

MAKING A BETTER TOMORROW

2024 Moorim Sustainability Report

MOORIM

ABOUT THIS REPORT

The 2024 Moorim Sustainability Report is the second report published by Moorim.
Through this report, Moorim aims to disclose its ESG management strategies, activities, and achievements to stakeholders and to continue ongoing communication.

Reporting and Verification Standards

This report has been made in accordance with the GRI (Global Reporting Initiative) Standards 2021 and incorporates the indicators of SASB (Sustainability Accounting Standards Board), TCFD (Task Force on Climate-related Financial Disclosures), and UN SDGs (United Nations Sustainable Development Goals). The financial information is reported based on the consolidated standards of the Korean International Financial Reporting Standards (K-IFRS).

Reporting Period and Boundary

This report covers the key activities and performance of the headquarters and three business sites operated by Moorim Paper, Moorim SP, and Moorim P&P from January 1, 2023, to December 31, 2023. It also includes significant qualitative achievements from the first half of 2024. Additionally, in the case of quantitative performance, the report provides three years of data to identify changing trends in performance.

Reporting Verification

To ensure the reliability of the reported activities and performance information, this report has been verified by the Korea Management Register, an independent external professional organization. The results can be found in the verification statement of this report (p.126-127).

Reporting Frequency

Moorim plans to publish a biennial Sustainability Report containing its sustainable management performance in order to enhance communication with stakeholders.

Report Information

This report has been published in Korean and English and can be downloaded from the Moorim's website (www.moorim.co.kr).

Report Inquiries

Address: 656 Gangnam-daero, Gangnam-gu, Seoul (Sinsa-dong)
Department: Moorim ESG Department
Website: www.moorim.co.kr
E-mail: ESG@moorim.co.kr

INTERACTIVE GUIDE

- Go to cover page
- Go to table of contents
- Page down
- Page up

CONTENTS

INTRODUCTION

05 CEO's Message
06 Company Introduction

OUR APPROACH TO ESG

16 ESG Management
20 ESG Highlights

ESG PERFORMANCE

42 Environmental
52 Social
75 Governance

APPENDIX

87 ESG Data
115 GRI Content Index
118 SASB Index
119 TCFD Index
120 UN SDGs Index
121 Status of Domestic and International Environmental Certifications
123 Membership Association & Status
124 GHG Emission Verification Opinion
126 Independent Assurance Statement

INTRODUCTION

05 CEO's Message
06 Company Introduction



CEO's Message

Dear Respected Stakeholders,

Despite challenging domestic and international economic conditions, including last year's interest rate hikes, export stagnation due to economic slowdown, and supply instability of raw materials due to international political uncertainties, Moorim has been striving to create new opportunities by minimizing crises exposed to the paper industry while consistently endeavoring to realize the inherent value of paper, which is recording and transmitting information. Going forward, under the slogan "Making a better tomorrow," we will move forward as a comprehensive pulp, paper, and advanced materials company, presenting new possibilities for sustainable growth and expansion in our business.

Value Creation

We will create sustainable products based on Moorim's pulp and paper philosophy.

Paper is a prime example of a circular economy model, born in nature and returning to nature. Since its establishment in 1956, Moorim has launched the eco-friendly brand 'moohae' with the meaning of 'the solution found by Moorim' based on differentiated technology and know-how as Korea's first mass-production of Uncoated paper. Through these efforts, we are expanding sustainable products and taking the lead in practicing ESG values in daily life. Furthermore, Moorim plans to expand new businesses, such as eco-friendly alternatives and packaging, considering the use and disposal stages of materials and products. We will strive to build an eco-friendly business model considering the circular economy in the production process, pursuing sustainability so that materials and products obtained from nature can return to nature.

Eco-friendliness

We will take the lead in Eco-friendly activities for the future generations who will be with Moorim.

As a corporate citizen, aligned with the mission of "Adds Value to Life," Moorim enhances the eco-friendly value in consumers' product usage. We are minimizing the use of fossil fuels and effectively responding to the reduction of greenhouse gas emissions by utilizing black liquor, a byproduct of the pulp production process, as biomass fuel for recovery boilers to generate electricity and steam, which are the energy required in the manufacturing process. Moreover, we plan to actively engage in protecting the environment by leading sustainable forest management, and to strengthen the management of natural capital and biodiversity throughout the value chain by considering the impact on natural capital.

Strong Communication

We will meet Moorim's stakeholders more closely and communicate more frequently.

The environment and lifestyles of our society are rapidly changing, while demands for the roles and responsibilities of companies in advancing toward a better society and future are also increasing. Therefore, Moorim listens to the voices of various stakeholders including employees, partners, and local communities and strives to create a sustainable Moorim for all. In particular, we deeply understand the importance of safety management in pursuing the interests and happiness of our members, and in 2023, we built a safer place and work environment by upgrading the safety management system and establishing safety goals and management processes. Furthermore, in the future, we will create Moorim that grows together with stakeholders through management activities such as ESG management in the supply chain and human rights impact assessment, including the local community. To all stakeholders partnering with Moorim, Moorim will continue to strengthen its corporate competitiveness by creating future value using pulp, paper, and advanced materials. To achieve this, we will communicate more closely with stakeholders and provide new value through our products in line with consumers' product usage demands. We kindly ask for your continued encouragement and interest in the better tomorrow created by Moorim.

Moorim Paper • Moorim SP • Moorim P&P **President & CEO** Lee, Dokyun



COMPANY INTRODUCTION

Introduction of Moorim

Moorim Paper



Establishment Date	Capital	Location
December 1975	KRW 104billion	1003 Namgang-ro, Jinju-si, Gyeongsangnam-do, 52809, Republic of Korea
Production Volume	**Sales Volume**	**Revenue**
319,609tons	324,605tons	(separate disclosure criteria) KRW 514.3billion

High value-added paper specialist company

Moorim Paper produces high-quality coated paper, premium digital paper, high value-added printing & writing paper, and industrial paper based on excellent facilities and quality competitiveness. It is recognized globally for its high productivity through the best facilities, such as hybrid former paper machines and coaters with high production speeds, and is leading the way in producing environmentally friendly products by becoming the first in the paper industry to obtain FSC® certification and the Environmental Product Declaration certification. In addition, as a leading local company in Jinju, the company is strongly dedicated to the development of local culture through various cultural and arts support projects such as Moorim Mecenat and Paper Airplane Competition.

Moorim Paper's Business Area

Printing & Writing paper

Coated paper
- NeoStar Gloss
- NeoStar Matt

Uncoated paper
- NeoStar Uncoated paper

Industrial paper

Digital paper
- NeoStar Speedjet
- Pro-Digital

Label paper
- NeoStar Label
- NeoStar Power Label

Release paper
- NeoStar Green Release Paper(CCK)
- NeoStar Release paper

Transfer paper
- NeoStar Sublimation Transfer paper
- NeoStar Water Transfer paper

Specialty paper

Board paper
- NeoStar Beautypack
- NeoStar MGB
- NeoStar MMB
- NeoStar Knight

Specialty Paper

Shopping paper
- NeoStar Uncoated paper Shopping Bag
- NeoStar Power Shopping Bag
- NeoStar Coated Shopping Bag

Rough gloss paper
- Artizen

COMPANY INTRODUCTION

Introduction of Moorim

Moorim SP



Establishment Date	Capital	Location
July 1956	KRW 11 billion	205 Chimsan-ro, Buk-gu, Daegu, 41550, Republic of Korea

Production Volume	Sales Volume	Revenue
72,378 tons	72,844 tons	(separate disclosure criteria) KRW 161.1 billion

Eco-friendly specialty paper specialist company

Moorim SP, the first company in Korea to usher in the era of mass production of uncoated paper, is renowned as a leading eco-friendly specialty paper company. Leveraging its advanced and differentiated specialty paper technology, it produces Neo CCP, which holds the largest market share, as well as security paper, ballot paper, and more. The company holds patents for a variety of high-quality specialty papers. Additionally, through its eco-friendly paper products (Neoforêt), which are biodegradable, recyclable, and have passed the tests of the US Food and Drug Administration (FDA) and the German Federal Institute for Risk Assessment (BfR), Moorim SP collaborates with companies seeking alternatives to plastic and leads the development of related technologies.

Moorim SP's Business Area

Neoforêt

Neoforêt PACK
- Office/Household cups
- In-store/Delivery cups
- Small food packaging cups

Neoforêt STRAW
- Straight type/U-shaped
- Household/Commercial use
- Corrugated straws for beverage attachment

Neoforêt

Neoforêt FLEX
- For frozen packaging laminates
- For pouch laminates
- For water bottle labels
- For various food labels

Neoforêt Aircushion
- Aircushion for parcels
- Aircushion for shopping bags

Industrial paper

Release paper
- Neo Release Paper

Specialty paper

Board paper
- Neo CCP
- Neo TMB
- Neo CCP R30
- Neo Cotton TMB

Information paper
- Neo OMR Paper
- Neo Gift Certificate Paper
- Neo Lottery Paper
- Neo Ballot Paper
- Neo Security Paper

Specialty Paper

Food packaging paper
- Neo Cup Base Paper
- Neo Clean Pack
- Neo Food Packaging Paper
- Neo Uncoated Food Packaging Paper

Fancy paper
- Neo Fancy
- Neo Galaxy
- Neo Drawing
- Neo Drawing Paper

COMPANY INTRODUCTION

Introduction of Moorim

Moorim P&P



Establishment Date	Capital	Location
January 1974	KRW 155.9billion	3-36 Ubonggangyang-ro, Onsan-eup, Ulju-gun, Ulsan, 45011, Republic of Korea

Production Volume	Sales Volume	Revenue
Pulp 424,261tons Paper 458,717tons	Pulp 198,351tons Paper 458,757tons	(separate disclosure criteria) KRW 719.2billion

Korea's only comprehensive pulp materials company

Moorim P&P, through the country's only natural pulp production facility, produces bleached kraft pulp with excellent formation, smoothness, and bulk. An integrated system from pulp to paper ensures the highest quality paper with intact fibers. Additionally, using natural pulp, the company has developed eco-friendly molded pulp, paper wet tissues, and other products, demonstrating the diverse applicability of pulp. Furthermore, based on unique domestic pulp technology, Moorim P&P is creating new value through research and development of new pulp materials such as nanocellulose, bioplastics, and lignin.

Moorim P&P's Business Area

Pulp

- Bleached Kraft Pulp

Molded pulp

Product Aircushioning/packaging
- Kitchen/Household Necessities
- Digital Home Appliances, Stationery/Toys
- Beauty/Miscellaneous Goods, Books/Records
- Sports/Leisure

Other household items
- Other Kitchen/Household Items
- Camping Supplies, Flower Pots, etc.

Molded pulp

Takeout Container
- Cup Rice/Porridge/Pasta Bowl
- Salad/Poke Bowl
- Snack/Sweetened Chicken Tray
- Sandwich/Hamburger Box
- Lunch Box Tray

Coffee shop/Bakery
- Bakery/Dessert Tray
- Cake Box
- Cup Lid (coffee/drink lid)

Printing & Writing paper

Coated Paper
- NeoStar Gloss
- NeoStar Matt
- NeoStar Coated
- NeoStar Leaflet(P)

Uncoated paper
- NeoStar Uncoated
- NeoStar Uncoated(Ivory)

MFC
- NeoStar S-Plus
- NeoStar Premium Textbook Paper

Industrial paper

Label
- NeoStar Label

Specialty paper

Fancy paper
- Photo Card

COMPANY INTRODUCTION

Introduction of Moorim

Global Network

The leading player in the paper Hallyu,
exporting to 105 countries worldwide



Moorim USA(ATLANTA)
3700 Crestwood Pkwy,
Suite 200, Duluth,
GA 30096, USA
TEL. +1-770-680-5190

Moorim USA(LA)
17890 Castleton St. Suite 302,
City of Industry, CA 91748, USA
TEL. +1-626-363-4698

Moorim UK
Unit 3, Kingsmill Business Park,
Chapel Mill Road, Kingston Upon Thames,
Surrey, KT1 3GZ, UK
TEL. +44-(0)148-321-5160

Middle East Office
114, West-Wing 6-A,
Dubai Airport Freezone,
Dubai, UAE
TEL. +971-(0)4-214-6175

Hong Kong Office
Office 05, Unit 2602-03, 26/F.,
BEA Tower, Millennium City 5,
418 Kwun Tong Road,
Kwun Tong, Hong Kong
TEL. +852-2121-0071

Moorim's Affiliated Companies

Moorim Powertech

Leader in the future energy business

Moorim Powertech is leaping forward as an eco-friendly energy company by mainly engaging in businesses that contribute to the decarbonization of the existing energy industry through combined heat and power generation, district heating and cooling, and new and renewable energy power generation businesses.

Establishment Date	March 1995	Location	24 Namgang-ro 1317beon-gil, Jinju-si, Gyeongsangnam-do
Capital	KRW 16 billion		
Revenue	KRW 64.8 billion		

Moorim Capital

Financial institution specializing in credit

Moorim Capital is focusing its operational efforts on core financial sectors such as leasing, installment sales, and project financing (PF), providing financial services by creating stable cash flows through investments.

Establishment Date	May 2009	Location	17th floor, Building D-1, D Tower, 17 Jongno 3-gil, Jongno-gu, Seoul
Capital	KRW 65 billion		
Revenue	KRW 53.7 billion		

Mirae Development

Comprehensive resort with great accessibility

Mirae Development operates a comprehensive resort, including a golf course and lodging business near the city center, providing leisure services and recreational culture that take into account the daily lives of customers.

Establishment Date	March 1971	Location	112 Nampyeong-ro, Yangji-myeon, Cheoin-gu, Yongin-si, Gyeonggi-do (Namgok-ri, Yangji Pine Resort)
Capital	KRW 133 billion		
Revenue	KRW 30.4 billion		

COMPANY INTRODUCTION

Introduction of Main Products

Pulp

Moorim produces and sells natural pulp with fresh wood fibers from the only pulp and paper integrated mill in Korea. In addition, based on this unique pulp production technology, we launched the eco-friendly molded pulp 'moohae'. Recently, we developed 'real' paper wet wipes made from 100% natural pulp, and were recognized for our eco-friendliness by being selected as 'Superior Sustainability' at the '2023 Seoul Cafe Show'. Moorim plans to continue promoting the sustainable value of pulp by developing various eco-friendly products using pulp.



Pulp

Moorim P&P produces top-quality bleached hardwood kraft pulp with intact fibers. Moorim P&P's pulp is a broad-leaved tree pulp where acasia is blended to oaks and is characterized by excellent formation, smoothness, and high bulk.



Molded Pulp

'moohae molded pulp' is manufactured in state-of-the-art facilities by sending slurry-form raw pulp through a sealed transfer pipe, ensuring hygienic production free from contamination by foreign substances. In addition to being certified as biodegradable, it is also the only product in the domestic molded pulp industry to obtain Food Safety System Certification (FSSC 22000), proving its world-class food safety standards.



Wet Tissue

'moohae Wet Tissue' are made of 'paper fabric', a natural biodegradable material that replaces synthetic fibers such as existing non-woven fabrics and polyester, allowing it to be used without concerns about microplastics. It is an eco-friendly product that can be separated and disposed of as paper after use.

COMPANY INTRODUCTION

Introduction of Main Products

Paper

Moorim, the top company in the domestic printing & writing paper market, is leading the domestic paper market by utilizing its unrivaled technology and expertise to produce a wide range of papers, including printing & writing paper, industrial paper, information paper, and specialty paper. In addition, Moorim is presenting the eco-friendly value and potential of paper through the development of eco-friendly papers that can be used in various fields such as food and beverage, parcel delivery, and cosmetics.



Printing & Writing paper

Moorim produces a variety of papers to meet customer needs, ranging from high-quality printing & writing paper such as Uncoated paper, Coated Paper, and rough gloss paper used in publications such as books, magazines, and brochures to industrial printing & writing paper such as digital paper and labels.



Specialty Paper

Moorim adds various values to life with high-quality, high-value specialty papers incorporating advanced technologies such as Neo CCP for premium cosmetic packaging, giro paper, ballot paper, lottery paper, etc.



Eco-friendly Paper (Neoforêt)

Moorim is leading the domestic eco-friendly market by developing a variety of eco-friendly paper products, including biodegradable paper cups, recyclable paper straws, paper inner frames and paper tubes used in cosmetic packaging, and paper packaging for frozen foods.

COMPANY INTRODUCTION

Introduction of Main Products

Advanced Materials

Moorim practices ESG management through research and development of next-generation eco-friendly advanced materials such as nanocellulose and bioplastics using natural pulp. Furthermore, Moorim utilizes the biomass generated during the pulp production process, known as 'black liquor', as a source of energy for factory operations, producing products in an eco-friendly manner.



Nanocellulose (CNF)

Nanocellulose is an eco-friendly advanced material made by dividing cellulose fibers extracted from pulp into nanometer sizes (about one billionth of a meter). Although it has a low density but has excellent strength, thermal stability, hydrophilicity, and water retention properties. Nanocellulose has many useful properties, making it suitable for applications such as composite materials, gas barrier films, paints, paper additives.



Bio Plastic(CellRim®)

Biodegradable and eco-friendly bioplastic products are produced through the addition and extrusion of plastic resin to Wood Particles (WP) and Pulp Flakes (cellulose) generated during the pulp production process. These materials are used as substitutes for petroleum-based resins and glass reinforcements in products such as hangers, toothbrushes, and tableware.



Lignin (black liquor)

We are establishing an eco-friendly energy circulation system utilizing the pulp production process. During the pulp production process, fibers (pulp) are separated through the digestion process, and the remaining lignin and other extracts and digesting chemicals create black liquor, a form of renewable energy source. The black liquor is recycled through combustion processes to produce steam and electricity required for the operation.

COMPANY INTRODUCTION

Company History



Establishment

Start of Moorim,
Start of High quality paper made in Korea

1956.07
Established Moorim Paper Manufacturing (Current Moorim SP)

1959.09
Succeeded in first mass production of Uncoated paper (Operation of PM #1)

Pioneering

Thick and Dense Forest,
Built a Foundation as a Paper Manufacturer

1974.01
Established Korea Chemical Pulp (predecessor of Donghae Pulp, current Moorim P&P)

1975.12
Established Dongseo Pulp Industries (predecessor of Shinmoorim Paper Manufacturing, current Moorim Paper)

Development

Develop into a Nationwide Company,
Reform Into an Integrated Paper Manufacturer

1986.12
Established Moorim Paper Research Institute

1987. 11
Established US subsidiary 'Moorim USA'

Growth

Prepare the Global way
with change and innovation

1995.03
Established Shindong Energy Co., Ltd. (current Moorim Powertech)

2000.11
Shinmoorim Paper, 'USD 100 Million Export Tower' Award

2004.03
Established UK subsidiary 'Moorim UK'

Leap

Complete Vertical Affiliation
from afforestation and pulp to paper manufacture

2006.07
Celebrated 50th anniversary (Changed company name, announced new CI, established PI-ERP system)

2007.03
Moorim Paper, acquired FSC®, first in Korean paper manufacturers



2011.05
Moorim P&P, completed Korea's first integrated pulp-paper mill in Korea

2010.04
Moorim Paper and Moorim SP, acquired PEFC certification, first in Korean paper manufacturers

2009.06
Established Moorim Capital

2007.03
Moorim Paper, ranked first in productivity for 6 consecutive years (Metso Paper)

COMPANY INTRODUCTION

Company History

2017.06 Organized '1st Moorim Paper KOREAN CUP Paper Plane Competition'

2016.07 Celebrated 60th anniversary (Proclaimed new value system)

2015.11 Moorim, received 'Minister of Environment Award' in 2015 Environment Mark Awards

2012.01 Moorim P&P, selected as one of top 100 outstanding job creation company

Soaring

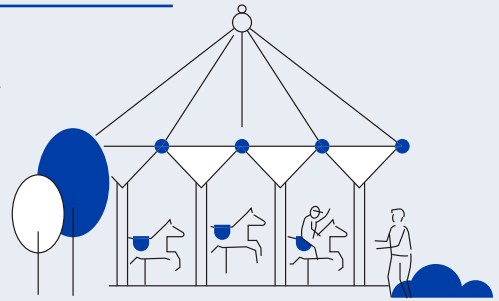
60 Years of Establishment,
Add the Value of Life
with pulp and paper technology

Future

Into a comprehensive
pulp, paper, and advanced materials company,
which introduces new possibilities

2020.03 Launched eco-friendly paper brand 'Neoforêt' and acquired biodegradability certification

2021.08 Neoforêt, won 'Three Awards at the 2021 Korea Green Product of the Year'





2022.01 Neoforêt Aircushion Wins WorldStar Packaging Awards 2022

2022.09 Moorim P&P, established mass production system for eco-friendly molded pulp factory

2022.10 Moorim SP, named the first outstanding human resource development organization in the paper industry

2023. 05 Moorim P&P, Investment agreement for new eco-friendly recovery boiler

2023. 07 Moorim, launches patent-pending 'real' paper wet wipes

2023.11 Moorim, 'moohae Wet Tissue' selected as 『Superior Sustainability Brand』 at the 2023 Seoul Cafe Show

2024.01 Moorim won the '1st place in the paper sector for the third consecutive year at the Korea First Brand Award 2024

OUR APPROACH TO ESG

16 ESG Management
20 ESG Highlights



ESG MANAGEMENT

ESG Governance

Moorim recognizes the impact of ESG issues on the company and reports key information to the board of directors. In addition, in order to consistently and systematically pursue ESG management activities, a dedicated ESG organization was established in 2021 and is currently operational. Through this, we constantly monitor domestic and international ESG regulations and industry trends, and review and improve any shortcomings in related policies and activities based on major ESG indicators. Furthermore, we plan to advance ESG management based on continuous and transparent communication with external stakeholders.

ESG Management Promotion Organizations and their Roles



ESG Strategic Framework

Based on the ESG vision of "Making a better tomorrow" in a rapidly changing global environment, Moorim has established 3 strategicdirections and 12 key goals that take into account the global environment and the needs of internal and external stakeholders. Based on this, Moorim plans to pursue more systematic ESG management.

ESG Vision

"Making a better tomorrow"

Strategic Direction

Value Creation	Eco-friendliness	Strong Communication

Key goals

Value Creation	Eco-friendliness	Strong Communication
Development of Eco-friendly Pulp/Paper Technologies and Expansion of Businesses	Operation of Green Workplace (Minimizing Climate Change and Environmental Impact)	Respect for Human Rights of Various Stakeholders
Enhancement of Employee Value through Corporate Culture Improvement	Contribution to Biodiversity Conservation	Establishment of Transparent and Reliable Governance
Creation of Customer Value through Expansion of Sustainable Products	Implementation of Circular Economy through Resource Recycling	Strengthening of Workplace Safety Management
	Continuous Production of Eco-friendly Products and Expansion of Certification	Responsible Supply Chain Management
		Strengthening of Coexistence with Local Communities

ESG MANAGEMENT

ESG Strategic Framework

ESG Management Roadmap

Moorim is establishing and implementing an ESG management roadmap to solidify the ESG management system and internalize it throughout management.

Moorim ESG Management Roadmap

Establishment of ESG Management Foundation (2023)

- Establishment of ESG management strategy
- Establishment of ESG-related policies and regulations
- Establishment of ESG operation process

Response to Stakeholder Demands (2024~2025)

- Systematization of environmental management, including climate change response strategies
- Expansion of supply chain ESG management
- Expansion of ESG management practice activities

Green Business Linkage (2026~2030)

- Operation of ESG Committee
- Advancement of environmental management, such as response to climate change and carbon neutrality
- Advancement of ESG management practice activities
- Strengthening of the exploration of green business-linked projects

ESG Management Policy

Moorim established an ESG management policy in 2024 and obtained approval from the CEO, and established internal policies, enabling the company to pursue environmental management, socially responsible management, and transparent and responsible management.

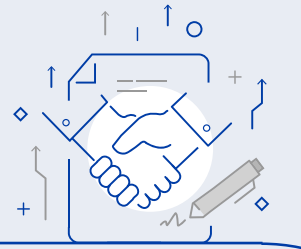
Moorim ESG Management Policy

Moorim Paper Co., Ltd., Moorim SP Co., Ltd. and Moorim P&P Co., Ltd. (hereinafter "Moorim") are committed to concretely realizing the vision of "Creating a Healthy Tomorrow through Sustainable Management" by fulfilling its social responsibilities as a global company and meeting the expectations of stakeholders to pursue sustainable growth.

1. We strive to create not only economic value but also social and environmental value through continuous communication with stakeholders
2. We respect the human dignity and value of our stakeholders, including our employees, through diversity, equity, and inclusion
3. We comply with corporate ethics, including laws, international standards, and internal regulations, for transparent and fair transactions
4. We fulfill our social responsibilities for sustainable development in collaboration with our stakeholders, including our partners and local communities
5. We strive to continuously improve management activities such as safety/health/energy/environment through ESG management

ESG MANAGEMENT

Moorim's ESG History



2007
- **Moorim** signed a voluntary eco-friendly product purchase agreement

2010
- **Moorim Paper** obtained environmental management systems (ISO 14001)

2011
- **Moorim P&P** obtained environmental management systems (ISO 14001)
  completed Korea's first integrated pulp-paper mill in Korea
- **Moorim** fully sponsored Uncoated paper and Coated Paper for the production of Big Issue (support for independence of the vulnerable in housing) magazine
- **Moorim Paper** acquired carbon footprint certification for the first time in the domestic printing & writing paper industry

2013
- **Moorim P&P** acquired low-carbon product certification for the first time in the industry

2015
- **Moorim SP** received 'President Citation' in 2015 Safety Culture Awards

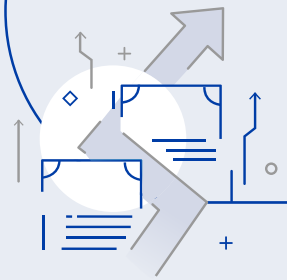


2016
- **Moorim** 60th anniversary (Proclaimed of new value system)

2017
- **Moorim** obtained Korea Forest Certification Council (KFCC) for the first time in the domestic paper industry

2020
- **Moorim** acquired safety and health management systems (ISO 45001)
- **Moorim Paper** acquired 'OK compost' certification for biodegradability
- **Moorim** declared ethical management, enacted ethical standards and established ethical management systems

2021
- **Moorim** established an ESG dedicated organization
- **Moorim P&P** Inje Forest, became the first corporate forest in Korea to obtain "Forest Management (FM) Certification from the Forest Stewardship Council (FSC®)



2022
- **Moorim** published a Sustainability Report for the first time
- **Moorim P&P** became the first domestic molded pulp product to obtain Food Safety System Certification (FSSC 22000)

2023
- **Moorim**
  - declared human rights management, enacted human rights management policy, established human rights management system
  - established a biodiversity protection policy
  - inspected and evaluated supply chain ESG
  - conducted a human rights impact assessment
- **Moorim Paper** obtained gold level for Zero Waste to Landfill (ZWTL) for the first time in the domestic paper industry

ESG MANAGEMENT

2023 ESG Key Figures

2023. 02.

Established a human rights management system



2023. 03.

Enacted a human rights management policy



2023. 05.

Published the 2022 Moorim ESG Data Book



2023. 06.

Established a biodiversity protection policy



2023. 11.

Inspected and evaluated supply chain ESG



2023. 12.

Moorim Paper, obtained gold level for Zero Waste to Landfill (ZWTL) for the first time in the domestic paper industry



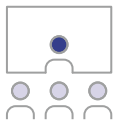
2023. 12.

Established a mid- to long-term ESG management plan



2023. 12.

Conducted ethical management training



2023. 12.

Conducted a human rights impact assessment



ESG HIGHLIGHTS

Stakeholder Communication

Moorim has identified its key stakeholders as 'customers', 'employees', 'shareholders and investors', 'partners', 'local communities', and 'the government', and collects opinions through various communication channels suitable for each stakeholder group. Additionally, Moorim reports stakeholders' demands to the management to address key issues to ensure practical application in management activities.

