

TEGH Sustainable Supply Chain Management Transformation for EUDR Compliance

Thai Eastern Group Holdings PCL

Presentation for Supply Chain Management Awards 2025 by SET



Top Management Introduction





คุณเฉลิม โกกนุทาภรณ์ ประธานเจ้าหน้าที่บริหาร



คุณสินีนุช โกกนุทาภรณ์ กรรมการผู้จัดการ



คุณเกริกกุล โกกนุทาภรณ์ ประธานเจ้าหน้าที่บริหาร ฝ่ายปฏิบัติการ-ด้านยางพาราและ ปาล์มน้ำมัน



คุณวงศ์กฤษณ์ เจียมศรีพงษ์ ประธานเจ้าหน้าที่บริหาร ฝ่ายกลยุทธ์องค์กร



คุณศิริวรรณ โกกนุทาภรณ์ ผู้อำนวยการ ฝ่ายทรัพยากรบุคคล



คุณพรทิพย์ วงศ์จิรัฐิติกาล ผู้อำนวยการฝ่ายการตลาด

TEGH Overview



Company	Thai Eastern Group Holdings Public Company Limited
Ticker	TEGH
Type of Business	The Company operates as holding company with three core businesses. The three core businesses are following: (1) Rubber business (2) Palm oil business (3) Renewable energy and organic waste management
Secondary Market	The Stock Exchange of Thailand ("SET")
Industry	Agro and Food Industry
Dividend policy	Pay dividends at a rate of not less than 40% of net profit after income tax and legal reserves



Remark: TEG ASSET CO., LTD. is wholly owned by Kokanutaporn Family.

SK INTERTRADE PTE. LTD. is holding company, established under the laws of Singapore, and held by K Ventures Company Limited. And K Ventures Company Limited is wholly owned by Kokanutaporn Family.



Our Products and Services



· Liquid Organic Waste

Manufactures and Distributes
Natural Rubber





Organic Waste Management (OWM)

Solid Organic Waste





Empty Fruit Bunch: EFB





- · Industrial Grade
 - High Ammonia (HA)
 - Medium Ammonia (MA)
 - o Low ammonia (LA)
- Premium Grade
 - o Ultra Low Ammonia Latex
- S COMPRIMATE O
- Sustainable Product :
 Organic Latex (GOLS)
 - o EUDR





Strictly Private & Confidential

Our Value Chain



- Raw Material
- Other Material Procurement

Suppliers

Logistics

Staff

Community

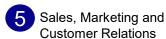
Government

- Production
 - Suppliers
 - Investor Banking

Operation and

- Community
- Government / Regulator

- Shipment and **Delivery Service**
 - Suppliers
 - Logistics / Shipping
 - Community
 - Government
 - Staff



- Customers
 - Community
 - Government /Regulator
 - Staff

DOWNSTREAM

- Sourcing and Handling
 - **Farmers**
 - Dealers
 - Logistics
 - Community
 - Government (RAOT)

UPSTREAM

Staff

Staff INTERNAL OPERATION

PROMETEON SRIXON CEAT (4) SUMITOMO SUPERSTON TOYOTA NEXEN TIRE OTANI PYRAMIDS 73,500 ครัวเรือน MICHELIN **Bridgestone** KUMHO TIRE HORIZON SRIXON Unit 2024 DOIO CHEN HOM ESSAGE THE CHARGE THE DEESTONE Rai 551,828 инапкоок Vee Rubber Firestone SENTURY TIRE YOKOHAMA :南林氏山 WESTLING **©**TEGH Unit 2024 2,700 ครัวเรือน 25,678 Rai 103 700 ใร **Direct Sales** 98%

EUDR Traceability 100%

5

4.68% Share of Thailand NR Production 4.98 M Ton

10.13% Thailand STR Production 2.21 M Ton

19.47% Share of Thailand's NR Consumption 1.20 M Ton

World Class Customers > 95%

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Project Background

EUROPEAN GREEN DEAL



Reduce 55% GHG emissions by 2030 (compared to 1990)



Regulation on Land Use, Forestry and Agriculture (LULUCF) FLAG, Biodiversity



CO2 emissions standards for cars and vans 0 emission of new cars by 2035



Emission Trading System (ETS)

