

JCM Sustainable Development and Safeguards Assessment Report

Project description	
Title	Reducing GHG emission at Textiles Factory of Luckytex (Thailand) Public Company Limited by Upgrading to Air-saving Loom
Project participant (Thai)	Toray Textiles (Thailand) Public Company Limited
Project participant (Japanese)	Toray Industries, Inc
Project location	Mill-1, 38 Moo 14, Suksawad Road, Amphur Phrapradaeng, Samutprakarn 10130 Thailand
Latitude, longitude	13° 39' 25.7"N 100° 31' 08.5"E
Project status	Operated since 29st January 2016

Report description		
Date of report completion	3rd June 2025	
Version	1.0	
Corresponding author	Name	Riku Yamada
	Title	Staff
	Organization	Toray Industries, Inc
	Telephone	
	E-mail	

Note:


- Related figures, documents, evidence related to the description may be attached as attachment.
- In the case where there is any other relevant issue that needs to be considered, it is be specified in the last row of each area of assessment.


Certification letter

03/06/2025

I, the undersigned, hereby certify that Toray Industries, Inc is the author of the “Sustainable Development and Safeguards Assessment Report Form” of the project titled Reducing GHG emission at Textiles Factory of Luckytex (Thailand) Public Company Limited by Upgrading to Air-saving Loom developed by Luckytex (Thailand) Public Company Limited located at Mill-1, 38 Moo 14, Suksawad Road, Amphur Phrapradaeng, Samutprakarn 10130 Thailand and Toray Industries, Inc located at 1-1, Sonoyama 1-chome, Otsu, Shiga 520-8558, Japan.

The report was prepared by the team members as follows:

No.	Name	Position	Signature
1	<u>Yoshihiro Hamaguchi</u>	<u>Section Manager</u>	
2	<u>Riku Yamada</u>	<u>Staff</u>	
3	

Signature 
 (..... Yoshihiro Hamaguchi)
 Position Section Manager
 Seal (if any)

Part 1: General information of the project area before project implementation

Provide baseline information describing the conditions before project implementation. This data is essential for assessing the project's environmental, social, and economic impacts. Ensure the details are accurate and comprehensive to support a thorough evaluation.

Area of Assessment	Description
1. Environment and natural resources	
1.1 Air pollution	No air pollution problem was reported in the area.
1.2 Water pollution	No surface water and ground water pollution problem were reported in the area.
1.3 Soil pollution	No soil pollution was reported in the area.
1.4 Noise pollution	No point sources of noise pollution were found in the area.
1.5 Odor pollution	No odor pollution was reported in the area.
1.6 Water consumption	The project area is located at suburb of Bangkok with prevalent consumption of tap water. No surface or underground water is used in the area.
1.7 Solid waste/municipal solid waste	The Bangkok Metropolitan Administration regularly collects solid waste. So, there is no leftover problem in the area.
1.8 Hazardous waste/infectious waste/electronic waste	No pollution from hazardous waste/infectious waste/electronic waste was reported in the
1.9 Energy (i.e. Wasted Energy, Renewable Energy)	This factory uses electricity from power grid.
1.10 Land Use	This factory is surrounded by private houses.
1.11 Biodiversity	This factory was built more than 50 years ago Thus, issues concerning biodiversity is not relevant.
1.12 Wild animal/ Aquatic ecosystem	No wild animal or aquatic ecosystem is found in the area.
1.13 Other (Please specify...)	-
2. Society	
2.1 Socio-cultural characteristics	Socio cultural characteristics are those of a typical Bangkok residential area. The society comprises largely of working class who engage in office work. With employment opportunities arising.
2.2 Health and safety	There is no major concern in terms of health and safety in the area.

Area of Assessment	Description
2.3 Traditions, cultures and/or valuable places worthy of conservation	The tradition and cultural values of the people in the area are those commonly found in the central region of Thailand. There are no distinctive places of high conservation values.
2.4 Race, religion, and ethnic group	The majority of population in the area are of Thailand origin who practice Buddhism.
2.5 Transportation	Primary mode of transportation in the area is private vehicles (cars, trucks and motorbikes). There is also a use local public transport such as train, bus, van.
2.6 Other (Please specify...)	-
3. Economic	
3.1 Overall local economy (i.e. income, expenditure, etc.)	<p>The area is a bedroom community. Many people commute to Bangkok for work. Thus, there is no particular industry.</p> <p>According to the province's 2021 data, the average monthly income is 39,507 baht and monthly expenditure is 31,640 baht.</p>
3.2 Employment/Career	Officials, merchants, factory workers, farmers and so on
3.3 Major agricultural activity in the area	No agricultural activity in the area is found.
3.4 Major industry in the area	There are some factories along the chao phraya river.
3.5 Major service sector in the area	Retail trade is the main service sector in the area.
3.6 Basic infrastructure (i.e. road, school, etc.)	The basic infrastructure in the area include transportation (road network, public transportation), utilities (electricity, water supply, waste management), education (schools and vocational training), healthcare as well as telecommunications.
3.7 Other (Please specify...)	-