Stakeholder	Customers	Employees	Shareholders and Investors	Partners	Local Communities	Government
Definition	Buyers of products and services provided by Moorim	Stakeholders who are responsible for product production activities and all supporting activities	Stakeholders who provide financial capital to enable Moorim to pursue its various strategies, operate its business, and maintain sustainable growth	Stakeholders who affect the quality of Moorim's products by taking charge of supply and transportation of materials and parts to enable Moorim to successfully carry out its business	All stakeholders affected by Moorim's business activities, including local residents near the business site	Government and public institutions that enact laws related to Moorim's business activities or determine regulations on corporate operations
Communication Channel	• Customer Service Center • Website and SNS activities, newsletter 'Monthly moohae' • Participation in exhibitions, Neo Club 21 • Webpage of the Neoforêt brand	• Happy Man System • Anonymous reporting center • Company newsletter (I'M MOORIM) • Online communication channels such as Moorim TV	• General shareholders' meeting • Board of Directors • Disclosure data	• Electronic procurement purchase management system • Anonymous reporting center	• Local volunteer work • Website	• Press release • Government regulatory policies
Key Issues	• Development of sustainable products and technologies • Product safety and quality • Prevention of customers' personal information leakage	• Activation of communication among employees • Fair performance evaluation and compensation; • Maintain work-life balance	• Enhancement of sustainable corporate value • Establishment of sound governance • Strengthening of risk management	• Strengthening of safety and health management of partners • Support for strengthening partner companies' competitiveness	• Performance of strategic social contribution activities • Local environmental protection and ecosystem preservation	• Compliance and ethical management

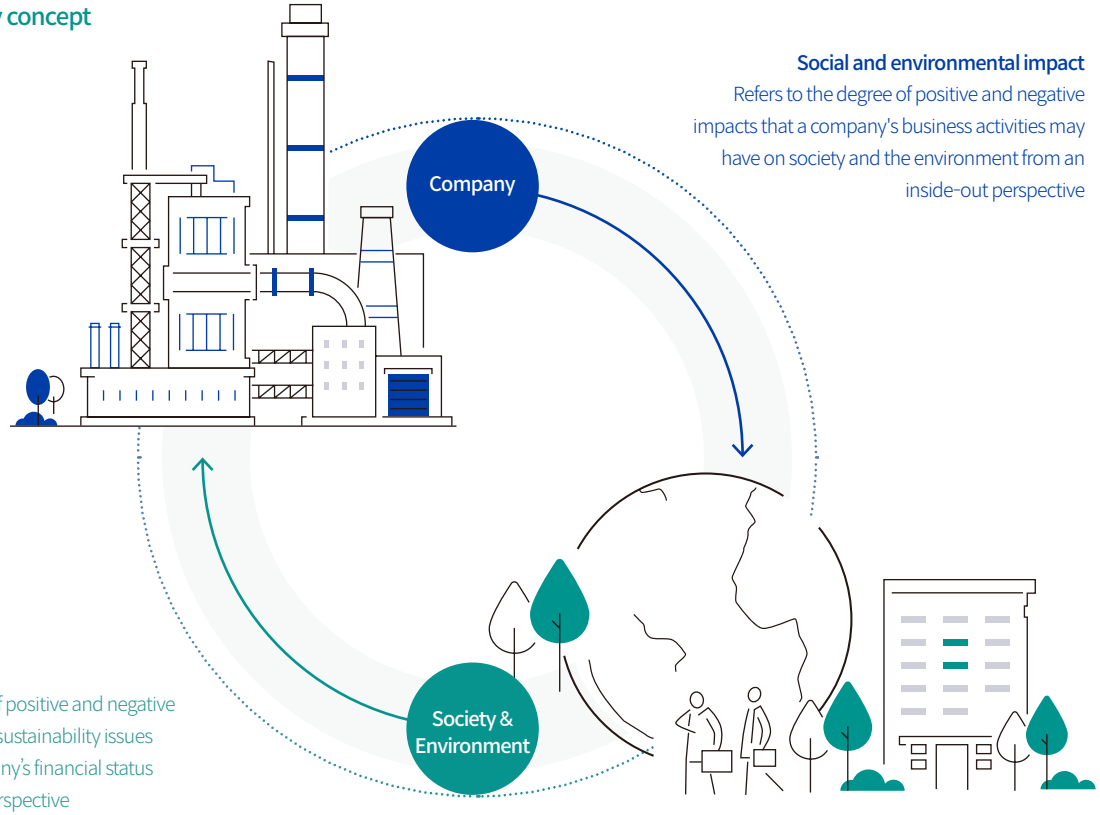
ESG HIGHLIGHTS

Double Materiality Assessment

Double Materiality Assessment Overview

Moorim applied the concept of ESRS(European Sustainability Reporting Standards)'s 'Double Materiality' along with the 'Materiality' principle presented in the GRI(Global Reporting Initiative) 2021 Standards as a major direction of change in materiality assessment in 2023. To this end, we measured the social and environmental impacts, and financial impacts of potential issues identified through internal and external environmental analysis, media analysis, and stakeholder surveys. As a result of the analysis of each issue, a total of 16 material issues were derived. In particular, 'Climate Change Response', 'Sustainable Product and Technology Development', and 'Strengthening of workplace safety/health management' are identified as issues with high impact. The results of the materiality assessment are reported to the management and the board of directors and are reflected in the company's ESG management activities. Additionally, the key activities and performance for each issue are disclosed in the Sustainability Report to transparently communicate with stakeholders.

Double materiality concept



Social and environmental impact
Refers to the degree of positive and negative impacts that a company's business activities may have on society and the environment from an inside-out perspective

Financial impact
Refers to the degree of positive and negative impacts that external sustainability issues may have on a company's financial status from an outside-in perspective

ESG HIGHLIGHTS

Double Materiality Assessment

Double Materiality Assessment Process

Step 1. Social and environmental impact analysis

- Sustainable value measurement system
  - Analysis of global ESG guidelines related to society and environment
  - Analysis of ESG indicators in the pulp and paper industry
- Media analysis
  - Analysis of media exposure issues through analysis of media data reported by Moorim
- Sector Benchmarking
  - Analysis of ESG disclosure issues and strategies of domestic and international industries in the same field
- Internal ESG Strategy Linkage
  - Analysis of ESG goals, vision, and mid- to long-term activities based on Moorim's management strategic decision-making
- Stakeholder survey (conducted from January 30, 2024 to February 8, 2024)
  - Identification of the positive and negative impacts of each issue from the social and environmental (Impact) perspectives of key stakeholders

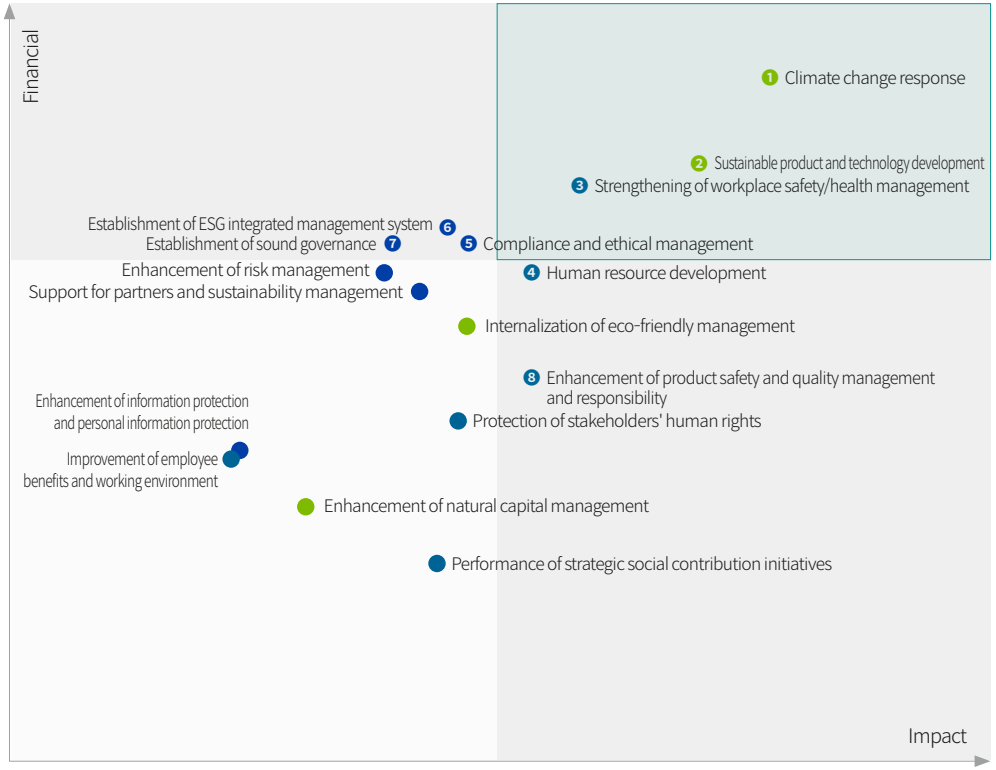
Step 2. Financial impact analysis

- Sustainable value measurement system
  - Analysis of finance-related global ESG guidelines
  - Analysis of indicators required by domestic and overseas ESG evaluation agencies
- Regulatory and policy analysis
  - Analysis of ESG-related regulations and policy trends in the pulp and paper industry
  - Analysis of opportunity elements linked to Moorim's business according to regulations and policies
- Stakeholder survey (conducted from January 30, 2024 to February 8, 2024)
  - Identification of the risk/opportunity recognition and impact of each issue from the financial perspective of key stakeholders

Step 3. Selection and reporting of material issues

- Prioritization each issue by combining social and environmental impacts and financial impacts
- Reporting of materiality assessment process and material issues to the Board of Directors

Double Materiality Assessment Matrix



- Environment
- Social
- Governance

1 Climate change response
2 Sustainable product and technology development
3 Strengthening of workplace safety/health management
4 Human resource development
5 Compliance and ethical management
6 Establishment of ESG integrated management system
7 Establishment of sound governance
8 Enhancement of product safety and quality management and responsibility

ESG HIGHLIGHTS

Double Materiality Assessment

Double Materiality Assessment Results

Ranking	Material Issues	Social & Environmental impacts	Financial Impact	Overall	Key Activities in 2023	Management Indicators	Page
1	Climate change response	●	●	●	• Planned to establish a carbon neutral strategy	• Greenhouse gas emissions and energy usage	24-28
2	Sustainable product and technology development	●	●	●	• Received eco-friendly certification and awards • Developed paper frozen food packaging material • Developed Wet Tissue	• Acquisition of eco-friendly certification • Development of eco-friendly products for demand companies	29-32
3	Strengthening of workplace safety/health management	●	●	●	• Operated a department dedicated to improving safety facilities • Improved safety Didimdol activities • Supported safety and health management at partner companies' logistics centers	• Number of achievements in improving safety facilities by the dedicated department • Number of safety Didimdol reports submitted per workplace • Number of logistics center council meetings and mentoring sessions conducted	33-40
4	Human resource development	◕	◑	◕	• Supported foreign language learning and environmental certification training	• Training support costs and hours	53-56
5	Compliance and ethical management	◑	◕	◕	• Operated and investigated an anonymous reporting center • Conducted ethical management training	• Number of reports and processed cases by the anonymous reporting center • Ethical management training	79-81
6	Establishment of ESG integrated management system	◑	◕	◕	• Established ESG-related policies/directions • Established a mid- to long-term ESG management plan	• Performance in implementing the mid-to-long-term ESG management plan	16-17
7	Establishment of sound governance	◔	◕	◑	• Prepared the foundation for separation of CEO and Board Chairman through the amendment of the Articles of Incorporation	• Achievements in holding and operating board meetings	76-78
8	Enhancement of product safety and quality management and responsibility	◕	◔	◑	• Established an owner-centered QMS process	• Performance in process implementation	65-67
9	Internalization of eco-friendly management	◕	◔	◑	• Verified Zero Waste to Landfill (ZWTL) for Moorim Paper	• Performance management of key environmental factors such as air and water quality	43-51
10	Support for partners and sustainability management	◔	◑	◔	• Evaluated and supported supply chain ESG	• Partner evaluation	62-64
11	Enhancement of risk management	○	◑	◔	• Implemented the human rights impact assessment and prepared response measures	• Human rights impact assessment and execution of improvement measures	60, 82-83
12	Protection of stakeholders' human rights	◑	◔	◔	• Enacted human rights management policies and Announced a human rights management declaration	• Achievements in the operation of the Happy Man system	58-61
13	Performance of strategic social contribution initiatives	◔	○	○	• Big Issue Social Contribution Partnership • Moorim x Starfield, Paper Adventure moohae World Event • Moorim x Lotte World Aquarium, Creation of Paperarium with Paper Activities	• Measurement of the value and outcomes of social contribution activities	68-74
14	Enhancement of natural capital management	○	○	○	• Enacted biodiversity protection policies • Identified natural capital dependence and impacts	• Performance of eco-friendly activities at workplaces	46, 49-51
15	Enhancement of information protection and personal information protection	○	○	○	• Provided employee personal information protection training • Identified security weaknesses and strengthened security	• Number of data security and personal information infringements • Personal information protection training	84-85
16	Improvement of employee benefits and working environment	○	○	○	• Operated an employee welfare system And Supported employee job competency development	• Employee training hours and support costs	57-58

Climate Change Response

Moorim acknowledges the role and responsibility of companies in the global response to climate change and aims to systematically promote climate change response activities in its business operations. To this end, Moorim has established a carbon neutral strategy in 2024 and a mid-to-long-term implementation roadmap through climate scenario analysis.

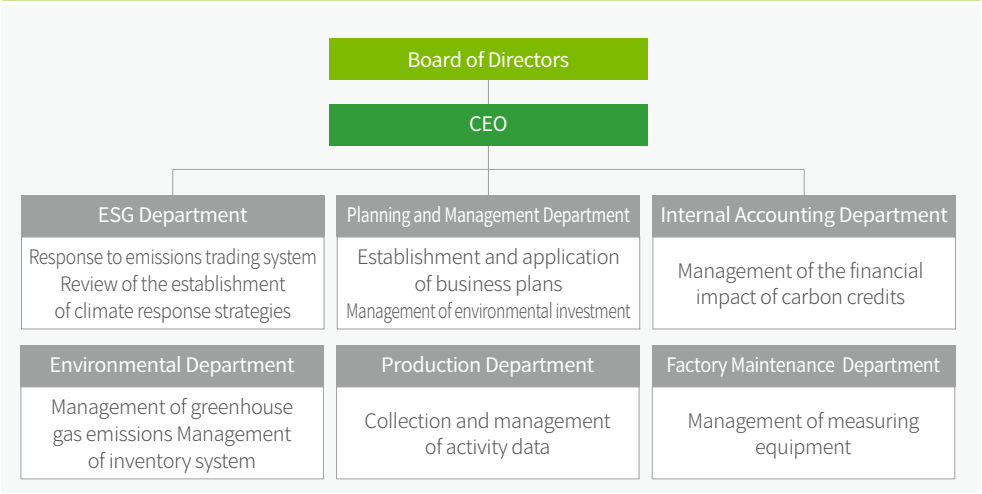
Main Performance and Activities

- Establishment of **NET-ZERO strategy and roadmap**
- Initial calculation **of Scope 3 emissions**

Governance

Moorim has established and operates an organizational structure and dedicated departments for each division to manage the impacts of climate change. These departments are responsible for performing activities to achieve the goals set in the climate change response strategy. Through this, Moorim not only responds to laws and regulations but also considers climate factors when setting business directions and making large-scale facility investments. Additionally, Moorim identifies and manages the financial opportunities and risks associated with carbon credit, and has established an inventory system to collect and manage activity data for emissions management in response to climate change. Moorim has been regularly reporting greenhouse gas emissions by business site to the Board of Directors since 2023. In particular, in 2024, the plan to establish a climate change response strategy was presented to the Board of Directors and received approval.

Climate Change Organization Chart



Strategy

Moorim is exploring greenhouse gas reduction measures across the entire value chain in accordance with global carbon neutrality policies and declarations, and is also laying the foundation for carbon neutrality at its business sites and managing Scope 3 emissions. To ensure that the mid-to-long-term climate change response strategy can be effectively measured and managed, Moorim is seeking ways to disclose goals and performance through participation in voluntary initiatives.

Mid to long-term strategic direction for climate change response

	Establishment and implementation of carbon neutral strategy	Scope 3 emissions management	Expansion of participation in voluntary initiatives
Strategic direction			
Strategic goals	• Setting greenhouse gas reduction targets for workplaces with higher emissions compared to national NDC industrial sector targets • Establish a specific and feasible action plan	• Manage the level at which CDP information can be disclosed • Evaluate and support partners	• Promote subscription to SBTi, CDP, and RE100

ESG HIGHLIGHTS

Climate Change Response

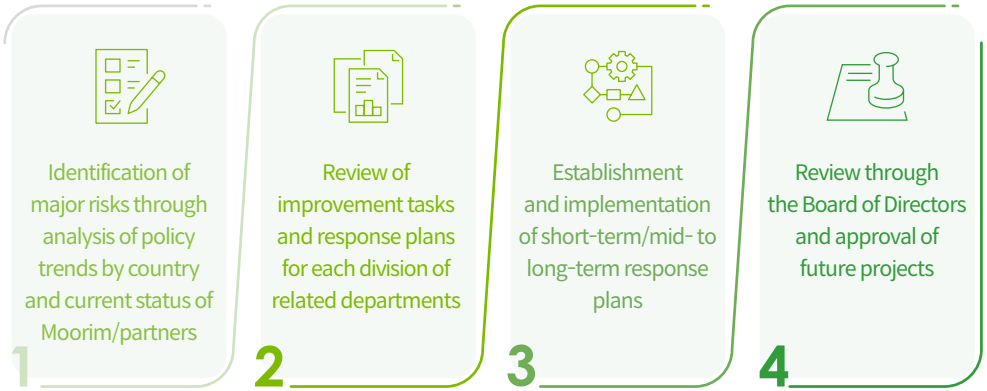
Risk Management

Moorim plans to identify and manage potential climate change risks and opportunities across the entire business value chain through relevant departments, with regular annual reports to the board of directors for management and supervision. Moorim aims to establish 2024 greenhouse gas reduction targets for its business sites and develop feasible reduction plans and implementation measures.
These established targets and activities will be reviewed and supplemented annually based on the identification of changes in domestic and international policies and markets. Additionally, Moorim intends to regularly report greenhouse gas emissions and reduction activities to the board of directors, aiming to establish a management system for climate change response activities at the executive level.

Performance and Indicators

Moorim utilizes indicators such as product production/sales volume, energy usage, greenhouse gas emissions, and carbon emissions per product to measure climate change-related risks and opportunities. These indicators are used to evaluate risks and opportunities and are considered in business strategies and investment directions. In order to reduce greenhouse gas emissions, Moorim paper and Moorim P&P has set a 25% reduction goal for Scope 1 and 2 emissions by 2030 compared to the baseline year of 2022, and has established a goal of achieving Net-Zero by 2050. In the mid-to-long term, Moorim plans to systematically promote climate change response requests through management of not only Scope 1 and 2 but also Scope 3 emissions, encouraging partners to make reduction efforts to foster mutual growth.
Moorim paper newly added renewable energy power generation as a business activity to its Articles of Incorporation in 2024, laying the foundation for reducing carbon emissions through rooftop solar power generation and reducing power costs through electricity production. Moorim plans to install and invest in energy efficiency facilities to achieve the short-term reduction target of 25% for Scope 1 and 2 greenhouse gas emissions from business sites. In addition, Moorim conducted collective training, including technical seminar training and attendance at expositions organized by the Ministry of Trade, Industry and Energy, to strengthen the practical capabilities of energy-climate managers.

Climate change response promotion process



Major investment performance in energy-related facilities from 2021 to 2023

Energy saving

Moorim Paper
Air compressor improvement

Moorim SP
PM1 turbo blower installation

Moorim SP
Temperature increase of boiler feed make-up water

Work process optimization

Moorim Paper
CM3 SCAF Nozzle Upgrade

Moorim SP
White water recycling and water dualization

Moorim P&P
Optimization of sootblower of recovery boiler units 1 and 2

Facility efficiency improvement

Moorim Paper
PM3 Drainage system improvement

Moorim SP
PM1 Drainage system improvement

Moorim SP
PM2 dry part energy efficiency improvement

ESG HIGHLIGHTS

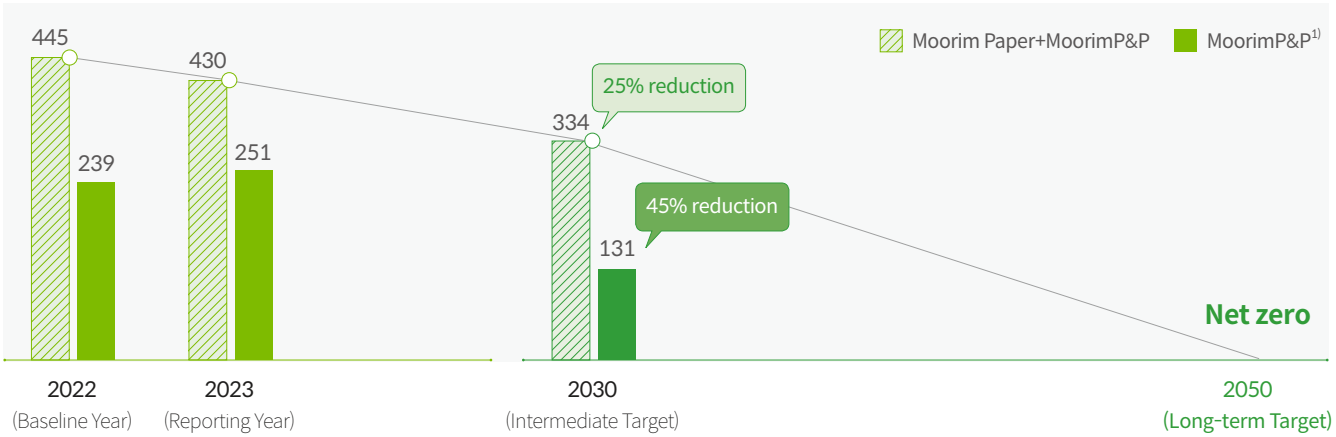
Climate Change Response

Carbon Neutrality Roadmap

Moorim Paper and Moorim P&P recognize the climate crisis as a crisis facing humanity and have established a 2050 carbon neutrality roadmap to contribute to achieving national carbon neutrality goals, starting with stakeholders, including customers. Moorim Paper and Moorim P&P plan to reduce emissions by 25% by 2030 through process efficiency and self-generation, and Moorim P&P plans to reduce emissions by 45% through process efficiency improvements such as replacing eco-friendly high-efficiency recovery boilers and generators. In the future, we will continuously review and apply tasks such as sourcing renewable energy (direct PPA), transitioning to low-carbon fuels, and operating carbon offset programs to achieve our 2050 carbon neutrality goal. Moving forward, Moorim will strive to manage climate change-related risks and create new opportunities through transparency in performance reporting on the implementation of the carbon neutrality roadmap.

Carbon Neutrality Roadmap

(Unit: thousand tCO_2eq)



Short term (2023~2030)

- Replacing eco-friendly high-efficiency recovery boilers and generators — Moorim P&P
- Investment in improving energy use efficiency — Moorim Paper, Moorim P&P
- Solar power self-generation — Moorim Paper, Moorim P&P

Mid to long term (2031~2050)

- Renewable nergy procurement — Moorim Paper, Moorim P&P
- Steam boiler fuel change — Moorim Paper
- Review of low-carbon fuels as alternatives to other liquid fuels — Moorim P&P
- Review of carbon offset program operation — Moorim P&P

Process efficient improvement · Renewable energy · Offset projects

1) Moorim P&P is a subsidiary of Moorim Paper and is separately indicated as a company that primarily implements carbon neutrality reduction tasks.

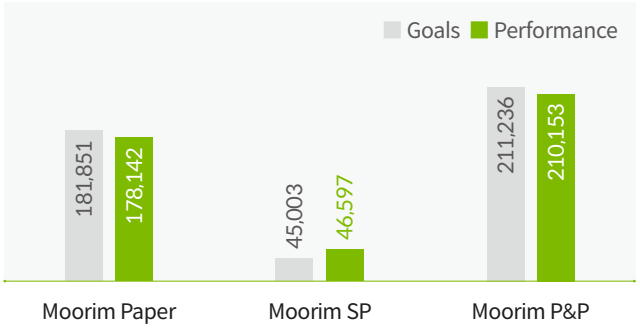
ESG HIGHLIGHTS

Climate Change Response

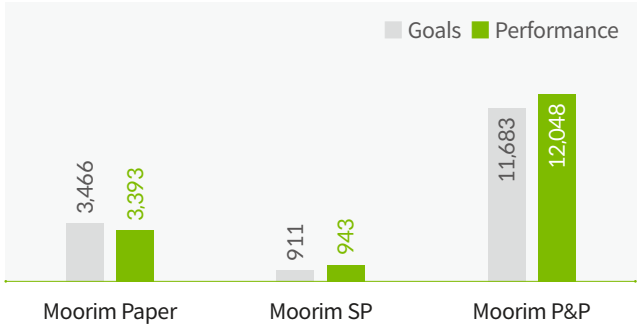
Greenhouse gas emissions and energy usage

Moorim manages its environmental impact goals and performance every year and strives to reduce greenhouse gas emissions and energy use.

Moorim's 2023 main facility greenhouse gas emissions targets and performance (Unit: tCO_2eq)



Moorim's 2023 major facility energy consumption goals and performance (Unit: TJ)

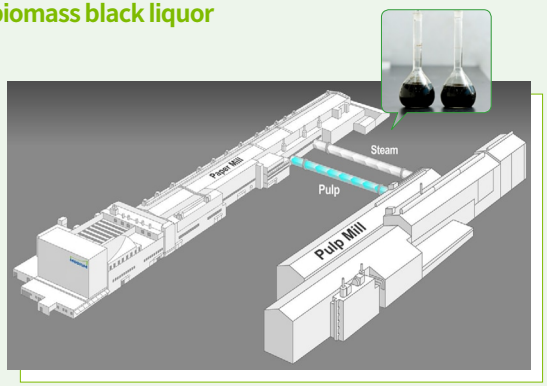


CASE STUDY

Environmental performance of biomass black liquor

Moorim produces steam and electric energy by burning biomass 'black liquor' generated in the pulp production process and uses this as an energy source when producing products, thereby reducing greenhouse gases and creating eco-friendly results. Lignin and various extracts generated during the process of producing pulp can be made into black liquor, which is an energy source. Black liquor is biomass and emits less carbon than fossil fuels, so it is recognized as a way to reduce greenhouse gases.

We have established a recycling system where inorganic materials recovered from the recovery boiler are regenerated into chemicals needed for the cooking process through the causticizing process. In addition, we plan to strengthen our greenhouse gas reduction activities by investing in the expansion of eco-friendly high-efficiency recovery boilers that utilize black liquor in 2023.



Greenhouse gas reduction effect[1)]
800,000 tons per year

Carbon absorption of pine trees[2)]
94 million trees

Energy savings cost[3)]
KRW 177 billion per year

Greenhouse gas emissions per cow[4)]
276,000

Driving distance from Seoul to Busan[5)]
3.3 million round trips

Energy usage savings[1)]
9,217 TJ per year

1) Greenhouse gas and energy consumption is calculated based on biomass use (black liquor/biogas) according to Moorim P&P's GHG report.
2) Standard carbon absorption of major forest tree species (ver. 1.2), National Institute of Forest Science (2019) <Table 7> Average annual CO_2 absorption per tree used for 30-year-old pine trees in Gangwon and central regions
3) It is assumed that black liquor is used instead of LNG, and the wholesale unit price of natural gas for city gas is applied in 2024.
4) Domestically developed value (cow, 2 years of age or older) used among 'Dairy cow enteric fermentation methane emission coefficient' in Rural Development Administration press release (2021)
5) Based on Naver Maps, the round-trip distance between Seoul and Busan and the minimum combined fuel efficiency standard for the 2024 Sonata model are applied.

ESG HIGHLIGHTS

Climate Change Response

Scope 3 emissions calculation

Scope 3 calculation overview

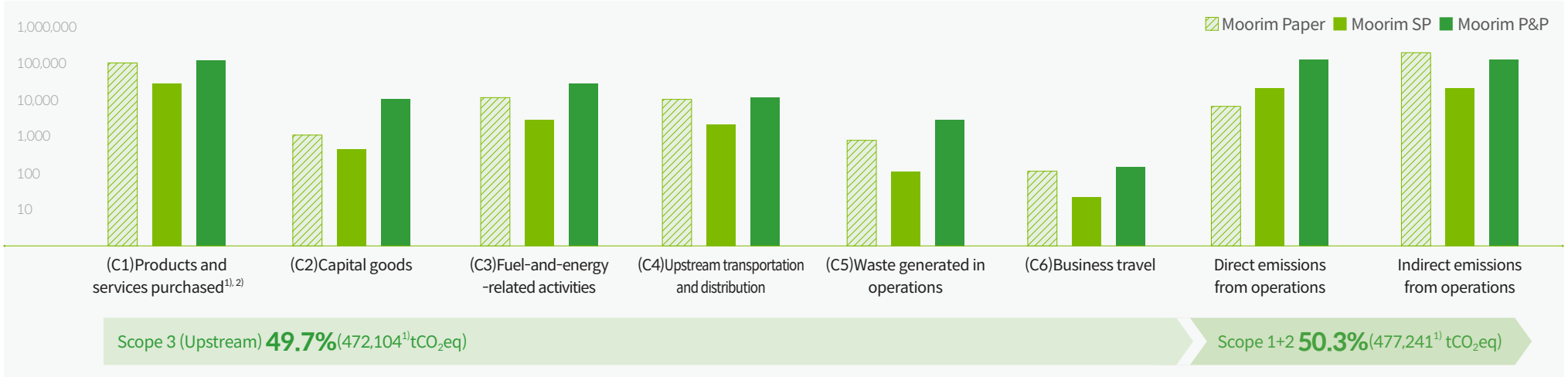
Scope 3 refers to other indirect greenhouse gas emissions that occur throughout the value chain outside the company's organizational boundaries. Moorim has calculated greenhouse gas Scope 3 to proactively respond to mandatory global disclosure and expand the scope of climate response management. The organizational boundary was set based on operational control among the control approaches, and was calculated based on each company. For calculation guidelines, refer to 'GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)' and 'Technical Guidance for Calculating Scope 3 Emissions.'

Scope 3 category screening

Moorim conducted a category-specific screening for companies included in the organizational boundary by determining the relevance of emission activities according to the characteristics of the business model and value chain. As a result of the screening, the greenhouse gas emission categories are C1, C2, C3, C4, C5, and C6 in the upstream and C10 and C12 in the downstream. For downstream C10 and C12, the data scope and calculation formula are being developed and the first calculation and disclosure are planned for the second half of 2024. Other categories were excluded because they do not apply to Moorim, have insignificant emissions depending on the characteristics of the paper industry, or do not have significant emissions confirmed.

Moorim's 2023 Value Chain Emissions

(Unit: tCO_2eq)



1) If internal transactions between companies exist, they are excluded from Scope 3 calculations.
2) Ratio of EDP certified products to total production in 2023: Moorim Paper 2.6%, Moorim P&P 70.4%, Moorim SP not applicable.
※ Scope 3 emissions were calculated based on Moorim's own methodology, and a calculation methodology for processing and disposal of sold products in the downstream categories, C10 and C12, is being developed.

Sustainable Product and Technology Development

Moorim recognizes market shifts in the domestic and international pulp and paper industry and the enhancement of environmental regulations for disposable products as opportunities. Therefore, Moorim is pursuing research and development of technology-intensive paper products and acquisition of eco-friendly product certification, etc.

Main Performance and Activities

Nanocellulose
Researching eco-friendly materials

Product development
Expanding our green portfolio

Governance

Moorim operates the only integrated research institute for pulp, paper, and advanced material in the country, expanding the scope of the paper industry through research and development. In 2022, Moorim restructured the organization, focusing on eco-friendly materials to enhance the efficiency of research and development. Moorim Research Center is conducting technological innovation and the development of new technologies in pulp and paper through research, development, and collaboration, adapting to environmental changes and customer demands.

Moorim Research Center Structure

Moorim Research Center

	Research Planning Department	Nano PG(Project Group)	Bio PG(Project Group)	Eco-friendly PG(Project Group)
Key roles	• Exploration of new research items • Review of feasibility of conducting research projects and establishment of implementation/support plans • Promotion of commercialization • Research support	• Development of nanocellulose utilization items and application research	• Development of biomaterial application technology derived from pulp process and research on commercialization of bio-composite materials	• Development of sustainable eco-friendly paper types • Development of eco-friendly & functional paper packaging materials to replace plastic
Research achievements	• Construction of phase 1 of nanocellulose pilot research building	• Development of nanocellulose mass manufacturing technology based on low-cost process • Development of highly dispersible nanocellulose material for automobile interior composite materials • Development of nanocellulose additive for highly transparent, biodegradable gas barrier film coating	• Development of eco-friendly construction materials by replacing petroleum-based binders using pulp and improving strength (Registered one joint patent and jointly launched a prototype) • Development of biomass-applied low-carbon home appliance housing composite materials and production of prototypes • Development of eco-friendly phenolic resin and bio-asphalt technology using lignin	• Expansion of eco-friendly paper type portfolios • Quality differentiation to respond to the diverse needs of companies demanding eco-friendly products

ESG HIGHLIGHTS

Sustainable Product and Technology Development

Strategy

Eco-friendly response roadmap

Moorim has established an eco-friendly response roadmap, and is making products by considering the product life cycle from product planning to development, production, sales, and disposal.

