GPSC Supply Chain Management

April 2024





Content: GPSC supplier ESG Program

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Vision & Mission



"Be a Preferred and Trusted Partner of GPSC Group Users"

SUPPLY CHAIN MANAGEMENT Vision 2020 - 2025

- P Process Compliance & Good Governance
- P Proactive Procurement
- **E** Effective Procurement



SUPPLY CHAIN MANAGEMENT Mission



GPSC Group Procurement Practice



Follow GPSC Group Corporate Governance policy & regulation



Fair treatment & transparency to all suppliers



Comply with the procurement obligation

- On-time payment
- Other Obligations



Encourage sustainable supplier development with good performance history

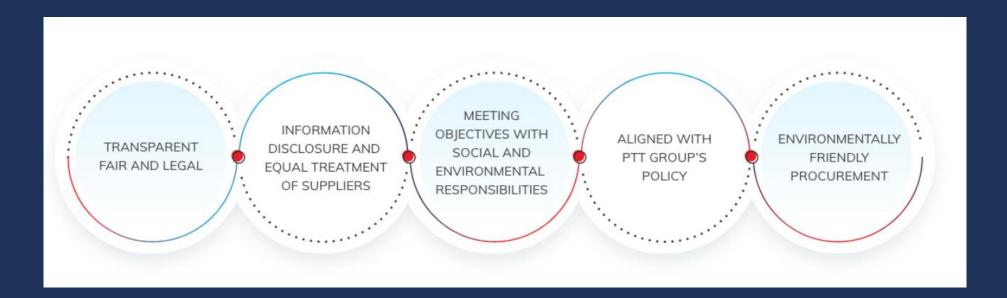
- GPSC's SSHE policy
- ESG development



Supply Chain Management

GPSC's supply chain management includes sourcing of raw materials: natural gas, coal, raw water, and clarified water. PTT PLC is our most critical supplier providing natural gas which is the main raw material. Other suppliers providing non-fuel goods and other services include construction and design service, mechanical equipment, machinery, IT service and many more.

GPSC is committed to the effective procurement and management of supplies, insurance, and other aspects of operations related to business sustainability. The company introduced the Sustainable Procurement and Supplier Management Policy to ensure excellence in procurement with transparency, fairness, and alignment with global practices.





Supplier Sustainable Code Of Conduct

GPSC SUPPLIER SUSTAINABLE CODE OF CONDUCT

- Business Integrity
- · Confidentiality and data portion
- Corporate Social Responsibilites
- · Conflict of Interest

Safety and Working

· Security and Emergency

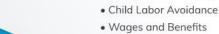
· Occupational Health, Injury,

Environment

Preparedness

and Illness





- WorkingHours
- Non-Discrimination

• Freely Chosen Employment

- Layoffs Practice
- Humane Treatment
- Freedom of Association





- Environmental Management Through lift-cycle perspective
- Solid Waste and Hazardous Waste
- Wastewater
- · Air Emissions and Greenhouse Gas
- Soil and Groundwater
 Contamination

GPSC recognizes the importance of encouraging suppliers to uphold governance principles with social and environmental responsibilities in their business operations.

Therefore, the company created the Supplier Sustainable Code of Conduct to communicate the rules which require strict compliance by suppliers. The content of the Supplier Sustainable Code of Conduct ranges from business ethics, human rights, to safety, and environmental management



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Supply Chain ESG Risk Management Process

Supplier Screening

Supplier Selection (Pre-Risk Assessment and ESG Risk Self-Assessment) Identification of the significant suppliers (Critical & High ESG risks)

Supplier Assessment and Development

3

Supplier Assessment



Supplier Development

- 1st Party Supplier Selection and Pre-Risk Assessment
- ESG Risk Self-Assessment

- Spending Analysis
- Critical Analysis
- ESG Risk Assessment

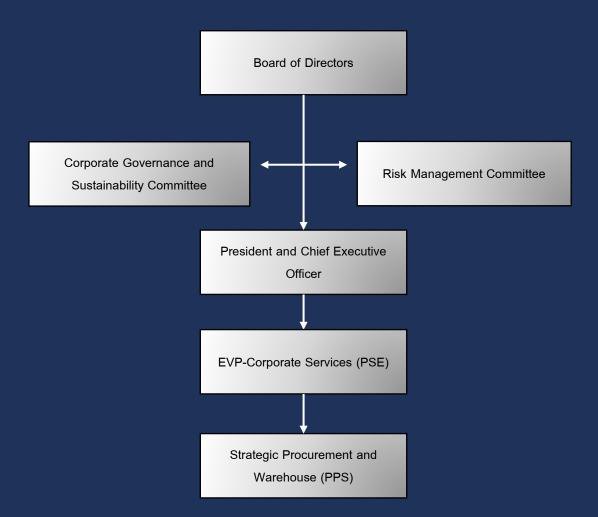
- Supplier
 Comprehensive
 ESG Risk
 Assessment
 - 2nd party assessment
 - 3rd party assessment

- Supplier corrective action/improvement plans
- Supplier information/trainings
- Supplier access to ESG benchmarks against peers
- Supplier support on corrective/improvement actions
- In-depth technical support programs



^{*}The process covers GPSC Group Tier-1 and Non-Tier 1 Suppliers

Organizational structure – Supply Chain ESG Management Implementing supplier ESG program



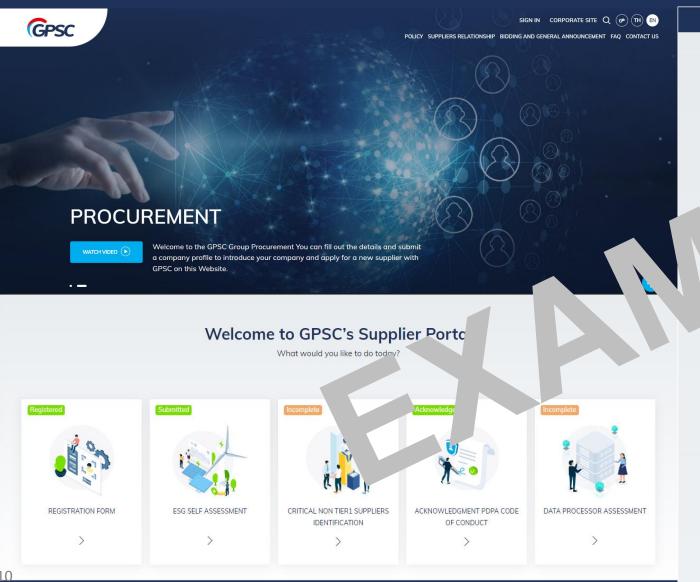
GPSC assigns Board of Directors (BoD) to oversight the overall implementation of the supplier management and supplier ESG program to ensure alignment of vision and implementation which is critical to drive the successful outcomes, and to guarantee maximal priority and focus. Board oversight tasks are delegated to the Corporate Governance and Sustainability Committee as well as Risk Management Committee.

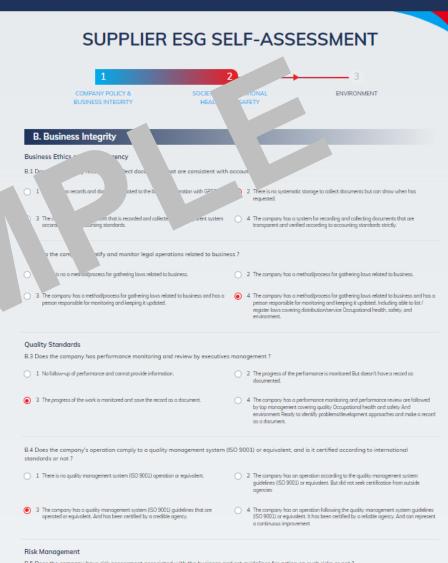
The President and Chief Executive officer (CEO) is responsible to oversee the supplier ESG program implemented under the supervision of EVP-Corporate Services (PSE) and the key responsible function – Strategic Procurement and Warehouse (PPS)

The purchasing practices towards suppliers are also continuously reviewed by PPS to ensure that the business demands, and expectations are aligned with the GPSC Supplier Code of Conduct, and ESG requirements. After the review process is completed, the progress and results will be reported to PSE and higher levels hierarchically.



