/sites/default/files/downloads/best-practices/Solid_Waste%20Management_in_Vientiane_Lao_PDR%20GGGI.pdf</p>	
<p>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</p> <p>Ministry of Natural Resources and Environment is cooperate with UNEP and big retailers to address the issue of municipality solid waste management “Integrated Municipality Solid Waste Management Project in Lao PDR”</p>	
<p>Is this Goal relevant for your country? <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

Goal 3 Achieve significant **increase in recycling rate** of recyclables (e.g., plastic, paper, metal, etc.), by introducing policies and measures, and by setting up financial mechanisms and institutional frameworks involving relevant stakeholders (e.g., producers, consumers, recycling industry, users of recycled materials, etc.) and development of modern recycling industry.

Q-1 What is the recycling rate of various recyclables? (Please check the appropriate cell & add more waste streams as relevant for the country)

Rate \ Type	Very High (>90%)	High (>70%)	Average (50~60%)	Poor (<50%)	Recycling does not exist	Definition of recycling rate*
Paper		<input type="checkbox"/>				1
Plastic			<input type="checkbox"/>			1
Metal		<input type="checkbox"/>				1
Construction waste				<input type="checkbox"/>		1
e-waste				<input type="checkbox"/>		1
others			<input type="checkbox"/>			1

**Note: Please specify in the cell which of the following definitions (i.e., 1 or 2 or 3) is followed for recycling rate*

Definition 1: (collected recyclable waste)/(estimated generation of waste)

Definition 2: (volume of utilized recyclable waste)/(volume of raw material)

Definition 3: (volume of utilized recyclable waste)/(volume of collected waste for recycling)

Q-2 What specific policies are introduced at local and national level for prevention or reduction of waste streams – paper, plastic, metal, construction waste, e-waste?

- Ministerial instruction under the Environmental Protection Law was introduced to mandate household source separation in three categories such as general waste, recyclable waste and household hazardous waste; and
- Provincial policy on Green, Clean and Beautiful cities under the National Social Economic Development Plan 2016-2021

Q-3 What is the rate of resource recovery from various waste streams?

Rate \ Type	Very High (>90%)	High (>70%)	Average (50~60%)	Poor (<50%)	Recycling does not exist
Paper			<input type="checkbox"/>		
Plastic			<input type="checkbox"/>		
Metal		<input type="checkbox"/>			
Construction waste				<input type="checkbox"/>	
e-waste				<input type="checkbox"/>	

(Please check the appropriate cell & add more waste streams as relevant for the country)

Q-4 What is the level of existence of resource recovery facilities/ infrastructures in cities?

Level \ Type	Every Major City	Few Major Cities only	Does not exist	Supportive policy or programmes exists	No supportive policy or programmes
Paper		<input type="checkbox"/>			
Plastic		<input type="checkbox"/>			
Metal		<input type="checkbox"/>			
Construction			<input type="checkbox"/>		

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waste					
e-waste				<input type="checkbox"/>	

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)

Goal 3 Achieve significant **increase in recycling rate** of recyclables (e.g., plastic, paper, metal, etc.), by introducing policies and measures, and by setting up financial mechanisms and institutional frameworks involving relevant stakeholders (e.g., producers, consumers, recycling industry, users of recycled materials, etc.) and development of modern recycling industry.

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

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Lack of incentive policy for informal sectors, specific legislation for waste separation, recovery and recycling, challenges on investment of modern recovery and recycling facilities

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Laos Pilot Program for Narrowing the Development Gap towards ASEAN Integration Environmental Management Component. Can be reached at https://www.jica.go.jp/laos/english/activities/pdf/activity_31.pdf

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

National Action Plan (2016-2021) on Solid Waste Management which aim to encourage citizens, including children, and the private sector to reduce waste at the source by following the 3Rs concept (Reduce, Reuse, Recycle)

Is this Goal relevant for your country? Highly Partially Not at all

I. 3R Goals in Urban/Industrial Areas (3Rs in municipal solid waste)	
Goal 4	Build sustainable cities /green cities by encouraging “zero waste” through sound policies, strategies, institutional mechanisms, and multi - stakeholder partnerships (giving specific importance to private sector involvement) with a primary goal of waste minimization
<i>Q-1 What specific waste management policies and programmes are introduced to encourage private sector participation in municipal waste management?</i>	
<p>Ministerial instruction under the Environmental Protection Law No. 29/NA, date 18 December 2012 was introduced to mandate household source separation in three categories such as general waste, recyclable waste and household hazardous waste; and Provincial policy on Green, Clean and Beautiful cities under the National Social Economic Development Plan 2016-2021 encourages private investors in waste management especially in the waste to energy sector.</p>	
<i>Q-2 What are the major waste management areas that have strong involvement of private and business sector? (Please check appropriate boxes and add other areas if not listed below)</i>	
<input type="checkbox"/> <input checked="" type="checkbox"/> waste collection <input type="checkbox"/> <input type="checkbox"/> resource recovery <input type="checkbox"/> <input checked="" type="checkbox"/> waste recycling <input type="checkbox"/> <input type="checkbox"/> waste to energy, composting, etc. <input type="checkbox"/> <input type="checkbox"/> PPP projects in waste sector	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<p>Integrated solid waste management project in all municipality are exceeding big budget propose to the central government much comply with National fiscal year budget which has many procedural step and require time to receive approval.</p>	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
<p>Solid waste management in Vientiane Lao PDR: Situation assessment and opportunities for waste to resources. See in the website http://www.greengrowthknowledge.org/sites/default/files/downloads/best-practices/Solid_Waste%20Management_in_Vientiane_Lao_PDR%20 GGGL.pdf</p>	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
<ol style="list-style-type: none"> 1. Home composting; 2. Decentralized waste composting facilities; 3. Decentralized secondary waste collection points with the participation of micro-enterprises; and 4. Community driven waste banks with organization of waste pickers cooperation. 	
<i>Is this Goal relevant for your country?</i> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all	

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 5	<p>Encourage the private sector, including small-and medium-sized enterprises (SMEs) to implement measures to increase resource efficiency and productivity, creation of decent work and to improve environmentally-friendly practices through applying environmental standards, clean technologies, and cleaner production.</p> <p>Lao PDR has relatively little industry, no heavy industry and much of the country's industry is comprised of small companies. These small establishments are involved primarily in the production of textiles and handicrafts. Laos is well known for the high quality of its aesthetically attractive textiles.</p> <p><i>Q-1 What are the major clean technologies related policies aiming to increase energy and resource efficiency of SMEs?</i></p> <p>The country's Green Industry status is still at an early stage. The government is developing policies to promote high value-added products in various sectors, including from agro-processing, wood manufacturing, manufacturing for the construction sector, food processing, and textile and garment manufacture. The aim is to encourage these sectors to be more efficient in resource utilization, and improve product quality, competitiveness and work place environment. Specific policies and instruments still need to be developed for Green Growth. Each Ministry has its own interpretation, and there is a need for a common strategy that could bring all the relevant Ministries together.</p> <p><i>Q-2 What are the capacity building programmes currently in place to build the technical capacity of SMEs in 3R areas?</i></p> <ol style="list-style-type: none"> 1. Provision of appropriate training for SMEs owners/managers on general business management as well as all the functional areas such as 3 R. Such training should be offered in the 3 R areas as well because they would be unable to access the pool of knowledge residing in educational institutions offering courses in business administration located mostly in all provinces. 2. Establishment of more technical and vocational educational institutes. 3. Development of skill for all staffs in 3 R areas. Create incentive for the private sector to participate in the development and implementing of 3 R principle in order to Green, Clean and Beautiful Laos. <p><i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i></p> <p>There are currently difficult challenges of the solid waste management sector as below:</p> <ul style="list-style-type: none"> ○ Lack of a strategy, vision and goals for solid waste sector, including targets for the conversion of waste into resources; ○ Waste management paradigm based on a "collect and dispose only" approach, with limited experience in the operation of waste treatment facilities. ○ Low waste collection coverage, especially in low-income settlements and peri-urban areas; ○ Low frequency of municipal waste collection services for households (weekly service); ○ Limited value added by actors in Lao PDR throughout the recyclables value chain, as recyclable processing industries are located in neighbouring countries; and ○ Lack of leadership at the grassroots and community levels on activities related to the management of solid waste <p><i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i></p> <p>http://open_jicareport.jica.go.jp/pdf/12245338.pdf</p> <p><i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i></p> <p>"Integrated Municipality Solid Waste Management Project in Lao PDR"</p> <p>The government defines directions and policies and establishes an SME Promotion and</p>