55% reduction by 2030 net zero by 2050



Carbon Border Adjustment Mechanism (CBAM) Effective Jan 2026



Renewable Energy Directive RE mix 40% by 2030



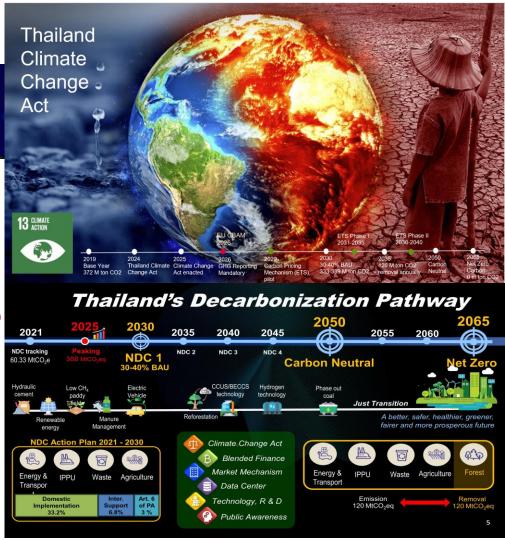
ReFuel EU Aviation Regulation

2% in 2025. 6% in 2030. 20% in 2035. 34% in 2040. 42% in 2045. 70% in 2050



FuelEU Maritime Regulation

2% in 2025 80% by 2050

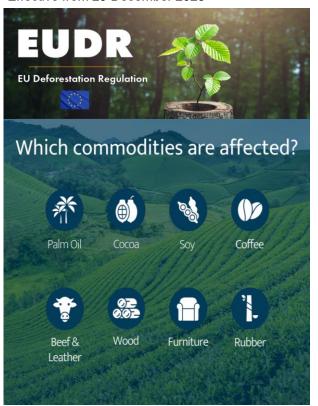






EU Deforestation Regulation

Effective from 29 December 2025





Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023

GENERAL

Minimise the EU's contribution to deforestation and forest degradation worldwide

(thus reducing global deforestation and forest degradation as well as greenhouse gas emissions and biodiversity loss)

Specific

Minimise risk that products from supply chains responsible for deforestation / forest degradation are placed on the EU market or exported from it

Increase EU demand for and trade in legal and 'deforestation free' commodities and products

กฎระเบียบ EU Deforestation Free Production Regulation (EUDR)



เป็นพื้นที่ถูกกฎหมายตาม ประเทศผู้ผลิต



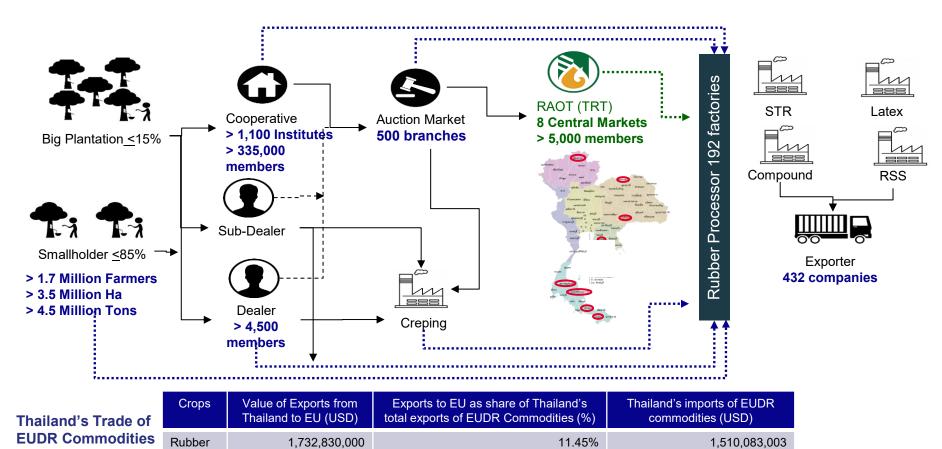
ปลอดจากการทำลายป่า



ผ่านกระบวนการ Due Diligence (DD) หรือการตรวจสอบความถูกต้องตลอดห่วง โช่การผลิต (Supply Chain)

Thailand Stakeholders in Natural Rubber Supply Chain





Project Timeline







EUDR compliant

Target 250,000 MT

to EU by 2025

2025

Q1/2025

- Recheck EUDR Supplier 100% (with complete docs)
- Update DDR & SSCM
- Satellite Mapping & Protected Area Reevaluation
- Dealer App 100%