Examples of GPSC purchasing practice improvement program 2023 : Supplier Portal





Supplier ESG Self-Assessment

GPSC's Critical Non-tier 1 suppliers identification

Supplier Registration

Examples of GPSC purchasing practice improvement program 2023

- GPSC has implemented a Supplier Portal since 2022 and continuously improved the support functions in 2023 to enhance procurement practices in supplier management and ESG Risk Screening. The portal was developed as a single platform for supplier data collection, registration and communication including bidding and general announcement.
- Suppliers can register and login to update their information and be able to perform following actions in the portal;
 - Registration and update information
 - Document submission (e.g. company affidavit, Statement, ISO and other certificates etc.)
 - Perform ESG Risk self-assessment.
 - Critical Non-tier 1 Supplier identification
 - Understand and acknowledgement of GPSC Sustainable Supplier Code of Conduct
 - Acknowledgement of GPSC terms and conditions
 - Acknowledgement of GPSC practices toward Personal Data Protection Act (PDPA)
 - Evaluate the need of Data Processing Agreement (DPA)
- Supplier registered to Supplier Portal shall pass through the Pre-Qualification Process and get the approval from
 related parties and automatically interface register to SAP S4Hana; GPSC's New ERP, directly. This step helps
 shorten the registration process and ensure the completion of information and document.
- The score of ESG Risk self-assessment shall be summarized and downloaded by supplier in which GPSC shall consider the final score as the pre-risk screening score for supplier pre-qualification process



Training for company's buyers and/or internal stakeholders

Company's purchaser training on Supplier ESG program

No.	Activity	Tim	eline
1	Background & Objective	15 mins	10:00 -10:15
2	Create Microsoft Form for all group and Reassign group (if any)	15 mins	10:15 -10:30
3	Supply Risk Assessment	30 mins	10:30 -11:00
4	Break	5 mins	11:00 -11:05
5	Sustainability Risk Assessment	50 mins	11:05 -11:55
6	Summary	5 mins	11:55 -12:00

GPSC provides an internal workshop as the training for the company's buyers and/or internal stakeholders (called "Purchaser"), prepared by Strategic Procurement (PGM) to make understanding on their roles in the supplier ESG program.

Training Agenda

Supplier Risk Assessment

The training is conducted based in annual basis to keep updating the supplier risks.

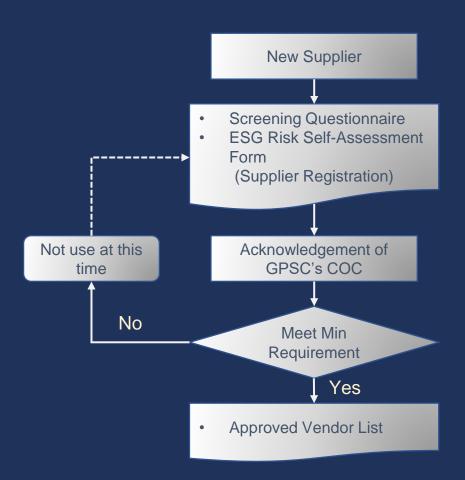


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Supplier selection process: overview



GPSC has adopted the system of vendor list and supplier selection to ensure that suppliers deliver products and services that meet the company's requirements. The scope of assessment covers suppliers' capabilities based on GPSC's Criteria laid out in the ESG supplier assessment form (25% ESG weight included*). Suppliers approved through the supplier selection process will be registered on the Approved Vendor List (AVL) in SAP S4Hana system by GPSC's procurement staff via Supplier Portal interface.

*See detail of ESG Weight in the next page



Supplier selection - 1st Party Supplier Selection and Pre-Risk Assessment

GPSC Group evaluates supplier using 2 evaluation forms in the selection process

1st Party Supplier Selection and Pre-Risk Assessment

Criteria	Weight	Туре	Description	
Business	10	Business and Governance	This section evaluates nature of business including registered capital, company profile, and financial profile	
Product	30	Product and service	This section evaluates source of products and services production and distribution capacities, stock and resour management	
Distribution	20	Product and service	This section evaluates internal policy, management standards on OHS issues including safety record, PPE, and quality control	
Occupational Health and Safety (OHS)	15	Social	This section evaluates internal policy, management standards on OHS issues including safety record, PPE, and quality control. By prioritizing employee well-being, adhering to safety regulations, and fostering OHS practices align with ESG focus.	
After sale service & Technical support	15	Product and service	This section evaluates support on after sale service and technical of the business and product warranty	

Suppliers shall meet a

minimum of 70%

in order to get approved
into GPSC Approved
vendor List (AVL)

*See next page for an example of Supplier Pre-Qualification Form

ESG-related criteria

ESG-related criteria

After sale service & Technical support

15 Product and service This section evaluates support on after sale service and technical of the business and product warranty

Corporate Social Responsibility (CSR)

10 Social This section evaluates CSR policy, environmental management system and human rights . This establishes a company's commitment to ethical and sustainable practices.



Example of 1st Party Supplier Selection and Pre-Risk Assessment (Supplier Pre-Qualification Form)

4 การประเมินด้านอาชีวอนามัย ความปลอดภัย และ สิ่งแวดล้อม	15	0	0	0	0
4.1 นโยบายและคู่มือความปลอดภัยในบริษัท	3				
4.2 ประกาศนียบัตรรับรองด้านสิ่งแวดล้อม เช่น ISO 14000, ISO 18000 หรือ อื่นๆ	2				
4.3 การอบรม จัดประชุม และ การมีส่วนร่วมของพนักงานด้านความปลอดภัย	4				
4.4 บันทึกความปลอดภัย (Safety Record) และ มีการใช้อุปกรณ์ PPE	2				
4.5 ระบบคุณภาพ และ การควบคุมคุณภาพผลิตภัณฑ์	4				
5 การประเมินด้านการให้บริการหลังการขาย/บริการ	15			0	
5.1 After sale service & Technical support	10				
5.2 นโยบายการรับประกันสินค้า	5				
6 การประเมินด้านความรับผิดชอบต่อสังคม (CSR)	10			U	0
6.1 นโยบายการรับผิดชอบต่อสังคม					
6.2 ระบบการจัดการด้านสิ่งแวดล้อม					
6.3 ด้านสิทธิมนุษยชน	4				



แบบพ่อร์มการให้คะแนนประเมินคุณสมบัติผู้ค้า

รื่องวิธีท :							
ราธละเอ็บคการพิจารณา - ศักนภาพของบริษัทผู้ค้า (โดยภาพรวม)	Weight	คณะกรรมการ ท่านที่ 1	คณะกรรมการ ท่านที่ 2	คณะกรรมการ ท่านที่ 3	คณะกรรมการ ท่านที่ 4	หน่วยงาน จัดหา	Averaç
การประเมินด้านธุรกิจ	10	0	0	0	0	0	0.00
1.1 เงินทุนจะพระเบียน	0						
1.2 เขาสาขนะน้ำบริษัท (Company Profile) เช่น	0						
1.2.1 หนังสือรับรอง	0						
1.2.2 หนังสีขจดทะเบียนภาษีมูลค่าเพิ่ม	0	7					
1.3 ฐานะพางการเงิน							
การประเมินทางด้านการผลิต / การจัดจำหน่าย		0	0	0	0	0	0.00
2.1 แหล่งที่มาของเลิดภัณฑ์หรือบริการ							
2.2 ความสามารถในการผลิต/จัดจำหน่าย/บุคลากร มีเพียการต่อความต้องการ	7						
2.2.1 จำนวนสินค้าคงคลังบุคลากร มีศักยภาพ คลังพร้อมให้บริการ							
2.2.2 จำนวน ตำแหน่ง และ 🕶 🍎 ซื่อลังสินด้า (นการให้บริการ			7				
2.2.3 ซะเกมการรั	5						
2.3 usruzek s stru Over a Te Short	10						
ะเมินด้าน หลืนด้า หรือ เจ้ สน้างาน	70	0	0	0	0	0	0.0
รสิทธิภาพ. ารตัวา การเข้าเมริกาสห	10						
conserv. เรียกระจำนักกระน้ำงานกร แก่เงิน	5						
3 เมาครฐานจ จัดต่องหรือ พนักงานที่ให้หนีการ	5						
ประ. ชาชีวอนา ปลอดภัย และ สิ่งแวดด้อม	15	0	0	0	0	0	0.0
บระ จารวอนา บลอดภอ และ ส่งแวดลอม นโยา มือความป บริษัท	3						
ประการ ในของค้านมงมวดต้อม เช่น ISO 14000, ISO 18000 หรือ ขึ้นๆ	2						
ารอบรมะรุม และ การมีส่วนร่วมของพนักงานค้านความปลอดภัย	4						
เพิ่กความปละคภัย (Safety Record) และ มีการใช้คุปกรณ์ PPE	2						
4.5 ระบบคุณภาพ และ การครบคุมคุณภาพผลิตภัณฑ์	4						
การประเมินด้านการให้บริการหลังการขาย/บริการ	15	0	0	0	0	0	0.0
5.1 After sale service & Technical support	10						
5.2 นโดบายการรับประกันสินค้า	5						
การประเมินด้านความรับผิดขอบต่อสังคม (CSR)	10	0	0	0	0	0	0.0
6.1 นโยบายการรับผิดรอบต่อสังคม	3						
6.2 ขะงนการจัดการด้านสิ่งแวดล้อม	3						
6.3 ด้านสิทธิมนุษยาน	4						
	100				-		0.0
ยเหตุ: บริษัทที่ผ่านการประเมินจะต้องได้ครบนนรวมอย่างน้อย 70 ครบนน							
						CSS-F	-0019 R