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I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 5	Encourage the private sector , including small-and medium-sized enterprises (SMEs) to implement measures to increase resource efficiency and productivity , creation of decent work and to improve environmentally-friendly practices through applying environmental standards, clean technologies, and cleaner production.
<p>Development Fund and support organizations together with regulations, practices and measures, to promote sustainable growth of small and medium sized enterprises aiming at expanding commercial goods production, trading and service business activities, so as to contribute to employment creation, the raising of living standards of people, and to lay the foundations for gradual industrialization and modernization and contribute to sustainable growth of the national economy.</p> <p>The private sector private organization and business associations have an important role in the implementation of the Strategy, especially in the field operation and the receiving end of the impact from the Strategy implementation.</p>	
<p><i>Is this Goal relevant for your country?</i> <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 6	Promote the greening of the value chain by encouraging industries and associated suppliers and vendors in socially responsible and inclusive ways.
Q-1 What percent of companies and industries have introduced green accounting and voluntary environmental performance evaluation (Ref: ISO 14000)?	
<input type="checkbox"/> Very High (> 90%) <input type="checkbox"/> High (>70%) <input type="checkbox"/> Average (50~70%) <input checked="" type="checkbox"/> Low or not satisfactory (< 50%) <input type="checkbox"/> None	
Q-2 What percent of companies and industries have introduced social accounting (Ref: SA 8000) in consultation with their workers?	
<input type="checkbox"/> Very High (> 90%) <input type="checkbox"/> High (>70%) <input type="checkbox"/> Average (50~70%) <input checked="" type="checkbox"/> Low or not satisfactory (< 50%) <input type="checkbox"/> None	
Q 3 Does government have a programme for promoting greening of the value chain? What specific policies, programmes and incentives are introduced to promote greening of value chain?	
<p>Doing business in Lao PDR has to comply with the new Enterprise Law No.11/NA dated 09.11.2005, which replaces Business Law No. 03/94/NA dated 18.07.1994 The law directly relevant to SMEs is the Decree on the Promotion and Development of Small and Medium Sized Enterprises No.42/PM. Those laws defines directions and policies and establishes an SME Promotion and Development Fund and support organizations together with regulations, practices and measures, to promote sustainable growth of small and medium sized enterprises aiming at expanding commercial goods production, trading and service business activities, so as to contribute to employment creation, the raising of living standards of people, and to lay the foundations for gradual industrialization and modernization and contribute to sustainable growth of the national economy.</p>	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
<ol style="list-style-type: none"> Finance: Most SMEs still face problem of insufficient capital and unable to access formal financing for their investment, expansion or working capital; Human Resource: Both business owners and workers still lack business training and skills; The Public Sector Issues: The budget and personnel resources are limited and insufficient to implement the projects according to the set Strategy and Plan, requiring financial support from international and foreign assistance organizations; and Production Technology: Production technology employed by SMEs is mostly unsophisticated due to the low level of capital investment and the lack of modern technical knowledge of the owner. Thus, they are unable to develop their product, or to establish good quality standards. 	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant	

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I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 6	Promote the greening of the value chain by encouraging industries and associated suppliers and vendors in socially responsible and inclusive ways.
Lao PDR: Economic Policy Support Enhancing Productivity and Employment https://www.adb.org/sites/default/files/project-documents/50179/50179-001-tar-en.pdf	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
Government of Lao PDR issue Decree on the Promotion and Development of Small and Medium Sized Enterprises No.42/PM defines six priority policy areas or directions as basis for the development of the strategy and action plan in SME Promotion and Development Policy:	
<ol style="list-style-type: none">1. Creating an enabling regulatory and administrative environment;2. Enhancing competitiveness of SMEs;3. Expanding domestic and international markets;4. Improving access to finance;5. Encouraging and creating favorable conditions for establishment of business organizations; and6. Enhancing entrepreneurial attitudes and characteristics within the society	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all	

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)

Goal 7 Promote **industrial symbiosis** (i.e., recycling of waste from one industry as a resource for another), by providing relevant incentives and support.

Q-1 Does your government have policies and programmes promoting industrial symbiosis in industrial parks or zones? What specific policies, programmes and incentives are introduced to promote industrial symbiosis?

Yes, the government has policies and programs promoting industrial symbiosis in Special Economic Zone (SEZ) are responsible for incorporating SME development policies and measures defined in this Decree into their socio-economic development plans according to the actual conditions of their localities. Assist cooperate and coordinate with the National SME Promotion and Development Office and local SME support organizations in development and implementing SME promotion and development projects in their localities according to the actual situation in each locality.

Q-2 How many eco-industrial parks or zones or the like, which is supported by the government, are there in the country?

There are 11 SEZ in Lao PDR:

No	SEZ	Establishment
1	<u>Savan-Seno Special Economic Zone</u>	2003
2	<u>Boten Beautiful Land Specific Economic Zone</u>	2003
3	<u>Golden Triangle Special Economic Zone</u>	2007
4	<u>Vientiane Industrial and Trade Area</u>	2011
5	<u>Saysetha Development Zone</u>	2010
6	<u>Phoukhyo Specific Economic Zone</u>	2010
7	<u>Thatluang Lake Specific Economic Zone</u>	2011
8	<u>Longthanh- Vientiane Specific Economic Zone</u>	2012
9	<u>Dongphosy Specific Economic Zone</u>	2012
10	<u>Thakhek Specific Economic Zone</u>	2012
11	<u>Pakse - Japan SME Special Economic Zone</u>	2015

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

While there is some room for improvement in the key business laws in the Lao PDR, the main challenge is the effective implementation, interpretation, and enforcement of those laws. A key concern of businesses and other stakeholders is that laws are often passed, but are not supported with the enabling decrees, regulations, capacity building, and administrative structures that are essential

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 7	Promote industrial symbiosis (i.e., recycling of waste from one industry as a resource for another), by providing relevant incentives and support.
<p>for those laws to be implemented effectively and to achieve their objectives. Impact of Access to Finance Constraints, this lack of access to credit and other financial services constrains private sector growth in several ways. It constrains a firm's ability to expand, invest in new equipment and technologies, gain access to foreign markets, and manage liquidity efficiently. It can also hinder the diversification of the economy by constraining growth in sectors where access to finance is particularly challenging (such as industrial) while concentrating growth in relatively well-funded sectors. Finally, it can exacerbate the "missing middle" problem to the extent that SMEs lack access to the capital needed to achieve scale and grow into medium-sized businesses.</p>	
<p><i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i></p> <p>Lao PDR has focused its SME policy on improving the legal and regulatory environment to support SME development. It has been developing targeted SME policies since the early 2000s and benefits from a relatively good institutional framework and a dedicated fund for SME development. It is increasingly interested in policies to enhance SME productivity and integration into GVCs, but these areas currently lack sufficient funding.</p> <p>https://www.oecd-ilibrary.org/docserver/9789264305328-19-en.pdf?expires=1547527918&id=id&acname=guest&checksum=54B84EF014BA6D0E46A6C9BB01C7797C</p>	
<p><i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i></p> <p>The 8th NSEDP provides the overarching policy framework will be implemented. In turn, the NSEDP aligns to the Lao PDR Socio-Economic Development Strategy 2016–2025, the Lao PDR Vision 2030 and the Global Goals for Sustainable Development (SDGs). Most 8th NSEDP targets are closely linked to the SDGs.</p>	
<p><i>Is this Goal relevant for your country?</i> <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 8	Build local capacity of both current and future practitioners, to enable the private sector (including SMEs) to obtain the necessary knowledge and technical skills to foster green industry and create decent, productive work.
Q-1 How many dedicated training facilities or centers are there to cater the needs of SMEs and practitioners in the areas of cleaner production, resource efficiency and environment-friendly technologies, etc.?	
No information, because both business owners and workers still lack business training and skills. Most of the SMEs are family businesses and often hire members of the family whose skills and knowledge of business operation and production technology are insufficient. In cases of hiring workers outside the family, these labor are mostly of very little skills.	
Q-2 Please provide an indicative figure on annual government (US \$) expenditure on building technical capacity of SMEs and practitioners in the areas of cleaner production, resource efficiency and environment-friendly technologies, etc.?	
No Information, because at present, the country still need substantial support from international assistance organizations to compile an adequate database of the SMEs. If in the future, the availability of financial and personnel resources are not forthcoming the establishment of valuable database would be intermittent.	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
<ol style="list-style-type: none"> 1. Budgetary Limitation 2. Insufficient personnel for the expected output; and 3. Assignment of officers responsible for SMEs promotion in the provinces. Currently, this task is taken up by the staff of the provincial office who perform mostly coordinating functions, often resulting in unnecessary delay. 	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant	
Lao People's Democratic Republic: Economic Policy Support for Enhancing Productivity and Employment https://www.adb.org/sites/default/files/project-documents/50179/50179-001-tar-en.pdf	
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)	
Green Growth and Green Industry need further promotion. The government aims to promote participation by both public and private sectors in Green Growth and Green Industry. The “Greening” of industry will include policymaking, improved industrial production processes and resource-efficient productivity	
Is this Goal relevant for your country? <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all	