Eco-friendly response roadmap

Step 1

Market research

- Investigate high-usage synthetic resin products.
- Identify products that can be replaced with paper in terms of materials and review the possibility of securing quality.

Step 2

Eco-friendly product development

- Plan and design eco-friendly products considering the product life cycle.
- Expand the proportion of recycled materials.
- Develop biodegradable products considering post-disposal.

Step 3

Expansion of eco-friendly certification acquisition

- Expand acquisition of domestic and international environmental certifications.
- Consider acquiring new eco-friendly certifications.

Step 4

Eco-friendly promotions

- Manufacture customized products through collaboration with demand companies such as cosmetics and food.
- Plan promotions such as eco-friendly product branding and contests.

Indicators and Performance

Awards and certifications

As a result of Moorim's development of eco-friendly products, it achieved several milestones in the domestic paper industry. The company obtained the first FSC® certification in the domestic paper industry in 2007, followed by the first carbon footprint certification for Coated Paper in 2011, the first and only domestic low-carbon product certification in 2013, and the first biodegradability certification, OK compost, in the domestic paper industry in 2020.

Expansion of sustainable product development (Neoforêt)

In 2019, Moorim launched the Neoforêt brand, considering both environmental and quality aspects. Neoforêt products, meaning 'paper returning to the forest,' are gaining attention as eco-friendly materials with excellent recyclability and biodegradability, capable of replacing plastics. Through natural pulp, Moorim is developing various products such as eco-friendly paper straws, cups, and aircushions for everyday use. These products are manufactured with considerations for eco-friendliness, biodegradability, safety, and recyclability, aiming to create paper products that care for the Earth by considering not only production and use but also post-disposal.

Neoforêt Product Characteristics

Eco-friendliness	The raw materials are sourced with consideration for nature by using wood from forest-based circular bio-economy
Biodegradable	After use, the wood obtained from nature returns to the natural soil
Safety	It is produced through an eco-friendly process and has been officially recognized as being harmless to the human body
Recyclability	An eco-friendly water-soluble coating is used to enhance recyclability


Neoforêt Straw



Neoforêt PACK


Neoforêt Aircushion


Neoforêt Flex

ESG HIGHLIGHTS

Sustainable Product and Technology Development

Indicators and Performance

Development of alternative materials to replace plastic

As part of its efforts in the plastic-free activities, Moorim is conducting research on alternative materials and products to replace plastic. Moorim is expanding its eco-friendly portfolio to proactively respond to changes in the external corporate environment, such as reducing plastic waste and increasing demand for disposable products, and is pursuing joint development of new products with companies that demand eco-friendly products. In particular, Moorim is pursuing the application of EP (Engineering Plastic) products using natural materials to electronic product exterior parts, the development of sheet manufacturing processes, and the development of plastic resins using eco-friendly materials such as wood plastic hangers.


Bio Plastic


Wood plastic hangers


Molded Pulp

Research on eco-friendly functional materials based on nanocellulose

Moorim manufactures nanocellulose (cellulose nanofibers, CNF), an eco-friendly advanced material, from in-house produced pulp, and conducts research on applying this material as a functional component in various industrial fields. Moorim is striving to a competitive edge in cost and quality competitiveness by producing nanocellulose at low cost through the establishment of pilot facilities and manufacturing various grades of products according to application fields. Moorim is currently conducting joint research with domestic demand companies to develop commercial products using nanocellulose, focusing on exploration of potential customers and commercialization regarding nanocellulose, such as composite materials for automotive interior parts that replace fossil fuel-derived plastics, gas barrier films for eco-friendly food packaging materials, eco-friendly water-based paints, paper strength agents, and eco-friendly fibers.


Nanocellulose applied automotive interior parts



Nanocellulose applied gas barrier films

ESG HIGHLIGHTS

Sustainable Product and Technology Development

Indicators and Performance

Joint development of eco-friendly products

Moorim is making achievements in expanding its new business by developing eco-friendly products. In 2023, Moorim replaced the amenity kit packages provided in the rooms of High1 Grand Hotel with eco-friendly molded pulp. The molded pulp used as packaging materials for the amenity kit are made from natural pulp, providing strong resistance to water, therefore, they replace plastic containers for products used in bathrooms, contributing to High1 Resort's transformation into a low-carbon green resort and distribution of eco-friendly amenity kits.
Additionally, in collaboration with Kyochon F&B, molded pulp containers were applied to the packaging boxes of Korea's iconic snack, 'Honey Combo Chicken'. The box surface was designed with air holes to maintain the crispiness of the chicken for an extended period. Practicality was considered by designing the box lid to be detachable, allowing it to be used as a tray containing pickled radish or chicken bones. Unlike traditional chicken boxes, these new boxes can be used without any assembly process, reducing preparation time for franchise owners. This development resulted in carbon reduction and mutual growth achievements for Kyochon Chicken.



High1 Resort Eco-friendly Amenity Kit


Kyochon F&B Honey Combo Chicken Box

Furthermore, Moorim developed molded pulp cup lids engineered to securely fit cups. Made solely from pure natural pulp without any additives, they are harmless to the human body while achieving the strength and durability equivalent to plastic. These features indicate that molded pulp lids can serve as a sustainable and eco-friendly alternative to conventional cup lids. Based on these results, Moorim's molded pulp cup lids won the "KITECH President's Awards" at the 2024 Korea Packaging Exhibition, proving its eco-friendly technological capabilities.

The 2023 Green Product of the Year : awarded by the Korea Green Purchasing Network

Compared to Conventional Polypropylene **Reduction of Carbon Emissions by 24%**

for Biodegradability in 26 Weeks **Certified 'OK compost HOME'**

Strengthening safety/health management at workplaces

Moorim has set the life and safety of all stakeholders as its top core value and is promoting activities to enhance the safety and health competitiveness and execution capabilities at its workplaces. We are actively identifying and improving hazardous and risk factors to promote workers' health and improve the working environment by establishing a company-wide safety and health system and forming a dedicated organization.

Main Performance and Activities

Enhancement
risk assessment system

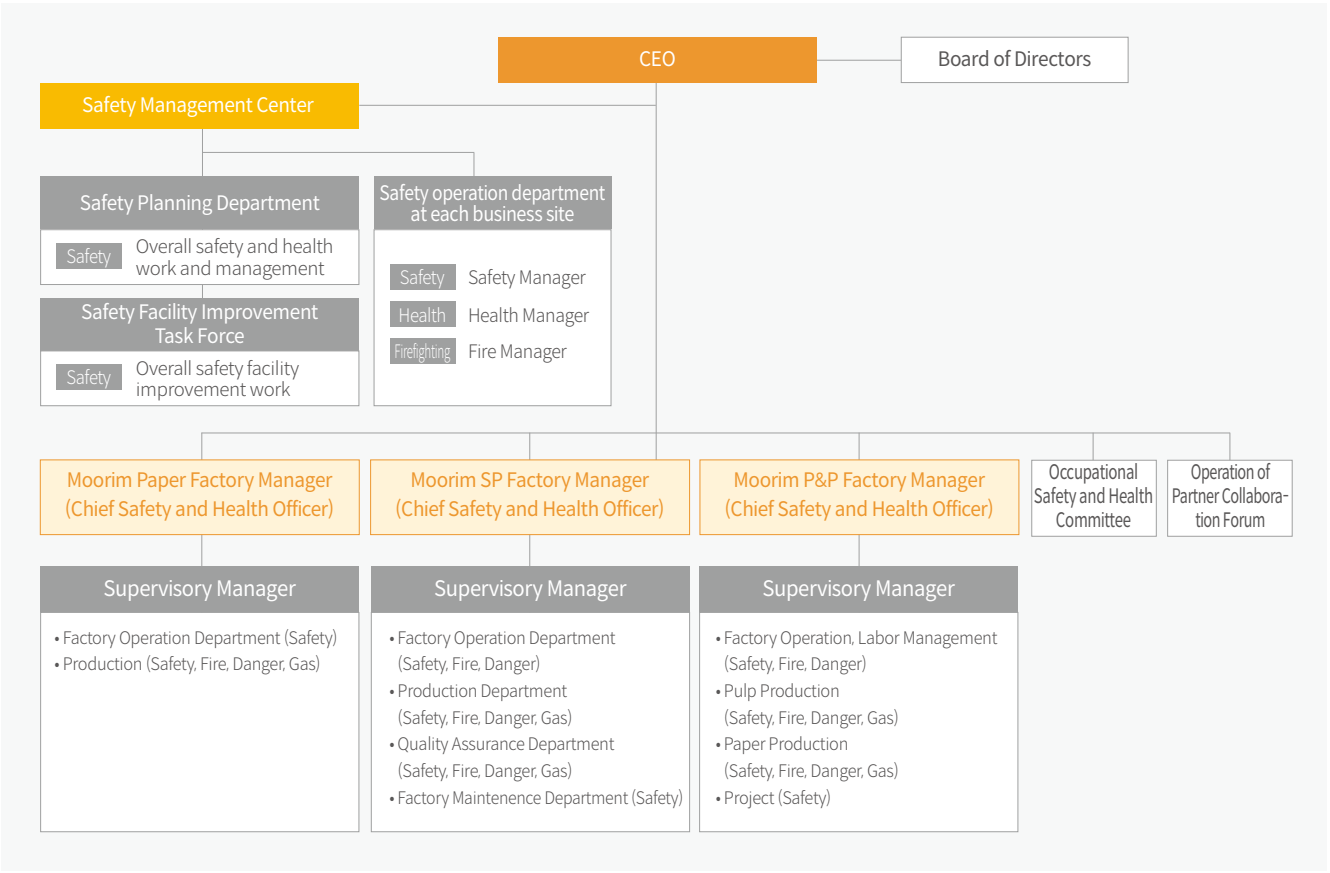
27 hours
safety training per employee annually

Safety Management System

Safety management organization

Moorim, through the operation of the Safety Management Center directly under the CEO, establishes medium- and long-term plans related to safety and health and promotes major activities. Additionally, a Chief Executive Officer of Safety and Health Management is appointed, and supervisors are assigned under the Chief Safety and Health Officer at each workplace to establish an independent and prompt decision-making system. The Chief Safety and Health Officer at each workplace reports safety management plans and goals, including safety management for Moorim's employees and partners, to the board of directors annually. The Occupational Safety and Health Committee, including partners, is held quarterly to serve as a communication channel for sharing and addressing major safety issues related to the workplace.

Safety management organization chart



ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety Management System

Safety and health management system

Moorim has obtained ISO 45001 certification, establishing a safety and health management system based on international standards. A dedicated organization, the Safety Management Center, has been newly established to make every effort in safety management activities, and customized training programs are conducted to nurture safety experts.
In addition, we have improved the safety and health management system and strengthened management to establish a safety and health management structure. In particular, we reviewed and supplemented the existing safety and health computer system from the user's perspective. Considering the accessibility and usability of the system for on-site workers, we identified essential and unnecessary functions of the system, and focused on developing essential features while eliminating unnecessary ones.

Main features of safety and health computer system

Category	Essential features
SHE integrated management system	Notices, Manuals, Regulations, Guidelines, Policies/Objectives, Resource Center
Partner Entry/Exit Management	Entry/Exit Application, Application List Management, Contractor Evaluation
Safety and Health Training	Training Status, Preparation/View of Legally Required Training Reports
Risk Assessment	Status, Performance List, Feedback, Printing
Work Permit	System Maintenance and Improvement

Moorim ISO 45001



Safety and Health Strategy

Safety management policies

Moorim has established and reported to the CEO and the Board of Directors its five major safety management policies for ensuring a safe working environment. These policies have been shared with all employees and partners to establish a systematic safety and health management system. All employees at the workplace are required to make a pledge to comply with the safety management policies, and signatures are collected once a year to indicate compliance with the policies.

Safety management policies

Safety First
Moorim prioritizes and practices safety, health, and all related activities above everything else

People-Centric
Moorim establishes a people-centric safety system that encompasses not only its employees but also those of its partner companies

Field-Centric
Moorim pursues field-centric safety management through strict supervision and thorough improvement activities by establishing a systematic safety management system

Autonomous safety
Moorim fosters its members' awareness of safety management through continuous safety and technical training and proactive prevention activities, thereby establishing an autonomous safety and health system

Responsible Management
Moorim provides optimal resources for creating a safe workplace free of accidents and disasters for maintaining the health and well-being of its members, and fulfills its series of responsibilities regarding safety and health

Moorim shares the above policies with all employees and partner companies and simultaneously strives to operate a systematic safety and health management system for this purpose. Moorim will continue to achieve customer satisfaction through a healthy workplace and healthy products by maintaining a safety and health management system that fulfills the company's roles and responsibilities.

CEO Lee, Dohyun

ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety and Health Strategy

Safety and health goals and tasks

Moorim has set up 16 detailed tasks to achieve two strategic goals and six key tasks to accomplish a workplace free of accidents and illnesses. These 16 detailed tasks were established with Moorim's goal of achieving zero serious accidents by discovering and improving major hazardous and risk factors and establishing a safety culture that prioritizes worker safety. Moorim is performing the detailed tasks step by step to achieve the strategic goals.
In accordance with Moorim's safety and health goals, the Chief Safety and Health Officer at each business site establishes safety and health goals annually and reports to the Board of Directors on the performance and plans of major activities.

Moorim's safety management goals and tasks

Achieving a workplace free of accidents and diseases

Vision

- Achieving zero major accidents by identifying and improving major hazardous and risk factors
- Establishing a safety culture that prioritizes the safety of workers

2030 Action Plan

Field-centered Safety Management	Re-establishment of Safety Management Standards	Partner Company Safety Management
• On-site safety management guidance/ inspection • Strengthening of safety management during vulnerable hours • Enhancement of safety training • Reinforcement of self-regulated safety and health activities	• Re-establishment of JSA (Job Safety Analysis) • Strengthening of the management of basic safety rules	• Level-up of Mentoring System • Strengthening of partner company risk assessment • Safety and health management system certification
Enhancement of Safety Management Capabilities	**Establishment of a Safety and Health Management System**	**Strengthening of Health Management Activities**
• Enhancement of the capabilities of supervisory managers • Skill-up for Process Safety Management (PSM) personnel • Training of experts in risk assessment	• Strengthening of the management of the safety and health management system • Renewal of the integrated safety, health, and environmental management system	• Management of individuals with symptoms and cerebrovascular diseases • Prevention of disease-related disasters such as musculoskeletal system

Moorim's safety management promotion direction

Goals

Moorim Paper
- Activate risk factor identification and improvement through enhancing risk assessment
- Achieve zero industrial accidents in non-routine tasks through safety inspections and compliance with safety rules

Moorim SP
- Proactively manage and intensively improve high-risk areas
- Provide site-specific safety training and promote safety awareness
- Continuously improve work methods
- Enable partners to independently manage safety

Moorim P&P
- Prevent hazardous substance leakage incidents
- Establish visible process safety management
- Strengthen safety management and improve the working environment of partners

ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety and Health Strategy

Moorim's Safety Golden Rules

Moorim has established Safety Golden Rules to codify what all employees must practice according to safety management policies and strategies. Through this, Moorim has strengthened accountability for safety accidents and incidents due to safety rule violations, as well as the responsibility of colleagues. Additionally, a safety culture has also been implemented aiming at preventing secondary accidents and recurring incidents.

Moorim's Safety Golden Rules

1. Wear safety equipment (such as safety halmets, safety shoes, earplugs, etc.).
2. Use safety pathways within the workplace and avoid running.
3. Do not tamper with safety devices or protective guards.
4. Take safety measures (such as measuring oxygen and gas concentrations) before entering enclosed spaces.
5. Turn off power and attach warning signs before undertaking repair work.
6. Comply with safety measures (such as prohibiting movement underneath heavy loads, securing hooks on both sides) when working with heavy loads.
7. Comply with safety measures (such as wearing safety belts, safety ropes, harnesses, etc.) during high-altitude work.
8. Wear appropriate protective gear (such as goggles, protective gloves, etc.) when handling chemicals.
9. Wearing of gloves is banned when working with rotating equipment with squeezing or nipping points.
10. Forklifts must be operated only by qualified individuals. Wear safety belts, and remove the key when getting off from the forklift.
11. Prohibit smoking outside designated areas.
12. Attend tool box meeting(TBM)

Workplace Health Management

Moorim operates a health management program to provide a healthy workplace for its employees.

Health Management	Health Diagnosis	Healthcare
• Enclosed Space Work Program • Hearing Conservation Program	• General and special health diagnostics • Follow-up care for those with abnormal findings etc	• Risk assessment for developing brain and cardiovascular diseases • Job stress assessment

Hazardous Factor Investigation	Work Environment Measurement	Chemical Management
• Regular surveys every 3 years • Ad-hoc surveys in case of incidents	• Work environment measurement	• Risk assessment of chemical substances • Management of Material Safety Data Sheets (MSDS)

Safety accident analysis and prevention

Moorim analyzes the types and frequency of industrial accidents in the pulp and paper industry to identify the top 10 types of safety accidents and develops prevention measures for each type to prevent such accidents. During the analysis of industrial accident trends, Moorim identified differences in accident rates based on length of employment and is developing focused management programs according to length of employment and skill level.

ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety and Health Activities

Safety management system process

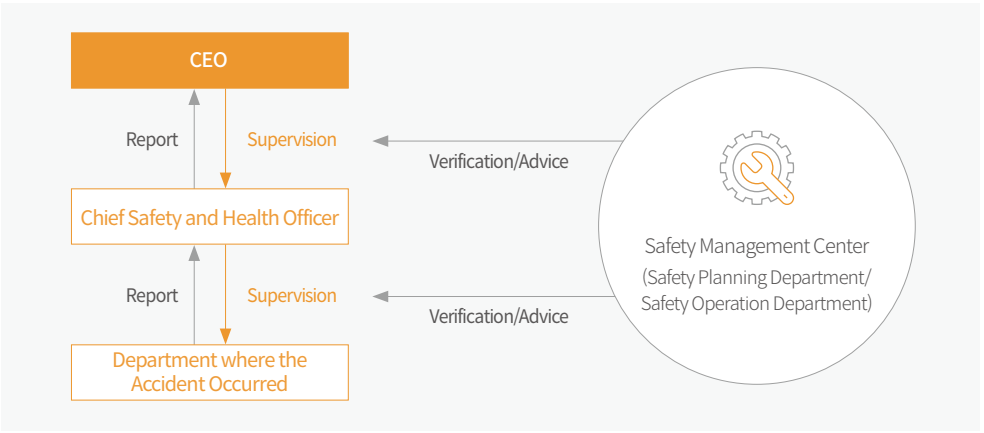
Moorim has established a safety and health management system that complies with the Occupational Safety and Health Act, the Serious Accident Punishment Act, and the KOSHA Guide. Considering safety and health management policies and goals, the company establishes annual safety and health management goals and plans for each workplace. In accordance with the Occupational Safety and Health Act, Moorim monitors compliance with safety management requirements applicable to the site and implements them on-site. Moorim monitors the results of progress according to goals and plans on a semi-annual basis, establishes various safety inspections and improvement plans by establishing the Moorim Safety Inspection System (MSIS), and computerizes and carries out the relevant actions.



Safety accident reporting and recurrence prevention procedures

At Moorim, In the event of a major accident such as serious incident at the workplace, the department where the accident occurred immediately reports to the factory manager, who serves as Chief Safety and Health Officer, via telephone. All safety incidents, including non-industrial accidents, are reported in person to the responsible executive, who then reports to the Head of the Safety Management Center. Moreover, in cases of fatalities, serious accidents according to safety-related laws, major accidents such as cutting and falling, fires, leaks, explosions resulting in loss of life or property damage, Chief Safety and Health Officer reports to the CEO. Depending on the nature of the incident, operations and work are ceased immediately, and Safety Operations Department investigates the site to identify the causes and issues of the accident.

Safety accident reporting procedures



ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety and Health Activities

Safety accident reporting and recurrence prevention procedures

They report to Chief Safety and Health Officer or the CEO for approval of whether to resume operations based on the findings[1]. Furthermore, we conduct risk assessments to identify risk factors and establish and implement improvement plans. Following an accident, preventive measures are established within four weeks to prevent recurrence, and such measures are reported to the CEO after verification and additional supplementation by the relevant department.

Procedure for ceasing and resuming operations in the event of a safety accident

Ceasing operations in the event of an accident	On-site investigation	Conducting of risk assessments	Establishment and implementation of improvement measures (preparation of preventative plan against recurrence)	Confirmation of implementation results and decision on resumption of operations
• In the event of any industrial accident within the workplace, immediately cease operations and work including those involving partner companies	• Investigate the cause of the accident and identify issues to uncover areas for improvement • Determine whether to resume or cease operations and work, considering the likelihood of recurrence and impact on workers	• Form an evaluation department led by the head of the department where the incident occurred for risk assessment • Conduct a risk assessment of the incident equipment and structures to calculate the risk level	• Establish and implement an improvement plan and check the results of the improvements	• Report the results of measures taken according to the improvement plan

Safety accident reporting process

Accident status summary report	Accident investigation and analysis	Accident reporting
• In the event of a major disaster, report to the Chief Safety and Health Officer by telephone • In case of a non-industrial accident, report to the responsible executive by telephone • In the event of a serious accident, provide a summarized report to the CEO within 1 day	• Investigate the accident site to identify the cause of the accident and any issues • Conduct interviews with the injured and witnesses	• Final analysis results should be prepared by the relevant department. In case of a partner company, it should be prepared by the main contracting department responsible for management of the partner company • General safety incidents should be reported to the Chief Safety and Health Officer, while serious incidents should be reported to the CEO

Establishment preventive measures against recurrence and verification process in the event of a safety accident

Selection of targets for establishing preventive measures against recurrence	Establishment of preventive measures against recurrence	Verification meeting for preventive measures against recurrence	Preparation and reporting of the preventive measures plan against recurrence
• If there is a possibility of recurrence of the accident or a potential serious accident, the Safety Operations Department and the department where the accident occurred will consult to select the target	• Preventive measures against recurrence are established based on the elimination of the fundamental causes of the accident • The department where the accident occurred submits the preventive measures plan to the Safety Operations Department	• The head of the department where the accident occurred hosts a meeting to explain the preventive measures, during which attendees can ask questions and provide additional opinions • Relevant departments, including the safety departments of each workplace, corresponding departments of other workplaces decide whether to accept the measures	• Based on the results of the verification meeting, the final plan for preventive measures against recurrence is drafted • The department where the accident occurred reports to the CEO • The accident case is disseminated to and shared with the Factory Managers of Moorim Paper, Moorim SP, Moorim P&P, relevant departments, and part leaders or higher

1) Fatalities, serious accidents according to safety-related laws, major accidents such as cutting and falling, fires, leaks, explosions resulting in loss of life or property damage

ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety and Health Activities

Safety training

All Moorim employees complete 2 hours of regular safety and health training every month, and 16 hours of safety training per year is provided to supervisors to strengthen workplace safety management.

Moorim Safety Training Status in 2023

(Unit : persons, %, hours)

Category	Moorim Paper	Moorim SP	Moorim P&P
Total participants	360	181	552
Safety training participation rate	100	100	100
Total safety training hours	9,504	5,028	14,680
Safety training hours per employee	26	28	27

Safety Didimdol (Safety stepping stones)

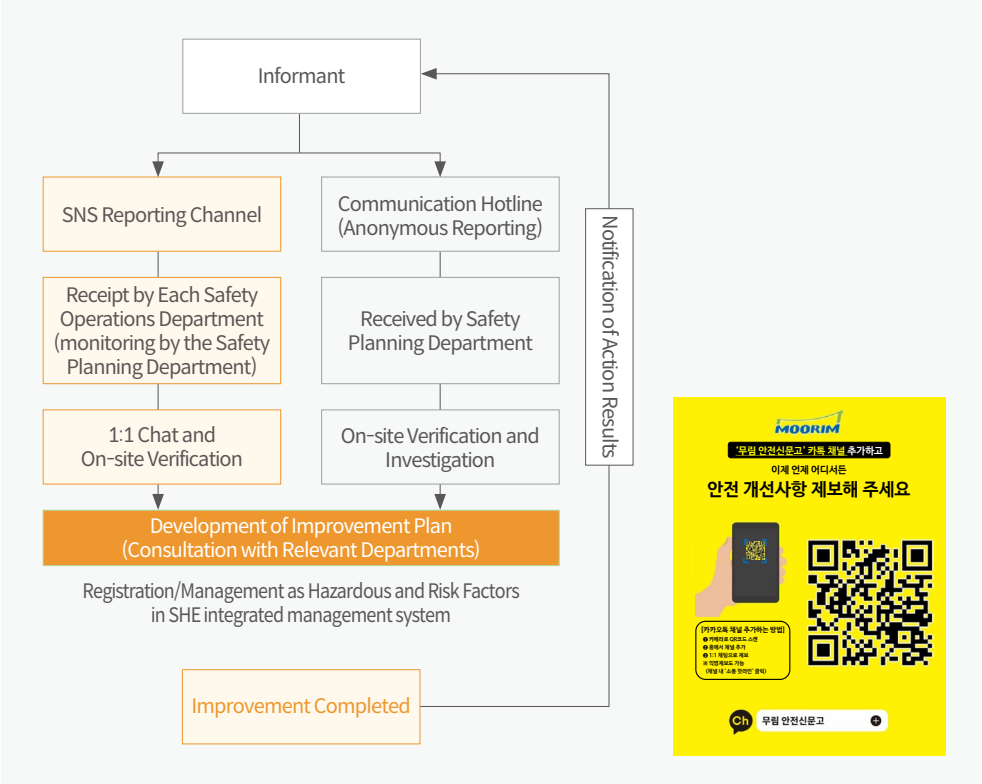
Moorim conducts mutual inspections on safety factors on-site targeting field technicians every half year. We strive to foster a safety culture within the workplace through on-site focused serious accident prevention activities.





Safety Reporting System

We operate a Safety Reporting System at all times to listen to the opinions of all workers related to safety. Through this system, workers can request general safety and health improvements via SNS, and the results of their requests are communicated back to them on a one-to-one basis. Throughout this process, the anonymity of the informant is guaranteed.



ESG HIGHLIGHTS

Strengthening safety/health management at workplaces

Safety and Health Activities

Enhancement of emergency response capabilities

Moorim continuously manages and strengthens its emergency response system to quickly respond to emergencies and minimize human and material damage. To this end, each business site identifies department-specific emergencies and establishes definitions and scenarios for hazardous substance leaks, fires, power outages, etc, and conducts emergency drills every six months. These drills are carried out jointly with partner companies, and there are plans to add joint training to enhance the emergency response capabilities of these partners. After the drills, we identify issues and improve them through evaluation and analysis of the emergency drills.

Partner company safety management

Moorim operates a mentoring system called "Level up" to manage the safety and health risks of employees of partner companies, in addition to Moorim's own employees. Through this system, quarterly technical guidance is provided through safety and health document reviews and on-site safety inspections. Improvement suggestions are then provided based on the grade of mentoring results for each quarter. Additionally, regular risk assessments are conducted for partners and the results are classified into four grades - Green, Blue, Yellow, and Red - according to internal standards. For partners rated Yellow and Red, considered high-risk in safety and health, separate mentoring sessions are provided, and these factors are taken into consideration when deciding on contract renewals. Furthermore, we establish safety management plans for partners, and report the safety management plans and goals to the board of directors annually.

Safety Management Performance

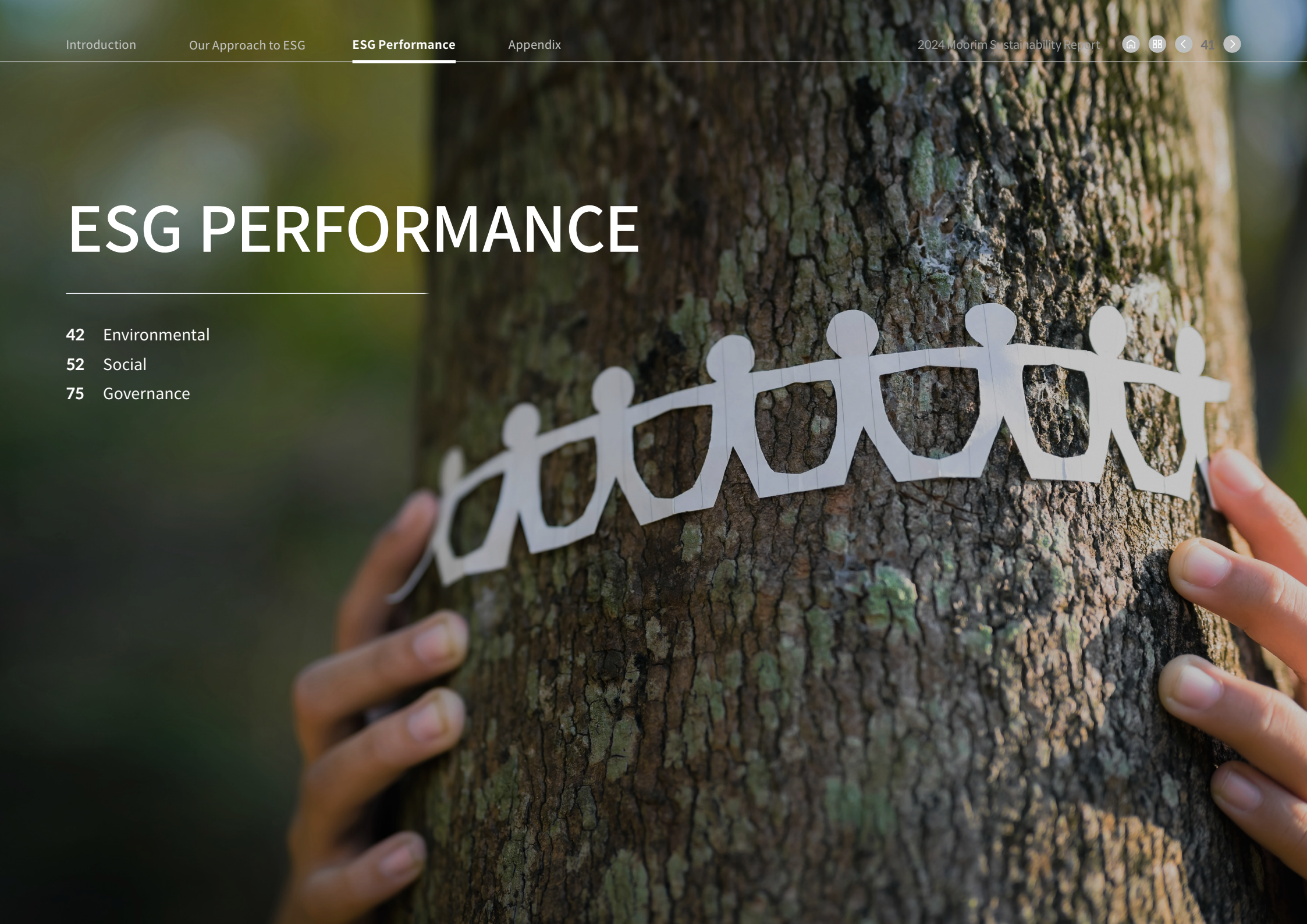
Each business site establishes and implements goals for creating a workplace safety culture based on Moorim's safety management policy and Safety Golden Rules. Indicators related to industrial accidents are measured and managed annually as industrial accident rate and lost time injury frequency rate(LTIFR).