ความเห็นเพิ่มดิน : (กรนีคะแบบใน้จึง 70 คะแบบ แต่มีความเห็นอนุมัพิขึ้นพะเบียนผู้ที่ GPSC (AVL))

Supplier selection - ESG Risk Self-Assessment

2 ESG Risk Self-Assessment

Suppliers shall complete the ESG Risk Self-Assessment form for GPSC Group on Supplier Portal to pre-screen the ESG Risk level of supplier in the supplier selection process. The ESG Risk Self assessment comprises of 5 main sections. The self scoring level is considered based on the intensity of the ESG implementation in supplier's company

Criteria	Туре	Examples of Evaluated Topic
Company System and Policy	Business and Governance	 Sustainable Development Policy Environmental and Other Issues Communication Policy Privacy Protection and Cybersecurity Policy Anti-corruption, discrimination and harassment Policy
Business Integrity	Business and Governance	Business Ethics and TransparencyQuality StandardsRisk Management
Society	Social	Human RightsLabour RelationsSocial Responsibility
Occupational Health and Safety	Social	Occupational Health and SafetySecurity and Emergency Preparedness
Environment	Environmental	 Environmental Impact Assessment and Control Measures Work Plans / Projects to Reduce Environmental Impacts Environmental Training for Employees Environmental Performance Data collection Complaints, Lawsuit, or Convictions on Environmental Issues

Suppliers shall complete the ESG Risk Self-Assessment form to prescreen the ESG Risk level in the supplier selection process, GPSC will review and perform systematic data verification with the selected suppliers in order to validate the submitted information. Suppliers shall provide information upon GPSC request via the following approaches:

- Direct contact Face to Face interview
- Formal Email
- Interview through online and telephone

^{*} See next page for an example of ESG Risk Self-Assessment Form

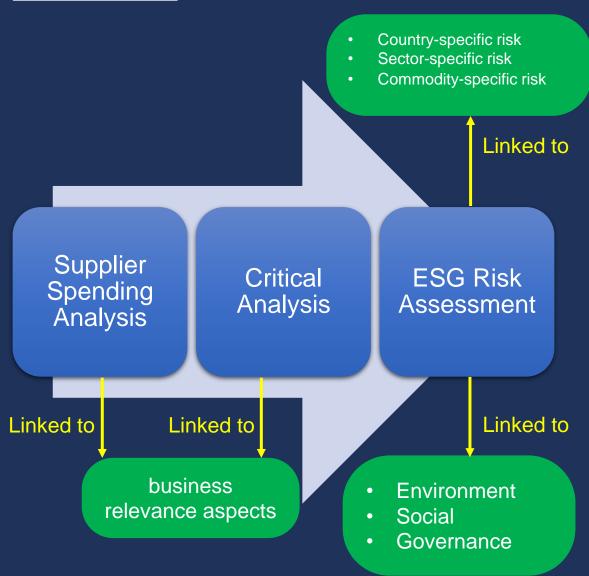


Example of ESG Pre-Risk Self-Assessment Form in Supplier Selection Process





Identification of the significant suppliers: Overview



GPSC Group annually conducts the analysis on supplier spending, Critical Analysis and ESG Risk Assessment to suppliers who are deemed to pose substantial risks of negative ESG impacts or significant business relevance to the company or a combination of both. The analytical results are used as input into formulating appropriate management strategies and mitigation measures

The significant (including critical tier-1 and high ESG risk) suppliers are categorized from comply the following criteria:

- High expenditure
- 2. Critical components
- Non-substitutable
- 4. Strategic Relationship (Parental Company)
- 5. High ESG Risk



^{*}See detail of ESG Weight in the next page

Significant supplier (Spending Analysis Results 2023)

No. of Supplier: 1,309 (Y2023) 2023 Total Spend (MTHB): 76,874

GPSC Group's highest spending suppliers in 2023 were in raw material and trading category

Category	No. of Suppliers	Spend (MTHB)
Raw Material & Trading	18	65,135
Others	185	2,999
Engineering / Project	25	1,767
Mechanical Service	315	1,253
Utility & Chemical	37	885
Mechanical Material/Tools	371	777
General Service	156	639
Consultant	98	595
Instrument Material/Tools	348	575
Electrical Service	166	516
It& Computer	103	399
Instrument Service	159	262
Price Agreement	25	211
Safety	89	183
Electrical Material/Tools	171	138
Hr	28	135
Operation Support	72	86
Manpower For O&M	27	61
Civil	28	55
Environmental	27	52
Office Supply & Stationery	77	45
Process / Production	50	38
Lab	55	35
Admin Service	63	30
Training & Welfare	9	3
Grand Total	1309	76,874*

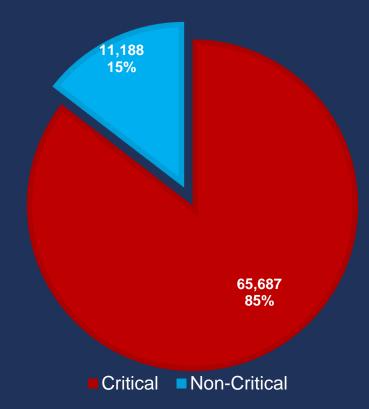
Country	No. of Supplier	Spend (MTHB)
Thailand	1,206	69,600
United Arab Emirates	2	3,046
Singapore	18	2,325
Indonesia	2	1,167
South Korea	16	379
Japan	4	116
China	3	105
United States of America	20	35
Belgium	2	29
Finland	2	17
Malaysia	3	16
United Kingdom	11	10
Australia	1	9
Switzerland	1	7
Germany	4	5
Taiwan	2	2
Hong Kong	2	2
Italy	3	2
Austria	1	1
Hungary	1	0.70
France	1	0.30
India	1	0.20
Denmark	1	0.10
Scotland	1	0.10
Grand Total	1,309	76,874



Significant supplier (Spending Analysis Results 2023)

Critical Category

CRITICAL SUPPLIER SPEND (MTHB)