**Project Participant explains in detail of provenance and importance of issue consider about before project implement and specify if the project is rightful/environmental law, social, and economy. To have Negative impact assessment (Do-no-net-harm) with supporting documents.*

Part 2 Sustainable Development Goals

2.1 Sustainable Development Contributions Assessment

Please mark ✓ in ☐ to identify the contributions of the proposed project to specific SDG. The project is required to contribute to **at least two SDGs, in addition to SDG13: Climate Action.**

Project Contributions to SDGs	Indicator (Please specify)	Description of Indicator
<input type="checkbox"/> SDG 1: No Poverty	–	–
<input type="checkbox"/> SDG 2: Zero Hunger	–	–
<input type="checkbox"/> SDG 3: Good Health and Well-being	–	–
<input type="checkbox"/> SDG 4: Quality Education	–	–
<input type="checkbox"/> SDG 5: Gender Equality	–	–
<input type="checkbox"/> SDG 6: Clean Water and Sanitation	–	–
<input type="checkbox"/> SDG 7: Affordable and Clean Energy	–	–
<input checked="" type="checkbox"/> SDG 8: Decent Work and Economic Growth	Amount of energy saved (Unit: MWh)	Energy saving reduces costs and contributes to economic outputs.
<input type="checkbox"/> SDG 9: Industry, Innovation and Infrastructure	–	–
<input type="checkbox"/> SDG 10: Reduced Inequality	–	–
<input type="checkbox"/> SDG 11: Sustainable Cities and Communities	–	–
<input type="checkbox"/> SDG 12: Responsible Consumption and Production	–	–
<input checked="" type="checkbox"/> SDG 13: Climate Action	–	–
<input type="checkbox"/> SDG 14: Life Below Water	–	–
<input type="checkbox"/> SDG 15: Life on Land	–	–

Project Contributions to SDGs	Indicator (Please specify)	Description of Indicator
<input type="checkbox"/> SDG 16: Peace and Justice Strong Institutions	–	–
<input checked="" type="checkbox"/> SDG 17: Partnerships to achieve the Goal	Last annual progress report submission date	Operational continuity of the JCM project, which mobilizes additional financial resources, disseminates low-carbon technologies, and reduces GHG emissions in Thailand

**Project Participant provides the description for each indicator of the selected SDGs and presents currently available datasets along with supporting documents.*

2.2 Details on Monitoring Parameters for Demonstrating SDG Contributions

Provide details on how to monitor the indicators identified in Section 2.1.

(Tables can be added based on the number of selected SDGs.)

SDG Number	8
SDG Target	Decent Work and Economic Growth
Variable or Indicator	Reduced amount of electricity (Unit: MWh)
Duration/Frequency	Monthly
Method/Tool	Production quantity monitoring by PC and calculate air serving quantity by calculation formula.
Responsible person	Staff of Toray Industries, Inc

SDG Number	17
SDG Target	Partnerships to achieve the goal
Variable or Indicator	Last annual progress report submission date
Duration/Frequency	Yearly
Method/Tool	-
Responsible person	Staff of Pacific Consultants Co., Ltd.

Part 3 Do no net harm

3.1 'Do no net harm' Risk Assessment and Safeguards

Specify impacts and mitigation plans to mitigate negative impacts.