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I. 3R Goals in Urban/Industrial Areas (3Rs in Industrial waste)	
Goal 9	Develop proper classification and inventory of hazardous waste as a prerequisite towards sound management of such waste.
Q-1 Is there a systematic classification of hazardous waste? If so, please attach. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Q-2 What specific rules and regulations are introduced to separate, store, treat, transportation and disposal of hazardous waste? Law on Chemical Management No. 25/NA, date 10 November 2016	
Challenges (policy/ institutional/ technological/ financial) faced in implementation: Challenges faced at present are having no specific agency on chemicals management in MOIC, low priority of sound chemicals management in the national development agenda, insufficient information, limited number of skilled/experienced staff and laboratory facilities for chemicals management. Lao PDR needs trainings for regulatory authorities and private sectors and strongly supports regional cooperation and networking on chemicals management.	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant http://www.la.one.un.org/images/publications/VNR-web-very-low-resolution.pdf	
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021) Lao People's Democratic Republic: Voluntary National Review on the Implementation of the 2030 Agenda for Sustainable Development	
Is this Goal relevant for your country? <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

II. 3R Goals in Rural Areas

Goal 10 **Reduce losses in the overall food supply chain** (production, post harvesting and storage, processing and packaging, distribution), leading to reduction of waste while increasing the quantity and improving the quality of products reaching consumers.

Although data on quantitative postharvest loss of rice in Lao PDR are not available

Q-1 What specific policies, rules and regulations, including awareness programmes, are introduced to minimize food or crop waste?

The programme covered the aspects of:

1. Pre harvest factors influencing on post harvest quantity and quality losses in rice;
2. Harvesting effects on postharvest losses of rice;
3. Best practices on threshing, cleaning/winning, drying, packaging, transportation and storage of rice;
4. Pests infestation and rodent attack in rice postharvest stages and their protection;
5. Parboiling and milling system for quality rice;
6. Micro level processing of rice into shelf-stable value added products;
7. Overall rice supply chain and marketing in Lao PDR;
8. Existing rice value chain in Savannakhet province of Lao PDR: Some selected features stressing constraints at harvest and postharvest levels;
9. Food safety and quality assurance of rice throughout the supply chain; and
10. Critical Loss Points (CLP) in rice supply chain.

Q-2 Is there any continuing education services or awareness programmes for the farmers or agricultural marketing associations on reduction of crop wastes for increased food security?

Aiming to reduce this rice loss in Lao PDR, a 2-day long Training of Trainers programme on rice harvest and post-harvest management has been implemented in Savannakhet province. Sixty-five trainers including Agricultural Extension Officials of Savannakhet province, Researchers of National Agriculture and Forestry Research Institute (NAFRI) and Field Level Officials of JICA gathered practical knowledge on how to reduce the rice loss.

Q-3 What is the average wastage of crops or agricultural produce between farms to consumers, if there is a study in your country?

The participated trainers are now well prepared to transfer these appropriate techniques and approaches to the farmers' and other value chain actors directly involved in rice supply chain of Laos.

- Very High (> 20~ 30%)
- High (10~20%)
- Medium (5~10%)
- Low (< 5%)
- Negligible (<1%)

II. 3R Goals in Rural Areas	
Goal 10	Reduce losses in the overall food supply chain (production, post harvesting and storage, processing and packaging, distribution), leading to reduction of waste while increasing the quantity and improving the quality of products reaching consumers.
<p><i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i> The policy of giving out agricultural concessions to foreign direct investment has boosted agricultural exports, but has also added greatly to problems of land and forest depletion and degradation and land related conflicts. All of these challenges are exacerbated by the fact that Lao PDR is very vulnerable to disasters, such as weather events such as typhoons, flooding and droughts, rodent and pest attacks, and animal disease epidemics.</p>	
<p><i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i> The overarching development goal of the Lao PDR is to reduce poverty, achieve growth with equity and meet the Sustainable Development Goals by 2020. Lao PDR also aims of graduating from the ‘Least Developed’ category of countries by 2020. Agriculture is expected to play a key role in achieving poverty reduction. Key challenges are recognized in the current five year National Socio-Economic Development Plan (2016-2021), while rural development goals are outlined in the Ministry of Agriculture and Forestry’s Agricultural Development Strategy 2016-2021 (ADS) and grouped around: agricultural modernization and commercialization, enhanced food security, improved productivity and quality, optimal use of natural resources and improved livelihoods for farmers. Improving the management of agricultural concessions and promoting investment in priority and remote upland areas are key priorities. http://www.fao.org/laos/fao-in-laos/laos-at-a-glance/en/</p>	
<p><i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i> The Country Programs Framework (CPF) is the tool adopted by government in 2013 to define its</p>	

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
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II. 3R Goals in Rural Areas	
Goal 10	Reduce losses in the overall food supply chain (production, post harvesting and storage, processing and packaging, distribution), leading to reduction of waste while increasing the quantity and improving the quality of products reaching consumers.
short/medium-term response to the needs of member states. Lao PDR was developed j by the Government and FAO, and outlines FAO's programs priorities for the period 2016-2021 with four Country Outcomes: (1) Fostering agricultural production and rural development; (2) Improved food security and nutrition, with special focus on the most vulnerable (for example: poor women, food farm households); (3) Forests and other ecosystems are protect and enhanced; and (4) Improving capacity to respond to food and agricultural threats and emergencies and the impact of climate change.	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

II. 3R Goals in Rural Areas

Goal 11 Promote full scale **use of agricultural biomass waste and livestock waste** through reuse and/or recycle measures as appropriate, to achieve a number of co - benefits including GHG emission reduction, energy security, sustainable livelihoods in rural areas and poverty reduction, among others.

Q-1 How much amount of – (a) agricultural biomass waste and (b) livestock waste are grossly generated per annum?

No information. (a) Primary indicators on the amount of agricultural biomass residue and livestock waste used can be measured by scale at the plant or site level, and (b) Livestock waste is often left unattended, and this accumulated high-moisture waste generates a foul odour, methane and contaminates water and soil.

Q-2 How are most of the agricultural biomass wastes utilized or treated? (Please check all appropriate boxes)

- as secondary raw material input (for paper, bioplastic, furniture, etc.)
- biogas/electricity generation
- composts/fertilizers
- mostly left unutilized or open dumped
- mostly open burned

Q-3 What specific policies, guidelines, and technologies are introduced for efficient utilization of agricultural biomass waste and livestock waste as a secondary material inputs towards full scale economic benefits? Relevant websites could be shared for additional information.

Economic instruments are important for promoting full-scale use of agricultural biomass and livestock waste, especially at small and medium-scale farms.

1. Creating market demand for agricultural biomass residue and livestock waste by developing markets for products utilizing these materials, use of a feed-in-tariff and use of the carbon market would act as key drivers to encourage farmers, entrepreneurs and investors;
2. Introduction of appropriate cost-effective technologies applicable at the local level;
3. Promotion of local investment and private businesses for biomass utilization and replication of the most suitable schemes (e.g., biomass down) throughout the country. Intervention from governments, private sectors, NGOs and academia would increase awareness and the capacity of farmers and communities to use locally available agricultural biomass residue and livestock waste, especially in remote areas;
4. Public education on sustainable agriculture, organic farming and environmental impacts would greatly aid in promoting full-scale use of farm residues; and
5. Inserting such into school programs could substitute in remote areas where farmers have low capacity for investment and suffer labor shortages.

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

In general, estimation of on-farm use of agricultural biomass residue and livestock waste is challenging, especially where only a portion of the residue and waste is utilized and farmers do not keep records. In this case, farm residue and waste generation and utilization can be estimated based on area and productivity of crops or number of livestock.

1. Small-scale agricultural biomass residue and livestock waste utilization projects and entrepreneurs may not keep proper records of residue and waste inputs and operations may be intermittent, which will affect the accuracy of data collection.