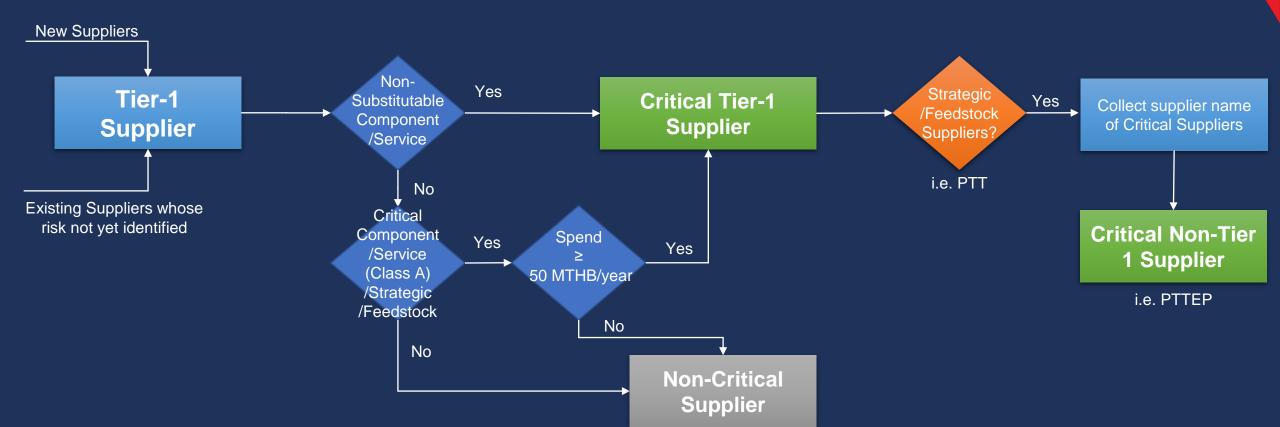


Note: Supplier can supply more than 1 category

0.1	No. of Original Consulting	0/ of 0000 Comp. I
Category	No. of Critical Supplier	% of 2023 Spend
Raw Mat&Trading	7	78.42%
Engineering/Project	7	1.86%
Utility&Chemical	8	0.50%
Mechanical Service	17	0.44%
General Service	10	0.20%
It& Computer	2	0.13%
Electrical Service	10	0.07%
Instrument Material/Tools	12	0.07%
Hr	2	0.06%
Price Agreement	3	0.05%
Mechanical Material/Tools	14	0.05%
Operation Support	8	0.04%
Instrument Service	14	0.04%
Civil	3	0.03%
Consultant	6	0.03%
Process/Production	6	0.02%
Electrical Material/Tools	9	0.01%
Manpower For O&M	2	0.01%
Safety	3	<0.01%
Office Supply & Stationery	2	<0.01%
Environmental	2	<0.01%
Admin Service	2	<0.01%
Lab	3	<0.01%
Others	13	3.40%
Grand Total	63	85%

Significant supplier (Critical Analysis)

Critical Supplier Identification – Work Flow





Significant supplier (Critical Analysis)

Critical Tier-1 suppliers of GPSC Group refer to those who has high expenditure, are critical components, and non-substitutable to GPSC Group

- High-volume spending and critical component/service supplier
 - High-volume spending: More than 50 MTHB
 - Critical component suppliers: such as feedstock suppliers and class "A" component and advanced services
- Non-substitutable suppliers: such as advanced construction and engineering and feedstock suppliers
- Strategic Relationship (Parental Company) as GPSC Group's strategy and direction needs to align and comply with parental company's business strategy

*GPSC Group defines Critical Non-Tier 1 Supplier from suppliers of strategic suppliers (i.e. parental company) and suppliers of Feedstock Suppliers

Based on analysis of 2023, the critical supplier are summarized below:

Type of supplier	Absolute number of suppliers	Share of total procurement spent(%)
Total tier 1 suppliers	1,309	100 %
Significant (Critical) tier 1 suppliers	46	85%
Critical non-tier 1 suppliers	1	-



ESG risk assessment: High Level Desktop based Supplier ESG Screening

- Country-specific risk
- Sector-specific risk
- Commodity-specific risk

Linked to

ESG Risk Assessment Linked to

- Environment
- Social
- Governance

For the ESG risk assessment, GPSC Group conducts the high-level analysis on the **Environment, Social and Governance aspect** with all the following specific risks separately:

Screening Methodology	Description	Examples of Evaluated Criteria	
Country-specific risk:	Risk for negative environmental, social, and governance impacts related to a country's political, social, economic, environmental or regulatory situation.	Risk for natural disasterLaw & RegulationsGeopoliticsOperational Area	
Sector-specific risk	Risk related to supplier distinction/characteristic among the sector	 Critical Component Choice of suppliers in the market Market share among suppliers Supply growth rate 	
Commodity-specific risk	Risk for negative environmental, social, governance and other specific criteria- related to commodity	Technology alternative/switchingSubstitution of products/serviceSource of input	



Example of High-Level Desktop based Supplier ESG Screening

O.2.1 is the main supplier's operation in the area/region prone to hurricanes, earthquakes, or other natural disasters? Mark only one oval.	8. O.2.3 Is the supplier in the area/region with geopolitical risk? Geopolitical risk could led to your supply chain in disruption by global political events. The most obvious and high profile are wars and revolutions, where the less dimantic such as protest and boycott which can cause serious consequences for businesses. This appoplitical rear/region could mean countries/regions with political instability, struggle for relative power and security, high regionalism, and high nationalism, for examples. Mysamat, Calmbodia, North Africa, and Middle East Mark only one oval.		ESG Risk Assessment by sector-specific risk
A - Yes, with history record of major impact resulting in unable to operate for 3 days or more 3 - Yes, with history record of minor impact resulting in unable to operate for less than 3 days 1 - No 0 - Not applicable 7. 0.2.2 is the supplier in the area/region with different jurisdiction of law with GPSC's Operation? The country that has strictly law which has huge difference to Thai Law or international standard (i.e. working hour of European countries, but strengths precisit & different permits or standard from manufacturer). The country that has buge difference in princition of law for the minor of standard from manufacturer). The country that has buge difference in princition of law for the minor of standard from manufacturer). The	4-Yes ESG	Risk Assessment by untry-specific risk	5. O.1.1 Is the supply production of the suppl
Mark only one oval. 4 - Yes, with significant difference of legal requirement 3 - Yes, with minor difference of legal requirement 1 - No 0 - Not applicable	3 - There are other operation sites in the same area/region 2 - There is 1 operation site with different area/region 1 - There are more than 1 operation site with different area/region 0 - Not applicable		Mark or. 4 - Only 1 supplier in the market (Monopoly) 3 - 2-3 suppliers in the supply market 2 - 4-7 suppliers in the supply market 1 - More than 7 suppliers in the supply market 0 - Not applicable
22. 3.2 Are there no alternative technologies provided to products/services? Mark only one oval. 4 No alternative technology services provided to products/services 3 - 1 alternative technology services provided to products/services 2 - 2-3 alternatives technology services provided to products/services 1 - There are many alternative technology services provided to products/services 0 - Not applicable	24. 4.1 Are there a limited number of supplication of supplications and supplications are supplicated as a supplication of supplication of supplications are supplicated as a supplication of supplication of supplications are supplicated as a supplication of supplications are supplicated as a supplication of supplication of supplications are supplicated as a supplication of supplic		13. 1.2 Do a few supplier hold a major market share? ** Mark only one oval. 4 - Suppliers holding 100% of the market share (Monopoly) 3 - Individual supplier holds between 50-80% of the market share 2 - Supplier holds between 50-30% of the market share 1 - Supplier hold max of 30% of the market share 0 - Not applicable 14. 1.3 What is the growth rate of supply?
23. 3.3 If these technologies existed, are there high cost to switch to new ones? * Mark only one oval. Option 1 Option 2 Option 3 Option 4 Option 5		Risk Assessment by modity-specific risk	Mark only one oval. 4 - Growth rate of supply is 5% or less 3 - Growth rate of supply is from 6-15% 2 - Growth rate of supply is from 16-30% 1 - Growth rate of supply is more than 30%

Supplier ESG Risk Evaluation is the evaluation of the risk rating of Supply Risk, Sustainability Risk and other Supply Chain Risk such as Strategic Risk, Country/Geographic Risk, Subcontractor Risk, Technology, performed by purchasers using the questionnaire. The questionnaire comprises of following risk issues;



Questionnaire

- Online Questionnaire (once a year)
- Scoring based on Risk Level, Impact & Likelihood



Risk Evaluation Result

- Analyze the risk evaluation result
 - Sustainability Risk and Supply Risk analysis
 - Critical Supplier Identification
 - Critical & High-Risk Suppliers
 - Supplier Categorization
 - Supplier Classification



Evaluated by

Internal Stakeholders (Purchasers)



Evaluation Methodology

- Review and update risk issues related to SCM
- Training Internal Stakeholder (Purchasers)
- Evaluate using ESG Risk Assessment Form



Improvement Strategy

Set-up strategy for Supplier Relationship
 Management, Supply Chain Management and
 Supplier ESG Desktop/Comprehensive Assessment



GPSC Group identify Supplier risk using Supplier Risk Evaluation which comprises of the 3 main risks as follows; Supplier ESG Risk is evaluated in the sustainability risk evaluation section.