Moorim's 2023 Safety Management Key Achievements

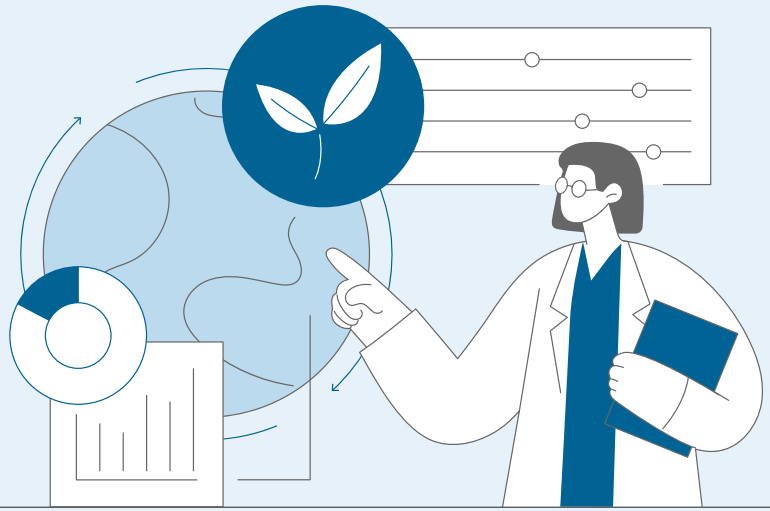
Category		Key activities
Moorim Paper	Enhancing risk assessment	• Conduct specialized training, establish an operational system, and enhance field execution capabilities for risk assessment.
	Identifying and improving hazardous and risk elements	• Improved hazardous and risks through safety and health activities and the operation of the Safety Reporting System
	Improving firefighting equipment	• Changed the type of fire detectors to prevent false alarms and enable real-time fire monitoring • Integrated and replaced fire alarm control stations
Moorim SP	Proactively managing and intensively improving high-risk areas	• Identified hazardous and risk factors and managed progress in 2023 (including monthly Safety Day and used the SHE integrated management system)
	Providing site-specific safety training and promoting safety awareness	• Achieved 100% compliance with safety and health training completion rates by improving the operation of safety and health training in 2023 • Promoted the "Wejijung (Stopping hazardous activity)" practice in daily life: Implement safety-related communication using Naver's Band (encourage safety behavior and share risk factors among employees in real time) • Conducted safety awareness reminder activities: Held a total of 10 safety events (at least twice per quarter)
	Continuously improving work methods	• Promoted the posting of VM (safety work standards) activities
	Enabling partners to independently manage safety	• Completed self-conducted risk assessments and training for partner companies in 2023 • Obtained recognition as an excellent workplace in risk assessment of partner companies
Moorim P&P	Strengthening activities to prevent safety accidents	• Systematized safety and health training and strengthened the job competencies of supervisors • Enhanced the execution capability of risk assessments through department-specific training and integration with the new SHE integrated management system, etc.
	Enhancing emergency response capabilities	• Established visible process safety management
	Strengthening safety management during major maintenance	• Executed safety work by strengthening communication among relevant departments (operations, factory maintenance, safety, environment) during major maintenance • Improved safety inspection methods for each hazardous and risk factor and operated a safety work permit system tailored to the characteristics of major maintenance
	Strengthening safety management for partner companies	• Strengthened financial and technical support for partner companies • Enhanced monitoring of safety management for construction work

ESG PERFORMANCE

42 Environmental
52 Social
75 Governance



ENVIRONMENTAL



KEY PERFORMANCE

ESTABLISH A CARBON NEUTRALITY ROADMAP

Moorim Paper and Moorim P&P

NET-ZERO

in 2050

INDUSTRY'S FIRST ZERO WASTE LANDFILL VERIFICATION (ZWTL)

Moorim Paper obtained

GOLD LEVEL

INVESTMENT IN ECO-FRIENDLY RECOVERY BOILER

Moorim P&P

KRW **280**billion

ESG POLICY BOOK DECLARATION

Establishment of biodiversity

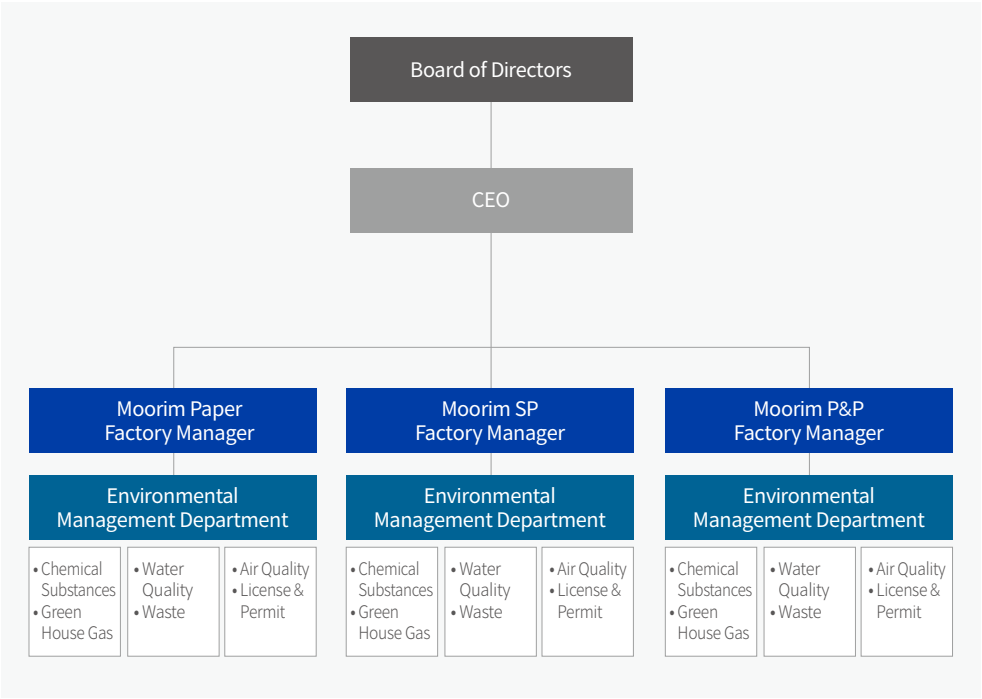
protection policy

ENVIRONMENTAL MANAGEMENT

Environmental Management System

Moorim is implementing an environmental management system based on ISO 14001 to minimize the environmental impact of its business activities. This involves identifying environmental the impacts related to water quality, waste, chemicals, and air, and setting internal targets annually that are stricter than regulatory standards. To minimize pollutant emissions, each business site reports its environmental performance and achievements to the board of directors on a quarterly basis.

Environmental Management Organizational Chart



Environmental Management Strategy

In order to achieve the environmental management vision of 'Eco-friendly Global Pulp & Paper Company', Moorim is actively implementing environmental management by establishing three major strategies: "Climate Change Response," "Development and Management of Eco-friendly Products," and "Operation of Green Workplace." Through these efforts, Moorim is contributing to the transition to a low-carbon economy and striving to create a cleaner society.

Moorim's environmental management vision and strategies

Vision

Eco-friendly Global Pulp & Paper Company

3 Key Strategies

Climate Change Response	Development and Management of Eco-friendly Products	Operation of Green Workplace

Strategic Goals

Climate Change Response	Development and Management of Eco-friendly Products	Operation of Green Workplace
• Achievement of carbon neutrality through maximizing internal management of greenhouse gases	• Expansion of eco-friendly product certification • Establishment of eco-friendly product management system	• Minimization of environmental pollutant emissions • Establishment of eco-friendly systems

ENVIRONMENTAL MANAGEMENT

Environmental Management System

Environmental Management Policy

Under its environmental management policy, Moorim minimizes environmental pollution throughout the pulp and paper production process and strictly complies with domestic and international environmental laws and requirements in accordance with this policy. Simultaneously, we are continuously encouraging all employees to prioritize this policy as a core value.

Environmental Management Policy

1. Establish an efficient environmental management system and engage in continuous improvement activities through periodic monitoring.
2. To effectively manage environmental performance, document environmental policies, set environmental goals and detailed targets and implement environmental management plans.
3. Allow stakeholders to freely access the environmental policy and ensure transparency in environmental management through the achievement and certification of environmental policy.
4. Conduct systematic environmental training for employees to enhance environmental awareness and contribute to society through environmental conservation activities from a global perspective.
5. Strive to implement 3R (Reduce, Reuse and Recycle) to minimize environmental pollutant emissions and efficiently use resources and energy
6. Fulfill assigned roles and responsibilities diligently and actively to maximize the effectiveness of the environmental management system.
7. Strongly embrace and comply with environmental regulations and other requirements for environmental conservation.
8. Strive to operate and maintain the environmental management system in accordance with the requirements of ISO 14001.

Integrated Environmental Management

To comply with the integrated environmental permit system of the Ministry of Environment, Moorim has established an integrated management system for water quality, air, soil, waste, malodor, noise and vibration at all business sites. Additionally, in order to continuously establish environmental management and manage environmental risks, Moorim formulates operational strategies annually based on the previous year's performance. The environmental management departments at each business site set monthly targets for water and wastewater, sludge, power, and fuel consumption, comparing them with quantitative performance to improve environmental and energy-related issues.

Integrated environmental management process

Identification of domestic and international status	Impact Assessment	Enhancement of management and risk reduction measures	Monitoring and follow-up management
• Identify trends in domestic and international environmental impact assessment standards	• Develop indicators for compliance with internal and external stakeholder requirements • Evaluate environmental management activities using environmental performance indicators	• Establish environmental management performance goals • Promote goal specific-activities	• Report environmental indicator performance to the board of directors

Moorim has established an environmental management system based on ISO 14001, acquiring and maintaining international standard certification. We have developed an environmental management manual to minimize potential risks that may occur throughout the pulp and paper production processes and to efficiently manage and utilize resources and energy. Environmental management objectives are established and pursued at each business site, and environmental operations personnel manages the impacts of water quality, air, waste, and chemicals according to the manual. Furthermore, we derive improvement points through operational achievements and performance reviews, incorporating them back into the environmental management promotion process for continuous advancement.

Environmental management promotion process

Planning	Implementation and Operations	Inspection	Improvement
Establishment of environmental management manual and goals	Operation and management of environmental management program	Performance evaluation and monitoring	Review of environmental systems and incorporation of results into environmental management

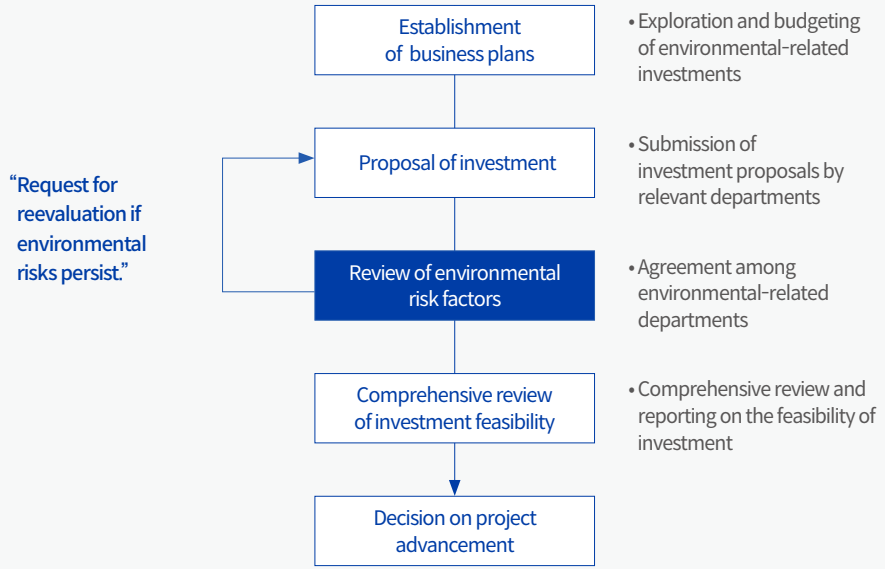
ENVIRONMENTAL MANAGEMENT

Eco-Friendly Investment and Performance

Environmentally Responsible Investment

To fulfill its environmental and social responsibilities, Moorim is making efforts at each business site to improve environmental performance, such as reducing environmental pollutant emissions and increasing energy efficiency. In order to achieve outcomes directly, Moorim is investing in eco-friendly facilities, considering the processes and current situations at business sites. In 2024, Moorim enhanced the environmental risk pre-assessment process to consider environmental risks when making investment decisions. During the investment process, each business site assesses environmental risks and incorporates environmental impacts into the decision-making process during feasibility studies.

Enhanced environmental risk pre-assessment process



Environmental Management Performance

Moorim reports to the board of directors on its quantitative environmental performance indicators on a quarterly basis. In 2023, Moorim Paper showed improved performance in air quality, water quality, waste management, and environmental investment indicators. In particular, its waste recycling rate was higher than that of other companies, achieving a gold level through Zero Waste to Landfill (ZWTL) verification. Moorim SP adheres to strict legal standards, showing improvements in waste management, environmental investment, and sales of environmentally certified products. Additionally, its revenue increased based on the expansion of the advanced materials business portfolio and certification of eco-friendly products. Moorim P&P has invested in environmental facilities, installing ClO2 scrubbers and De-NOx systems, reducing air pollutant emissions by approximately 43% in 2023 compared to 2020. The company complies with the stricter air and water discharge standards set by the Integrated Environmental Permit System and engages in environmental management activities to meet stakeholder requirements.

Obtained **gold level** for Zero Waste Landfill (ZWTL) Verification

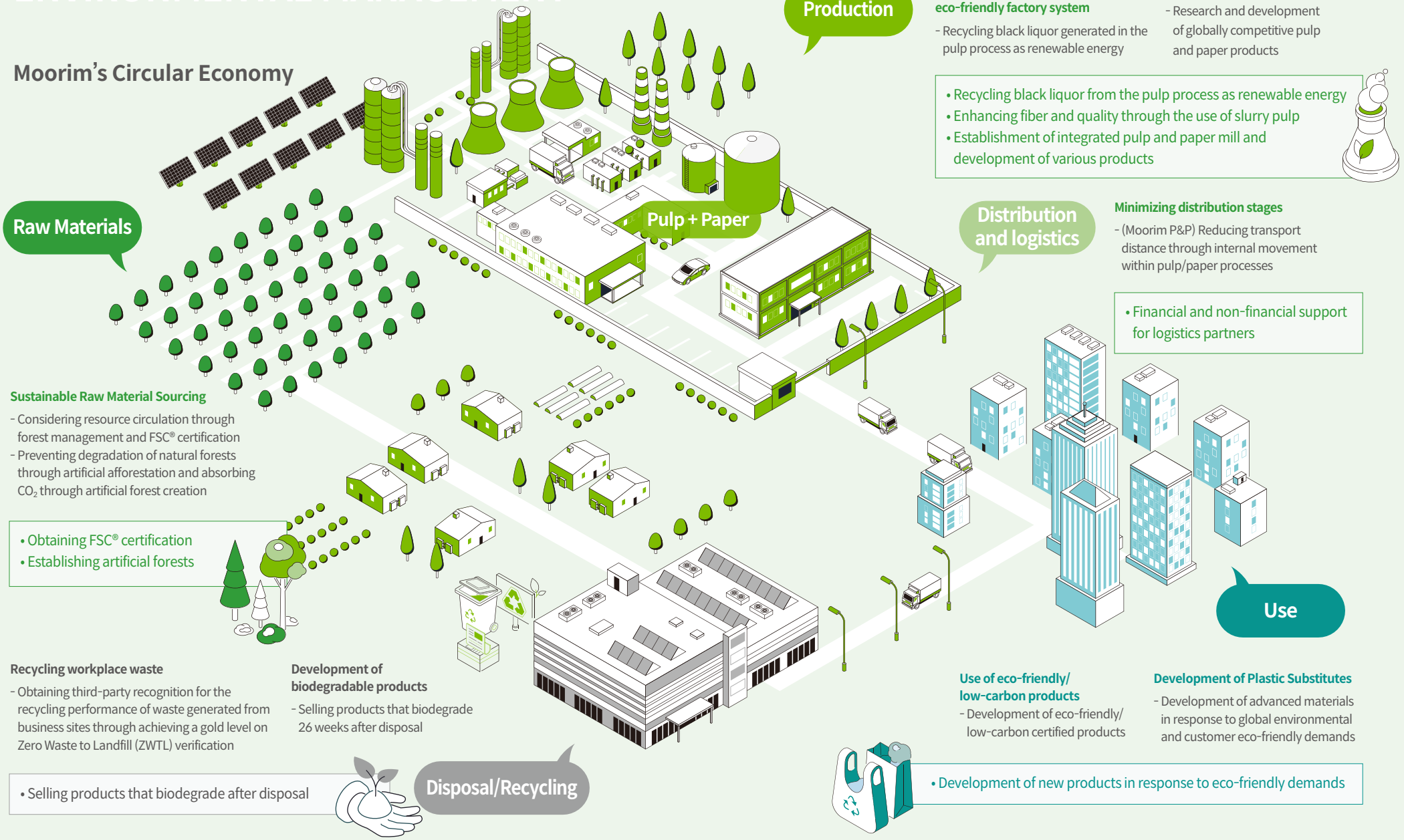
Environmental Training

Moorim provides training for employees in various fields for practical environmental management activities. In 2023, training sessions were conducted for employees, including statutory training, as well as internal audit training for the operation and management of Moorim's environmental management system (ISO 14001), including the environmental policy and manual. Particularly, to enhance the environmental competence of environmental personnel at business sites and ensure systematic management of statutory environmental training, Moorim supported training for environmental technicians and integrated environmental management personnel. This aimed to ensure that employees comply with legal standards during business operations and are capable of promptly responding to emergencies. For general employees, training sessions were conducted through specialized institutions to enhance understanding of eco-certifications such as FSC® certification and EVE VEGAN certification. Additionally, in the case of Moorim P&P, training on Chemical Substances Control Act was provided to all employees.

ISO 14001 **Internal Auditor Training**

ENVIRONMENTAL MANAGEMENT

Moorim's Circular Economy



Operating an eco-friendly factory system
- Recycling black liquor generated in the pulp process as renewable energy

Integrated pulp and paper mill
- Research and development of globally competitive pulp and paper products

- Recycling black liquor from the pulp process as renewable energy
- Enhancing fiber and quality through the use of slurry pulp
- Establishment of integrated pulp and paper mill and development of various products

Minimizing distribution stages
- (Moorim P&P) Reducing transport distance through internal movement within pulp/paper processes

- Financial and non-financial support for logistics partners

Sustainable Raw Material Sourcing
- Considering resource circulation through forest management and FSC® certification
- Preventing degradation of natural forests through artificial afforestation and absorbing CO_2 through artificial forest creation

- Obtaining FSC® certification
- Establishing artificial forests

Recycling workplace waste
- Obtaining third-party recognition for the recycling performance of waste generated from business sites through achieving a gold level on Zero Waste to Landfill (ZWTL) verification

Development of biodegradable products
- Selling products that biodegrade 26 weeks after disposal

- Selling products that biodegrade after disposal

Use of eco-friendly/ low-carbon products
- Development of eco-friendly/ low-carbon certified products

Development of Plastic Substitutes
- Development of advanced materials in response to global environmental and customer eco-friendly demands

- Development of new products in response to eco-friendly demands

ENVIRONMENTAL IMPACT MANAGEMENT

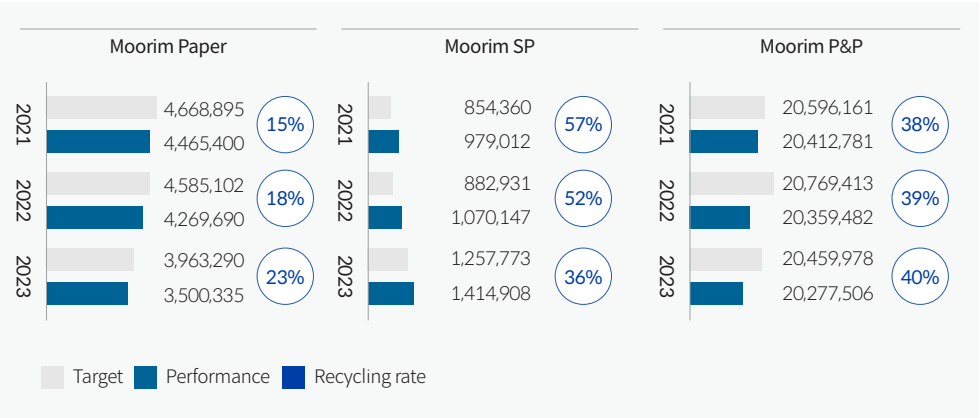
Water Resources Management

Water Use

Moorim uses high-quality water when processing raw materials in its pulp and paper production processes. To preserve a sustainable water environment, Moorim is exploring ways to reduce the amount of water used in its processes and to recycle water through wastewater treatment. Moorim SP reduces wastewater generation by purifying wastewater in three stages and then recycling it through filters. Moorim P&P minimizes water usage and wastewater discharge by recycling pump sealing water, condensate water, and white water from the drying process used in its operations. To reduce wastewater sludge at the source, Moorim has installed dehydrators and drying equipment to reduce the moisture content of the sludge, increasing its usability and gradually expanding the proportion of recycling.

Moorim's three-year water usage targets and performance[1], recycling rate

(Unit: ton, %)



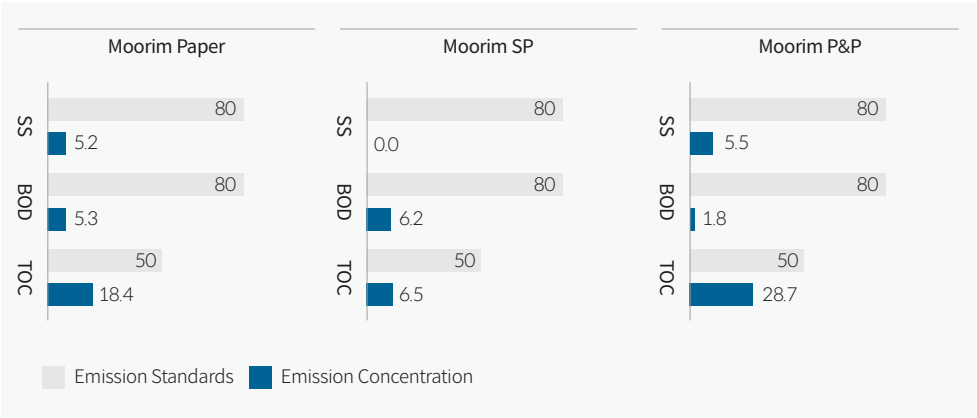
1) Moorim Paper sets water usage targets and manages performance for surface water (Namgang River intake), Moorim SP for groundwater, surface water, and tap water, and Moorim P&P for industrial water.

Water Pollution Prevention

Moorim thoroughly purifies and treats wastewater generated from its processes. Moorim Paper has invested in water treatment facilities to remove and reduce water pollutants to comply with the TOC discharge allowance standards strengthened pursuant to the Water Environment Conservation Act. Moorim SP minimizes water pollution through a three-stage wastewater purification process, while Moorim P&P manages its discharges within the emission standards. Additionally, Moorim P&P monitors and manages the presence and discharge of 32 specific water hazardous substances by measuring them quarterly.

Moorim's water pollutant discharge status in 2023

(Unit: ppm)



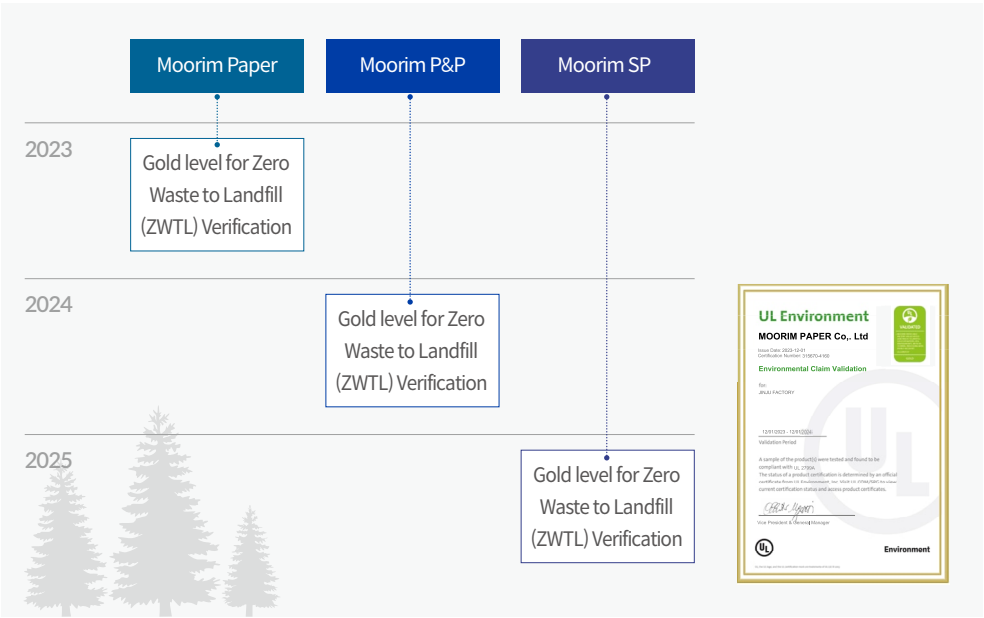
* SS(Suspended Solid): Particulate impurities in water
* BOD(Biochemical Oxygen Demand): The amount of oxygen consumed by microorganisms to decompose organic matter in water
* TOC(Total Organic Carbon): The amount of oxygen required to chemically oxidize pollutants in water

ENVIRONMENTAL IMPACT MANAGEMENT

Waste Management

Moorim has set a goal of achieving a waste recycling rate of over 95% and is recycling waste generated in the product production and processing to achieve this goal.
Additionally, Moorim Paper became the first company in the domestic paper industry to undergo Zero Waste to Landfill (ZWTL) global verification, achieving a gold level with a 95% recycling rate. Following Moorim Paper, both Moorim SP and Moorim P&P plan to expand their ZWTL verification efforts in the future.

Moorim's waste management and verification goals



Chemical Substance Management

Moorim consistently monitors and proactively responds to the enactment and revision of laws and regulations for systematic management of hazardous chemical substances. In 2018, Moorim P&P became the first in the paper industry to register sodium chlorate as a substance regulated by Act On Registration And Evaluation Of Chemical Substances. Additionally, it has completed registrations of subject substances by dividing them into 1 substance as an only representative, 1 substance exempted as an intermediate, and 6 substances registered as passive participation. Furthermore, all chemicals used in production and wastewater treatment undergo prior hazard assessments before use. Facilities handling hazardous chemical substances prevent accidents through regular inspections, including periodic and installation inspections, in accordance with the Chemical Substances Control Act. They also enhance chemical substance usage procedures through hazard assessments.
Moorim conducts regular chemical safety training for hazardous chemical managers and handlers from Moorim and its partners to prevent accidents and minimize damage related to the use of hazardous chemical substances. Moorim Paper conducts scenario training for emergency response to toxic substance incidents, specifically addressing scenarios related to caustic soda leaks, and evaluates and identifies improvements in the training process and responses. Moorim SP conducts weekly self-inspections of facilities handling chemicals in accordance with the Chemical Substances Control Act and conducts emergency response training for caustic soda and formic acid leaks. Moorim P&P has provided chemical safety training to all employees, including 303 workers from partner companies, totaling 792 people.

Moorim P&P's Chemical Substance Safety Training Status

(Unit : Persons)

Year	Moorim P&P	
	Employees	Partners
2021	514	299
2022	479	326
2023	489	303

Moorim has established a process to review Material Safety Data Sheets (MSDS) and chemical information when receiving chemical substances from suppliers, in accordance with safety management regulations, to handle them more safely. Additionally, Moorim P&P assesses the hazardousness when receiving advanced materials, reviews whether to use the substances, and registers the materials.

ENVIRONMENTAL IMPACT MANAGEMENT

Air Management

Moorim actively invests in equipment and operates stable processes to reduce pollutants emitted from air pollution emission facilities within its production processes. Moorim Paper minimizes air pollutant emissions by supplying steam from cogeneration power plants, while Moorim SP strives to prevent air pollution by using clean fuel LNG. Moorim P&P operates its ClO_2 scrubbers under optimal conditions following installation and has installed De_NOx_System prevention facilities in the lime shaft kiln of its pulp manufacturing facility to reduce nitrogen oxides (NOx) generated during the pulp manufacturing process.

Moorim P&P reduces air pollutant emissions **by approximately 43%** in 2023 **(compared to 2020)**

Biodiversity Management

As a company in the pulp and paper industry, Moorim understands that the conservation of natural capital is closely related to its business, and it deeply empathizes with the importance of sustainable use of forests, water resources and soil, etc. Starting with forest management in the past, it has obtained FSC® certification to ensure that its production processes do not harm nature and continues to pursue related activities. Furthermore, it has established policies to actively preserve biodiversity and plans to expand its business activities for the conservation of natural capital in the future.

Biodiversity Preservation Policy and Forest Conservation Policy

Moorim recognizes the importance of the value of biodiversity for sustainable development and environmental protection, and prioritizes biodiversity preservation in various decision-making processes. Additionally, it has established and implemented biodiversity preservation policies and forest conservation policies to minimize environmental impact of its business activities.