02/2025

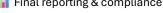
- Risk Assessment onsite 40%
- Mitigation Plan rollout
- Lapacity Building 60% of supply chain

O3/2025

- Official EUDR Implementation
- **GPSNR DDS Verification**
- 3rd Party DDS Verification
- Target 250,000 MT export to EU

04/2025

- Due Diligence & Risk Assessment onsite 100%
- Risk Mitigation Plan (finalized)
- Capacity Building 80% of supply chain
 - Final reporting & compliance





Regulation (EUDR)

The EU Deforestation-free Regulation (EUDR) is the new EU initiative to limit deforestation caused by forestry and agricultural activities all over the world. The new regulation will see new mandatory due diligence requirements for EU businesses due in 2024, massively expanding upon the scope of, and eventually replacing, the EU Timber Regulation (EUTR).



April 2019 : Cut

Deforestation

• 30 Dec: Cut off

STOP: Buying

risk area

Date for FUDR

from deforestation

off Date for







2024

2021-2023

- GPSNR EUDR Statement
- Farmer Information
- Segregation Guideline: Dealer
- SSCM Manual
- EUDR Manual
- Traceability App
- SSCM Dashboard App









Supply Chain Analysis & **Procurement Review**

- **Development of Traceability** Database + GIS & Land Rights Integration
- Supplier Engagement: Training Farmers & Dealers on Traceability & **EUDR**
- Pilot Due Diligence Activities:
 - Deforestation-Free Check
 - Traceability Check (Dealer App)
 - **Customer Audit & Trial Shipment**
 - 4) Transaction Report (GeoJson, per shipment)
 - 5) Risk Assessment (incl. human rights issues)
 - 6) 3rd Party Audit
- 7) Commercial Shipment (Transition Period)
- **Capacity Building target** 150,000 MT

Deforestation Free

Preparation and Data Collection

Transition Period

EUDR compliant 100%

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Corporate Governance, Risk, Sustainability Committee 2025 **Board of Directors Policy / Direction** Strategy **Audit and Corporate** Risk and Sustainability Nomination and Corporate KPI / RSG **Executives** Governance Committee Management Committee Remuneration of Directors (ACGC) (RSMC) Committee (NRC) Company / **Department KPI KRI** Risk and Sustainability Steering Committee (RSSC) Individual KPI KRI **Biodiversity Preservation** Operational Excellence Climate Mitigation and Sustainable Financial and Sustainable Supply Chain Stakeholder Engagement Adaptation Sub-& Control & Conservation Disclosure Sub-Committee (RU+PU) Sub-Committee Sub-Committee Sub-Committee Sub-Committee Committee **Deforestation Free Plantation** · Zero Waste to Landfill · Water Utilization · Code of Conduct **Digital Transformation** · Double Materiality Evaluation · Renewable Energy · Water Footprint Quality Work Life Risk Management GRI / IFRS S1-S2 / FTSE / (EUDR) · Renewable Electricity · Water Security Plan · Human Right Due Diligence Sustainable Certified Raw Risk Mitigation Plan CDP ESG Rating EV Transition · Resource Utilization Corporate Governance Material (FSC/ Innovation / Efficiency · Green Transportation and Sharing Economy GOLs/RSPO/ISCC) CGR Scoring Stakeholder Risk Operational **Behavioral Modification** Pollution Control Management Traceability and Internal Control · Ecovadis Scoring · CFO, CFP Dashboard Biodiversity Risk Assessment Supplier Due Diligence ESG - Due Diligence GPSNR Reporting Transparency Green Procurement Occupational Health and Energy Efficiency Community Forest Farmer / Dealer DDA SPOTT · Process Efficiency · Biodiversity Preservation and Knowledge Sharing and Supply Chain ESG Audit · Rubber Wav Safety Carbon Reduction Plan Conservation Plan Development Farmer Well-Being Whistle Blowing ONE Report · Carbon Credit, REC KRI - B Stakeholder Satisfaction Capacity Building CAC · Sustainability Report Grievance and Remedy Training and Development BCP Communication Carbon Sequestration KRI - S KRI - CC KRI - SR KRI - SSCM Tris Rating KRI - R FUDR / FSC / RSPO Climate Change Report **Biodiversity Report HRDD** Report Risk Audit Report Sustainability Report Report