Risk		Risk Issue	No. of Questions	Total No. of Questions	Rating Criteria
	1	Competition among suppliers	5		4 Risk Level Extreme High Medium Low
	2	Barriers to entry to the market of new suppliers	5	20 Required 17 Optional 4	
Supply Risk	3	Substitution products/ Services	3		
	4	Bargaining power of suppliers of inputs	3		
	5	Bargaining power of buyer	4		
	6	Economic	3	20 Required 15 Optional 5	Impact & Likelihood
Custoin shilitu Diek	7	Environment	9		
Sustainability Risk	8	Reputation	6		
	9	Safety	2		
	10	Strategic Risk	1	8 Required 1 Optional 7	4 Risk Level • Extreme • High
	11	Country/Geographic Risk	4		
Other Supplier's Risk	12	Subcontractor Risk	2		Medium
	13	Technology Risk	1	Ορασταί 1	Low Impact & Likelihood

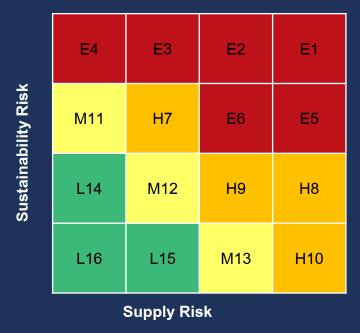


Example of ESG Risk Assessment - Form

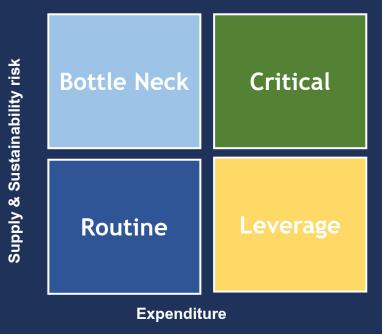
No	Pick Issues	Significant	Options for	Level of Impact				Pamarka
No.	Risk Issues	Significant	consideration	4 - Critical impact	3 - High impact	2 - Normal impact	1 - Low impact 0 - Not applicable	Remarks
-	Sustainability Risk							
6	Economic		Option 1	Extremely loss in both GPSC's Financial and Business Oppunity	Highly loss in both GPSC's Financial and Business Oppunity	No GPSC's business or operational interruption but there is some costs	No effects on GPSC's ting cost	
6.1	Pricing Impact level of that Supplier to GPSC's	Required	Option 2	More than 20% reduction in GPSC's Product/Service deliverability	10-20% reduction in GPSC's Product/Service deliverability	5-10% reduction in GPSC's Product/Service deliverability	Less than GPSC's Product/Service del:	
	opportunity/Deliverability/Product Pricing		Option 3	Change in price can resulting in increasing of cost per unit of GPSC's product 10% or more	Change in price can resulting in increasing of cost per unit of GPSC's product between 7-9%	Change in price can resulting in increasing of cost per unit of GPSC's product between 5-6%.	Char ice can resultinincreasing of cost per unit of GPS duct le	For pricing more than 5,000,000 million baht only
			Option 1	Extremely loss in both GPSC's Financial and Business Oppunity	Highly loss in both GPSC's Financial and Business Oppunity	No GPSC's business or operational interrur on but there is some costs	No effec. Operating cost	
6.2	Project Delay Im pact level of that Supplier to GPSC's	Required	Option 2	More than 20% reduction in GPSC's Product/Service deliverability	10-20% reduction in GPSC's Product/Service deliverability	5-10% reduction in GPSC's Product/Service erability	Less than 5 tion in GPSC's t/Service deliverability	
	opportunity/Deliverability/Planned production or output		Option 3	Project delay of more than 10% of GPSC's planned production Resulting in 10% or more different in output against GPSC's planned output	- Project delay of between 7-9% of GPSC's planned production - Resulting in 7-9% different in output against GPSC's planned output	- Project delav PSC's producti - Resulting & different in against - nned ou	- Project delay of GPSC's planned production - Resulting in les. 5% different in output against GPSC's plan out	Should focus only on impact on key GPSC's activity
			Option 1	Extremely loss in both GPSC's Financial and Business Oppunity	Highly loss in both GPSC's Financial and Business Oppu	PSC's bu nr or interruption b	erfects on GPSC's operating cost	
6.3	Quality Impact level of that Supplier to GPSC's	Required	Option 2	More than 20% reduction in GPSC's Product/Service deliverability	10-20% reduction in GPSC's Produ	5- duction 's Product/Service deliverability	Less than 5% reduction in GPSC's Product/Service deliverability	
0.5	opportunity/Deliverability/Planned Production or output		Option 3	- Project delay of more than 10% of GPSC's planned production - Resulting in 10% or more different in output against GPSC's planned output	- Project delay of between 7-9% of C nordiction - Resulting ferent in output a GF. planned ou	Prt. lay of bt 5-6% of GPSC's planned odu esult 5-6% difi cin output against GPSC's nned	- Project delay of less than 5% of GPSC's planned production - Resulting in less than 5% different in output against GPSC's planned output	efficiency
7	Environment							Should focus on some specific industry only
	Air Pollution Impact level of the Material/Service		Option 1	Damaged area is between 5-10 km from the accide t	Damaged a ess th. rom the accondint	aged area is only within the operating site	Very slightly effect on damaged area	
7.1	provided by that Supplier to GPSC's Air pollution in terms of damaged/recovery	Required	Option 2	1-2 years recovery time Extremely exceed compliance require	6-12 month: 'ery +'	less than 6 months recovery time Slightly exceed compliance requirement (laws and	-	
	time/law and regulation		Option 3	regulations)	Warning lett governmen cy	regulations)	No effect	
7.2	Greenhouse Gas Emission	Required	Option 1	Unknown stahr s management approar aace AND no disclosure on (emiss 1 & 2	Unknown sta supplier's management place BUT disclose on GHG emission & 2	Supplier's Management approach/system is inplace BUT no disclosure on GHG emission scope 1 $\&$ 2	Supplier's Management approach/system is inplace AND disclose on GHG emission scope 1 & 2	Check supplier website and their sustainabiltiy report (publicly available)
	Vibration and Noise Pollution Impact level of the Material/Service		Option 1	Damage is between from the accommont	Dc. area is less than 5 km from the accident point	Damaged area is only within the operating site	Very slightly effect on damaged area	
7.3	provided by that Supplier to GPSC's Vibration and Noise Pollution in terms of	Optional	Option 2		6-12 months recovery time	less than 6 months recovery time	-	
	damaged/recovery time/law and regulation		Option 3	Extremely ex mpliance requir t (la and regulations)	Warning letter form the government agency	Slightly exceed compliance requirement (laws and regulations)	No effect	
	Water Consumption and Wastewater Emission	Required	Option 1	Damaged area is km from the accident point	Damaged area is less than 5 km from the accident point	Damaged area is only within the operating site	Very slightly effect on damaged area	
7.4	Impact level of the Material/Service provided by that Supplier to GPSC's		Option 2	1-2 years recovery time	6-12 months recovery time	less than 6 months recovery time	-	
	Water Consumption and Wastewater Emission in terms of damaged/recovery time/law and regulation		Option 3	Extremely exceed compliance requirement (laws and regulations)	Warning letter form the government agency	Slightly exceed compliance requirement (laws and regulations)	No effect	
	Waste Management Impact level of the Material/Service provided by that Supplier to GPSC's		Option 1	Damaged area is between 5-10 km from the accident point	Damaged area is less than 5 km from the accident point	Damaged area is only within the operating site	Very slightly effect on damaged area	
7.5		Required	Option 2	1-2 years recovery time	6-12 months recovery time	less than 6 months recovery time	-	
	Waste Management in terms of damaged/recovery time/law and regulation		Option 3	Extremely exceed compliance requirement (laws and regulations)	Warning letter form the government agency	Slightly exceed compliance requirement (laws and regulations)	No effect	



Risk Evaluation Result of suppliers shall be used to classified suppliers into groups for Inventory Management, Operational Strategy Set-up and Supplier Relationship Management



The risk rating of suppliers are put into risk matrix to finalize the combined risk of the suppliers for further Supplier Categorization and Classification



Suppliers are categorized into groups based on their risks and expenditures for Inventory Management and operational strategy identification i.e. Sourcing strategy



The risks and expenditures are also used to identify the Relationship that GPSC should have with the supplier i.e. Partnership



The identification of high ESG Risk Suppliers

- High ESG Risk Suppliers refer to Supplier who has high risks on ESG issues that can cause significant both financial and non-financial impact on GPSC Group. This includes the following 3 aspects:
 - Environmental: Air Pollution, Greenhouse Gas Emission, Vibration and Noise Pollution, Water Consumption and wastewater emission, Waste Management, Energy Consumption Management, Biodiversity, Environmentally Friendly materials, and Law and Regulations related to other Environmental issues.
 - Social: Anti-corruption, Fair Competition of Supplier, Labor Relations, Human Rights, Privacy and Intellectual Property, Impact on Health and Safety including security of surrounding community, Emergency Preparedness, Accident Linked to Environmental and social Impact
 - ☐ Governance: Business Ethics and Integrity, Cybersecurity and privacy protection
- Suppliers who has total sustainability risk level = High (score = 4) will consider as High ESG Risk Supplier