Biodiversity Preservation Policy

1. Recognize biodiversity as an important value and strive to preserve it.
2. Strive to minimize negative impacts on biodiversity that may result from business activities and expand positive impacts.
3. Prioritize the use of sustainable resources for biodiversity preservation and strive for environmentally friendly technology and product development.
4. Comply with relevant laws and regulations and continuously exchange and cooperate with the state, local governments, and the relevant domestic/international organizations for biodiversity preservation.
5. Confirm the value of biodiversity in local communities and engage in biodiversity preservation activities tailored to the characteristics and circumstances of the local community.
6. Make joint efforts with supply chains to raise awareness of the importance of biodiversity and engage in biodiversity preservation activities.
7. Strive to enhance understanding of biodiversity preservation across society, including employees and stakeholders.

Forest Conservation Policy

1. Continuously promote a circular economy-based business model that pursues sustainability through resource saving, reuse, and recycling to conserve forests.
2. Identify the impacts on forests that may arise at all stages of business operations and endeavor to prevent or minimize them.
3. Strive to minimize forest loss and restore the ecosystem, if using forest resources such as logging, through initiatives such as creation of alterative forests.
4. Establish procedures and governance systems to ensure that forest conservation issues are consistently considered in management strategies and decision-making processes.
5. Actively participate in research and development utilizing plant resources, projects for the promotion and conservation of plant species, and international initiatives related to forest conservation.

ENVIRONMENTAL IMPACT MANAGEMENT

Biodiversity Management

Biodiversity Dependency and Impacts

Moorim utilizes the ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) tool to analyze the dependency on and impacts of natural capital based on the characteristics of the paper industry and manufacturing processes. Among the 21 ecosystem services within ENCORE, it was identified that there were high levels of dependency on 5 ecosystem services, including groundwater and surface water.. Additionally, among the 11 factors which influence ecosystems during paper industry operations, 4 factors, such as water use and Non-GHG air, water, and soil pollutants, were assessed to have a significant impact. Moorim plans to strengthen monitoring of these dependencies and impact factors in the future based on these analysis results.

The natural capital dependency and impact of the paper industry identified ENCORE

Moorim has identified its dependency on ecosystem services necessary for conducting business and has recognized the impact of its management activities on natural capital.

Dependencies

Fibres and other materials	Surface water	Groundwater	Water flow maintenance	Climate regulation
Medium	Very high	Very high	Medium	Very low

Impacts

Water use	Non-GHG air pollutants	Water pollutants	Soil pollutants
Very high	Medium	High	High

Very low | Low | Medium | High | Very high

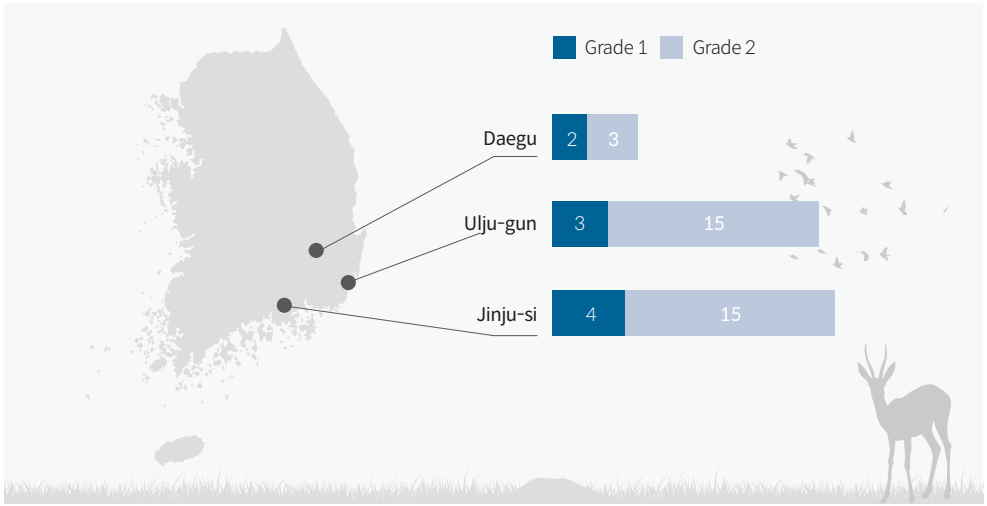
1) It is diversely defined as following: the state and process that sustain ecosystems and biological species and enables human livelihoods; the benefits of goods and services that humans obtain directly or indirectly from ecosystem functions; advantages that humans obtain from the ecosystem; various benefits humans obtain from ecosystems. (Source: National Geographic Information Institute website)

Biodiversity Preservation Activities

Moorim analyzed the ecological status and risks in areas surrounding its business sites to minimize the ecological impact of their operations and manage it effectively. To understand the ecological impact of the areas where its business sites are located, Moorim conducted a survey of endangered species inhabiting the nearby areas. It was found that the vicinity of Moorim Paper's facility in Jinju has the highest number of endangered species, totaling 19. In contrast, the area around Moorim SP's location in Daegu has relatively fewer endangered species. Based on the analysis of the number of endangered species and location-specific risks, Moorim plans to prioritize the management of these sites and to establish and implement responsive measures that consider the impact and risks associated with its business activities.

Identification of biodiversity in areas near its business sites

Identification of endangered species risks in areas near its business sites[2)] (Unit : Number)



2) National Institute of Ecology(2023), Statistical data collection on endangered wildlife

ENVIRONMENTAL IMPACT MANAGEMENT

Biodiversity Management

Biodiversity conservation activities

Community ecosystem conservation activities

Moorim has conducted a survey of endangered species in the areas surrounding its business sites to preserve local biodiversity. In future collaborations with the local community, the company plans to take this into account and continuously identify and promote initiatives for ecosystem conservation and biodiversity preservation. Moorim P&P is implementing monthly employee-participation biodiversity preservation activities through the "One Company, One River" initiative, aimed at restoring aquatic ecosystem and improving river water quality. Additionally, Moorim P&P has signed a "One Organization, One Clean Onsan" agreement with Onsan-eup in Ulju-gun to manage the breakwater, an environmentally vulnerable area near its business site.

Status of Endangered Species (Total of Level 1 and Level 2) Near Moorim's Business Sites

(Unit: Number)

No	Business Site	Mammals	Birds	Amphibians & Reptiles	Fish	Insects	Invertebrates	Terrestrial Plants	Seaweeds	Higher Fungi	Total
1	Moorim Paper	3	9	2	2	1	0	2	0	0	19
2	Moorim SP	3	2	0	0	0	0	0	0	0	5
3	Moorim P&P	3	12	1	0	1	0	1	0	0	18

1) Based on the statistical data collection on endangered wildlife published by the National Institute of Ecology (2023), Moorim investigated the current status of Jinju-si, Gyeongsangnam-do, Buk-gu, Daegu, and Ulju-gun, Ulsan, where Moorim Paper, Moorim SP, and Moorim P&P are located.

Forest Management Certification

Moorim has obtained FSC® certification, gaining international recognition for sustainable forest management. Moorim has acquired FSC® CoC certification, and in particular, Moorim P&P has created and been managing a corporate forest in Inje, Gangwon-do, to promote forest management. It has obtained forest management certification for Inje corporate forest through FSC® FM certification. Moorim also obtained the Forest Products Production and Distribution Certification made by the Korea Forest Certification Council (KFCC), which means that throughout the entire process of processing, manufacturing, distribution, and sales, Moorim uses timber produced from forests with forest management certification.

Biodiversity Preservation Campaign

Moorim, in collaboration with Lotte World Aquarium, has created the industry's first Forest-Marine Ecological Center. This center planned and operated exhibitions aiming to convey the importance of nature, such as forests and oceans, to future generations and raise awareness about marine ecosystems and the protection of endangered animals. Illustrations of melting glaciers and endangered species have been displayed on the walls, and sculptures representing glaciers and trees have been installed to create photo zones and resting areas. Additionally, an eco-event called "To Our Penguin Friends" was organized, where participants wrote supportive messages for marine life conservation on low-carbon postcards. For each collected card, a donation was made to the biodiversity-focused environmental organization, Blue Siren. Furthermore, in 2023, a partnership agreement was signed to provide low-carbon products to the aquarium and Seoul Sky. This collaboration involves the use of eco-friendly pulp and paper products in programs, goods, and gifts operated and sold at Lotte World Aquarium.

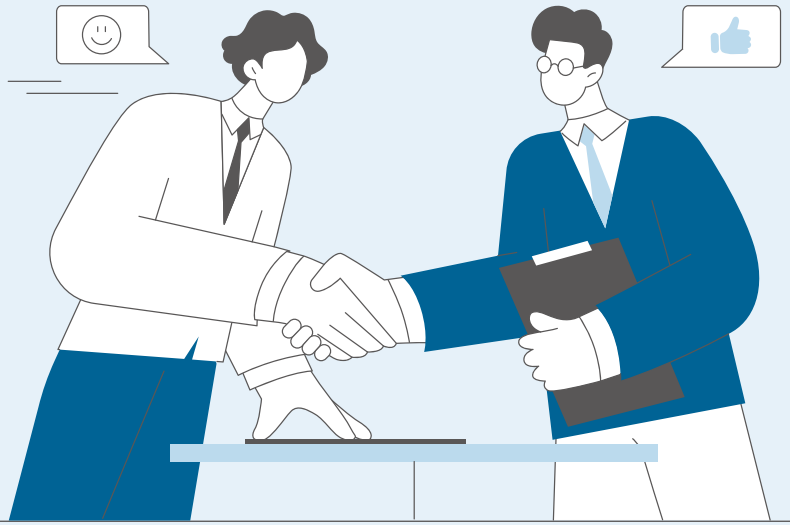
Paperium wall



Paperium sculpture



SOCIAL



KEY PERFORMANCE

HUMAN RIGHTS IMPACT ASSESSMENT

Implementation of the first
94.5points

ESG INSPECTION AND EVALUATION OF PARTNER COMPANIES

43companies

OPEN INNOVATION

Startup Collaboration

BIG ISSUE PAPER SPONSORSHIP

Support for cumulative release of
175,000copies

TALENT MANAGEMENT

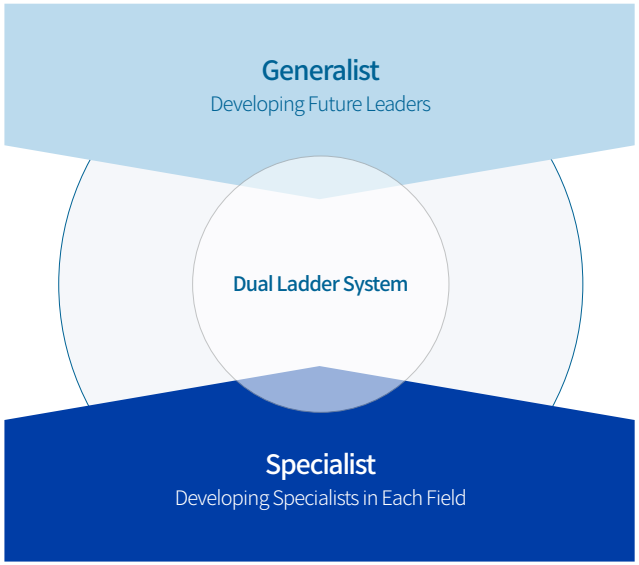
Talent Management System

Moorim is pursuing a systematic talent development strategy to cultivate ambitious talents in order to enhance business competitiveness and lead the global market.

Talent Development System

Moorim aims for talented individuals who can contribute to society by fostering both the company's development and individual capabilities. We actively support individuals in becoming Generalists capable of fulfilling the role of Future Leaders through diverse job experiences, while simultaneously encouraging them to become Specialists in their respective fields.

Moorim's Talent Development Diagram

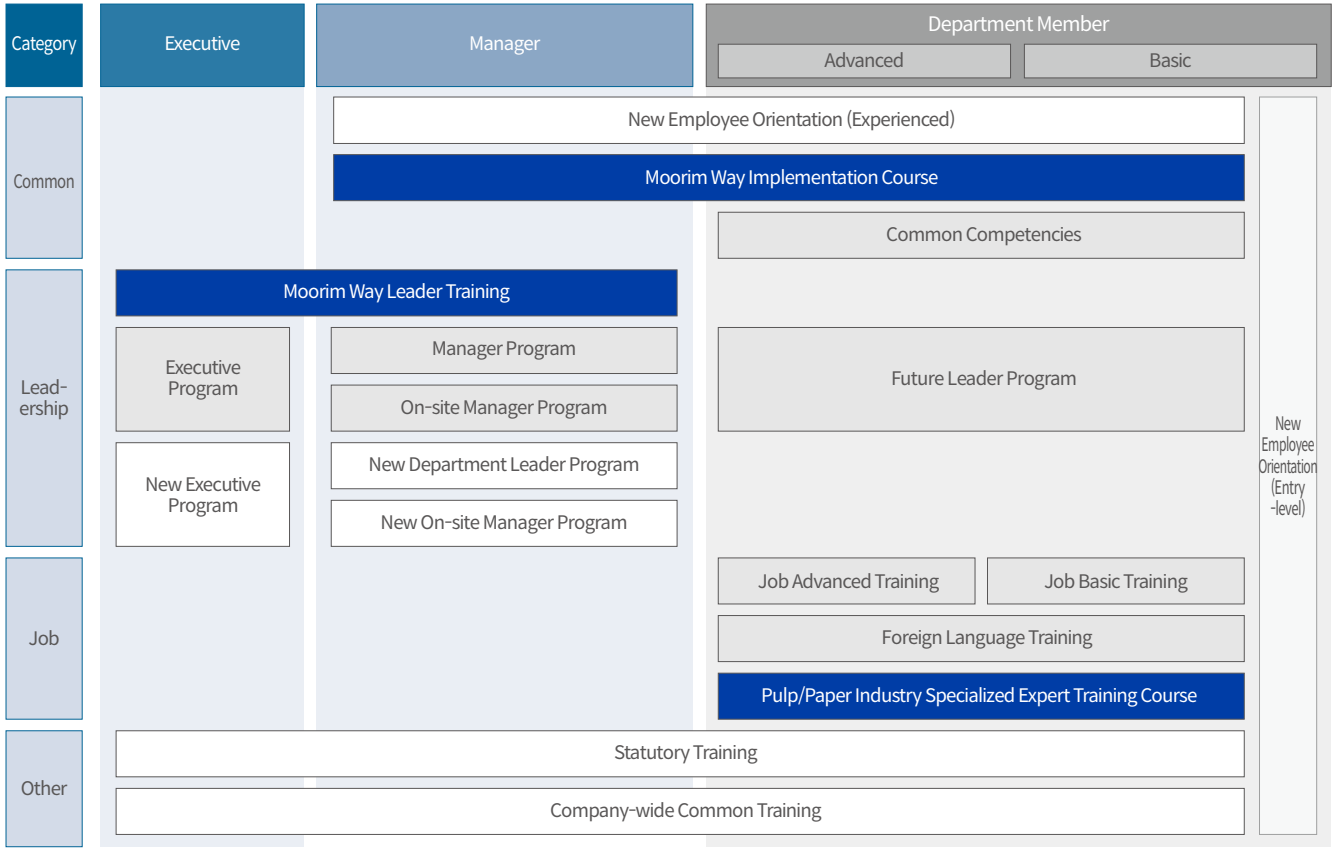


Employee Capability Enhancement

Mid- to Long-term Training System

Moorim has divided its training areas into three categories: Common, Leadership, and Job Competencies, and has established systematic mid-to long-term training programs tailored to each job level. Moorim conducts specialized training related to the pulp and paper industry aligned with its business, and pursues specific training by segmenting the necessary capabilities considering individual members' positions and responsibilities.

Moorim's Mid- to long-term training system for employees



TALENT MANAGEMENT

Employee Capability Enhancement

Foreign Language Education

Moorim annually supports foreign language proficiency enhancement education for employees who wish to improve their foreign language skills.. Employees self-assess their language proficiency improvement before and after the education at the end of the year, and submit score improvement results if they have taken official language proficiency tests. Based on self-assessment and test scores, Moorim measures the effectiveness of employee capability enhancement resulting from education support.

Moorim's 2023 employee education and training status

(Unit: Persons, Hours, million KRW)

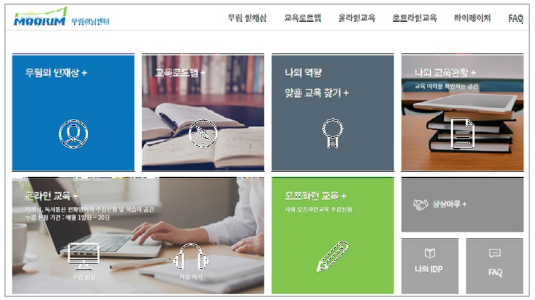
Category	Moorim Paper	Moorim SP	Moorim P&P
Number of participants in training	969	401	1,731
Total training time	7,545	3,108	15,241
Average training hoursper person	17	15	22
Total training cost	59	41	147
Average training cost per person	0.13	0.2	0.21

MoorimWay Training

Moorim conducts "MoorimWay" training targeting all employees to enhance their spirit of challenge and cultivate the ability to practice core values. Moorim uses direct and indirect interactive modules to enhance the spirit of challenge, increases understanding through case studies to foster core value practice, and provides continuous training so that all employees can participate and practice. In 2021, MoorimWay Training was conducted as non-face-to-face remote training using a Metaverse education platform. This way of training elicited empathy for the 'challenge of becoming an eco-friendly materials company' and confirmed the potential of 'online activities' using the Metaverse.

Ongoing Education System at the Learning Center

Moorim supports a Learning Center that provides leadership and job competency training for employees through both online and offline channels. The educational content available at the Learning Center can be accessed freely by employees online, and they can also attend offline training sessions. Considering the skills required in Moorim's common competencies and leadership competencies, Moorim collaborates with educational institutions specializing in education content through agreements to provide various educational materials. Additionally, for job competency training that considers the characteristics of Moorim's industry and job responsibilities, Moorim develops and publishes content directly through internal practitioners and experts. This is utilized to enhance the capabilities of employees.



Job competency development system

Moorim requires individuals to submit their career aspirations and department preferences annually using the Individual Development Plan (IDP), and to outline their desired career paths and self-development plans. Moorim considers the capabilities and preferences of employees when transferring or reassigning jobs within the Specialist and Generalist growth development system and utilizes submitted IDP. Through this process, Moorim comprehensively reviews candidate selection and job transfer possibility for applicants who registered for department transfer annually. Furthermore, to effectively utilize IDP, Moorim analyzes the competencies required in Moorim's roles and industry to classify career development paths and provide directions for common competency and job competency growth within the organization.

TALENT MANAGEMENT

Outstanding Talent Recruitment

Moorim's Ideal Talent

Moorim selects talents with a spirit of challenge, innovation, collaboration, and professionalism to lead sustainable growth. Particularly focusing on individuals with class and dedication, Moorim evaluates job expertise and organizational fit. To maintain a fair recruitment process, detailed descriptions of the competencies and roles required for each position are prepared by relevant departments before recruitment, and the hiring process has been established according to the HR department's talent recruitment policies to select suitable candidates.

Slogan	Moorim maintains its dignity and dedication with righteous ambition	
Enabler	Dignity	Dedication
Statement	We always strive to enhance our dignity and character	We do our best in our roles with a foundation of craftsmanship
Keywords	**Respect** (for customers and colleagues) **Professionalism** (for high quality)	**Responsibility** (in fulfilling roles) **Persistence** (in getting the job done)

OJT for New Employees

Moorim operates a 6-month onboarding program (OJT) for new hires to facilitate their growth as Moorim employees. Department heads and employees provide direct guidance on the knowledge, skills, and attitudes required in the job, supporting the enhancement of new hires' initial job abilities. Additionally, Moorim recommends that the roles of department heads and department members be codified so that new hires can receive guidance on their roles and responsibilities.

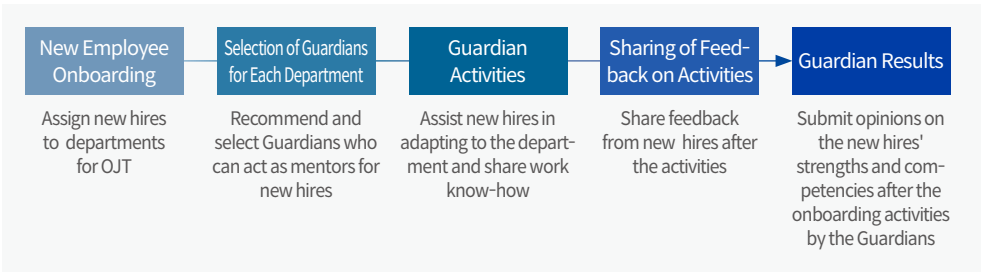
Entities and Roles in OJT Operation

Roles by Entity	Roles
OJT Leader (Department Head)	Establish OJT training plans for new employees and manage overall OJT training
OJT Instructor (Department Member)	Change instructors according to weekly themes and guide the program
HR Department /Operations Department of each business sites	Develop OJT guidance plans and manage monthly progress (learning outcomes)

Guardianship System

Moorim supports the enhancement of new hires' job competencies through the Guardianship system. Guardians, who act as a mentor regarding the company and work in general, are selected based on recommendations from senior employees who are exemplary in their departments. During the support period, Guardian senior employees closely communicate with new hires to assist in their adaptation to both the job and the company, and address initial grievances. Through this process, senior employees continuously communicate with new hires, identify their strengths and weaknesses as they handle tasks, and submit opinions on necessary issues to help them grow as Moorim employees.

Guardianship System Operation Process



Operation of 'Combined Programs' through Industry-Academia Collaboration

In 2018, Moorim signed an agreement with Gyeongsang National University to operate the P&P Chemical Engineering program specializing in the pulp and paper industry. Moorim P&P supports students by providing semester scholarships, certification acquisition expenses, and field training fees to cultivate professionals in the kraft pulp industry and pulp-paper and chemical engineering sectors. Additionally, in 2023, Moorim operated a 17-week field training program for five interns to give them opportunities to explore job roles and enhance capabilities through field-oriented practical training focused on production processes, quality, and research and development at the pulp-paper integrated mill. Furthermore, graduates of this program can join Moorim through its recruitment and selection process. Moorim employees who are graduates of this program also participate in university major orientation sessions to form bonds with students. Through this program, Moorim is establishing a virtuous cycle of talent development and recruitment.

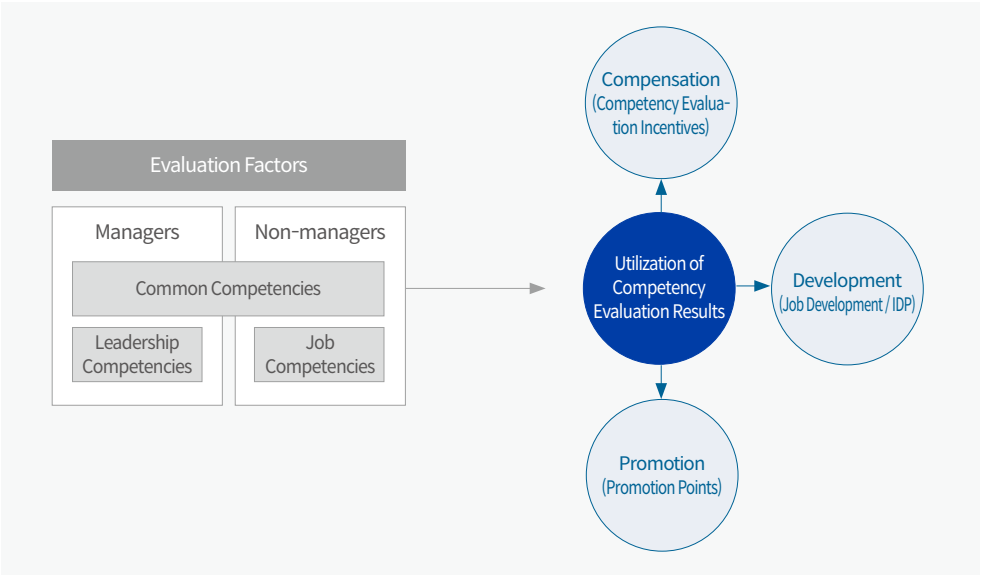
TALENT MANAGEMENT

Fair Performance Evaluation and Compensation

Moorim has established a performance evaluation system based on management values and talent development systems to conduct objective evaluations. To ensure fair competency evaluations, evaluators receive training on evaluation criteria prior to the evaluations. Furthermore, there is a process to hold an evaluation grading committee to review and adjust the results even after the evaluation. The evaluation results are used during interviews and are taken into consideration for employee promotions and compensation.

Evaluation System

To ensure fair and systematic evaluations, Moorim has established elements to evaluate commonly required competencies and conducts evaluations annually. Additionally, employees are evaluated separately as managerial and non-managerial staff, with a focus on leadership and job-specific competencies, respectively to comply with the required competencies and the suitability of evaluations for each position level. The evaluation results are provided to individuals so that they can be used not only for individual promotions and compensation but also for talent development including job competency development systems and IDP.



Promotion System

Moorim utilizes a promotion point system, where the points required for each position level are used to select and review promotion candidates. Points are categorized into basic promotion points, which are awarded based on competency evaluation information and proposals, and foreign language skills, and additional promotion points, which are granted through rewards, disciplinary actions, and special rewards. For the promotion to entry-level management positions(manager), leadership competencies are additionally required, and an in-depth promotion review process is conducted for verification as well.

Performance Compensation System

To enhance employees' motivation and commitment to achieving performance, Moorim operates the performance management system in conjunction with the reward system. To drive organizational growth through employees' achievements, Moorim has created incentives and performance bonuses that are differentially awarded based on achievements and performance. Additionally, Moorim uses excess profit-sharing, goal achievement incentives, and competency evaluation bonuses, which are awarded based on the achievement of targets, to further encourage employees' commitment.

Reward System

Moorim operates 'the Moorim Awards' that separates performance and core value categories for rewarding employees. Each year, in the performance category, 'the Moorim Awards' are given to employees who have demonstrated outstanding performance in areas such as production, R&D, sales, and management support, providing positive feedback for their achievements. Additionally, to promote Moorim's management values and goals, 'the Moorim Awards' are presented to exemplary employees practicing the core values, thereby internalizing Moorim's values. Furthermore, each business site operates the Factory Manager Award, which annually selects and rewards excellent employees, and the Labor-Management Harmony Award, which rewards employees who have contributed to the relations and cooperation between labor and management. These awards, both monetary and non-monetary, encourage employees who have made achievements across various fields.

TALENT MANAGEMENT

Improvement of Working Environment

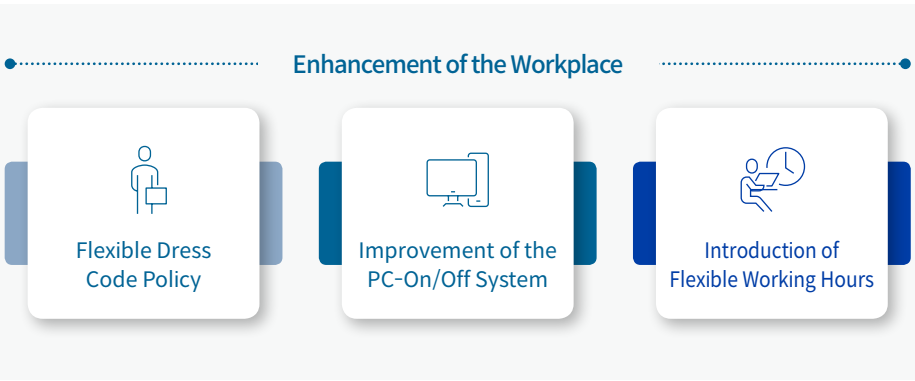
Moorim strives to improve its organizational culture by introducing several systems to improve the working environment of its employees.

Workplace Improvement System

Moorim operates a system to support employees in balancing work and life through the formation of a flexible organizational culture. It seeks and implements measures to create an environment where employees can immerse themselves in their duties and achieve results efficiently, and successful systems revises and expands.

PC-On/Off System	Institutionally support the standard 52 working hours per week. Supporting the work-life balance by creating a culture of employees commuting on-time.
Flexible Working Hours System	Offering the selective working hour system and the staggered commuting system to increase work efficiency and productivity
Free dress code policy	Expanding 'Casual Day' which was previously designated for Fridays to the full extent.

Moorim's Workplace System



Enhancing Solidarity Through Communication

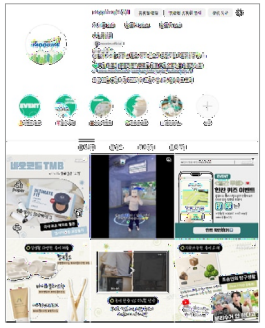
In-house regular publications

Moorim publishes a quarterly print magazine called 'I'M MOORIM,' which includes various content such as major company news and employee stories, to communicate with its staff. In 2023, the magazine featured a special segment called 'Digging MY Life' under the theme of 'immersion'. This segment provided employees with allowances to pursue various hobbies and shared their experiences through follow-up interviews, highlighting their interesting lives outside of work. This segment received positive feedback. Another segment, 'Digging Moorim FAMILY,' introduced employees' family stories through heartwarming content such as spring outings and travel with family. Through these efforts, Moorim strives to foster a healthy corporate culture that respects individual diversity while enhancing trust and a sense of belonging within the company.



Online communication channels

Moorim has launched the Moorim TV channel on YouTube, sharing important company issues and employee stories in an engaging and enjoyable manner through various video content. Additionally, Moorim regularly creates and uploads content on social media to share news about new product launches and product information, regardless of distance or location. Moorim provides opportunities for employees' families to participate through the corporate blog during external brand events and conducts various online events striving to promote two-way communication with employees.





TALENT MANAGEMENT

Improvement of Working Environment

Welfare Benefits

Moorim provides various welfare benefits to enhance the quality of life for employees, enabling them to immerse themselves in their work. These welfare benefits not only support employees but also extend to their families, helping with housing and daily living, allowing them to work stably. Moorim continuously seeks to enhance and diversify its welfare benefits programs to develop a sense of belonging and loyalty to the company.

Moorim's Welfare System

Support for children's tuition fees	• Support for tuition fees from kindergarten to university
Company welfare fund	• Housing purchase funds, housing rental funds, and living stability funds
Support for health check-up expenses	• Employees and their spouses
Support for medical expense	• Employees and their spouses and children
Support for leisure activities	• Support for condominium use • Support for operating expenses and allowances for various activities at each business site • Issuance of ABTC corporate travel cards
Health leave/Family event leave	• Support for health leave and vacation expenses • Family leave and family event allowances
Others	• Company housing support • Operation of cafeteria point system • Long-term service awards • Support for language education expenses • Rewards for excellent improvement proposals

Moorim HUE (Rest) Counseling Center

Moorim employs professional counseling psychologist in the 'HUE (Rest) Counseling Center' to support employees in alleviating job-related stress and maintaining their health. The counselor provides various stress management and counseling programs for employees, visiting each business site once a month to conduct sessions for those interested. The Rest Counseling Center operates as a welfare facility that complies with confidentiality principles, offering various psychological programs to help employees maintain mental health, improve their quality of life, and pursue continuous personal growth.