II. 3R Goals in Rural Areas	
Goal 11	Promote full scale use of agricultural biomass waste and livestock waste through reuse and/or recycle measures as appropriate, to achieve a number of co - benefits including GHG emission reduction, energy security, sustainable livelihoods in rural areas and poverty reduction, among others.
	2. The number and capacity of new projects using agricultural biomass residue and livestock waste as material inputs may not represent actual utilization, but can enable estimates of potential use.
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
Promoting full-scale use of agricultural biomass residue and livestock waste file:///Users/mac/Downloads/3R_05_agriculture.pdf	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
<ol style="list-style-type: none"> Generally, the Ministry of Agriculture and forestry responsible for agricultural promotion should maintain data on agricultural production, with actual data collected by local offices of the Ministry. Local administrative offices such as city offices should keep records of entrepreneurs and factories in their jurisdictions. Such frameworks can be developed based on the national administrative system. Entrepreneurs and farmers utilizing agricultural biomass residue and livestock waste should maintain records to the extent possible to enable estimations of residue and waste they use. 	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

III. 3R Goals for New and Emerging Wastes	
Goal 12	Strengthen regional, national, and local efforts to address the issue of waste, in particular plastics in the marine and coastal environment.
Q-1 What specific policies and regulations are in place to address the issue of plastic wastes in coastal and marine environment?	
<p>Lao PDR is landlocked and Least Developed country bordering China, Vietnam, Cambodia, Thailand and Myanmar. About 6.8 million people live in its 17 provinces and capital.</p> <p>1. Article 38 and 39 of Law on Environment Protection No. 29/NA, date 18 December 2012;</p>	
Q-2 What extent issue of plastic waste is considered in integrated coastal zone management (ICZM)? (Please check the appropriate box)	
<input type="checkbox"/> Very much <input checked="" type="checkbox"/> Somehow <input type="checkbox"/> Not at all	
Q-3 Please provide a list of centre of excellences or dedicated scientific and research programmes established to address the impacts of micro-plastic particulates (<5 mm) on coastal and marine species? If yes, please provide relevant websites.	
<p>At the national level, two main bodies are responsible for issues related to solid waste management: The Ministry of Public Works and Transport (MPWT), and the Ministry of Natural Resources and Environment (MONRE). Similarly, to the realities observed in other countries of the region, in Lao PDR the main responsibilities on solid waste management are delegated to provincial authorities and district offices. Urban Development Administrative Authorities (UDDAs), at the provincial level, are the main bodies tasked with solid waste management issues, with national ministries such as MPWT or MONRE having more of a regulatory, supervisory and supporting role to the work of UDAAs.</p>	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
<ol style="list-style-type: none"> 1. Lack of a strategy, vision and goals for plastic and solid waste sector, including targets for the conversion of waste into resources; 2. Waste management paradigm based on a “collect and dispose only” approach, with limited experience in the operation of waste treatment facilities; 3. Low waste collection coverage, especially in low-income settlements and peri-urban areas; 4. Low frequency of municipal waste collection services for households (weekly service); 5. Limited value added by actors in Lao PDR throughout the recyclables value chain, as recyclable processing industries are located in neighboring countries; and 6. Lack of leadership at the grassroots and community levels on activities related to the management of solid waste. 	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant	
<p>Solid Waste Management in Vientiane, Lao PDR: Situation assessment and opportunities for waste-to-resource</p> <p>http://www.greengrowthknowledge.org/sites/default/files/downloads/best-practices/Solid_Waste%20Management_in_Vientiane_Lao_PDR%20GGGI.pdf</p>	
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)	
Policies and Practices Plastic Waste management in Lao PDR	
Is this Goal relevant for your country? <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

III. 3R Goals for New and Emerging Wastes

Goal 13 Ensure **environmentally-sound management of e-waste** at all stages, including collection, storage, transportation, recovery, recycling, treatment, and disposal with appropriate consideration for working conditions, including **health and safety aspects** of those involved.

Q-1 How do people usually recycle their e-waste (waste electrical and electronic equipment)?
(Please check the appropriate box in order of priority by filling in numbers like 1, 2, 3, 4,...etc., for example 1 => Highest priority)

Check if applicable	Number in priority order	
	3	Take to recycling center / resource recovery facilities
	1	Take to landfill
	3	Take to the retailer
	3	Take to local charity for re-use
	2	Take to second-hand shop for re-use
	3	Ship back to the manufacturer
	4	Ship back to the manufacturer
	3	Recycle in another country
	2	Do not know how people dispose

Q-2 What specific policies and regulations are in place to ensure health and safety aspects of those involved in e-waste management (handling/sorting/resource recovery/recycling)?

1. Law on Environmental Protection (Amended) No. 29/NA;
2. Prime Minister's Degree No. 178/PM on Ministry of Health's Regulation and Implementation;
3. Law on Drugs and Medical Products (Amended) No. 07/NA;
4. Regulation on Drug and Medical Waste Management and Disposal No. 1862/MH;
5. Regulation on Pharmaceutical and Medical Product Establishment (Amended) No.2684/16.DFD; Drug Regulation No. 1798/09 DFD.

Q-3 How much amount of e-waste is generated and recycled per year?

No data information of E-waste generated and recycled per year in Lao PDR

Type of e-waste	Estimated total volume generated (ton/year)	% of collected by permitted recycler	% of volume recycled in collected
Television			
Computer			
Mobile phone			
Refrigerators			
Washing machines			
Air conditioners			
Others...			

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

1. Inadequate legal framework and unclear institutional responsibilities.
2. Institutions envisaged to be established in accordance with law, are sometimes not established, not given the proper mandate in accordance with the law(if established), neither given a budget to enable them to function in accordance to the law. New legislation is often drafted without proper reference to other legislations;
3. A considerable amount of waste is illegally dumped into the drainage channels and river;

III. 3R Goals for New and Emerging Wastes	
Goal 13	Ensure environmentally-sound management of e-waste at all stages, including collection, storage, transportation, recovery, recycling, treatment, and disposal with appropriate consideration for working conditions, including health and safety aspects of those involved.
	<ol style="list-style-type: none"> 4. The institutional and administrative structure is not well established; and 5. Public education system and participation programs are not established.
	<p><i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i></p> <p>Green Growth: Solid Waste Management in Vientiane Capital, Lao PDR www.greengrowthknowledge.org/.../Solid_Waste%20Management_in_Vientiane_Lao...</p>
	<p><i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i></p> <ol style="list-style-type: none"> 1. Development of the national strategy for municipal solid waste management; 2. Formulation of the municipality strategy for municipal solid waste management; 3. Issuance of the law on municipal solid waste management; 4. Draft of the regulation on municipal solid waste management; 5. Development of economic instrument for municipal solid waste management; 6. Development of methods for data collection and analysis; 7. Development of methods for assessing the solid waste management of town/city; 8. Development of methods for determining gaps in the municipal solid waste management; 9. Development of methods for developing action plan for municipal solid waste management together with activities, outputs and timeline; 10. Development of methods for making documents required for awareness raising on SLCPs and on general municipal solid waste management; 11. Development of methods for making spots for advertising on SLCPs; 12. Development of methods for municipal solid waste management to reduce SLCPs; and 13. Determination of a potential pilot project for waste recycling - Determination of a pilot project for waste segregation at sources
	<p><i>Is this Goal relevant for your country?</i> <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
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Goal 14	Effective enforcement of established mechanisms for preventing illegal and inappropriate export and import of waste, including transit trade, especially of hazardous waste and e-waste.
<p><i>Q-1 What specific policies and regulations are introduced to prevent illegal import and export of e-waste?</i></p> <p>Lao PDR introduction to prevented illegal import and export of E-waste is Basel Convention.</p> <p><i>Q-2 Do you have required number of well-trained custom or other officials (for airport, sea-port, land border control, etc.) to track illegal export and import of e-waste?</i></p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	
<p><i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i></p> <ol style="list-style-type: none"> 1. Lack of notification and cooperation with competent authorities of the export countries; 2. Awareness raising of importers regarding Basel Convention on transboundary movements procedure; 3. The Competent Authority, Department of Customs, Department of Environmental Police should be in charge of tackling illegal traffic 	
<p><i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i></p> <p>http://www.la.undp.org/content/dam/laopdr/docs/Reports%20and%20publications/2016/UNDP%20Laos%20CPD.pdf</p>	
<p><i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i></p> <p>Country programme document for the Lao People's Democratic Republic (2017-2021)</p>	
<p><i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