Sustainability Risk Level	Total score	Risk Management Measures	
Normal	1	Internal monitoring and assessment	
Low	2	Self ESG-Assessment by supplier	
Medium	3	 Internal monitoring and assessment Self ESG-Assessment by suppliers 	
High	4	 Comprehensive ESG-Audit with corrective action plans External Sustainability Audit Supplier Performance Follow-up 	

The identification of high ESG Risk Suppliers (result 2023)

• The example table of results of ESG risk assessment

No.	Supplier Name	Sustainability Risk
1		High Risk
2		High Risk
3		High Risk
4		High Risk
5	alto	High Risk
6		High Risk
7	Confidential Data	High Risk
8	cige,	High Risk
9	- ontion	High Risk
10		High Risk
11		High Risk
12		High Risk



Content: GPSC supplier ESG Program

No.	Content	Page
1.	Introduction	3-6
2.	Supply Chain ESG Risk Management	8-13
3.	Supplier ESG Screening	15-32
4.	Supplier Assessment and Development	34-50
4.1.	Supplier Assessment	34-40
	 Supplier on-site assessments (2nd and 3rd party assessment) - Comprehensive ESG Risk Assessment 	34-40
	Standards and methodologies for supplier Assessments	36
4.2.	Supplier Development	41-50
	Supplier corrective action/improvement plans	41-44
	Supplier information/trainings	45
	Supplier access to ESG benchmarks against peers	46
	Supplier support on corrective/improvement actions	47-48
	In-depth technical support programs	49-50
5.	KPI and Performance for Supplier ESG Programs	51-53



Supplier on-site assessments (2nd and 3rd party assessment)

Supplier Comprehensive ESG Risk Assessment (Methodology)

GPSC Group's Critical and ESG High Risk Suppliers shall be assessed by 2 methods as follow;

Supplier who has no decent ESG management approach (e.g. ESG relevant standards) in place

Frequently: Annually

Comprehensive ESG
Assessment
(Site-visit/Online)

GPSC Group perform a comprehensive ESG Assessment (site-visit and online) using two main programs:

- GPSC Group's Supplier ESG Assessment by company staff or external consultant (2nd party assessment) and independent accredited party (3rd party assessment)
- PTT Group's Supplier ESG Assessment (Joint-Program) by co-assess with PTT Group's staff or external party assessment

GPSC Group's
Critical and high
ESG Risk Supplier

Frequently: Every three years

Supplier who has decent ESG management approach (e.g. ESG relevant standards) in place

Other external audit on Governance, Environmental and Social Performance

Assessment

GPSC Group also accept other comprehensive assessment verifications performed through international standards/ third party certification/ audit / verification by specialist including:

- Financial Audit
- ISO 9001
- ISO 14001
- ISO 45001
- OHSA 18001
- Other ESG relevant standards

This ESG assessment uses to identify the existing external party assessment on ESG issues via company desktop review, direct follow-up, e-mail, telephone etc.



Supplier on-site assessments (2nd and 3rd party assessment)

Supplier Comprehensive ESG Risk Assessment (Methodology - Site Visit)

Comprehensive Audit Supplier Invitation & Training for ESG Background and ESG Assessment Scoring Supplier Performance & ESG Assessment (Audit) **Audit Results** (with corrective action – if any) Feedback to supplier for improvement & follow up progress of 'Corrective Action Plan'

To support the sustainable development of suppliers, GPSC Group performs a comprehensive company online and on-site to access environmental, social, and governance risks on suppliers. The assessment is carried out by purchasing company employees or external consultant (2nd party assessment) and independent accredited auditing body (3rd party assessment) such as MASCI (Management System Certification Institute(Thailand)) Accredited auditor of ISO Standard, Eco Factory, Green Industry, and KPMG (KPMG Phoomchai Business Advisory ltd).

The audit results are used as input into identifying solutions or ways to improve suppliers' efficiency and compliance with the Supplier Sustainable Code of Conduct. The details of the minimum audit criteria are as follows:

- Supply Chain Management
- Quality Standard
- Law and Regulation Compliance
- Business Continuity Management
- Supplier Code of Conduct and Anti-Corruption
- OHS
- Environmental Management
- Human Rights
- Emergency Preparedness and Response
- Social Responsibility

Findings, gaps, and recommendations will be provided to supplier for improvement to meet GPSC Group's expectation where GPSC Group conducted a monitoring and follow-up based on annual basis.

Standards and methodologies for supplier Assessments

GPSC adopts and applies multi recognized standard questionnaires for carrying out the comprehensive ESG Assessment. These standards are;

- ISO 26000
- ISO 9001
- ISO14001
- OHSAS18001
- ISO45001
- SA8000ISO27001
- ISO37001

- ISO22301
- ISO31000
- GRI Standard
- ISO20400
- AA1000
- SMETA 4 Pilars (On process)

The assessment is performed by the accredited auditors using Evidence-based assessment methodology.



Supplier on-site assessments (2nd and 3rd party assessment)

Score Level and Definition

GPSC Group defines supplier assessment with the full score of 4 where suppliers must earn more or equal to 2.5 point in order to pass GPSC Group's ESG assessment. Suppliers who has score less than 2.5 point will be excluded from bidding invitation and contracting if they cannot join the improvement program and improve ESG performance to meet higher score within 1 year of improvement. GPSC, starting with some types of supplier groups, we prioritizes suppliers with a better ESG performance by applying a minimum weight of ESG criteria in the selection process alongside well-established business dimensions, such as price, delivery times, and quality. To elaborate, when comparing suppliers with similar business performance, those with a better ESG profile will be preferred. This approach guarantees that sustainability is embedded throughout supplier selection and contract awarding.

The definition of score level is summarized as follows:



Supplier on-site assessments (2nd and 3rd party assessment)

Supplier ESG Comprehensive Assessment (Medium Term Plan)

Objective: To migrate SCM risks and creating sustainable value of Supply Chain Management through ESG Risk Evaluation and Assessment Framework

Total Supplier (Fuel & Non-Fuel):

~1,600

Critical Supplier & High-Risk Supplier:

~60

Target to complete 60 suppliers ESG Assessment:

Y2024

#	Activity	2021		2022			2023			2024			2025 Onward							
1	Supplier Risk Evaluation by Purchaser									Eval	uate	on S4	Hana							
2	Supplier ESG-Self assessment																			
3	Critical Non-Tier 1 Identification Workshop																			
4	Supplier ESG Assessment				17			17				15				13				
5	Follow-up Improvement Plan																			
6	Accumulative Critical Suppliers being Assessed			444	17		443	34			44	17			446	60			11 60)+



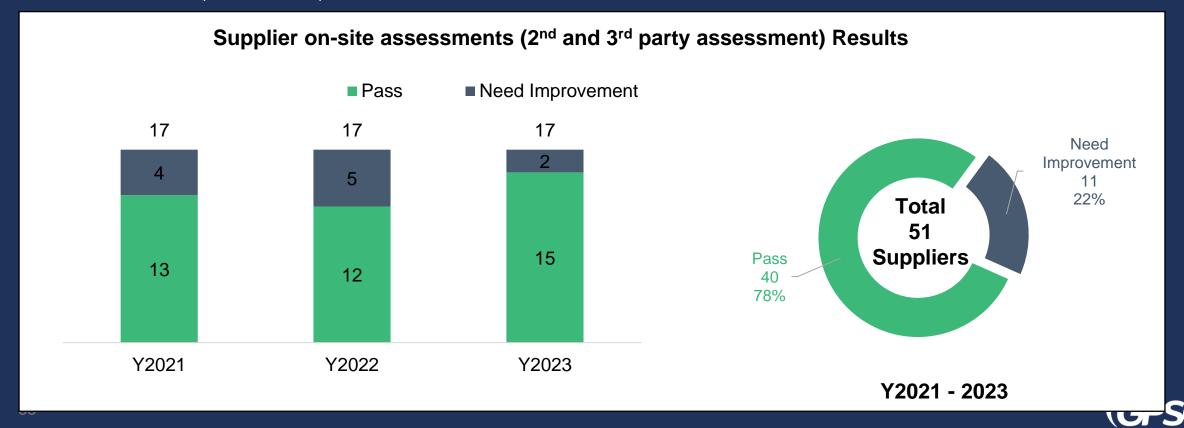
Supplier on-site assessments (2nd and 3rd party assessment)