HUMAN RIGHTS MANAGEMENT

Human Rights Management System

Human Rights Management Principles

Based on the 'Moorim Human Rights Management Principles,' Moorim respects the dignity and value of all individuals and strives to realize these values in its business activities. Moorim supports and adheres to the universal principles of human rights as outlined in the 'UN Universal Declaration of Human Rights,' the UN Human Rights Council's 'Guiding Principles on Business and Human Rights,' and the OECD's 'Guidelines for Multinational Enterprises. Accordingly, Moorim has established a human rights management policy and reported the implementation regulations to the Board of Directors. Furthermore, Moorim complies with all labor principles and laws recommended by the International Labour Organization (ILO) and ratified by the government, establishing detailed principles such as freedom of association, non-discrimination, prohibition of harassment, prohibition of forced labor, prohibition of child labor, and compliance with working conditions. To ensure the respect and protection of human rights in all business activities, the CEO has declared Moorim's commitment to human rights management.

Human Rights Management Policy

1. **Freedom of Association**
   - Guarantee the freedom of association in accordance with the Constitution and labor relations laws, and ensure that no unfair treatment is given for union activities.
2. **Non-Discrimination**
   - Prohibit discrimination in hiring, compensation, promotion, welfare and benefits, and other working conditions based on race, age, gender, nationality, religion, disability, pregnancy and marriage, political orientation, gender identity, etc., and strive to promote a culture that respects diversity.
3. **Prohibition of Sexual Harassment and Workplace Bullying**
   - Prohibit sexual harassment and bullying, establish systems to protect victims, and work towards prevention.
4. **Prohibition of Forced Labor**
   - Prohibit forced labor that unjustly restricts mental or physical freedom, and enter into fair and transparent labor contracts.
5. **Prohibition of Child Labor**
   - Principally prohibit child labor and comply with the minimum employment age stipulated by labor relations laws.
6. **Compliance with Working Conditions**
   - Comply with statutory working hours, including regular, overtime, and holiday work, as defined by labor relations laws, and guarantee minimum wage. Also, provide ample educational opportunities and appropriate working conditions to enhance employees' skills and quality of life.
7. **Safety and Health Management**
   - Establish a safety and health management system to prevent accidents and comply with safety and health-related laws.
8. **Protection of Personal Information**
   - Establish and operate management standards for the protection of personal information and comply with personal information-related laws.
9. **Supply Chain Human Rights Management**
   - Assume responsibility for the human rights within the supply chain and strive to improve the human rights conditions in the supply chain.
10. **Protection of human Rights of Customers and Local Communities**
    - Endeavor to ensure that the human rights of customers and local community members are not violated in the course of business activities.

HUMAN RIGHTS MANAGEMENT

Human Rights Management System

Medium to Long-term Roadmap for Human Rights Management

To meet the social demands for protecting human rights among domestic and international stakeholders, Moorim has established a declaration and implementation regulations for human rights management, along with a medium to long-term roadmap for human rights management system. In 2023, Moorim formulated a human rights management policy and announced a declaration of human rights management practice under the willingness to act of the CEO. Furthermore, ahead of schedule compared to the established roadmap, in the latter half of 2023, Moorim conducted a human rights impact assessment through an independent institution to identify human rights risks. Moorim will continue to internalize human rights management to fulfill its social responsibilities and gradually advance the human rights management system.

2023

Establishing the Foundation for Human Rights Management

- Establish human rights management policies and regulations
- Announce a declaration of human rights management
- Advance the human rights management reporting procedures
- Conduct a human rights impact assessment



2024

Internalizing Human Rights Management

- Expand the scope of human rights impact assessments
- Internalize human rights management



2025~

Expanding Human Rights Management

- Operate the Human Rights Management Committee
- Establish a system for regular human rights impact assessments
- Join the UN Global Compact



Respect for Human Rights

In order to prevent human rights violations, Moorim conducts education for employees as well as operates the Happy Man system and an anonymous reporting center to enable reporting of human rights violations, thereby running processes to address grievances of internal and external stakeholders. In cases of human rights violations, Moorim provides support to receive and handle reports by taking into account the characteristics of stakeholders through the relevant departments such as the General Affairs Department (Labor) and the ESG Department. In 2023, Moorim conducted training under the theme of understanding of human rights management using educational materials covering concepts of human rights, the concept of human rights management, human rights issues and violations within the enterprise the necessity of establishing a human rights management system, and practical aspects of implementing Moorim's human rights declaration and roadmap. Additionally, Moorim conducted training for all employees on workplace bullying, emphasizing the creation of a healthy organizational culture. Particularly, external expert instructors were invited to conduct special sexual harassment prevention training.

Human Rights Respect Training for Employees

(Unit : Persons, Hours)

Business Site	Human rights management training	Sexual harassment prevention training	Disability awareness improvement training
Moorim Paper	428	277	277
Moorim SP	203	133	133
Moorim P&P	699	391	391

Enhancing Diversity and Inclusion

Moorim recognizes that creating a society free from discrimination and prejudice and fostering a culture of diversity, Equity and Inclusion within the organization is essential for its growth. To cultivate a healthy organization, Moorim continuously strives for non-discrimination, securing diverse talents, and providing a supportive work environment for women. Moorim monitors through the Happy Man system and the anonymous reporting center. Furthermore, Moorim has implemented flexible working hours to support the work-life balance of female employees. Additionally, to support the independence of vulnerable-housing individuals, Moorim has partnered with Big Issue Korea for paper donations and promotes campaigns and supports creative activities of local communities and artists to bridge the cultural gap.

HUMAN RIGHTS MANAGEMENT

Human Rights Risk Management

Human Rights Impact Assessment

Moorim conducted a human rights impact assessment to identify any negative impacts the company's activities may have on human rights. The human rights impact assessment was conducted in a three-step process: identification, impact assessment, and key findings.

Human Rights Impact Assessment Process

1st Step
Develop and diagnose customized indicators for internal operating systems

2nd Step
Conduct a human rights status survey and additional assessments for vulnerable groups

3rd Step
Confirm assessment results and find improvement tasks

1st Step. Develop and diagnose customized indicators for internal operating systems
Moorim developed a total of 75 indicators across 23 items in 9 fields, customized to consider the industry and the company, based on the UN Human Rights Council's 'Guiding Principles on Business and Human Rights' as well as the National Human Rights Commission's human rights management guidelines, reporting, and evaluation guidelines.

2nd Step. Conduct a human rights status survey and additional assessments for vulnerable groups
To continuously promote human rights management and mitigate risks, Moorim conducted human rights impact assessments and status surveys based on the identified human rights risks and diagnoses. The survey was conducted covering a total of 75 indicators. For the identified vulnerable groups, such as non-permanent employees and external contractors, thorough examination through interviews was performed for additional diagnostics.

3rd Step. Confirm assessment results and find improvement tasks
As a result of the assessment, it was confirmed by a third party expert institution that Moorim is stably managing human rights risks under its human rights management system, demonstrating leading human rights management practices in companies and industries of similar scale. In particular, effective management systems have been established in the areas of association/collective bargaining, forced/child labor, and the environment, therefore some of the results of Moorim's efforts to improve human rights standards have been verified. However, the need for risk improvement was identified in the establishment of a human rights due diligence system and in the areas of non-discrimination and equality. Consequently, Moorim has prepared response measures to address these needs through institutional supplementation in respect of execution and prevention.

Human Rights Impact Assessment Items and Indicators

No	Fields	Items	Number of Indicators
1	Establishing a Human Rights Due Diligence System	Governance and Human Rights Policy, Identification and Evaluation of Negative Human Rights Impacts, etc.	17
2	Non-Discrimination and Equality	Non-Discrimination in Employment, Active Action for Equality, etc.	4
3	Guaranteeing Freedom of Association and Collective Bargaining	Prohibition of Unfair Treatment for Union Activities, Guarantee and Implementation of Collective Bargaining, etc.	5
4	Prohibition of Forced Labor	Rejection of All Forms of Forced Labor	3
5	Prohibition of Child Labor	Effective Abolition of Child Labor	2
6	Ensuring Industrial Safety	Workplace Safety and Health, Support for Workers Affected by Industrial Accidents	17
7	Responsible Management of Supply Chains	Prevention of Human Rights Violations by Partners, etc. in operating the process	4
8	Ensuring Environmental Rights	Establishment and Maintenance of Environmental Management Systems, Disclosure of Environmental Information, etc.	8
9	Protecting Consumer Rights	Compliance with Laws for Customer Protection, Actions in Case of Product Defects, etc.	15

HUMAN RIGHTS MANAGEMENT

Human Rights Risk Management

Handling Grievances of Stakeholders

To address the grievances of employees and stakeholders and contribute to building a corporate culture of respect, Moorim operates the Happy Man system, an anonymous reporting center, and a professional counseling center. In the Happy Man system, internal employees participate as dedicated grievance handling personnel, receiving and addressing the grievances of their colleagues. The anonymous reporting center, managed by an external expert institution, investigates and requests corrective actions for grievances reported by both internal employees and external stakeholders.

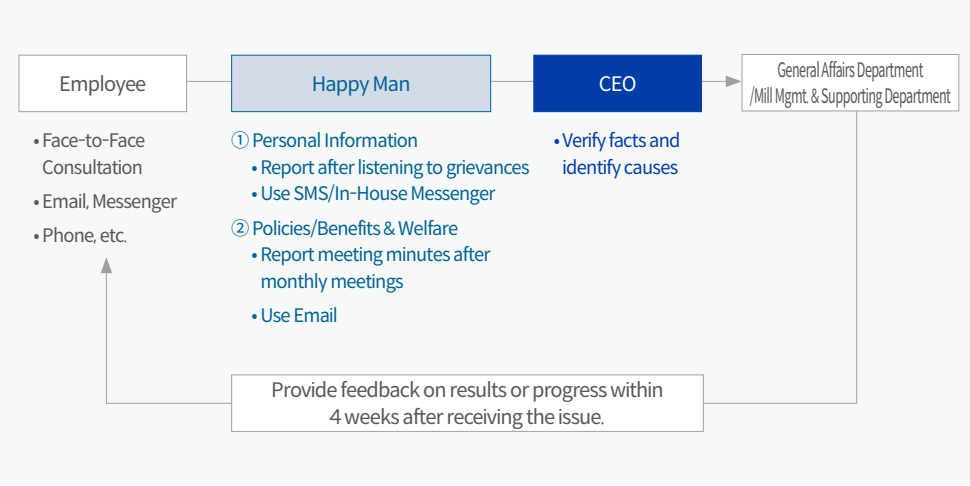
Status of stakeholder grievance handling system

System	Happy Man System	Anonymous Reporting Center
Structure and Operation	• Selection of representatives by business site and position based on employee recommendations	• ESG Department
Users	• Internal employees	• Internal employees and external stakeholders
Case Submission	• Internal grievance handling matters • Internal human rights violations and unethical behaviors	• Internal human rights violations and unethical behavior • Human rights violations and unethical behavior occurring in external business relationships
Grievance Handling Procedure	• Submission: Reporting to Happy Man in person or non-face-to-face • Deliberation: Internal review by the department responsible for the reported issues • Handling: Improvement measures by the relevant department	• Submission: Report to an external anonymous reporting center • Investigation: Independent investigation by the ESG Department and additional investigation by a law firm if necessary • Handling: Improvement measures by the relevant department, including disciplinary actions
Reporting System	• Direct reporting of deliberation results to the CEO • Autonomous operation by selected Happy Man	• Direct reporting to the CEO • Report reception, investigation planning, and reporting of investigation results • Strict control by the CEO over all procedures
Roles	• Deliberation only on submitted reports: Passive role • Deliberation body, not decision-making body : Advisory role • Implementation of final improvement actions by the relevant department	• Possible to investigate issues recognized as ex officio : Proactive role • Deliberation and investigation body: Advisory role, including disciplinary actions • Possible to recommend or order improvement to the relevant department
Features	• Smooth communication among internal employees • Encouragement of Happy Man's accountability in the form of selection through voting.	• Prevention of exposure of whistleblower's identity by guaranteeing anonymity • Possible to recognize and investigate external corrupt activities or behaviors in advance

Operation of the Happy Man System

Moorim operates the Happy Man system to address employee grievances. Happy Man who consist of representatives appointed by recommendation for each position in the business site receives reports of incidents of verbal abuse, assault, sexual harassment, and other general complaints related to company life and immediately report them to the CEO. The CEO instructs the General Affairs Department or the Mill Mgmt. & Supporting Department to verify the facts and identify the causes, and then take corrective actions accordingly. The General Affairs Department or the Mill Mgmt. & Supporting Department is required to communicate the results and progress to the reporting employee within 4 weeks after receiving the case. Additionally, employees are provided the option to choose whether their identity will be disclosed when reporting grievances to ensure anonymity and protection.

Happy Man Operation Process



MUTUAL GROWTH MANAGEMENT

To respect the management philosophy and values of its partner companies, and fulfill its social responsibilities together for sustainable growth, Moorim continues to share ESG management values such as ethics, human rights, safety, environment, quality, and sustainable raw material procurement. Also, the company consistently provides necessary support to address potential risk factors that may arise in the future.

Supply Chain ESG Management

Supply Chain Management Policy

As supply chain management becomes increasingly important for sustainable supply of raw materials, Moorim established a supply chain management policy in 2024, reporting to and obtaining approval from the CEO. To pursue sustainable growth while respecting the values of partner companies and fulfilling social responsibilities together with them, Moorim has developed a code of conduct for partner companies. Through this the company plans to continuously manage the code of conduct to respond to and improve potential risk factors that may arise in the future.

Code of Conduct for Partner Companies

Compliance with Regulations
- We make our best efforts to comply with relevant laws and regulations in our business operations, as well as all legal requirements from the relevant countries and international organizations including the International Labour Organization (ILO) and the International Bill of Human Rights.

Labor and Human Rights
- We prohibit all forms of child labor, forced labor, discrimination, sexual harassment, verbal/physical abuse, and other inhumane treatment, while ensuring appropriate wages and welfare and benefits, compliance with working hours, and guaranteeing freedom of association.
- We acknowledge diversity and respect and protect the rights of all stakeholders, including workers.

Safety and Health
- We comply with domestic and international laws and regulations related to industrial safety and health and strive to ensure the health and safety of all workers through the establishment of safety and health management systems, safety management and diagnosis of facilities, emergency response, accident management, and health management.

Sustainable Environment
- We comply with domestic and international laws and regulations for environmental protection and minimization of damage, and endeavor to achieve a sustainable environment through the establishment of environmental management systems, management of energy use and greenhouse gas emissions, water resource management, management of air pollutants, waste management, chemical management, pollution prevention and resource use reduction, biodiversity conservation, reduction of malodors and noise emissions, use of renewable energy, and response to environmental regulations, etc.

Corporate Ethics
- We prohibit illegal acts such as bribery, tax evasion, and conduct business activities responsibly and transparently by preventing unfair trade practices and conflict of interest, and protecting intellectual property rights and information security.

Sustainable Purchasing
- We strive for sustainable and responsible procurement of raw materials by prohibiting illegal purchases from non-state armed groups, purchasing green products, purchasing eco-friendly alternative materials and conducting supply chain inspections and audits, etc.

Green Purchase Policy

Moorim strives to produce eco-friendly products through sustainable green purchasing activities, and has established and implemented a green purchase policy to continuously create value for all stakeholders and contribute to the safety and health of customers. Through this, Moorim promotes voluntary environmental improvement activities among partner companies and builds an eco-friendly and mutually beneficial relationship in the supply chain by raising awareness of eco-friendly management activities.

Green Purchase Policy

1. We fulfill environmental conservation, compliance with relevant regulations, and social responsibility through green purchase activities.
2. We strive to secure suitable partners for the stable production of environmentally friendly products and continuous quality improvement.
3. We maintain close collaborative relationships with partners to build an eco-friendly supply chain.

Green Purchasing Practices

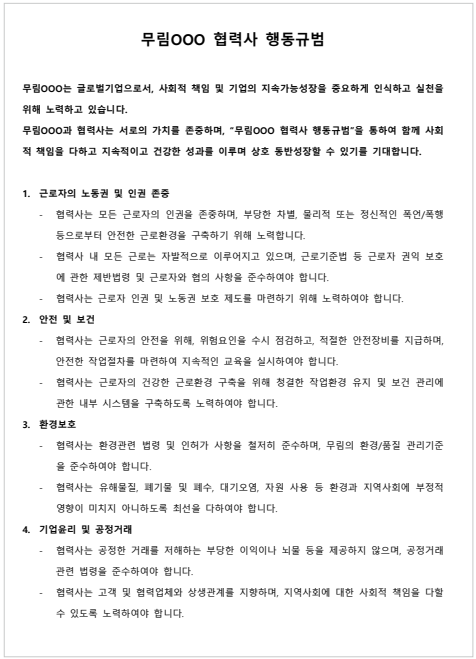
1. Actively purchase green products and establish institutional support measures to ensure that green products are prioritized in the purchasing process, including materials.
2. When purchasing green products is difficult, utilize accessible information such as the environmental impact of the product (including the use of recycled raw materials and the presence of hazardous chemicals), the recyclability of the product and its packaging, and the carbon emissions generated during the production and distribution processes to purchase the most environmentally friendly products possible.
3. Encourage green purchasing practices among affiliated companies, partners, and suppliers, and consider the implementation of green purchasing practices when contracting partners and suppliers.

MUTUAL GROWTH MANAGEMENT

Expansion of Ethical Management among Partner Companies

Moorim demonstrates its commitment to ethical management by incorporating clauses on integrity obligations into contracts signed with partner companies, thereby practicing fair trade compliance and corruption prevention at the contractual stage. Furthermore, to promote healthy mutual growth with partner companies, Moorim has established a code of conduct for partner companies and made it mandatory for them to comply with the code and sign a participation pledge to spread ethical management and culture.

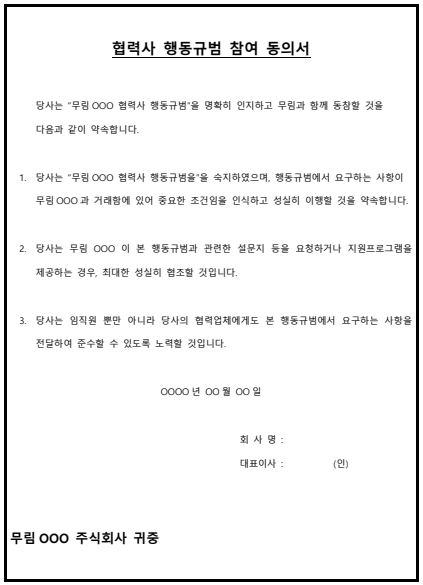
Agreement to Participate in Partner Code of Conduct



무림OOO 협력사 행동규범

무림OOO는 글로벌기업으로서, 사회적 책임 및 기업의 지속가능성장을 중요하게 인식하고 실천을 위해 노력하고 있습니다.
무림OOO과 협력사는 서로의 가치를 존중하며, "무림OOO 협력사 행동규범"을 통하여 함께 사회적 책임을 다하고 지속적이고 건강한 성과를 이루며 상호 동반성장할 수 있기를 기대합니다.

1. **근로자의 노동권 및 인권 존중**
   - 협력사는 모든 근로자의 인권을 존중하며, 부당한 차별, 물리적 또는 정신적인 폭언/폭행 등으로부터 안전한 근로환경을 구축하기 위해 노력합니다.
   - 협력사 내 모든 근로는 자발적으로 이루어지고 있으며, 근로기준법 등 근로자 권익 보호에 관한 제반법령 및 근로자와 협의 사항을 준수하여야 합니다.
   - 협력사는 근로자 인권 및 노동권 보호 제도를 마련하기 위해 노력하여야 합니다.
2. **안전 및 보건**
   - 협력사는 근로자의 안전을 위해, 위험요인을 수시 점검하고, 적절한 안전장비를 지급하며, 안전한 작업절차를 마련하여 지속적인 교육을 실시하여야 합니다.
   - 협력사는 근로자의 건강한 근로환경 구축을 위해 청결한 작업환경 유지 및 보건 관리에 관한 내부 시스템을 구축하도록 노력하여야 합니다.
3. **환경보호**
   - 협력사는 환경관련 법령 및 인허가 사항을 철저히 준수하며, 무림의 환경/품질 관리기준을 준수하여야 합니다.
   - 협력사는 유해물질, 폐기물 및 폐수, 대기오염, 자원 사용 등 환경과 지역사회에 부정적 영향이 미치지 아니하도록 최선을 다하여야 합니다.
4. **기업윤리 및 공정거래**
   - 협력사는 공정한 거래를 저해하는 부당한 이익이나 뇌물 등을 제공하지 않으며, 공정거래 관련 법령을 준수하여야 합니다.
   - 협력사는 고객 및 협력업체와 상생관계를 지향하며, 지역사회에 대한 사회적 책임을 다할 수 있도록 노력하여야 합니다.



협력사 행동규범 참여 동의서

당사는 "무림 OOO 협력사 행동규범"을 명확히 인지하고 무림과 함께 동참할 것을 다음과 같이 약속합니다.

1. 당사는 "무림 OOO 협력사 행동규범을"을 숙지하였으며, 행동규범에서 요구하는 사항이 무림 OOO과 거래함에 있어 중요한 조건임을 인식하고 성실히 이행할 것을 약속합니다.
2. 당사는 무림 OOO 이 본 행동규범과 관련한 설문지 등을 요청하거나 지원프로그램을 제공하는 경우, 최대한 성실히 협조할 것입니다.
3. 당사는 임직원 뿐만 아니라 당사의 협력업체에게도 본 행동규범에서 요구하는 사항을 전달하여 준수할 수 있도록 노력할 것입니다.

OOOO 년 OO 월 OO 일

회 사 명 :
대표이사 : (인)

무림 OOO 주식회사 귀중

Mutual Growth Activities and Performance in the Supply Chain

Supply Chain Status

Moorim recognizes suppliers of main raw materials, i.e. wood chip and pulp, as key partners and transacts with suppliers of subsidiary materials, equipment, and packaging materials for smooth factory operations and product manufacturing. In the process of selecting new suppliers, Moorim comprehensively considers the performance of potential partners and expert opinions from relevant departments based on research and assessment criteria. Subsequently, Moorim selects and registers final partners by evaluating them in accordance with purchasing regulations.

Status of partners supplying raw/subsidiary materials and machinery for Moorim's products in 2023

Main Materials
28 Partner companies

Subsidiary Materials
84 Partner companies

Machinery
888 Partner companies

※ Main materials: Chips, pulp, and similar materials produced for product manufacturing.
※ Subsidiary materials: Raw materials additionally inputted into product manufacturing, excluding main materials.

Supply Chain Evaluation

Moorim conducts annual evaluations not only during the supplier selection process but also after supplier registration, targeting suppliers of a certain size which meet standards. These evaluations are conducted based on evaluation criteria established according to the characteristics of the supplier's products (such as quality management, supply stability, economic feasibility, etc.). Outstanding suppliers are rewarded with incentives and bonuses. In addition, if any deficiencies are found in the evaluation items, Moorim provides training to the partner company or recommends that the partner company take improvement measures to directly manage the issue.

Partner Management Process

Supplier Selection and Registration	Regular Evaluation	Monitoring and Action
• Comprehensive consideration and evaluation of supply capacity, quality management, price competitiveness, production capacity, financial stability, etc.	• Performance of annual regular evaluations for suppliers above a certain scale	• Provision of incentives to excellent suppliers based on regular evaluation results • Intensive management and support for capacity enhancement for suppliers with poor performance based on regular evaluation results

MUTUAL GROWTH MANAGEMENT

Mutual Growth Activities and Performance in the Supply Chain

Supply Chain ESG Evaluation

Moorim recognizes the importance of supply chain management for sustainable procurement and has been expanding its evaluations of partners. In 2023, Moorim conducted a supply chain ESG evaluation, selecting a total of 43 key partners based on transaction amounts. Moorim provided guidance on future evaluation and management criteria based on partners' self-assessment and responses. Moorim and its partners have established a foundation to identify deficiencies in supply chain management in advance and to take future improvement measures.

Supply chain ESG evaluation categories and criteria

Labor and Human Rights

- ✓ Children and young workers
- ✓ Working hours
- ✓ Wages and welfare/benefits
- ✓ Non-discrimination, freedom of association

Safety and Health

- ✓ Industrial safety
- ✓ Emergency response
- ✓ Industrial accidents
- ✓ Industrial hygiene
- ✓ health and safety management system

Environment

- ✓ Environmental permits and reporting
- ✓ pollution reduction
- ✓ hazardous chemical management
- ✓ waste management
- ✓ air pollution management
- ✓ water resource management
- ✓ energy and greenhouse gas management

General Matters

- ✓ Ethical management
- ✓ prevention of unfair trade practices
- ✓ anti-corruption and conflict of interest prevention
- ✓ protection of personal information and intellectual property
- ✓ responsible material procurement
- ✓ social contributions

Support for Partners

To achieve mutual growth with its partners, Moorim maintains continuous communication and actively provide both financial and non-financial support, including management support, financial support, technical support, and educational support. As a company in the pulp and paper industry, Moorim prioritizes supporting the enhancement of the hard wood self-sufficiency of its partners concerning hard wood procurement and delivery. To manage the risk of domestic wood chip supply, Moorim offers advance payments or cash payments to its suppliers to secure domestic wood chips. Beyond financial support, Moorim holds biannual meetings with domestic wood chip suppliers at least once in the first half and once in the second half of the year to monitor and share trends in the domestic and international hard wood markets and understands the market trends and listen to the requests of suppliers. These meetings serve as a platform for communication to share exemplary supplier practices, contributing to the smooth supply and quality improvement of pulp. Furthermore, following these meetings, Moorim plans the future direction of support for its partners and the necessary internal implementation and response activities for smooth management activities based on the collected feedback and discussions.

Open Innovation and Technology MOU

Moorim P&P collaborates with startups to develop new products and address existing business issues through technology cooperation. To develop future-value materials needed for existing pulp and paper technologies, it turns demand technology into specific projects and materializes them through discovering and collaborating with suitable startups.

1. Demand Technology and Tasks

- Prioritize demand technologies and tasks considering field requirements
- Establish clear objectives by documenting specific demand technology descriptions

2. Startup Selection

- Identify suitable startups by assessing technological feasibility, ease of application, and specificity
- Evaluate product competitiveness assuming the in-demand technology is commercialized and review future strategies through on-site verification of startups with the technology

3. Technology Agreement and Development

- Discuss ways to materialize a collaborative business model between the technology demand department and startups through final selection.
- Produce products through a systematic collaborative process from pilot production of new technology to its commercialization

In January 2024, Moorim P&P signed an MOU with the startup 'NANU' for eco-friendly coating technology, introducing a technology applying a water-based coating solution for molded pulp. In order to use existing molded pulp product containers as a substitute for plastic that satisfies the material characteristics of plastic such as satisfy water resistance, heat resistance, and strength, Moorim have established a method to ensure the eco-friendliness of the coating technology. Through this strategic partnership in eco-friendly coating technology, Moorim has laid the foundation for strengthening the durability of existing molded pulp product containers. In addition, Moorim plans to expand its application to the production of various molded pulp product such as cup ramen and microwave ready-to-cook food containers in the future.

QUALITY MANAGEMENT

Quality Management

Moorim strives to maximize customer satisfaction by producing high-quality products that meet customer requirements using the most economical methods and delivering them on the desired delivery dates. To achieve these goals, Moorim establishes, implements, maintains, and continuously improves a quality management system. Moorim maintains certification for the international standards on quality management systems (ISO 9001) established and enforced by the International Organization for Standardization (ISO) to meet international quality standards. Additionally, Moorim has acquired eco-friendly certification and Forest Management (FSC® CoC) certification to satisfy customers' eco-friendly needs.

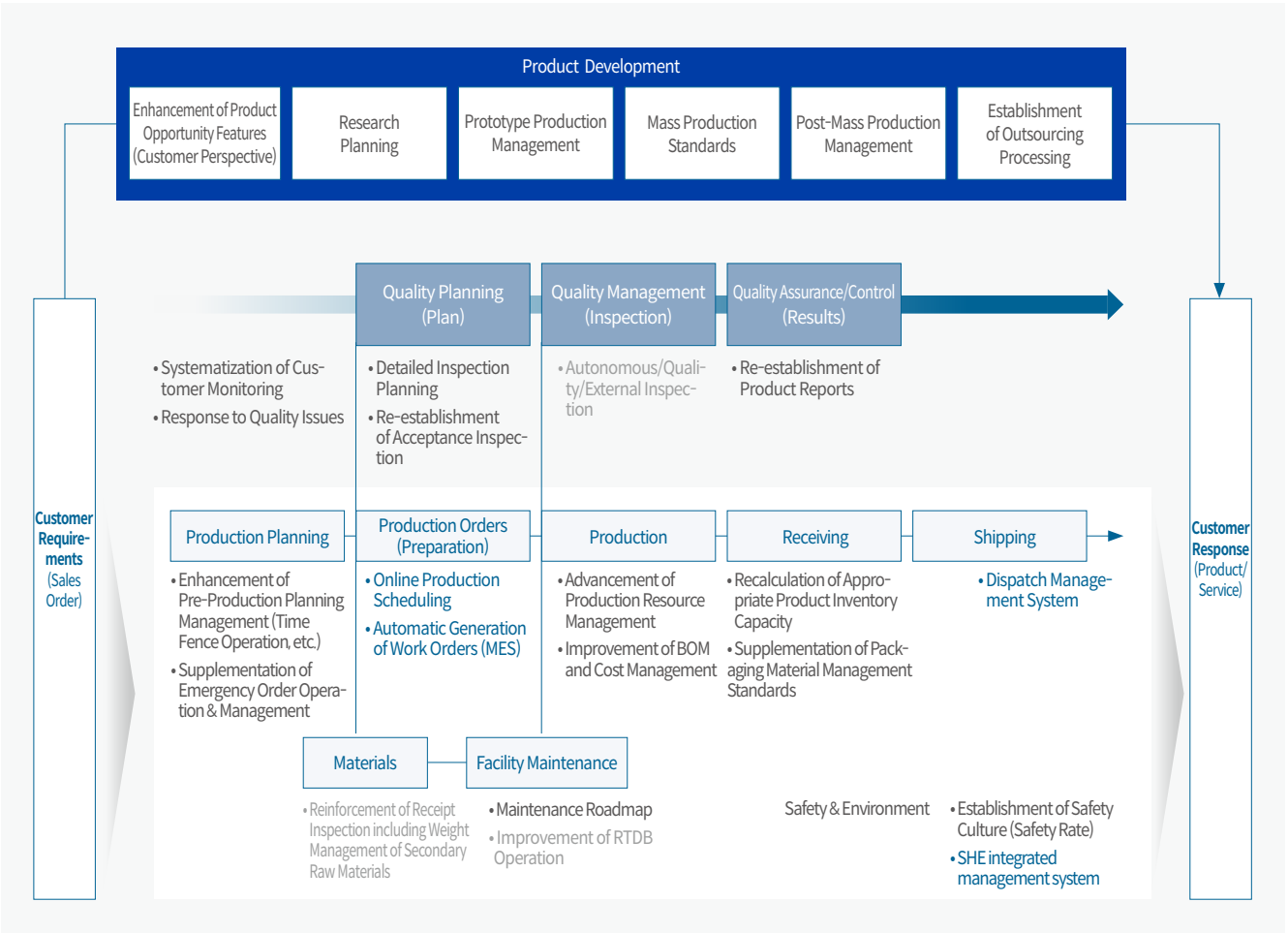
Enhancement of QMS Management System

Aiming to establish a comprehensive operational system that enhances the quality of management, employees, and products, Moorim has advanced its quality management approach from the existing product-centered quality assurance and management to a process-centered one. Through process-centered operations, Moorim has built a management system that ensures continuous improvement and actively responds to internal and external environmental changes.