III. 3R Goals for New and Emerging Wastes	
Goal 15	Progressive implementation of “ extended producer responsibility (EPR) ” by encouraging producers, importers, and retailers and other relevant stakeholders to fulfill their responsibilities for collecting, recycling, and disposal of new and emerging waste streams, in particular e-waste.
<i>Q-1 What specific Extended Product Responsibility (EPR) policies are enacted or introduced? (If there is none, then skip Q-2 below)</i>	
Environment Protection Law (2012) Article 68: General Prohibitions Persons, legal entities or organizations, both local and foreign, shall be prohibited from these following behaviors: Import, export, transit, sell, store, use, reproduce and demolish toxic and ozone depleting chemicals, equipment with ozone depleting chemicals, radiation, hazard wastes and persistent organic pollutants without permissions;	
<i>Q-2 Please provide a list of products and product groups targeted by EPR nationally?</i>	
<ol style="list-style-type: none"> 1. WEEE or E-wastes; 2. ULAB; 3. ULAB and Lead waste 	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
Current Status of the Management of the Specific Waste Streams and Challenges; E-wastes, ULABs and Mercury Wastes	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
No information available	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

III. 3R Goals for New and Emerging Wastes

Goal 16 Promote the 3R concept in health-care waste management.

Q-1 What specific policies and regulations are in place for healthcare waste management?

1. Law on hygiene, preventive pathology and health promotion;
2. Guidelines for hospital waste management;
3. 1997 ministerial decree on solid waste management in the health-care service areas; and
4. Regulation on Waste Management in the Health-care Service Institute (2004).

Q-2 What is the total annual government expenditure towards healthcare waste management (US\$ per year)?

No information available

Q-3 List the agencies or authorities responsible for healthcare waste management.

1. Hospitals are separating infection waste in hospital;
2. Urban Development Administration Authority (UDAA) waste collection service;
3. Department of Hygiene and Diseases Prevention, Ministry of Public Health; and
4. Pollution Control Department, Ministry of Natural Resources and Environment.

Q-4 What is the common practice for disposal of healthcare wastes?

(Please check the appropriate box and add if any other practice followed)

- open dumping (untreated)
- open burning (untreated)
- ordinary landfilling (untreated)
- sanitary landfilling (treated)
- Low cost small scale incineration (do not meet air emission standards)
- Highly controlled air incineration (dedicated/modern medical waste incinerators)
- Other methods (please specify names: _____)

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

1. Inadequate legal framework and unclear institutional situational responsibilities;
2. Institutions envisaged to be established in accordance with law, are sometimes not established, nor given the proper mandate in accordance with the law (if established), g g neither given a budget to enable them to function in accordance to the law;
3. New legislation is often drafted without proper reference to other often drafted without proper reference to other legislation.
4. A considerable amount of waste is illegally dumped into the drainage channels and rivers; and
5. The institutional and administration structure is not well established.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Health Sector Reform Strategy and Framework till 2025

http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/lao_peoples_democratic_republic/lao_hsr_strategy_and_framework_2025_english_final_201702.pdf

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III. 3R Goals for New and Emerging Wastes	
Goal 16	Promote the 3R concept in health-care waste management.
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i> Health Sector Reform Strategy and Framework till 2025	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 17	Improve resource efficiency and resource productivity by greening jobs nation - wide in all economic and development sectors.
Q-1 What specific policies and guidelines are introduced for product standard (towards quality/durability, environment/eco-friendliness, labour standard)?	
The government of Lao PDR developed the Green Growth policy such as:	
Sector	Green Growth Areas
Agriculture	Natural resource depletion, technological readiness, adaptive capacity, soil health, agricultural land productivity
Forestry and Land-Use	Natural resource depletion, technological readiness, adaptive capacity, soil health, agricultural land productivity
Industry	Natural resource depletion, technological readiness
Education	Natural resource depletion, technological readiness, adaptive capacity, soil health, agricultural land productivity
Energy and Mines	Natural resource depletion, technological readiness
Urban Development	Natural resource depletion, technological readiness, adaptive capacity
Q-2 What specific energy efficiency schemes are introduced for production, manufacturing and service sector?	
The Law on Electricity, 2011 has made Ministry of Energy and Mines (MEM) responsible for framing policies and strategies for the energy sector including developing Laws and Regulation, supervision of business of electricity companies and assisting the government in deciding the ariff. The Institute of Renewable Energy Promotion (IREP) under MEM oversees the implementation of renewable energy, energy efficiency and rural electrification programs in Lao PDR.	
Q-3 What specific policies are introduced to create green jobs in product and waste sector?	
<ol style="list-style-type: none"> 1. Creating national public awareness on SCP; 2. Formulating a national policy framework on SCP; 3. Human resource and skill development for SMEs; 4. Information on best available technologies (BAT) and best available environmental practices (BEP), innovation on technology, product and process; 5. Financial support for new BAT/BEP for SMEs and research; and 6. Marketing and tools for new market development. 	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
Regarding sustainability, Lao PDR is lack funds and skills to promote sustainability activities or CP in the medium and high cost options. From the national authority or government side, there is still a lack of awareness about the necessity to establish a national policy framework and marketing for sustainability. The concept of SCP is still new for Lao SMEs, even though the CP concept has been introduced to Lao PDR and implemented since 2005	

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Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Sustainable Consumption and Production in Lao PDR

http://www.oneplanetnetwork.org/sites/default/files/8_scp_in_lao_pdr.pdf

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

SDG implementation in the context of Lao PDRS's Eighth National Socio – Economic Development plan 2016 - 2021

Is this Goal relevant for your country? Highly Partially Not at all

IV. 3R Goals for Cross-cutting Issues	
Goal 18	Maximize co-benefits from waste management technologies for local air, water, oceans, and soil pollution and global climate change.
<i>Q-1 Please share how climate mitigation is addressed in waste management policies and programmes for co-benefits?</i>	
<p>Regulatory and policy framework for green investment: A policy and regulatory framework conducive to green growth is critically important to promote and mitigate the risks related to investment in green infrastructure and new technologies. Important aspects of such a framework include coherent and comprehensive policies and regulations related to the environment and green growth, engaging and committing to the relevant multilateral environmental agreements, and including environmental considerations in multilateral and bilateral trade and investment agreements.</p> <p>Lao PDR has ratified and engaged in most of the major international conventions related to the environment and is party to 10 multilateral environment agreements.</p>	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<p>Lao PDR faces several challenges on its path to green growth including a high dependence on natural resources for growth, unsustainable use of its resources and increasing impacts of climate change. A measured and inclusive approach, based on a sound policy framework that encourages environmentally sustainable investment and promotes investment in green sectors, can help address the challenges and exploit the opportunities in a way that complements a sustainable, climate-resilient development path.</p>	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
<p>Investment framework for green growth in Lao PDR https://www.oecd-ilibrary.org/docserver/9789264276055-13-en.pdf?expires=1548731043&id=id&acname=guest&checksum=0356E40465F79FAF545623F8E2988FF5</p>	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
<p>Natural Resource and Environment Strategy (2016- 2025) and 5-yr action plan (2016-2020). The strategy outlines the mission and activities of the Ministry of Natural Resources and Environment (MONRE) and has a vision to make Lao PDR ‘Green, Clean and Beautiful’. It focuses on improving natural resource management, reducing pollution and addressing climate change. The underlying action plan includes targeted actions to implement environmental dimensions of the Eighth NSEDP. It includes priorities for (1) land management and administration; (2) Water resources management; (3) forest and biodiversity management; (4) mineral resources management and (5) climate change.</p>	
<p><i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

IV. 3R Goals for Cross-cutting Issues

Goal 19 Enhance **national and local knowledge base and research network on the 3Rs and resource efficiency**, through facilitating effective and dynamic linkages among all stakeholders, including governments, municipalities, the private sector, and scientific communities.

Q-1 What specific policies are introduced to encourage triangular cooperation between government, scientific & research institutions and private/business sector in 3R areas?

Lao PDR development and enforcement of comprehensive national and local waste management policies, strategies, laws and regulations, and new and innovative public-private partnerships among industry, governments, academia, and other non-governmental stakeholders aiming to enhance capacity and technology for environmentally-sound chemicals and waste management, including waste prevention.

Q-2 Please shares the number and list of dedicated scientific institution, or coordinating centers in the areas of 3Rs (e.g., waste minimization technologies, eco-products, cleaner production, recycling technologies, industrial symbiosis, resource efficiency, etc.)?