Supplier ESG Comprehensive Assessment (Result, 2021 – 2023)

Assessment Result (2021 – 2023)

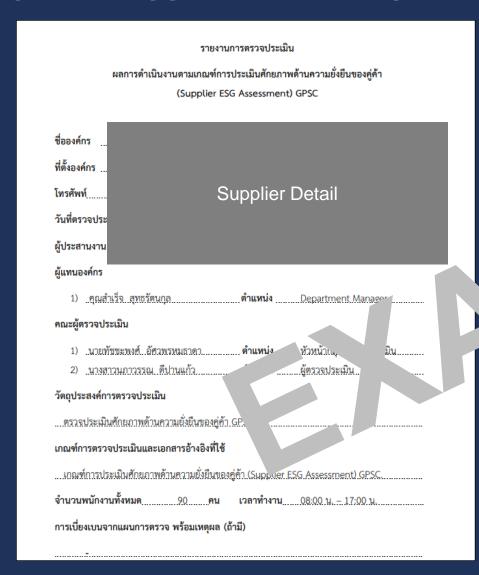
GPSC Group has done the ESG comprehensive assessment of 51 suppliers in 2021 – 2023. 78% of Assessed suppliers pass the required score of 2.5 points while 22% (11 suppliers) are processed to the improvement program

*See next slide for Example of ESG Comprehensive Audit Result



Supplier on-site assessments (2nd and 3rd party assessment)

Example of Supplier ESG Comprehensive Assessment Report (2023)



สรุปผลการตรวจประเมิน

- 1. <u>บริษัท</u> Supplier Detail <u>มีผลการดำเนินงานตามเกณฑ์ ESG</u>ใ <u>ล.ก.(ค่าเฉลี่ยทุกหมวค.=</u> 4.00) โดยหมวด A. B. C. D. และ E. อยู่ในระดับดีมาก มีคะแนนเ 4.00
- 2. <u>บริษัท</u> Supplier Detail <u>ประกอบกิจการเหมืองแร่หินปู่</u>น แมอตสาหกรรมชนิด หินปนเพื่ออุตสาหกรรมเคมี..ทำปนขาวส์. อุตสาหกรรมน้ำๆวล มีความ วุตสวหกรรมฟอกหน ๆม.สิ่งแวดล้อม และ ม่งมั่นในการทำกิจกรรมเพื่ ^จิดชอน มสำนักงาน ใหญ่อยู่ที่กรุงเทา าย (ผ. ในปูนบด ปูนไลม์) วะพุทธบาท (ผลิตปน (ผลิตไฮเร ม์) มีระเ โรคณ์ภาพ ความปลอดภัย อาชีวอ <u>งงานร</u>ู .ALAL, ISO 9001:2015, ISO 45001:2018, <u>างาน เ</u> 4001:2015 นอกจากนี้ยังให้ความสำคัญในด้านแรงงาน สวัสดิการและการ าน ำนึงถึง ะโยชน์ ผลกระทบของผ้มีส่วนได้ส่วนเสียทุกกลุ่มขององค์กร างาน นบว่า บริษัทฯ ให้ความสำคัญด้านความปลอดภัยและสภาพแวดล้อมในการ

ากษ์ จราน พบรา นระทา เหครามสาคญตานครามนสอดภอแสะสภาพแรตสอมเนการ ทำง คล้อม และสวัสดิการเพื่อให้พนักงานมีคุณภาพชีวิตที่ดี เช่น ประกันสุขภาพ ที่พัก นอกจากนี้ ันปิคโมกาสให้พนักงาน รวมถึงผู้รับเหมวมีส่วนร่วมในกิจกรรมต่วงๆ ของนริษัท และกิจกรรมที่ดำเนิน ร่วมกับชมชน

Auditor signature

หัวหน้ากลุ่มผู้ตรวจประเมิน

วันที่

Assessment date



Supplier ESG Improvement Program

- The corrective action plan shall be proposed by suppliers who are interested to improve their ESG
 Performance based on the findings, gaps, and recommendations GPSC Group provided in Supplier
 Feedback of the assessment result.
- GPSC Groups conducts a monitoring and follow-up based on monthly and quarterly basis by 3rd Party using online assessment.
- Suppliers shall submit their evident of actions via email to GPSC Group to evaluate.
- The advisory service are provided to the suppliers during the improvement program until suppliers reach the expectation score.



Monitoring and Follow up Process

- Online Assessment
- Monthly and/or Quarterly Basis



Assessor / Advisor

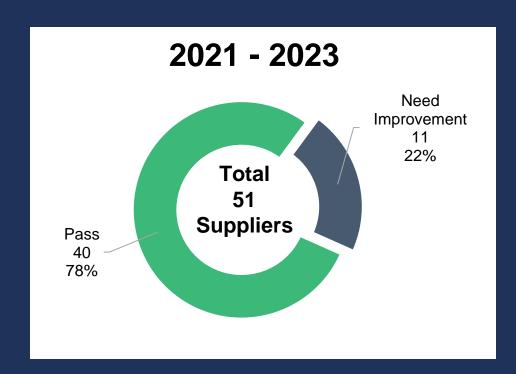
External Auditor (3rd Party)

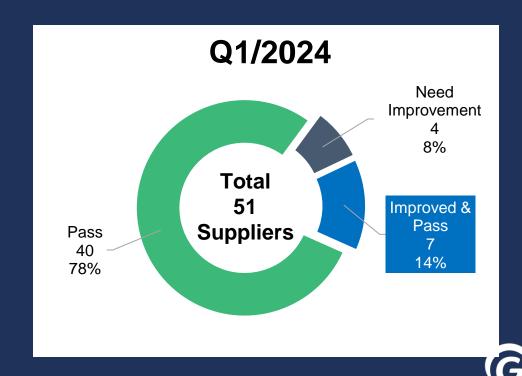


Updated Result as of Q1 2023

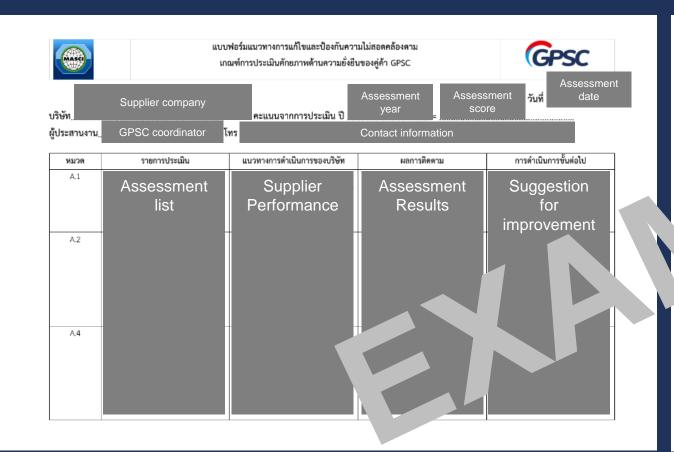
- In 2021 2023, all suppliers whose did not meet GPSC's expectation have joined the improvement program (11 Suppliers)
- 63% (7 Suppliers) have improved their score and pass GPSC Group's expectation
- The improvement result is as show below;

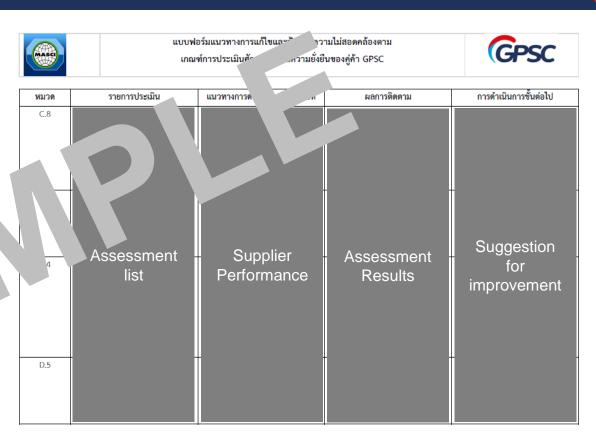
^{*}See next page for the example of improvement plan and follow-up report