TEGH Sustainability Framework Y2024



Sufficient Economy





Energy Management



Waste Management

Resource Utilization

Green Manufacturing



Supply Chain Management



Quality



Governance



BCG

Economy

KEY

RESULT

INDEX

2024

SYMBIOSIS

Water Utilization Reuse/Recycle water

- Tap Water System
- Reservoir Storage
- Capacity Wastewater Treatment
- Zero Discharge
 - Sustainable Water Management
- **Nutrient Solution**

- - Energy
 - Bio Hythane Low Carbon
 - Economy
 - Energy
 - Waste to Energy

Self Sustainable

- CCU
- Eco Factory

- **Energy Efficiency** Renewable &Clean
- **7ero Waste** Zero to landfill

3R, 5R, 10R

- Sharing Economy
- Waste to Value
- Pollution Control
- End of Life Product Responsibility

447.987 Ton

Reduce Landfill (SOW)

CO2 Emission Reduction

Circular Design



Practice (GAP) (FSC/ GOLs/RSPO) Rubber Wav. GPSNR

Certified Sustainable

Materials Plantation

Supplier Engagement on

573,843 rais

Sustainable Policy

100%

EUDR Compliant

Good Agricultural

Deforestation Free Product Traceability

Supplier Code of Conduct

Handling & Logistic Management

Traceability

Circular Economy

Human Right

of Life

Health and Safety

Community

Scholarship

Work Integrated

Recreation Area

Emergency Unit

Nursing and

Environment

Support

learning

Housing

Land Use, Risk Mapping Due Diligence -ESG

Biodiversity

Conservation Risk Management

Climate Change

Anti Corruption

Code of Conduct

Transparency Legal Compliance

Internal Audit

Green Economy

Deforestation Free (cut of Y2020)

Farmer -QOL Improvement



compare to 2024









Water Recycle Rate

81.3%

Zero Discharge



Bio Economy







Biogas Substitution

Renewable Electricity

79.6%















household

Labor Satisfaction

95.7%





TEGH Sustainable Supply Chain Management Framework



1. Establishing SSCM System

SSCM Policy

Supply Chain Assessment Goals and Objectives

Due Diligence and Evaluation

Monitoring

Reference Standard : GPSNR/ FSC/ RSPO/ GOLs / EUDR Customer's Requirement Sustainable Materials Premium Products Low Carbon Products Innovation & Digitalization Circular Economy



Change in Supply Chain Management System

ESG



SSCM Stakeholders: Raw Materials, Suppliers, Manufacturers, Distributors, Retailers, Customers

2. Communication

Conduct

Safety

Supplier's Code of Conduct

Working

Conditions

Policy / Due Diligence Statement

Freedom of

Association

Management Process : QP SSCM

Training Activities : Supplier/ Staff

Non-

discrimination

3. Suppliers'
Selection
Criterions /
Supply Chain
Evaluation Topics

Environmental

Compliance

Economic (Single Source/Financial)

Bribery & Corruption

Forced /

Child labor

Transparency & integrity

4. Monitoring Suppliers

Direct Supply Chain Risk

Indirect Supply Chain Risk

Business Innovation

Information Collections



44,607

Farmers



48,868 Plots



485,524



97 Cooperatives



334
Auction Markets



Deforestation-Free

Cut-off date:

31 December 2020

(GPSNR: 1 April 2019)



- Global Forest Watch
- Forest Area 2020
- Forest Monitoring
 - Kor Thor Chor (KTC)
 - GISTDA
- Global Forest Change Data (tree cover loss) (Hansen)

Legal Compliance

- ✓ Land use rights
- Environmental Protection
- Forest-related regulations
- Labour rights
- Human rights
- Third Parties' rights
- ✓ Principle of FPIC
- ✓ Tax, Anti-Corruption







Supply Chain Segregation



Traceability to farm level with polygon data

- < 4 ha : at least one latitude and longitude point
- >4 ha : Polygons, sufficient latitude and longitude points to describe the perimeter of each plot of land





Supply Chain Segregation





















EUDR

NON EUDR

Production Process Segregation





EUDR



Land use rights

Labour rights Humaio rights Third Parties' rights Principle of FPIC

Tax, Anti-Corruption









Dealers

Traceability

Auction Market













NON EUDR

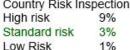


Risk Assessment (Article 10)