Potential Impact of Project Activity	Severity Level of Impact				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
1. Impacts on Environment and Natural Resources						
1.1 Physical resources						
Water pollution	✓					
Soil pollution	✓					
Air pollution	✓					
Noise pollution		✓			According to annual noise test at factory, the sound pressure level is Max 100 dB.	Employees are required to wear earplugs in the factory. So, there is no impact for noise.
Odor pollution	✓					
Soil erosion, coastal/river erosion	✓					
Vulnerability to natural disaster	✓					
Other	✓					
1.2 Waste management						

Potential Impact of Project Activity	Severity Level of Impact				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Increase in solid waste/municipal solid waste	✓					
Increase in hazardous waste such as waste contaminated with oil, chemicals and used oil etc.		✓			This air jet loom uses lubricant oil that becomes hazardous waste at the end of its life cycle.	Our factory request to dispose waste lubricant oil to the special company.
Increase in infectious waste	✓					
Increase in electronic waste	✓					
Other	✓					
1.3 Biological resources						
Impacts on forest areas and land-use change	✓					
Loss of land and wildlife ecosystem	✓					
Loss of water resources and aquatic ecosystem	✓					
Foraging	✓					
Food	✓					
Other	✓					

Potential Impact of Project Activity	Severity Level of Impact				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
1.4 Human livelihood						
Water drainage or waterway diversion	✓					
Change in water consumption	✓					
Change in land ownership	✓					
Other	✓					
2. Social impacts						
Public security such as increase in crime risks	✓					
Health impacts	✓					
Relocation or temporary/permanent loss of land	✓					
Loss of housing	✓					
Impact on public utilities such as electricity, telephone service etc.	✓					
Impact on traffic	✓					
Community conflict	✓					
Employment and labor	✓					

Potential Impact of Project Activity	Severity Level of Impact				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Impact on people of certain race, religion and ethnic groups	✓					
Damage to areas of high conservation value, such as religious sites, historic sites, monuments, important places of the community etc.	✓					
Impact on human rights such as education, freedom of thought, religion etc.	✓					
Gender inequality such as in employment opportunities, salary, promotion, benefits, termination of contract etc.	✓					
Other	✓					
3. Economic impacts						
Increase unemployment /loss of income of people in local communities	✓					

Potential Impact of Project Activity	Severity Level of Impact				Description of Impact	Action Plan to mitigate harmful impacts
	None	Low	Moderate	High		
Other	✓					

*Criteria for assessing the level of impact severity

1. *None: The proposed activity has no direct/indirect impacts on the environment, society and economy.*
2. *Low: The proposed activity causes some changes to the existing conditions but has no implication on the quality of the environment, society and economy. The impact is short-lived and temporary, and the extent of the affected area is not large (1km perimeter).*
3. *Moderate: The proposed activity causes some changes to the existing conditions and has implications on values or qualities of the environment, society and economy. The impact is short-lived and temporary. The extent of the affected area is large but confined to the related area (2km perimeter).*
4. *High: The proposed activity causes some changes to the existing conditions and has implications on value or quality of the environment, society, economy, and potentially the ecosystem. The impact is permanent and the extent of the affected area id extensive (3km perimeter).*

3.2 Details on Monitoring Parameters for Ensuring No Negative Impacts

Provide details on how to monitor the impacts identified in Section 3.1.

(Tables can be added based on the number of negative impacts identified)

Category of negative impact	Impacts on Environment and Natural Resources
Subcategory of negative impact	Noise pollution
Vulnerable group	People in nearby communities
Possible negative impact	Noise from air jet loom
Parameter/indicator	- Leq (24-hour Equivalent Continuous Noise Level) < 70 dB(A) - Lmax (Maximum Noise Level) < 115 dB(A)
Reference	- Announcement of the Ministry of Natural Resources and Environment Re: Noise Level, B.E. 2540 (- Announcement of the Ministry of Natural Resources and Environment Re: Method for Measurement Background Sound Level, Residual Sound Level, Rating Level and Calculation of Noise Disturbance Level and Form, B.E. 2565 (2022)
Duration/frequency	Yearly
Method/Tools	Sound level meter
Responsible person	Staff of Toray Textiles (Thailand) Public Company Limited
Expected outcome	The emissions do not exceed the level stated in the announcements

Category of negative impact	Impacts on Environment and Natural Resources
Subcategory of negative impact	Increase in hazardous waste such as waste contaminated with oil, chemicals and used oil etc.
Vulnerable group	People in nearby communities
Possible negative impact	Oil leakage
Parameter/indicator	- Make oil retaining wall at oil storage to minimize oil leakage.
Reference	- National Environmental Quality Act
Duration/frequency	Monthly
Method/Tools	Request to dispose waste lubricant oil to the special company every month.

Responsible person	Staff of Toray Textiles (Thailand) Public Company Limited
Expected outcome	Don't leakage oil to the liver. Prevents water and soil pollution.