Example of Follow-up Report





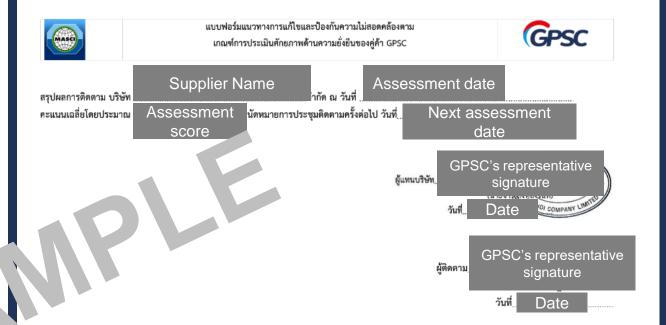


Example of Supplier Performance Monitoring report

Supplier score in 2022



Supplier result in 2023





Supplier information/trainings

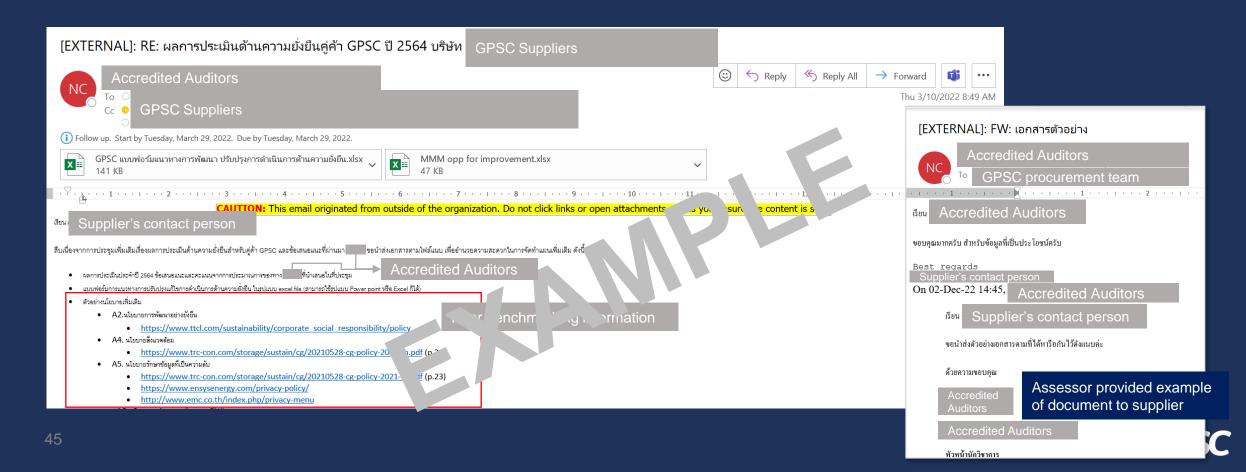
GPSC conducts the supplier day for providing information/trainings on company's supplier ESG program, process and requirements. These sessions were conducted on 6 October 2023 with more than 258 suppliers participated through Onsite and online channel under the concept of "Sustainable and Good Governance Procurement"





Supplier access to ESG benchmarks against peers

GPSC has developed the peer benchmarking information platform for providing an opened performance information on specific areas and case studies for improving the supplier ESG performance. Moreover, suppliers can request more detailed information form GPSC for the more specific information for more insight.



Supplier support on corrective/improvement actions

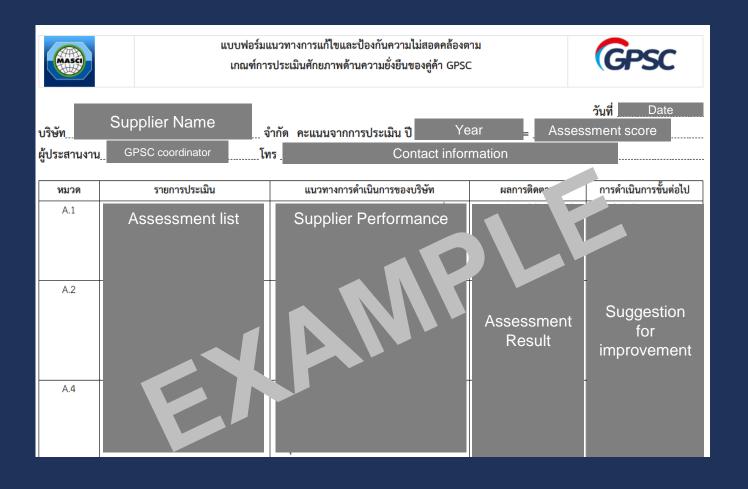
GPSC supports, both remote and on-site, suppliers on implementation of corrective/improvement actions in term of keeping monitoring their performance and giving feedback for further improvement





Supplier support on corrective/improvement actions

Example of the supplier support on implementation of corrective/improvement actions





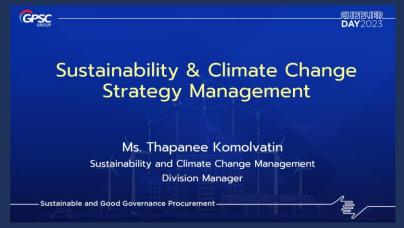
In-depth technical support programs

GPSC regularly provides in-depth technical support programs to build capacity and ESG performance for suppliers, such as occupational health and safety (OHS) training for supplier and contractor who have to work in the operation site with the expectation to Zero incident at work that GPSC places the issue at the key priority.

In 2023, several in-depth technical support programs were delivered to the selected suppliers to raise knowledge on the following topics with more than 258 suppliers joined in the sessions:

- Quality, Security, Safety Health and Environment
- Sustainability & Climate Change Strategy Management
- Procurement Awareness & Strategy









In-depth technical support programs

GPSC also encourages and supports suppliers to apply for Green Industry (GI) Level 1-2 Certification through the medium-term program (5 years). Selected group suppliers shall be invited to join the program based on the type of their products and services, and their ESG risk level. The objective of the program is to support suppliers in continuous improvement and enhance the sustainable development of suppliers. The definition of GI Level 1 and 2 are as follows;

GI Level 1 Green Commitment: Commitment demonstrated by policy, goals and action plans to reduce environmental impacts, and effective organizational internal communication

GI Level 2 Green Activity: Activities in compliance with policy, goals and plans which have been set to reduce substantially environmental impacts as commitment states

No.	Activity	2022	2023	2024	2025	2026	2027
1	Supplier Selection and Grouping						
2	Support Suppliers to achieve GI L1 Certification with all PTT Group						
3	Support Suppliers to achieve GI L2 Certification						
3.1	Supplier Selection						
3.2	Supplier GI2 Training by accredited consultant (GI2 Importance, benefit and application methodology)						
3.3	Implementing Period (supplier arrange plans and update progress						
3.4	Consulting Period and Document Review						
3.5	Suppliers apply for GI L2 Certification						
49 4	Annual Summary						G

Content: GPSC supplier ESG Program

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KPIs for Supplier Screening

KPIs for Supplier Screening	Performance 2023
1.1 Total number of Tier-1 suppliers	1,309
1.2 Total number of significant suppliers in Tier-1	46
1.3 % of total spend on significant suppliers in Tier-1	85%
1.4 Total number of significant suppliers in non Tier-1	1
1.5 Total number of significant suppliers (Tier-1 and non Tier-1)	47

Notes:

significant suppliers includes suppliers who are classified as critical, high ESG risk suppliers or both



KPIs for Supplier Assessment and Development (1/2)

KPIs for Supplier Assessment	Performance 2023	Target 2023
1.1 Total number of suppliers assessed via desk assessments/ on-site assessments*	47 (100%)	47 (100%)
1.2 % of significant suppliers assessed	100%	100%
1.3 Number of suppliers assessed with substantial actual/ potential negative impacts	4	4
1.4 % of suppliers with substantial actual/potential negative impacts with agreed corrective action/improvement plan	100%	100%
1.5 Number of suppliers with substantial actual/potential negative impacts that were terminated	0	0

Notes: * For suppliers which were identified as significant in the supplier screening process.



KPIs for Supplier Assessment and Development (2/2)

KPIs for Suppliers with Corrective Action Plans	Performance 2023	Target 2023
2.1 Total number of suppliers supported in corrective action plan implementation*	4	4
2.2. % of suppliers assessed with substantial actual/potential negative impacts supported in corrective action plan implementation	100%	100%
KPIs for Suppliers in Capacity Building Programs	Performance 2023	Target 2023
KPIs for Suppliers in Capacity Building Programs 3.1 Total number of suppliers in capacity building programs*		

Notes: * For suppliers which were identified as significant in the supplier screening process.



THANK YOU