- Central Government:
 1. Ministry of Natural Resources and Environment (MONRE)
 2. Ministry of Public Work and Transport (MOPWT)
 3. Ministry of Industrial and Commerce
 4. National University of Laos (NUOL)
- Local Authorities:
 1. Urban Development Administrative Authority
 2. Department of Natural Resources and Environment
 3. Department of Public Works and Transport
 4. Department of Industrial and Commerce

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

Challenges faced by small municipality in achieving sustainable development in view of their unique and particular vulnerabilities, including their small size, remoteness, narrow resource and import base, and exposure to global environmental challenges and external economic shocks, including a large range of impacts from climate change and potentially more frequent and intense natural disasters.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Ha Noi 3R Declaration: Sustainable 3R Goals for Asia and the Pacific for 2013-2023
<https://www.un.org/development/desa/capacity-development/projects/country/lao/>

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

New assistance measures for graduating Belt and Road Least Developed Countries toward the achievement of Agenda 2030

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
Lao People's Democratic Republic

IV. 3R Goals for Cross-cutting Issues	
Goal 19	Enhance national and local knowledge base and research network on the 3Rs and resource efficiency , through facilitating effective and dynamic linkages among all stakeholders, including governments, municipalities, the private sector, and scientific communities.
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 20	Strengthen multi-stakeholder partnerships among governments, civil society, and the private sector in raising public awareness and advancing the 3Rs, sustainable consumption and production, and resource efficiency, leading to the behavioural change of the citizens and change in production patterns.
<p>Q-1 Does central government have official dialogue with multi-stakeholders in the process to formulate 3R-related policies and regulations? Which stakeholders are involved in the dialogue? (Please check all applicable)</p> <p> <input type="checkbox"/> <input checked="" type="checkbox"/> NGOs <input type="checkbox"/> <input checked="" type="checkbox"/> Industrial Association <input type="checkbox"/> <input checked="" type="checkbox"/> Local Government <input type="checkbox"/> <input checked="" type="checkbox"/> Academic Institution <input type="checkbox"/> <input checked="" type="checkbox"/> Others, please add/specify (Mass Medial) </p> <p>Q-2 What is the level of NGOs' involvement in 3R, sustainable production and consumption, resource efficiency related promotional activities? (Please check the appropriate box)</p> <p> <input type="checkbox"/> Very high <input type="checkbox"/> Moderate <input type="checkbox"/> <input checked="" type="checkbox"/> Low <input type="checkbox"/> Almost Negligible </p> <p>Q-3 What is the level of citizens' awareness on beneficial aspects of 3R, sustainable production and consumption and resource efficiency. (Please check the appropriate box)</p> <p> <input type="checkbox"/> Very high <input type="checkbox"/> Moderate <input type="checkbox"/> <input checked="" type="checkbox"/> Low <input type="checkbox"/> Almost Negligible </p>	
<p>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</p> <ol style="list-style-type: none"> Lack of leadership or interest at the community level to the establishment of waste banks; No benefit perceived by informal waste sector members regarding their organization into groups or cooperatives; Lack of funding and operating capital to initiate the activities of a waste bank; and Bargaining power of buying centres could squeeze out of business grassroots initiatives such as waste bank models. 	
<p>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</p> <p>Situation assessment and opportunities for waste-to-resource: Solid Waste Management in Vientiane, Lao P.D.R http://ggi.org/site/assets/uploads/2018/09/Solid-Waste-Management-in-Vientiane-Lao-P.D.R_Publication-3.pdf</p>	
<p>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</p> <p>Integrated Solid Waste Management in Lao PDR program</p>	
<p>Is this Goal relevant for your country? <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

IV. 3R Goals for Cross-cutting Issues	
Goal 21	Integrate the 3Rs in formal education at primary, secondary, and tertiary levels as well as non-formal education such as community learning and development, in accordance with Education for Sustainable Development.
<i>Q-1 Provide a list of formal programmes that addresses areas of 3R and resource efficiency as part of the academic curriculum?</i>	
Promote separating solid waste from the sources program for primary, secondary, and tertiary levels as well as non-formal education such as community learning and development, in accordance with Education for Sustainable Development.	
<i>Q-2 Please provide an overview of the Government policies and programmes to promote community learning and development (non-formal education) on 3R and sustainable waste management.</i>	
<ol style="list-style-type: none"> 1. The government provide technical guideline on 3R principle for communities to learn and understanding on 3R and sustainable waste management; and 2. Support community leader to study visit the best practice of 3R implementation in country or experience from other countries. 	
<i>Q-3 Please provide a list of academic and research institutions offering PhD programmes in the areas of 3Rs and resource efficiency?</i>	
Lao PDR has not academic and research institute offering Ph.D programs in the areas of 3R and resources efficiency.	
<i>Q-4 Please provide a list of management institutions (offering BBA / MBA courses) which have integrated resource efficiency and life cycle assessment (LCA) as part of their curriculum or course development?</i>	
<ol style="list-style-type: none"> 1. Faculty of Environmental Science, National University of Laos; 2. Faculty of Civil Engineering, National University of Laos. 	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<ol style="list-style-type: none"> 1. Lao PDR has limited financial support for implementation on 3R and sustainable waste management; 2. Lack of human resources; and 3. Lack of technologies. 	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
Catholic Relief Service (CRS) in Lao PDR: Bi-Annual Programming Update https://www.crs.org/sites/default/files/laos-bi-annual-update-10-2016-march-2017.pdf	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
The project for implement of Solid Waste management in Environmental Sustainable city in Lao PDR	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 22	Integrate the 3R concept in relevant policies and programmes, of key ministries and agencies such as Ministry of Environment, Ministry of Agriculture, Forestry and Fisheries, Ministry of Industry, Ministry of Trade and Commerce, Ministry of Energy, Ministry of Water Resources, Ministry of Transport, Ministry of Health, Ministry of Construction, Ministry of Finance, Ministry of Labour, Ministry of Land and Urban Development, Ministry of Education, and other relevant ministries towards transitioning to a resource-efficient and zero waste society.
Q-1 Please list the name of the Ministries and major Government Agencies which are promoting 3R and resource efficiency as part of their policy, planning and developmental activities at local and national level.	
<ol style="list-style-type: none"> 1. Ministry of Natural Resources and Environment; 2. Ministry of Public Works and Transport; 3. Ministry of Health; 4. Ministry of Industry and Commerce; 5. Urban Development Administrative Authorities; 6. District Administrative; and 7. Environmental Unit in Villages. 	
Q-2 What type of coordination mechanism are there among ministries and agencies for a resource efficient economic development?	
<input checked="" type="checkbox"/> Official regular coordination meeting among ministries and agencies <input type="checkbox"/> Official ad-hoc coordination meeting among ministries and agencies <input type="checkbox"/> Informal meeting among ministries and agencies <input type="checkbox"/> Other coordination mechanisms (please add/specify)	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
<ol style="list-style-type: none"> 1. Legislation are not specific for 3R principle; 2. Internal coordination; 3. Lack of financial support; 4. Limited human resources who have experience of 3R; 5. Waste management is first to reduce waste generation and separate potential recyclables at source to improve the quality of materials for reuse, including organics for composting or anaerobic digestion; 6. That cannot be reduced should be reused if possible; 7. That cannot be reused or reduced should be recycled, particularly secondary materials such as metal and paper; and 8. Wastes that cannot be recycled should be recovered, usually through bacteriological decomposition or should be incinerated or landfilled. 	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant	
Environmental Sustainable City (ESC) Promotion by MONRE/PCD together with LPP/LPPE in Lao PDR https://hls-esc.org/documents/6hlsesc/D_PCD_MONRE.pdf	
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)	
Environmental Sustainable City (ESC) Promotion by MONRE/PCD together with LPP/LPPE in Lao PDR	
Is this Goal relevant for your country? <input type="checkbox"/> <input checked="" type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues

Goal 23 Promote **green and socially responsible procurement** at all levels, thereby creating and expanding 3R industries and markets for environmentally-friendly goods and products.

Q-1 What specific policies are introduced to promote green and social responsible procurement?

Lao PDR has a policy to encourage the cities in Laos to be “Clean, Green and Beautiful” so that they become environmentally sustainable without compromising the quality of living of the next generation

Q-2 Please provide details of eco-labelling schemes of your country.

Lao PDR dose not has legislation of eco labeling.

Q-3 Please provide a list of criteria for eco-labeled products and services in your country.