Quality Management Process

Moorim has redefined its quality management process, shifting from a "production-centered" approach to a "customer-centered" approach in order to realize its quality policy to pursue maximum customer satisfaction. This redefinition encompasses the entire product production process [product development – production – delivery], focusing on customer orientation, proactive management, work efficiency, continuous improvement, clarification of responsibilities and authority, and emphasis on safety and the environment, thereby establishing a customer-centered quality management system.

Quality Management System



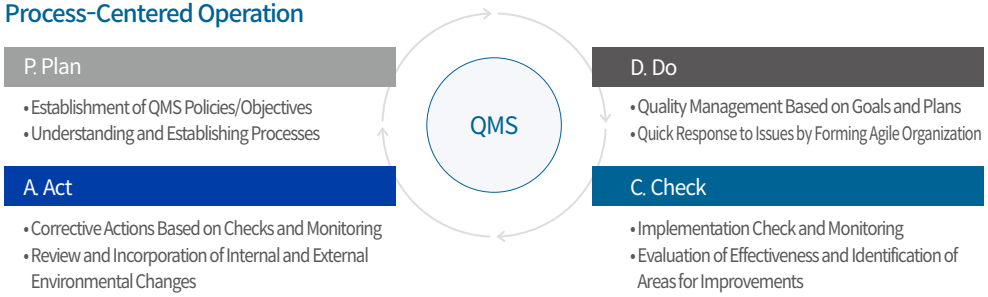
QUALITY MANAGEMENT

Quality Management Activities

QMS Activities and Performance

In the early stages of QMS activities, a QMS sub-organization and a QMS department capable of leading activities were established to facilitate interdepartmental collaboration. Thereafter, through As-Is analysis and process inspection, it went through the process of "Identifying issues → Solving tasks → Building a To-Be process". In May 2021, agreement and consensus among members were achieved regarding the direction of To-Be processes through a QMS workshop. Out of 737 reported issues, 125 were finally selected for resolution and incorporated into the To-Be processes. For process-centered QMS management starting in 2023, the system has been transitioned to a continuous process improvement and revision system with each process owner playing a key role. The QMS department conducted regular checks on process implementation, and mutual supplementation was achieved through verification of process effectiveness and benchmarking between business sites. Customer orientation, increased work efficiency, and proactive management were strengthened throughout the entire operation at the business sites, such as introduction of a dispatch management system for customer-oriented logistics services, improvement of processes to maintain the soundness of product (semi-finished product) inventory, establishment of new procedures to verify the sustainability and effectiveness of quality improvements, introduction of SHE integrated management system, etc. Furthermore, ongoing process improvement activities (based on the PDCA) are being carried out centered on the process owners.

Process-Centered Operation



Safety Product Certification

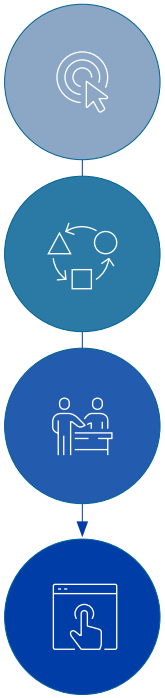
Considering the end-users of its products, Moorim produces safe products by conducting tests to ensure the absence of hazardous substances. Particularly, Moorim has conducted child safety tests on a total of 13 products (5 products from Moorim Paper, 6 products from Moorim SP, 2 products from Moorim P&P), including the NeoStar Premium Textbook Paper which is primarily used by children. These products have been proven safe through conformity assessment.

Customer Satisfaction Management System

Customer Quality Complaints Handling Process

Moorim has established and operates a customer quality complaints handling process to resolve customer complaints. Customer complaints are received through customer communication channels such as phone, fax, and online websites. Depending on the quality complaints, compensation and returns are processed, and Quality Assurance Department identifies the cause and come up with improvement measures. Requests and outcomes are recorded and managed to prevent recurrence of the same issues and to come up with response measures for customer.

Customer Quality Complaints Handling Process



Quality Complaints Reception
• Receive quality complaints via phone, fax, and the Neo Zone (Moorim B2B) website

Cause Analysis and Prepared Countermeasure
• Identify the cause and develop improvement measures for customer quality complaints by Quality Assurance Department

Response to Customer Quality Complaints
• Provide information on how to process compensation for claims and process returns
• Continuous management of customer satisfaction after quality improvement

Complaints Recording and Management
• Record complaints and manage response measures to ensure customer and quality management

QUALITY MANAGEMENT

Customer Satisfaction Management Activities

Customer Communication Channels

Moorim actively communicates with customers through various channels such as wire, fax, and online sites to ensure customer satisfaction. It shares information such as corporate information, product introductions, investment details, and customer participation events through its website and social media platforms. Furthermore, Moorim collects customer opinions and makes improvements through the Neo Zone, where complaints can be filed. Additionally, Moorim regularly publishes the online newsletter "Monthly moohae," providing customers with various information such as introduction of eco-friendly products and eco-friendly trends.

Category	Description
Website	• Providing basic company information, investment information, product information, and sustainability information regarding Moorim.
SNS	• Sharing corporate information, eco-friendly paper stories, and customer participation events. • Operating as a two-way communication channel tailored to customer needs by continuously sharing paper knowledge and useful information.
Neo Zone	• Serving as a channel for Moorim's corporate customers to receive information and lodge complaints.
Newsletter "Monthly Moohae"	• Introducing Moorim's eco-friendly products such as low-carbon paper, biodegradable natural pulp, and eco-friendly materials. • Spreading the value of clean and safe natural pulp and paper to customers.

Customer Satisfaction

Moorim conducts research to improve customer satisfaction and identifies areas for improvement in products and services. In addition, we utilize and reflect the survey results in product development and strategy to develop new products at an appropriate time in line with rapidly changing market requirements and changes and to continuously provide customer-friendly products.

Customer Satisfaction Survey

Moorim conducted a VOC (Voice of Costumers) survey targeting distributors and end-user regarding overall sales activities and services, and is discovering items and tasks that require supplementation and improvement.

Survey items

Sales Activities | Service | Quality | Logistics
Terms of Trade | Production | Inventory

Survey results

(Unit: points, %)

Category	Distributor	Actual Demand costomer	Total
Score[1]	3.71	3.92	3.81
Satistaction Rate[2]	65.3	80.4	

1) perfect score of 5
2) Satisfaction Rate: The combined percentage of 'satisfied' (4 points) and 'very satisfied' (5 points) out of a total of 5 points

Customer Satisfaction Survey Process

Moorim is surveying satisfaction through a second in-depth face-to-face interview after the first online survey. In addition, we are upgrading the process for effective research, such as consistently identifying customer satisfaction according to changes based on the same survey items.

Survey Process

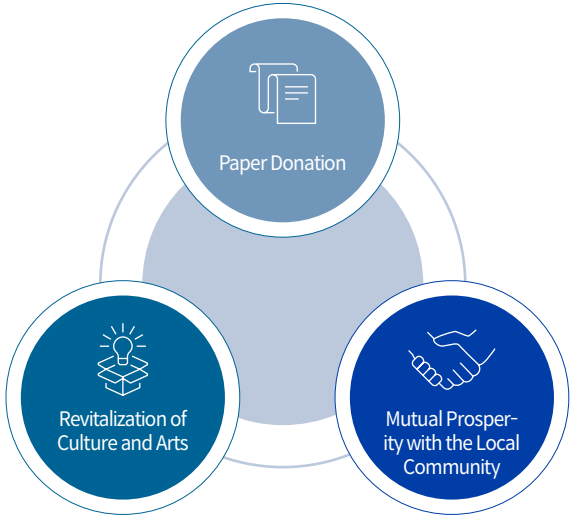
Satisfaction survey plan	Investigation and Findings	Complaint improvement and application	Customer perception and experience
• Planning research media, targets, and measures according to characteristics such as business activities, new products, and major products	• Conduct step-by-step awareness and satisfaction surveys • Analysis of response results according to survey target	• Analysis of importance and urgency according to customer complaints and improvement points • Diagnose the cause of matters requiring improvement and derive improvement plans for related departments	• Apply to overall sales activities and services according to survey results and improvement directions • Changes in customer perception of improvements and re-survey conducted after a period of experience

SHARING MANAGEMENT

Social Contribution System

Moorim's corporate philosophy, "pulp and paper manufacturing technology that adds value to lives," embodies Moorim's dedication to plant the seeds of greater opportunities and happiness beyond the idea of merely helping society. Moorim engages in various social contribution activities to become a company that delivers various values through paper, striving to be more than just a company that sells products. Moorim not only serves as a bridge of communication connecting people to people and people to the world through paper sharing, but also is interested in and dedicated to solving various social issues such as environmental protection, support for the socially vulnerable, and contribution to the local community through continuous reflection and effort.

Moorim's Social Contribution Strategy



Social Contribution Strategy

Moorim has established its core social contribution strategies based on three main directions to implement diverse values in everyday life. The core strategies include 'Paper Donation', which conveys the values of hope and happiness through paper; 'Revitalization of Culture and Arts,' aimed at creating a prosperous and enriched life; and 'Mutual Prosperity with Local Communities', which focuses on solving local issues and fostering mutual growth and development between Moorim and the local community. Following these core social contribution strategies, Moorim actively engages in social contribution activities centered around its main business sites, such as Moorim Paper, Moorim SP, and Moorim P&P. Moorim is making its best efforts to ensure that these activities are just one-time events but that they can continuously create new opportunities and possibilities.

Moorim's Social Contribution Principle and Main Projects

Direction	Pulp and paper manufacturing technology that adds value to lives
Principle	It should not be a one-time effort but rather an opportunity and possibility that grows into greater happiness.
Main Projects	Paper Donation / Revitalization of Culture and Arts / Mutual Prosperity with Local Communities

SHARING MANAGEMENT

Social Contribution Activities

Paper Donation

Big Issue Social Contribution Partnership

Since 2011, Moorim has been sponsoring the paper used to produce the magazine "Big Issue," which helps create jobs and support the independence of housing-vulnerable social group. Moorim quantifies social value by tracking the number of magazines published, sold, and the jobs provided to housing-vulnerable individuals magazine vendors through this paper sponsorship, aiming to offer tangible assistance to this group. Additionally, since 2021, Moorim has co-hosted the "Big Issue Christmas Special Edition Cover Contest" with Big Issue. Especially, in 2023, Moorim participated as a sponsor to help host the first Asian "Big Issue Homeless World Cup" in Seoul. Moorim also organized a premiere event for the movie "Dream," which features Big Issue, inviting its new hires. This was a meaningful time for employees to share the direction of Moorim's social contribution initiatives and social issues affecting marginalized groups.

Total number of homeless salespeople
1,287

Paper sponsorship period
14 years

Big Issue sales revenue
KRW 176 million won

Economic performance
KRW 5.5 billion won[1)]

1) Total net profit from sales of Homeless Big Issue magazine from 2011 to 2023





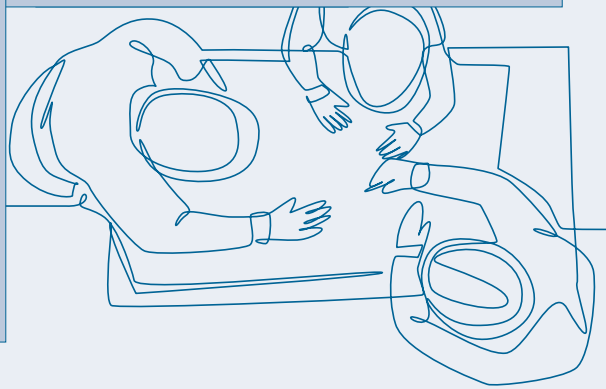
Supporting the Dreams of Future Designers

Moorim collaborates with the design departments at leading universities in Korea, such as Seoul National University, Hongik University, and Yonsei University to support paper used in catalogs, leaflets, posters, etc., including the production of graduation projects. Since graduation projects are essential portfolios for design students preparing for employment, Moorim offers the best quality paper free of charge to help produce excellent results, supporting the dreams and hopes of future designers. In addition, we have selected the 'Neo CCP Award' in the college student category of the 'Korea Package Design Competition', the leading package design award in Korea, and are striving to discover young talent by sponsoring scholarships.



Paper Sponsorship for National Museum of Modern and Contemporary Art

Since 2021, Moorim has partnered with the National Museum of Modern and Contemporary Art to support the development of culture and the arts by providing paper for the production of catalogs featuring works by renowned artists. Especially, in 2023, Moorim expanded its support for eco-friendly products, including low-carbon paper, for contemporary art works and interactive exhibitions on the theme of sustainable environments and art. This exhibition aimed to convey the importance and value of the environment to the general public.



SHARING MANAGEMENT

Social Contribution Activities

Revitalization of Culture and Arts

Moorim Paper's Korean Cup Paper Airplane Competition

In November 2023, after four years, Moorim Paper held its paper airplane competition offline, having conducted it as an "online challenge" during the COVID-19 period. The Moorim Paper's Airplane Competition is the only official paper airplane competition in Korea. In addition to the paper airplane flying contest, the event featured a variety of engaging activities that families including children and parents can enjoy together, such as "Harmless Paper Pool" and "Harmless Coloring". This competition attracted approximately 3,000 participants and received a highly positive response.





Forest and Marine Ecology Exhibition 'Paperium'

'Paperium' is an eco-friendly event held at the aquarium in collaboration with Lotte World to share the eco-friendly value of paper and pulp and convey the importance of nature, such as forests and oceans, to future generations. Through various paper objects and interactive events, Moorim shared with visitors the impact of rising sea temperatures on marine ecosystems due to global warming. The event also served as an opportunity to raise awareness of the importance of using eco-friendly products in daily life to reduce carbon emissions and circulate resources.



Moorim Mecenat

Since 2008, Moorim has partnered with local cultural and artistic organizations, continuously supporting various events to provide local artists with broader opportunities for creative activities. This sponsorship aims to bridge cultural gaps within the community and enable local residents to enjoy a diverse range of cultural and artistic experiences.

Paper Adventure – Moohae World

"Paper Adventure" is an event organized by Moorim to create a unique interactive space using paper, allowing the public to appreciate the eco-friendliness and utility value of paper through various activities. Following the launching event at Starfield Goyang in 2022, the high interest from visitors led to an extended event duration of one month in 2023, with expansions to both Starfield Goyang and Hanam locations. Especially, an eco-store named "moohae Store" was set up, encouraging visitors not just to participate in activities but also to practice environmentally friendly consumption in their daily lives, which added greater significance to the event. Additionally, a 'Postcard to the Earth and Paper' event was held on site on Environment Day and Paper Day. For each postcard sent, a donation was made to the marine environmental organization "BLUE SIREN."



SHARING MANAGEMENT

Social Contribution Activities

Mutual Prosperity with Local Communities

Moorim Sarang Nanumi (Love Sharing)

Moorim Sarang Nanumi is a participatory social contribution activity in which employees directly participate, and various activities are conducted to foster coexistence with local residents near each business site. These activities include delivering "Rice of Love," "donating funds", and "providing scholarships to elementary schools", sharing warmth with local neighbors. Additionally, employees contribute to environmental protection by carrying out river and stream cleanup activities.



Kkottongnae Lunchbox

Moorim collaborates with the social organization "Kkottongnae Lunchbox," provides free meals to the socially vulnerable, by offering biodegradable molded pulp food containers made from natural pulp free of charge. Delicious food is packed into Moorim's molded pulp containers and regularly distributed as warm meals to the homeless at Seoul Station and elderly individuals living alone in the Bulgwang-dong area.



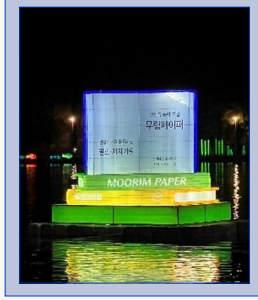
Establishing Green Schools

In collaboration with the Seoul Green Support Center, Moorim held the "Green School" campaign to educate youth on the importance of the environment and encourage the consumption of eco-friendly products. The campaign involved visiting middle and high schools in the Seoul area to provide students with an opportunity to naturally appreciate the value of the environment along with play-based lessons using eco-friendly toys. It received a highly positive response from the participants.



Jinju Namgang Yudeung(lantern) Festival

Moorim Paper annually sponsors the Jinju Namgang Yudeung Festival, a representative local event of the Jinju region, to promote and support local festival activities.





Developing Future Talent

In 2018, Moorim entered into a partnership with Gyeongsang National University to foster local talent and expand job opportunities. Moorim is dedicated to developing professional manpower by establishing the first pulp and paper specialized department in Korea, the "P&P Chemical Engineering Major." Each year, Moorim provides on-site training at its P&P Ulsan Plant for graduating students. Additionally, outstanding graduates with excellent academic records are offered employment opportunities at Moorim. As of February 2024, a total of 31 graduates have been produced, and they are currently actively engaged in various activities in the pulp and paper industry.



SHARING MANAGEMENT

Paper Connecting the World

Moorim holds unique events that both children and adults can enjoy through pulp and paper, and provides various interactive spaces where people can experience the sustainable value of the products.

The 4th Moorim Paper KOREAN CUP Paper Airplane Competition held in 2023

Moorim Paper hosted the Korean Cup Paper Airplane Competition, the largest and only official paper airplane competition in the country, which elevated paper airplane flying from a simple pastime to a sports competition. A total of 3,000 people participated in the event and enjoyed it together. The paper airplane national representative who won the title at the Paper Airplane World Championships participated as a judge and conducted the competition. The winner was awarded the official champion record certification from the Korea Paper Airplane Association. In particular, this 2023 competition held a 'Super Cup' league that integrated participants from all regions and age groups to determine the ultimate champion through qualifying rounds in three categories: 'Long-distance Flying,' 'Long-duration Flying,' and 'Aerobatic Flying.' Through qualifying rounds in these categories, the event integrated participants from all regions and age groups into the "Super Cup" league to determine the ultimate champion. The competition expanded its prestige by presenting top honors in ten categories, including the "Jinju Mayor's Award," "Air Force Education and Training Commander's Award," and "Jinju Office of Education Superintendent's Award," showcasing its status as the largest official Paper Airplane Competition in the country.

The official champion record certified by the Korea Paper Airplane Association in 2023

Long-distance flying
50.7m



Aerobatic flying
7.75 seconds

Long-duration flying
24.91 seconds









SHARING MANAGEMENT

The 4th Moorim Paper KOREAN CUP Paper Airplane Competition held in 2023

Paper Lounge

Furthermore, to ensure that the many attendees of this Paper Airplane Competition could enjoy their waiting time and create various memories, Moorim prepared various interactive and recreational spaces adjacent to the competition venue, utilizing pulp & paper products.

Origami Class

Invited origami YouTuber Uncle Nemo to run an origami class



Paper Airplane Goal Contest

For visitors who did not participate in the contest and those who were eliminated, provided a space where they could make paper airplanes and participate in the goal contest



Molded Pulp Interactive Program

Conducted interactive programs such as coloring and making paper hats using molded pulp





Paper Pool

Operated a paper pool filled with safe paper



moohae Cafe

Operated a food truck using eco-friendly products such as biodegradable paper cups, straws, and molded pulp containers



Event

Held a celebratory performance and giveaway event by inviting local magic performance groups in Jinju

SHARING MANAGEMENT

Paper Adventure 2023, Moohae World

Moorim operated moohae World, a paper theme park, by creating a unique structure with an amusement park concept using various eco-friendly products. Customers who visited Moohae World enjoyed various unique experiences utilizing pulp and paper. Through these experiences, they empathized with the safety and sustainability values of the products.



Ticket Booth

Entry to Paper Kingdom



Molded Pulp Block Play

Provision of a play space where visitors can directly touch and experience molded pulp products



Paper Planting Plant

An interactive event where visitors can decorate a paper flower pot made from a biodegradable Neo-forêt cup, fill it with potting soil, and plant seedlings to create your own flower pot



Giant Drawing

Large-scale drawing on low-carbon paper with a width of 1.2 meters

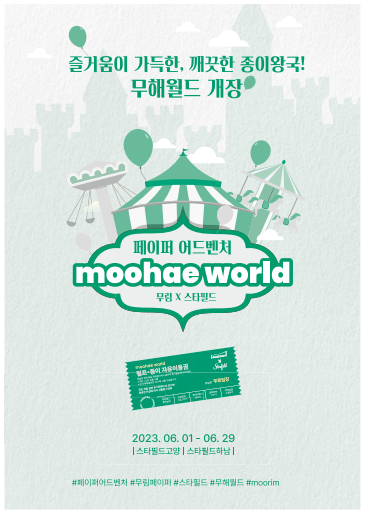
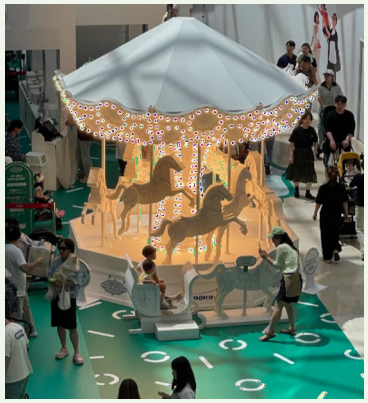


Photo Zone

Photo zone with paper carousel and paper pollen





Event

Special performance by We Play, the national paper airplane team

Send a postcard to Earth and Paper

An event to write messages of encouragement to "Paper" and "Earth", where a total of 2,023 messages were delivered to the mailbox. For each message, Moorim Paper donated products to the marine restoration organization Blue Siren



moohae Store

Operating a pop-up store that offers eco-friendly products at special discounts and promotes eco-friendly consumption





GOVERNANCE



KEY PERFORMANCE

BOARD ACTIVITIES

A total of **70** resolutions and reports

ANONYMOUS REPORTING CENTER

100% completion rate

INFORMATION PROTECTION ACTIVITIES

100% employee completion rate for information protection training

SOUND GOVERNANCE

Board Governance

Moorim is forming an objective and independent board of directors that considers diversity and expertise, and is creating a transparent management environment centered on sound governance.

Board Composition

To practice responsible management centered on the board of directors and to make swift decisions, the CEO also serves as the chairman of Moorim's board. By doing so, the CEO, who possesses both responsibility and expertise, can communicate more smoothly and actively with board members, maximizing the efficiency of corporate decision-making. Each board of directors at Moorim is composed of two internal directors and three external directors. Additionally, the term of each director is set within three years, based on the Articles of Incorporation.

Moorim's Board Composition Status

	Category	Name	Gender	Position	Career Highlights	Term of Office
Moorim Paper	Internal Director	Do-kyun Lee	M	CEO/BOD Chairman	Moorim Paper, Inc. Head of Strategy, Head of the Management Division, Head of the Paper Business Division	2024.03~2027.03
	Internal Director	Jong-chul Rhee	M	Planning/Strategy	Strategic Planning Department Head, Planning Management Department Leader, Public Relations Department Leader, ESG Department Leader, Current Management Planning Director at Moorim Paper Co., Ltd.	2023.03~2026.03
	External Director	Seung-tae Sohn	M	Member of the Audit Committee	Senior Deputy Secretary General of the Board of Audit and Inspection, Auditor of Small and Medium Business Bank, Adviser to Yulchon LLC, currently an internal director of Daeil Industrial Co., Ltd.	2022.03~2025.03
	External Director	Si-jong Park	M	Member of the Audit Committee	Auditor of the Board of Audit and Inspection, Auditor of Hana USB Asset Management, Adviser of Yulchon LLC, Auditor of Daesang, Inc.	2024.03~2027.03
	External Director	Cheol-in Mo	M	Member of the Audit Committee	KEMPOL CORP. CEO	2023.03~2026.03
Moorim SP	Internal Director	Do-kyun Lee	M	CEO/BOD Chairman	Moorim SP, Inc. Strategic Head, Head of the Management Headquarters, Head of the Paper Division	2024.03~2027.03
	Internal Director	Jong-chul Rhee	M	Planning/Strategy	Strategic Planning Department Head, Planning Management Department Leader, Public Relations Department Leader, ESG Department Leader, Current Management Planning Director at Moorim SP Co., Ltd.	2023.03~2026.03
	External Director	Se-do Lee	M	Member of the Audit Committee	Auditor General of the Board of Audit and Inspection, Standing Auditor of Korea Rural Community Corporation, Vice President of Korea Audit Association	2023.03~2026.03
	External Director	Chul-hwan Kim	M	Member of the Audit Committee	Currently a Professor of the Department of Environmental Forestry at Gyeongsang National University, President of the Korea Pulp Paper Engineering Society	2022.03~2025.03
	External Director	Man-sik Seo	M	Member of the Audit Committee	Busan Regional Labor Office Commissioner, Welfare Director of Korea Workers' Compensation and Welfare Service, Technical Director of Korea Industrial Safety Association (Industrial Accident Prevention Work), Operating industrial accident prevention work consulting service	2023.03~2026.03
Moorim P&P	Internal Director	Do-kyun Lee	M	CEO/BOD Chairman	Moorim P&P, Inc. Strategic Head, Head of the Management Department Headquarters, Head of the Paper Business Headquarters	2024.03~2027.03
	Internal Director	Jong-chul Rhee	M	Planning/Strategy	Strategic Planning Department Head, Planning Management Department Leader, Public Relations Department Leader, ESG Department Leader, Current Management Planning Director at Moorim P&P Co., Ltd.	2023.03~2026.03
	External Director	Jae-duk Lee	M	Member of the Audit Committee	Director of the Board of Audit and Inspection, Executive Audit Committee member of KDB Life, Non-executive Auditor of Hyundai Asset Management, Inc.	2022.03~2025.03
	External Director	Dong-hyun Lee	M	Member of the Audit Committee	An accountant at Samjeong Accounting Firm, an accountant at Daesung and Hankyung Accounting Firm, currently an accountant at Shinhan Accounting Firm, a Tax Accountant	2022.03~2025.03
	External Director	Il-tae Kim	M	Member of the Audit Committee	Auditor General of the Board of Audit and Inspection, Financial Supervisory Service Auditor, current executive auditor of Nuri Plant, Inc.	2024.03~2027.03

SOUND GOVERNANCE

Board Governance

Independence, Diversity, and Expertise of the Board

In March 2024, Moorim resolved to amend the existing Articles of Incorporation, which required the CEO to also serve as the chairman of the board, to establish a transparent corporate governance. This amendment paves the way for the separate appointment of the CEO and the chairman of the board. Furthermore, to address concerns regarding the independence of the board due to the CEO's dual role as chairman, external directors constitute a majority of 60% of the board to enable the board to effectively exercise its function of overseeing management. All director candidates, including outside directors, are recommended through the board of directors, and from among these recommended candidates, the final directors are appointed through resolutions at the general shareholders' meeting.

Board Management

Board Activities and Attendance Rate

Based on the Corporate Governance Charter and Board Regulations, Moorim holds regular board meetings once every quarter and convenes extraordinary meetings as needed. To ensure smooth board operations, the Articles of Incorporation were amended to provide each director with board meeting materials, including agendas requiring resolution and reporting, at least one week before the board meeting. In 2023, a total of 20 board meetings were held, with an average attendance rate of 100% for Moorim Paper, 97% for Moorim SP, and 100% for Moorim P&P. During these meetings, a total of 70 agendas requiring resolution and reporting were thoroughly reviewed and resolved.

Category	Number of meetings held	Agendas requiring resolution	Agendas requiring reporting	Average attendance rate	Internal director attendance rate	External director attendance rate
Moorim Paper	7	13	10	100%	100%	100%
Moorim SP	6	12	10	97%	100%	94%
Moorim P&P	7	15	10	100%	100%	100%

Board Education

To enhance the expertise of external directors, Moorim has established regulations that allow them to receive external training. In 2023, Moorim conducted internal training sessions for its external directors. These sessions were held twice and led by responsible executives and covered the company's structure, industry trends, future management strategies, and long-term vision, aiming to enable the board to make reasonable decisions suitable for the company and execute their duties smoothly.

Education Date	Moorim Paper	Moorim SP	Moorim P&P	Education Content
2023.03.28	Seung-tae Sohn, Si-jong Park, Cheol-in Mo	Se-do Lee, Chul-hwan Kim, Man-sik Seo	Jae-duk Lee, Dong-hyun Lee, Il-tae Kim	Company overview and overall business matters (paper/pulp production process, main product description, etc.), molded pulp plant tour
2023.08.03	Seung-tae Sohn, Si-jong Park, Cheol-in Mo	Se-do Lee, Chul-hwan Kim, Man-sik Seo	Jae-duk Lee, Dong-hyun Lee, Il-tae Kim	Video training related to B2C events, explanation of eco-friendly products, etc.

Board Compensation

The compensation for registered directors and members of the Audit Committee is executed by the board (CEO) through delegation, within the amount approved by the general shareholders' meeting. It is in accordance with internal standards such as the executive wage and remuneration standards that take into account various factors including rank, length of service, leadership, expertise and contributions considering the relevant position and duties, etc. For external directors, a basic salary and predetermined activity expenses are set monthly within the director compensation limit approved by the general shareholders' meeting.