Country Risk Inspection: High risk 9% Standard risk 3%

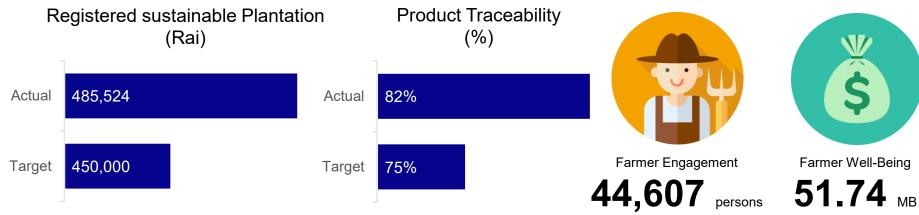






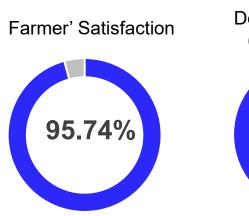
2024 Natural Rubber Supply Chain Outcomes (EUDR)















Qualitative and Quantitative Target & Results : Company & Farmer



Issue	KPI	Unit	Target 2024	Actual 2024	Target Strategic Project	% Completion
Governance & Traceability	Registered EUDR Plantation*	Rai	≥450,000	485,524	≥ 676,000	100.00% 8%
	Traceability Adoption*	%	≥ 75%	82%	≥ 100%	100.00% 9%
	SSCM System Updates	times/year	4	4	4	100.00%
	Deforestation-Free (Due Diligence)*	%	100	100	100	100.00%
	EUDR Country Benchmarking	Risk level	Low risk	Low risk	Low risk	n/a
Social & Farmer Engagement	Farmers Engagement*	persons	≥ 37,500	44,607	50,000	100.00% 19%
	Farmer/Dealer Satisfaction	%	95%	95.74%	98%	100.00%
	Farmer's Workshops & Trainings*	times/year	10	21	30	100.00% 110%
	Farmer well-being*	million THB	50	51.74	80	100.00% 3%
Environmental & Compliance	EUDR-Compliant Raw Material	%	≥ 85%	89.8%	100%	100.00% 20%
	EUDR-Compliant Rubber Sales*	Tons	≥ 50,000	51,734	≥ 74,200	100.00% 3%
	3rd Party Audits Compliant	times	5	9	20	100.00% 80%
	Deforestation-Free Verified	Rai	≥450,000	421,432	≥ 550,000	94% 6%
	Risk Mitigation Plan Support	Cases	<u><</u> 7,000	4,176	<u><</u> 15,000	60% 40%

Note: * is Farmer (Supplier) Qualitative and Quantitative Target & Results

Strictly Private & Confidential

















139 g CO₂e / kg



2.01 Nm3 / ton



Since
April 2019



100%



600 kWh



Concentrated

Natural Latex









Organic Materials









คณสมบัติ

- ปรับสภาพดินเค็ม ทำให้ดินเค็มสดลง ทำให้ดินมีโครงสร้างที่ร่วนชย อันน้ำได้ดี
- เพิ่มราตอาหารรองให้ดินและพืช ช่วยเพิ่มการติดผล ป้องกันผลร่วง ผลแตก
- ช่วยให้ตับพืชแข็งแรงต้านทานโรคและแมลงได้



ພັພລົຕ

วิสาหกิจชุมชนกลุ่มผู้เผลิตปุ๋ยอันทรัยใกยอัสเกิร์น เลขที่ 199 หมู่ที่ 2 ตำบลเขาชก อำเภอหนองใหญ่

สถานที่จำหน่าย

นริษัท ไทยอัสเทียน ไมโฉพาวเวอร์ จำกัด (มหาชน) เลขที่ 188 หมู่ที่ 2 ตำบลเขาชก อำเภอหนองใหญ่ จังหวัดขอบรี 20190

ห้ามใช้ขอเกี่ยว

ธาตุอาหารซัลเฟอร์ ที่เป็นธาตุ

อาหารรองที่จำเป็นสำหรับพืช

ปรับโครงสร้างดินให้มีความ

ช่วยลดความเค็มในดินลง

ร่วนซุย น้ำซึมได้ดี







ปรับสภาพดินให้มีความร่วน ซุย มีแร่ธาตุ NPK และ OM สูง ช่วยการเจริญเติบโตของ พืชได้ดี ช่วยเพิ่ม Carbon Sequestration ในดินได้