No information available

Q-4 Please provide the list of Ministries and major Government Agencies which have adopted green procurement policy.

In the future, by Ministries of Environment & Natural Resources, Industry & Commerce, and Science & Technology

Q-5 What % of municipalities have adopted the green procurement policy?

No information available

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

1. Technical skills to develop national eco-labelling schemes need to be reinforced;
2. Governments see eco-labels mainly as a means to strengthen export products, unable to totally penetrate the local market owing to the prevailing socioeconomic condition in these countries;
3. The overall legislative framework is still being developed;
4. National testing facilities are still at formative stages;
5. The LDCs are still highly dependent on imports of non-food items, mainly from the neighborhoods countries led by China whose manufacturing, usage and disposal are determined by the exporters.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

Ecolabelling and Sustainable Public Procurement in the ASEAN+3 Region

<http://www.aprscp.net/Document/Final%20Report-EL%20&%20SPP%20in%20ASEAN%20+%203.pdf>

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

Ecolabelling and Sustainable Public Procurement in the ASEAN+3 Region

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
Lao People's Democratic Republic

IV. 3R Goals for Cross-cutting Issues

Goal 23 Promote **green and socially responsible procurement** at all levels, thereby creating and expanding 3R industries and markets for environmentally-friendly goods and products.

Is this Goal relevant for your country? Highly Partially Not at all

IV. 3R Goals for Cross-cutting Issues	
Goal 24	Phase out harmful subsidies that favour unsustainable use of resources (raw materials and water) and energy , and channel the freed funds in support of implementing the 3Rs and efforts to improve resource/energy efficiency.
<i>Q-1 Are there any government subsidy programmes that directly or indirectly favour unsustainable use of resources (raw materials, water, and energy)? If so, please provide a list of such programmes along with the responsible Ministry or Agency administering and implementing it.</i>	
No information available	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<ol style="list-style-type: none"> 1. Low affordability/willingness of households to pay for waste collection services; 2. Lack of a policy and regulatory framework supportive of waste-to-resource approaches; 3. Limited awareness of residents and the population at large on 3R principles; 4. Limited experience existent in the country in implementing waste-to-resource approaches; and 5. Increasing population and higher waste generation rates per capita motivated by migration to cities, population growth, and economic growth. 	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
No information available	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 25	Protect public health and ecosystems, including freshwater and marine resources by eliminating illegal activities of open dumping, including dumping in the oceans, and controlling open burning in both urban and rural areas.
<i>Q-1 Is waste management a public health priority in your country?</i>	
Yes, health care waste management is high priority rank in Lao PDR	
<i>Q-2 What are the rules and regulations to prevent open dumping and open burning of waste?</i>	
Law on Environment Protection (2012), in article 38	
<i>Q-3 Rank the five most important rivers in terms of water quality (BOD values) passing through major cities and urban areas?</i>	
<ol style="list-style-type: none"> 1. Mekong Rivers; 2. Nam Mor River; 3. Xe Bangfai River; 4. Nam Mar River; and 5. Nam Thean River. 	
<i>Q-4 What are the specific laws, rules and regulations in place to prevent littering in river and water bodies?</i>	
<ol style="list-style-type: none"> 1. Law on Water and Water Resource (2017); 2. Law on Environmental Protection (2012); and 3. Prime Minister's Decree on National Environmental Standard (2017) 	
<i>Q-5 What are the specific laws, rules and regulations in place to prevent marine littering?</i>	
Lao PDR is Landlocked country, it no marine or sea.	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<ol style="list-style-type: none"> 1. Limited of law enforcement; 2. Failed to Understand the Risk (Health and Environment); 3. Failed to understand the principles of medical waste management; 4. Economic Constraints Poor; 5. No Policy, Guidelines on Medical Waste Management; and 6. Lack of technology and financial support. 	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
No information available	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 26	Facilitate the international circulation of re-usable and recyclable resources as well as remanufactured products as mutually agreed by countries and in accordance with international and national laws, especially the Basel Convention, which contributes to the reduction of negative environmental impacts and the effective management of resources.
<p><i>Q-1 What are major recycling industries in your country?</i></p> <p>1. Plastic; 2. Metal; 3. Paper.</p> <p>The government has been ban to import and recycling industry in Lao PDR since 2016 and not agreed by countries and in accordance with international such as Basel Convention. We do not approval to import any waste from other nation.</p> <p><i>Q-2 Please specify the regulation on transboundary movement of hazardous waste.</i></p> <p>Lao PDR has been ratification on Basel Convention since 2010 and implementation of Law on Environmental Protection (2012)</p> <p><i>Q-3 If your government has restriction on import of non-hazardous waste or quality control of non-hazardous waste, please list it up.</i></p> <p>No, the government not approval on import of non hazardous waste.</p> <p><i>Q-4 Does your government restrict import of remanufactured goods?</i></p> <p>Yes.</p> <p><i>Q-5 Does your government regard remanufactured goods as secondhand goods, and regulate it as secondhand goods?</i></p> <p>Yes.</p> <p><i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i></p> <p>1. Illegal import; 2. Law Enforcement; and 3. Human Resources capacity.</p> <p><i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i></p> <p>Circular Economy Strategies for Lao PDR: A metabolic approach to refine resources efficiency and low-carbon Development. https://shiftingparadigms.nl/projects/a-circular-economy-quick-scan-to-improve-resource-efficiency-in-lao-pdr/</p> <p><i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i></p> <p>Circular Economy Strategies for Lao PDR: A metabolic approach to refine resources efficiency and low-carbon Development.</p>	
<p><i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all</p>	

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
Lao People's Democratic Republic

IV. 3R Goals for Cross-cutting Issues

Goal 27 Promote data collection, compilation and sharing, public announcement and application of statistics on wastes and the 3Rs, to understand the state of waste management and resource efficiency.

Q-1 Please give an overview on availability of various data and information on material flow and waste management by checking (X or ✓) the appropriate boxes. (Please respond on both "Data Availability" and Monitoring Base")

Data Type	Data Availability			Monitoring Base	
	Good	Very limited	No data exist	Good	Not good
Waste generation	<input type="checkbox"/>				<input type="checkbox"/>
Material flow			<input type="checkbox"/>		<input type="checkbox"/>
Cyclical use		<input type="checkbox"/>			<input type="checkbox"/>
Amount of final disposal	<input type="checkbox"/>			<input type="checkbox"/>	
Disposal to land		<input type="checkbox"/>			<input type="checkbox"/>
Direct disposal to water			<input type="checkbox"/>		<input type="checkbox"/>
Import of waste		<input type="checkbox"/>			<input type="checkbox"/>
Export of waste			<input type="checkbox"/>		<input type="checkbox"/>
Total landfilled waste		<input type="checkbox"/>			<input type="checkbox"/>
Import of recyclables		<input type="checkbox"/>			<input type="checkbox"/>
Export of recyclables		<input type="checkbox"/>		<input type="checkbox"/>	
Hazardous waste generation (solid, liquid, sludge, etc.)		<input type="checkbox"/>			<input type="checkbox"/>
e-waste generation		<input type="checkbox"/>			<input type="checkbox"/>

(Please add any other data type relevant to your country)

Q-2 What are the current and planned government policies and programmes to strengthen data and information availability in waste sector?

Ministry of Natural Resources and Environment is developing center of data base information on waste management in Lao PDR.