KHAO SOK

คณสมบัติ

- ป้องกันการเจริณเติบโตของเชื้อราในสภาพดินเปรี่ยว
- ช่วยส่งเสริมการเติบโตของตันพืช ทำให้ใบเขียว แข็งแรง √ ช่วยปรับสภาพดีนเปรี้ยวให้เหมาะสมกับการเจริญเติบโตของตันพืช
- √ ช่วยเพิ่มค่า pH ของดิน และลดความเป็นกรดของดิน
- ✓ เพิ่มธาตอาหารที่จำเป็นต่อการเจริณเติบโตของตับพืช

ພູ້ພລິຕ

วิสาหกิจชุมชนกลุ่มผู้ผลิตเปุ๋ยจินทธิย์ไทยอีสเกิร์ เลงที่ 199 หมู่ที่ 2 ตำบลเขาชก อำเภอหนองใหญ่ จังหวัดชลบุรี 20190

สถานที่จำหน่าย บริษัท ไทยอีสเทิร์น ไบโอพาวเวอร์ จำกัด (มหาชน)

เลชที่ 188 หมู่ที่ 2 ตำบลเขาชก อำเภอหนองใหญ่ จังหวัดชลบุรี 20190 ห้ามใช้ขอเกี่ยว



ช่วยยับยั้งเชื้อการ์โนเดอร์มาที่ เป็นอันตรายต่อพืช และมีธาตุ แคลเซียม โพแทสเซียม ฟอสฟอรัสและแมกนีเซียม ที่ สำคัญต่อการเติบโตของพืช





เสริมธาตุอาหาร NPK ช่วย ให้พืชเจริญเติบโตได้ดี ประหยัดต้นทุนปุ๋ย





Capacity Building of Supply Chain Engagement toward Local Farm TEGH

Plantation Services for Second-Generation Farmers

Offering management services for young farmers who wish to retain land ownership but outsource plantation operations.

Carbon Sequestration Partnership Program

Engaging with 50,000 farmers in initiatives to enhance carbon capture and promote climate-aligned farming practices.

Resilience Plan to Support farmers to take care of well being



Integrated Farming



Promoting Cocoa Cultivation among Farmers in Rubber Plantations









Project Information

- Participants: 25 farmers members of the FSC program in Koh Chan Subdistrict, Koh Chan District, Chonburi Province.
- Activity: Cultivation of 18,760 cocoa trees intercropped in rubber plantations, covering a total area of approximately 280 rai.

Outcome

- Increased Income for Farmers: Farmers earn an additional 30,000 THB per month.
- Benefits to the Company: An increase of 300 tons of FSC-grade raw materials per year.

Strictly Private & Confidentia





	Results	Unit	2023	2024
\$	Participating Farmers (FSC+RSPO+GOLs+EUDR)	farmers	32,105	47,497 +48.0%
	Certified Area (FSC+RSPO+GOLs+EUDR)	rai	457,400	577,506 +26.3%
July	Certified Raw Material (FSC+RSPO+GOLs+EUDR)	Ton	60,032	145,421 +142.2%
IJ.	Increased Farmer's Income (FSC+RSPO+GOLs+EUDR)	Million THB	35.9	115.74 +222.4%
	Economic Value of Supporting Local Products	Million THB	4.1	33.7 +722.0%
血	CAC membership	stars	**	***















Outcome

Output



















2024 Performance







รายได้รวม

16,844 and

1 39% (YoY)

กำไรงั้นต้น

1,791 anu

1 63% (YoY)

ทำไรสุทธิ **556** ล้าน บาท

159% (YoY)



SET Best Sustainability Awards



Net Zero by Science Based Target project



Thailand Labour Management Excellence Award



SET ESG DNA Certification



TLCA
Executive
Development
Program (EDP)







Apollo Gold Partner Award 2024



CALO Certification



LESS Project approved



I-REC STANDARD



T-ver Project approved





Green Industry Level 5 (Green Network)



CSR-DIW Continuous & CSR DIW Award

25



Question & Answers



Appendix





"Empowering the Low Carbon Value Chain"

Empowering: action, influence, and support actively to drive positive change. **Low Carbon**: emphasizes environmental consciousness by reducing carbon emissions, promoting renewable energy, and minimizing the ecological footprint throughout the supply chain.

Value Chain: The value chain represents the entire process involved in creating, producing, and delivering a product or service. It encompasses everything from raw material sourcing to production, distribution, and waste management.