Challenges (policy/ institutional/ technological/ financial) faced in implementation:

1. Limited Financial support; and
2. Limited human resources capacity for data base information.

Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant

No information available

Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)

No information available

Is this Goal relevant for your country? Highly Partially Not at all

IV. 3R Goals for Cross-cutting Issues	
Goal 28	Promote heat recovery (waste-to-energy), in case wastes are not re-usable or recyclable and proper and sustainable management is secured.
<i>Q-1 What are the government policies and programmes, including incentives, for waste-to-energy programmes?</i>	
<p>Waste-to-energy opportunities through anaerobic digestion in Lao PDR: Among the opportunities for converting solid waste into energy, the anaerobic digestion (AD) route is, in principle, the most suitable to the Lao PDR context. AD is a biological treatment method whereby the organic fraction of waste is decomposed into biogas due to the activity of anaerobic bacteria. The biogas generated can be used as a heating fuel or converted into electricity. The deployment of AD approaches in Vientiane could therefore increase the supply of an indigenous, clean and renewable energy source. It could also support the access of local populations to cleaner forms of energy.</p>	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<p>The AD processing of urban solid waste is still a relatively novel and fairly untested approach in most developing Asian countries. One of the main challenges associated with the technology is the need to ensure a relatively high level of segregation of the organic fraction to be treated, otherwise the AD process can be significantly hampered and eventually fail. In this context, in the short to medium run it may be reasonably expected that AD approaches could only be deployed in relatively small-scale settings in Vientiane, with the assumption that any biogas generated would be consumed locally and in proximity to the waste treatment facility.</p>	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
No information available	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
Lao People's Democratic Republic

IV. 3R Goals for Cross-cutting Issues	
Goal 29	Promote overall regional cooperation and multi-stakeholder partnerships based on different levels of linkages such as government-to-government, municipality-to-municipality, industry-to-industry, (research) institute-to-institute, and NGO-to-NGO. Encourage technology transfer and technical and financial supports for 3Rs from developed countries to less developed countries.
<i>Q-1 Please provide a list of on-going bilateral/multi-lateral technical cooperation in 3R areas?</i>	
1. Ministry of Environment of Japan (implementing by JICA ongoing survey).	
<i>Q-2 What actions are being taken to promote inter-municipal or regional cooperation in areas of waste exchanges, resource recovery, recycling, waste-to-energy and trade of recyclables?</i>	
Do not have any action in currently.	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
1. Technical support; and 2. High cost of investment.	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available.	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
No information available.	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> <input checked="" type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 30	Pay special attention to issues and challenges faced by developing countries including SIDS in achieving sustainable development.
<i>Q-1 Please describe any past and on-going cooperation with SIDS (Small Island Developing States) countries in 3R areas.</i>	
<ol style="list-style-type: none"> 1. The government policies and programs tend to focus on conventional waste management solutions such as sanitary land filling or incineration mainly downstream disposal, which is expensive, while failing to pursue upstream measures to reduce the actual waste load; and 2. Promote 3R concept which stands for Reduce, Reuse, Recycle and where recycling is difficult due to the absence of available recycling industries and limited scale of market in Lao PDR 	
<i>Q-2 Please list 3R related projects linked to climate change, biodiversity, disaster management and sustainable tourism. (This is to be reported by SIDS countries only)</i>	
No information available.	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<ol style="list-style-type: none"> 1. Prevailing economic system does not provide adequate incentives for resource conservation and efficient resource allocation / 3Rs & resource efficiency are not part of macro economic policies as waste is conventionally thought of having no “economic” value; 2. Prevailing production and consumption patterns do not effectively integrate resource efficiency, contributing to growing quantities of wastes that must be managed for final disposal; SMEs are major concern; and 3. As Lao PDR's industrial economies continue to grow, the region will generate more toxic chemicals & hazardous wastes, mostly coming from industrial, agriculture, and manufacturing processes, but current waste management policies are not linked with biodiversity conservation/protection of ecological assets – fresh water resources and etc., 	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available.	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
No information available.	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

**Voluntary Progress/Achievements/Initiatives in
Implementing Ha Noi 3R Declaration (2013~2023)**

Country Name:
Lao People's Democratic Republic

IV. 3R Goals for Cross-cutting Issues	
Goal 31	Promote 3R + “Return” concept which stands for Reduce, Reuse, Recycle and “Return” where recycling is difficult due to the absence of available recycling industries and limited scale of markets in SIDS, especially in the Pacific Region.
<i>Q-1 What specific policies, programme, including pilot projects, are implemented to promote 3R+ “Return” concept? (This is <u>to be reported by SIDS countries only</u>)</i>	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
<i>Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
<i>Is this Goal relevant for your country? <input type="checkbox"/> Highly <input type="checkbox"/> Partially <input type="checkbox"/> Not at all</i>	

IV. 3R Goals for Cross-cutting Issues	
Goal 32	Complete elimination of illegal engagement of children in the informal waste sector and gradually improve the working conditions and livelihood security, including mandatory provision of health insurance , for all workers.
<i>Q-1 What is the approximate market size (in US\$) of the informal waste sector?</i>	
About 5 US\$/person/day	
<i>Q-2 Number of annual labor inspections in waste sector?</i>	
No information available.	
<i>Q-3 Is health insurance a mandatory to all informal workers in waste sector by law?</i>	
No strict by law.	
<i>Q-4 What specific policies and enforcement mechanisms are in place to prevent illegal engagement of children in waste sector?</i>	
Law on Environmental protection (2012), article 38	
<i>Q-5 Number of landfill sites accessible to register waste pickers?</i>	
140 final disposal site in Lao PDR	
<i>Q-6 Average life span of informal waste workers?</i>	
10 to 55 years old	
<i>Q-7 Any government vaccination programmes for informal waste workers?</i>	
No information available	
<i>Q-8 Any public awareness programmes for informal waste workers on health and safety measures?</i>	
Yes, 1 to 2 times per/year	
<i>Challenges (policy/ institutional/ technological/ financial) faced in implementation:</i>	
<ol style="list-style-type: none"> 1. Workers are lack education and they came from rural areas; 2. Do not often participant the training program; and 3. Do not follow the Safety Operation Protection during working. 	
<i>Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant</i>	
No information available	
<i>Important policies/programs/projects/master plans the government plans to undertake within next five years (2016~2021)</i>	
Integrated Solid Waste Management in Lao PDR	
<i>Is this Goal relevant for your country?</i> <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

IV. 3R Goals for Cross-cutting Issues	
Goal 33	Promote 3Rs taking into account gender considerations.
Q-1 Please give a brief assessment on how the national, provincial and municipal governments incorporate gender considerations in waste reduction, reuse and recycle.	
Gender relation are equally important , women from the larger proportion of society worldwide and constitute the most vulnerable population groups to inappropriate service system designs in particular, solid waste collection system. One of sort income of current solid waste collection systems is their male bias regardless of the fact that women constitute the majority of the service recipients	
Challenges (policy/ institutional/ technological/ financial) faced in implementation:	
The waste picking and solid waste management, there is still a lack of understanding on the gender dynamics and sexual division of labour involved in waste picking activities.	
Examples of pilot projects, master plans and/or policies developed or under development – include websites where relevant	
No information available	
Important policies/programmes/projects/master plans the government plans to undertake within next five years (2016~2021)	
No information available	
Is this Goal relevant for your country? <input type="checkbox"/> Highly <input type="checkbox"/> <input checked="" type="checkbox"/> Partially <input type="checkbox"/> Not at all	

Q- Please provide a brief comprehensive summary of important 3R and resource efficiency policies /programmes/ projects/ master plans of your country.
Minimizing the use of resources in the manufacture, distribution and use of products consumed by society with maximum reuse, recycling and recovery has embodied as a concept of 3Rs (Reduce, Reuse and Recycle). In recent days, the 3Rs principle has started to gain more attention due to the depletion of natural resources and increase of pollution level in the environment. The perspective of waste management has been changed; it is not viewed as a problem but as an opportunity. There is a paradigm shift in thinking about waste “ not merely as a nuisance but as a resources” and the shift waste management from “contain and disposal” to resources management. In the program, in 2015 Ministry of Natural Resources and Environment of Lao PDR has formulated 3Rs program for waste management. The Pollution Control Department corporations with municipalities further endorse it. The 3Rs program set the goal of waste reduction, reuse and recycling and minimizing waste disposal in open dumps, rivers, flood plains and landfills by 2020 and promotes recycling of waste through mandatory segregation of waste at sources as well as creates a market for recycle products and provide incentives for recycling of waste. It recognizes waste as a sources and advocated for segregation od waste at sources, encourages emission reducing technology through private sector investment and tapping the potential of CDM provisions promotes” polluter pay principle as well a cleaner production and environmental management system (EMS), and supports the participation of the informal sectors

**Voluntary Progress/Achievements/Initiatives in
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Country Name:
Lao People's Democratic Republic

who are engaged in the recycling various materials. The National 3Rs program directs the local government authorities to develop their own action plans with setting up of quantifiable targets and pursue organic waste recycling through composting, bio-gas and refused derived fuel. With these directives, action plan for 3Rs has been prepared in consultation with the city corporations and other relevant stakeholder in line with their development agenda, time-line and budgetary provision. The main emphasis has been given on the socialization of 3Rs through partnership building among the stakeholder to bring the 3Rs activities into practice in society. This action plan has been prepared based on the prevailing activities and future program undertake by different ministries and agencies, A target has been set with gradual incremental percentage of attainment based on the human and financial resources of the city corporations. Capacity building, awareness development and political commitment re the main drivers of the action plan for the promotion and implementation of 3Rs through establishing a recycling oriented society in Lao PDR.