SOUND GOVERNANCE

Shareholder-friendly Management

Enhancement of Shareholder Rights

Moorim actively implements best practices in corporate governance to enhance transparency and efficiency, and to maximize corporate value. In relation to the general shareholders' meeting, Moorim announces the date, location, agenda, and other details at least two weeks prior, as required by law. In 2023, to provide shareholders with ample time to review the information, the notice for the shareholders' meeting was issued four weeks in advance. Additionally, to ensure the effective exercise of voting rights by providing accurate and sufficient information, the audit report and business report were disclosed one week prior to the meeting and made available on the company's website.
To protect shareholder rights, Moorim voluntarily participates in dispersed holding of general shareholders' meetings and the shareholder meeting voluntary dispersal program, allowing meetings to be held on days other than those designated for concentrated shareholder meetings. To facilitate shareholder voting, Moorim has introduced an electronic voting system and a proxy voting solicitation system. Additionally, in the 2023's annual general meeting, the Articles of Incorporation were amended to allow the dividend record date to be determined by resolution of the board of directors instead of the year-end closing date, aiming to enhance predictability for shareholders regarding dividend distribution.

Communication with Shareholders

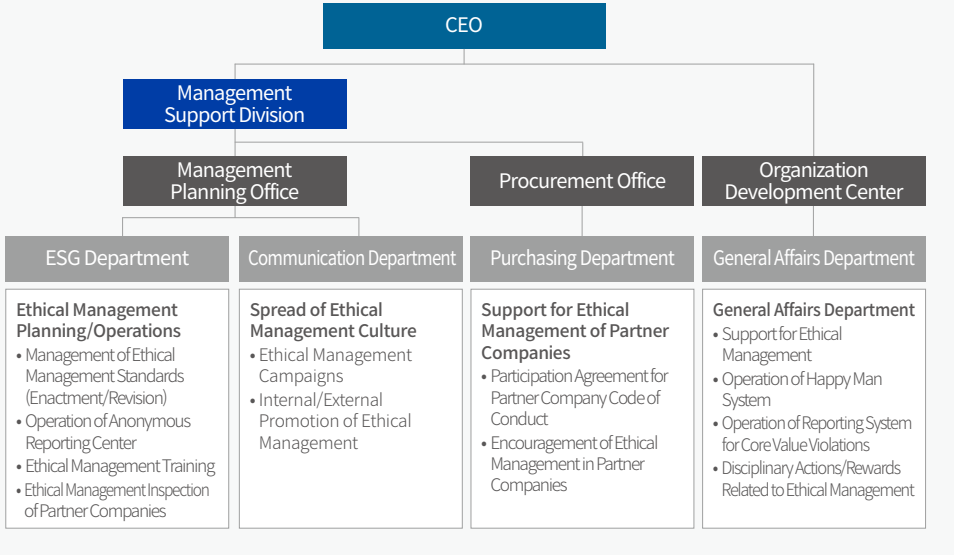
To enhance the understanding of shareholders and investors and to ensure timely dissemination of information, Moorim discloses performance and corporate governance information on its website. Additionally, Moorim practices responsible management to gain trust from shareholders and stakeholders such as transparently providing corporate information through IR's corporate presentations and disclosures and controlling internal transactions. Regarding institutional investors, Moorim actively communicates with stakeholders through regular conference calls and Non-Deal Roadshows (NDRs), etc. Starting with the first publication of the Sustainability Report in 2022, Moorim disclosed updated ESG data in 2023, thereby sharing financial and non-financial activities and performance in a timely manner.

ETHICAL AND COMPLIANCE MANAGEMENT

Ethical and Compliance Management Promotion System

Moorim has firmly established an ethical and compliance management system to create an ethical corporate culture trusted by customers, local communities, and employees. Considering ethical management as a core value of the company, Moorim built an ethical management framework through the declaration of ethical management and the establishment of the Code of Ethics in 2020. The Compliance Support Department has been expanded and reorganized into the ESG Department to form an independent dedicated organization for ethical management. Moreover, to ensure the establishment and spread of an ethical management culture, Moorim is enhancing ethical and compliance management across the company and its partners through collaboration with relevant departments.

Organizational Chart for Ethical Management Promotion



Ethical and Compliance Management Policy

Moorim is creating an upright and fair Moorim aiming to realize 'righteous ambition' through ethical management. Starting with internal accounting management system, one of our internal control activities, in 2007, Moorim has enhanced employees' ethical awareness by establishing and declaring the Code of Ethics and the Code of Conduct in 2020. Furthermore, the company transparently discloses its ethical management activities to the public through its website.

The Ethics Charter of Moorim serves as the highest standard and declaration of values for the Code of Ethics, providing the interpretation guidelines for the Code of Ethics and the Code of Conduct.

Ethics Charter

"Under the motto of 'domestication of paper,' and guided by the ideology of business patriotism, Moorim has been leading the paper industry for over half a century. Based on pulp and paper technology that adds value to life, Moorim aims to create a new future. Therefore, all employees of Moorim pledge to keep 'righteous ambition' in mind as a core value, adhere to laws and principles, perform their duties fairly and honestly, and mutually respect each other based on integrity and trust."

Moorim has specified the Ethics Charter and standardized the practices that the company and its employees must adhere to with respect to the company's major stakeholders such as shareholders, customers, traders, and partners.

Code of Ethics

1. We adhere to principles and act with integrity as members of Moorim with righteous ambition
2. We cherish commitments with our customers and reciprocate with the best products.
3. We conduct business by prioritizing the interests of shareholders and transparently disclose business performance.
4. We prohibit unfair demands or solicitations to our business partners and collaborate based on trust.
5. We abide by fair market practices and pursue mutual development with competitors through fair competition.
6. We mutually respect each other with honesty and trust, and refrain from actions contrary to the interests of the Moorim community.
7. We do not seek personal gains through information obtained through our positions or duties.
8. We perform our duties fairly and do not give unfair instructions or solicitations to our colleagues.

Employee Code of Conduct

The Employee Code of Conduct consists of practical guidelines that inform employees how to behave when faced with specific ethical conflicts. We constantly encourage Moorim employees to comply with the Code of Conduct.

ETHICAL AND COMPLIANCE MANAGEMENT

Ethical and Compliance Management Policy

Establishment of a Fair Trade System

Moorim actively performs compliance duties through the ESG Department to prevent unfair trading practices in advance and create a fair market economy environment. It adheres to collusion-related guidelines and conducts written investigations on subcontracting transactions by the Fair Trade Commission to prevent unfair trading. Furthermore, it establishes a fair trade system by providing internal education and distributing materials on the Fair Trade Act and unfair practices to employees.

Fair Trade Policy

Moorim respects the orders of fair and free market economy and engages in fair competition by complying with relevant fair trade laws. In pursuit of mutual growth through fair trade based on mutual trust in business relationships, Moorim has formulated a Fair Trade Policy, which has been reported to and approved by the CEO.

Fair Trade Policy

1.Pursuit of Free Competition
- Respect the market economy order based on responsibility and transparency, actively participate in fair trade practices.
- Eradicate collusion or unfair trading practices that undermine fairness and reliability.
- Conduct all transactions with partner companies from equal positions, and prohibit refusal, suspension of transaction, or restriction of transaction content or conditions without justifiable reasons.
- Prohibit the unjust demand for technical information from partner companies and ensure that the approval is obtained when using the technology or assets of the partner companies.

2. Compliance with Regulations
- Respect the trading customs of the countries and regions where business activities take place, and ensure that all members voluntarily comply with relevant regulations.
- Prohibit the use of unfair terms and false or exaggerated advertising and representations.
- Prohibit the imposition of purchases against the will of partner companies or demands for economic benefits in exchange for transactions.
- Strictly prohibit instructions, approvals, or adding and abetting that violate fair trade-related laws or regulations. If there are concerns about violations, immediately report them through relevant departments and systems.

3. Mutual Growth
- Provide equal participation opportunities to all partner companies that meet the qualifications, and select them objectively and reasonably based on fair criteria.
- Discuss terms and procedures of all transactions thoroughly in advance, and comply with confidentiality regarding the trade secrets obtained during the process.
- Pursue mutual prosperity with partner companies through various support and business cooperation.
- Make every effort to ensure that partner companies do not engage in acts that violate human rights and the environment policy, such as protecting the human rights of employees and ensuring transparency in the supply chain.

Ethical Management Risk Control

In order to establish ethical management, Moorim operates a grievance handling process through the anonymous reporting center to prevent unethical behavior that may occur inside and outside the company and to promptly handle accidents in the event of occurrence.

Operation of the Anonymous Reporting Center

In 2019, Moorim introduced an anonymous reporting center to establish a channel for receiving complaints and reports from employees and external stakeholders. Since 2021, Moorim has established a system for receiving and investigating reports using a communication hotline operated by an external specialized law firm. Through the law firm's preliminary investigation, Moorim has ensured the anonymity of the Informant and strengthened the expertise of the investigation into the reported incidents.

Cases to be reported	• Requesting property benefits using contractual or transactional status • Unreasonable demands (aka abuse of power) such as interference in management using contractual or transactional status • Any act that violates relevant laws such as the Fair Trade Act or the Subcontracting Act. • Other unfair or unethical acts, etc. • Workplace harassment or sexual harassment • Report on safety and health • Other human rights violations, etc.
How to lodge a report	• Click [Anonymous reporting center] banner in Moorim Website → Search company name → Complete report form • Search 'Communication Hotline' in Naver search window → Click [Complete report form] in 'Communication Hotline' website → Search company name → Complete report form

Achievements through operation of Moorim's anonymous reporting center

(Unit: Number, %)

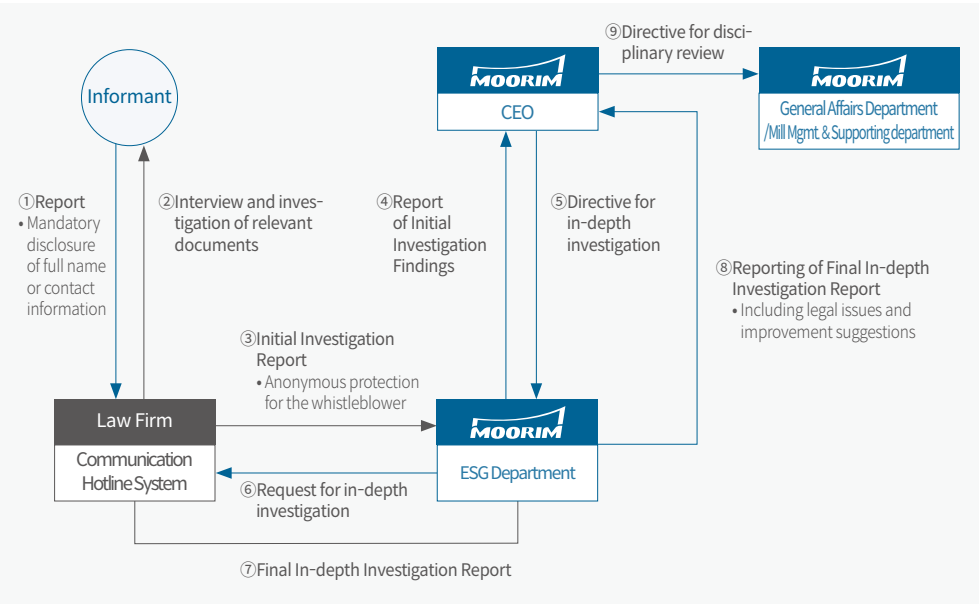
Category		Moorim Paper	Moorim SP	Moorim P&P
2023	Report received	3	0	5
	Handling completed	3	0	5
	Handling completion rate	100	-	100

ETHICAL AND COMPLIANCE MANAGEMENT

Ethical Management Risk Control

Operation of the Anonymous Reporting Center

Anonymous Reporting Center Operation Process



Enhancement of the Internal Control System

The Audit Committee operates an internal audit system that includes regular audits such as routine audits, semi-annual audits, and year-end audits, as well as ad-hoc audits such as special audits and petty cash audits. The Audit Committee conducts audits of the company's accounting and business operations for each fiscal year, and based on the results, it is considered that that Moorim's internal controls are functioning effectively.

Ethical Management Activities

To enhance ethical management awareness and spread empathy, Moorim conducts annual ethics training sessions for all employees. Ethics and compliance management training is being developed into customized educational content for employees, focusing on essential topics that Moorim must adhere to, such as human rights protection and prevention of unfair trade practices. Moving forward, Moorim plans to further refine the target audience for ethical management training so that it can be of practical assistance to internal employees, and to advance related activities by introducing training courses led by ethical management and legal experts.

Achievements of ethical management training in 2023

(Unit: Persons, %)

Category	Moorim Paper	Moorim SP	Moorim P&P
Number of people trained	428	203	699
Completion rate	100	100	100

Ethical Management Guidebook

In order to fulfill corporate social and moral responsibilities, Moorim continuously educates and explains ethical management and ethical standards, and internalizes an ethical management culture through case studies on ethical behavior guidelines.





RISK MANAGEMENT

Integrated Risk Management System

Risk Management System

Moorim enhances the soundness, reliability, and safety of its management by controlling financial and non-financial risks that significantly impact operations. Financial risks are managed through the internal accounting control system, while non-financial risks are minimized by implementing eco-friendly management, social responsibility, and transparent governance based on ESG risk management regulations. Each risk is identified and managed by heads of the departments where each is likely to occur.

Risk Management by Type

Moorim is currently prioritizing management of legal risks, financial risks, and non-financial risks, which have been identified as key risks. In 2024, Moorim plans to identify and address high-risk threats, and to establish and gradually implement processes for risk management by type.

Financial Risk Management

In response to the introduction of the New External Audit Act, Moorim restructured its financial risk management system in the first half of 2020 by upgrading its internal accounting control system. To ensure efficient control, Moorim expanded our automation systems and initiated internal accounting operations and audits using separate standards. This approach minimizes the risk of fraud and accounting errors that may occur in financial reporting and enhances the effectiveness of internal controls and the reliability of accounting information through documentation in everyday operations.

Internal Accounting Management System Operation Process

Selection for Evaluation Scope	• Identify significant accounts and footnote information, and understand significant processes • Identify key control activities, evaluation department judgment
Design Evaluation	• Evaluate whether it is effectively designed to sufficiently control the risk of financial statement misrepresentation
Operation Evaluation	• Evaluate whether control activities are operating as designed in the business process
Operation Status Reporting	• Evaluate deficiencies and derive improvement measures • Obligation of the CEO to report on the operational status of the internal accounting management system • Hold face-to face meetings with the audit committee related to the evaluation of the internal accounting management system
Certification Process Execution	• Disclose the internal accounting management system operation status report • Disclose the audit and opinion of the internal accounting management system by an independent auditor

RISK MANAGEMENT

Risk Management by Type

Non-financial Risk Management

Moorim reports on its non-financial risk management activities, including the establishment and revision of ESG policy manuals, environmental indicators, human rights impact assessments, and evaluations of partner companies' performances, to the CEO and the Board of Directors on a quarterly basis for approval.

Reporting on Board ESG/Non-financial Activities

No.	Date of Board Meeting	Agendas
1	2023.02.08.	(Resolution) Reporting and approval of safety and health plans (Reporting) Establishment of "Greenwashing Prevention Guidelines"
2	2023.05.16	(Reporting) ESG management activities reporting (e.g., formulation of human rights management policies)
3	2023.11.02	(Reporting) Reporting on the performance based on ESG environmental indicators for the third quarter of 2023
4	2023.11.30	(Resolution) Reporting on plans to publish a sustainable report in 2024
5	2024.02.15	(Resolution) Reporting on the progress of the establishment of climate change response strategies
6	2024.02.15	(Reporting) Reporting on the performance based on ESG environmental indicators for the fourth quarter of 2023
7	2024.05.02	(Reporting) Reporting on the results of the Double Materiality Assessment

Moorim has established a unified reporting system by operating the Emergency Response Committee as an emergency organization to immediately and effectively respond to emergency situations related to business activities such as deteriorating management environment, accidents related to safety, fires, major customer claims, malicious rumors, natural disasters, strikes, and the spread of infectious diseases. Through this, Moorim operates an emergency response process with the Head of the Management Support Department as the chairperson to ensure swift response and early recovery in case of emergencies and to minimize damage by appropriately allocating available human and material resources.

Composition of the Emergency Response Committee

Category		Responsibility	Remarks
Emergency Response Committee	Chairperson	Head of Management Support Division	Emergency situations related to business activities
	Member	Head of each division	
	Supporting Group	Head of Management Planning Department	Human Resources/Labor/Finance/General Affairs/Legal Affairs/Public Relations, etc.
Emergency Response Task Force[1)]	Chairperson	Person designated by the Emergency Response Committee Chairperson	Formed and operated in the event of localized incidents at specific business sites.

1) The Emergency Response Task Force is formed when deemed necessary by the Emergency Response Committee Chairperson.

Emergency Response Working Committee Reporting System



Enhancement of Risk Management Capabilities

Internal Accounting Control System Training for Employees

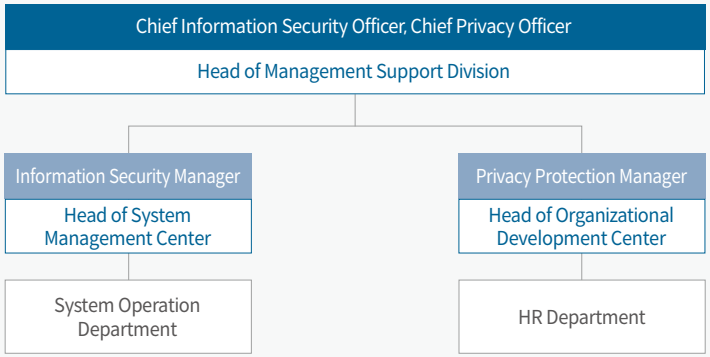
In 2023, Moorim conducted training on the internal accounting control system for 322 individuals, including internal accounting managers, the internal accounting department, audit committee members, and administrative staff from departments related to the internal accounting control system. All participants completed the training. Going forward, Moorim is committed to enhancing the understanding and awareness of the importance of the internal accounting control system among company members through continuous improvement activities and regular training on educational quality.

INFORMATION SECURITY

Information Security System

Moorim has appointed the Head of the Management Support Department as the general manager for information security and personal information protection and established an information security system. Cyber security plans are established and monitored through the System Operations Department, a dedicated information security organization. Additionally, Moorim is regularly implementing activities for enhancing personal information protection through the System Operation Department and the HR Department. Moorim updates its information security regulations annually in accordance with the revised information security regulations, and checks compliance with the personal information protection process, reporting to and obtaining approval from the CEO.

Information Security Organizational Chart



Information Security Policy and Personal Information Protection Policy

1. Employees shall comply with relevant international standards and laws related to information security, and make every effort to protect information assets regarding core technologies and manpower to secure and maintain competitiveness.
2. Employees shall recognize that they are the subjects of information security and continuously participate in information security education to enhance their information security capabilities.
3. Employees cultivate a culture of information protection by integrating information security into their daily routines.
4. The purpose of collecting personal information must be clearly specified at the time of collection, and personal information processors must process personal information only within the scope directly necessary to achieve the specified purpose.
5. Personal information must be used within the scope of the purpose and processed in a way that minimizes infringement on the privacy of the data subject.

Information Security Activities

Data protection and security monitoring	Cyber threat response, network and server security management
Response and action in case of security incident	Establishment of security incident response process, Security incident reporting/action
Personal information protection	Constant monitoring and control of misuse of personal information Internal system inspection
Enhancement of information security capabilities	Provision of security incident response training, Information protection education

Data Protection and Security Monitoring

To protect data, Moorim complies with the information system security guidelines and manages wireless networks, servers, application systems, databases, and PC usage. Moorim conducts monitoring through log analysis, network logging and audit tracking, and management of wireless network and server security to respond to cyber threats.

Response and Measures for Information Security and Personal Data Breach Incidents

Moorim has established a response and measures process involving actions, notification, reporting, and countermeasure development to handle information security incidents and personal information breaches. Additionally, Moorim distinguishes between information security incidents and personal information breaches, and has designated responsible departments within the system operation department and HR department so that they can immediately take action to each incident.

Response Process for Information Security and Personal Data Breach Incidents

Incident Occurrence and Measures	Notification	Incident Reporting and Countermeasure
• Establish measures to minimize damage and take necessary actions	• Notify the incident to the data subjects: - Items of leaked personal information - Time and circumstances of the leak - Information on methods to minimize damage - Response measures and compensation procedures of the personal information management department - Responsible department and method for reporting in case of damage	• Investigate the incident and report to the Head of the Management Support Department • Establish and implement measures to prevent recurrence

INFORMATION SECURITY

Personal Information Protection

In order to manage personal information protection, Moorim has appointed a Chief Privacy Officer (CPO) to be in charge of the information security management departments. The System Operation Department, responsible for information security management and the HR Department, responsible for personnel management, are the main departments overseeing ongoing monitoring and control of personal information misuse.
To enhance personal information protection, internal systems have been inspected, and based on findings from the inspection, technical improvements have been implemented, including encrypted storage of personal information, restriction of personal information data access rights and record of access history, development and application of web-site security coding and establishment of real-time network security control service. As part of these activities, Moorim conducts activities such as monitoring and reporting on database access history for web systems in operation on a monthly basis, detecting external network intrusion attempts and blocking IPs, and minimizing user damage through internal notice upon discovering spam mails.

Personal information protection training **100%** completion once a year

Information security investment ratio Increased for **2 consecutive years**

Enhancement of Information Security Capabilities

Information Security Investment and Training

Moorim is investing in information security to establish a secure and trustworthy information security system. Moorim Paper and Moorim P&P submit their annual information security investment amounts to KISA.

Moorim's Information Protection Investment[1)]

(Unit: million KRW, %)

Category		2021	2022	2023
Moorim Paper	Investment in information technology sector	1,786	2,886	3,330
	Information protection investment	42	104	136
	Information security investment ratio	2.3	3.60	4.1
Moorim P&P	Investment in information technology sector	2,125	3,354	3,863
	Information protection investment	48	121	160
	Information security investment ratio	2.3	3.6	4.1

Additionally, Moorim conducts information security education for employees once a year, with a duration of at least one hour, for personal information protection.

Moorim's information security education and training for employees in 2023

(Unit: Persons,, %)

Category	Moorim Paper	Moorim SP	Moorim P&P
Number of employees who completed information security training	156	70	304
Completion percentage[2)]	100	100	100

1) Moorim Paper and Moorim P&P are companies subject to KISA information protection disclosure, and the disclosure standard has been changed to the investment amount submitted to KISA.
2) Number of employees who completed information security training/Number of employees subject to information protection training

APPENDIX

87 ESG Data
115 GRI Content Index
118 SASB Index
119 TCFD Index
120 UN SDGs(UN Sustainable Development Goals) Index
121 Status of Domestic and International Environmental Certifications
123 Membership Association & Status
124 GHG Emission Verification Opinion
126 Independent Assurance Statement

ESG DATA

Economy

Summary Consolidated Financial Information

Moorim Paper

Category		Unit	2021	2022	2023
Current assets	Total	million KRW	788,840	990,489	916,395
	Quick assets	million KRW	588,870	696,767	670,705
	Inventory assets	million KRW	199,970	293,722	245,690
Non-current assets	Total	million KRW	1,495,577	1,438,645	1,476,231
	Investment assets	million KRW	264,276	248,504	185,933
	Fixed assets	million KRW	1,201,852	1,156,763	1,261,601
	Intangible assets	million KRW	8,798	8,588	7,901
	Other non-current assets	million KRW	20,651	24,790	20,796
Total assets		million KRW	2,284,417	2,429,134	2,392,626
Current liabilities		million KRW	916,793	1,017,158	998,950
Non-current liabilities		million KRW	721,071	722,569	712,190
Total liabilities		million KRW	1,637,864	1,739,727	1,711,140
Capital		million KRW	104,023	104,023	104,023
Capital surplus		million KRW	36,792	36,792	36,792
Retained earnings		million KRW	111,128	134,892	131,740
Accumulated other comprehensive income		million KRW	-29	232	1,203
Other capital components		million KRW	142,241	140,735	140,735
Non-controlling interest		million KRW	252,398	272,733	266,993
Total capital		million KRW	646,553	689,407	681,486
Revenue		million KRW	1,055,273	1,399,139	1,321,885
Operating profits		million KRW	29,810	96,312	67,784
income before income tax expenses(Loss)		million KRW	3,035	41,593	-3,771
Net income	Total	million KRW	410	34,759	1,402
	Net income in controlling interest	million KRW	-6,366	15,195	3,473
	Net income in non-controlling interest	million KRW	6,776	19,564	-2,071
Basic EPS(KRW)		million KRW	-153	365	83
Number of companies included in the consolidation		million KRW	9	7	7

Moorim SP

Category		Unit	2021	2022	2023
Current assets	Total	million KRW	96,754	98,472	97,700
	Quick assets	million KRW	64,083	57,940	69,109
	Inventory assets	million KRW	32,671	40,532	28,591
Non-current assets	Total	million KRW	212,157	214,321	217,367
	Investment assets	million KRW	152,730	161,608	159,340
	Fixed assets	million KRW	51,786	44,708	50,108
	Intangible assets	million KRW	7,490	7,501	7,427
	Other non-current assets	million KRW	151	504	492
Total assets		million KRW	308,911	312,793	315,067
Current liabilities		million KRW	59,395	57,028	73,094
Non-current liabilities		million KRW	37,264	47,783	42,023
Total liabilities		million KRW	96,659	104,811	115,117
Capital		million KRW	11,069	11,069	11,069
Capital surplus		million KRW	38,720	38,720	38,720
Retained earnings		million KRW	145,573	139,478	131,684
Accumulated other comprehensive income		million KRW	17,206	18,913	18,618
Other capital components		million KRW	-1,831	-1,831	-1,831
Non-controlling interest		million KRW	1,515	1,633	1,690
Total capital		million KRW	212,252	207,982	199,950
Revenue		million KRW	132,202	153,455	162,094
Operating profits		million KRW	6,101	-7,182	-7,290
income before income tax expenses(Loss)		million KRW	5,638	-11,598	-7,710
Net income	Total	million KRW	4,332	-8,674	-5,732
	Net income in controlling interest	million KRW	4,196	-8,793	-5,787
	Net income in non-controlling interest	million KRW	136	119	55
Basic EPS(KRW)		million KRW	190	-397	-261
Number of companies included in the consolidation		million KRW	1	1	1

ESG DATA

Economy

Summary Consolidated Financial Information

Moorim P&P

Category		Unit	2021	2022	2023
Current assets	Total	million KRW	456,652	606,630	575,867
	Quick assets	million KRW	358,902	462,238	444,485
	Inventory assets	million KRW	97,750	144,392	131,382
Non-current assets	Total	million KRW	1,026,940	997,428	1,047,103
	Investment assets	million KRW	38,567	50,948	48,639
	Fixed assets	million KRW	732,092	711,412	823,484
	Intangible assets	million KRW	2,238	2,071	1,710
	Other non-current assets	million KRW	254,043	232,997	173,270
Total assets		million KRW	1,483,592	1,604,058	1,622,970
Current liabilities		million KRW	527,378	590,303	587,650
Non-current liabilities		million KRW	337,272	351,066	404,946
Total liabilities		million KRW	864,650	941,369	992,596
Capital		million KRW	155,921	155,921	155,921
Capital surplus		million KRW	121,319	121,319	121,319
Retained earnings		million KRW	336,530	380,174	346,457
Accumulated other comprehensive income		million KRW	-404	-614	621
Other capital components		million KRW	-2,965	-2,968	-2,968
Non-controlling interest		million KRW	8,541	8,857	9,024
Total capital		million KRW	618,942	662,689	630,374
Revenue		million KRW	613,699	774,104	768,920
Operating profits		million KRW	29,387	68,291	11,610
income before income tax expenses(Loss)		million KRW	25,988	54,965	-31,551
Net income	Total	million KRW	19,730	45,518	-21,636
	Net income in controlling interest	million KRW	18,590	44,938	-21,986
	Net income in non-controlling interest	million KRW	1,140	580	350
Basic EPS(KRW)		million KRW	298	721	-353
Number of companies included in the consolidation		million KRW	3	2	2

ESG DATA

Economy

Distribution of Economic Value[1)]

Category		Unit	2021	2022	2023
Moorim Paper					
Shareholders and investors	Cost of capital	million KRW	1,040	2,080	3,121
Employees	Wage	million KRW	41,272	47,815	40,288
Employees	Welfare benefits	million KRW	6,061	5,823	6,262
Local community	Social contribution costs	million KRW	147	444	785
Government	Corporate tax	million KRW	-4,865	-1,257	2,615
Partners	Raw material costs	million KRW	288,352	330,384	240,987
Moorim SP					
Shareholders and investors	Cost of capital	million KRW	553	332	221
Employees	Wage	million KRW	16,954	17,617	18,176
Employees	Welfare benefits	million KRW	2,390	2,498	2,715
Local community	Social contribution costs	million KRW	11	16	25
Government	Corporate tax	million KRW	1,437	-4,054	-2,906
Partners	Raw material costs	million KRW	65,261	83,997	65,156
Moorim P&P					
Shareholders and investors	Cost of capital	million KRW	7,795	9,355	6,236
Employees	Wage	million KRW	54,676	64,247	61,719
Employees	Welfare benefits	million KRW	8,242	8,806	10,531
Local community	Social contribution costs	million KRW	71	108	111
Government	Corporate tax	million KRW	33	14,081	-13,678
Partners	Raw material costs	million KRW	275,960	388,775	356,813

1) Distribution of economic value is applied according to separate criteria in the business report.
2), 3) Employee welfare expenses and social contribution costs are managed according to internal management criteria.

R&D investment

Category	Unit	2021	2022	2023
Moorim Paper				
R&D investment	million KRW	4,306	4,284	1,764
R&D investment ratio to Operating profits	%	0.94	0.78	0.34
Number of professional research personnel	Person	19	17	22
Number of patents and trademarks owned	Case	169	169	169
Moorim SP[2)]				
R&D investment	million KRW	-	-	-
R&D investment ratio to Operating profits	%	-	-	-
Number of professional research personnel	Person	-	-	-
Number of patents and trademarks owned	Case	172	169	169
Moorim P&P				
R&D investment	million KRW	2,559	2,499	1,764
R&D investment ratio to Operating profits	%	0.45	0.34	0.25
Number of professional research personnel	Person	19	19	22
Number of patents and trademarks owned	Case	56	58	63

1) When calculating the ratio of R&D investment to revenue, revenue is based on separate criteria.
2) Moorim SP is conducting research and development investment through Moorim Paper and Moorim P&P.

ESG DATA

Environment

Greenhouse Gas (GHG)

Category	Unit	2021	2022[1]	2023
Moorim Paper				
TOTAL GHG EMISSIONS[2, 3]	tCO_2-eq	212,198	205,703[4]	178,669
Scope 1 : Direct emissions	tCO_2-eq	10,299	9,813	8,479
Scope 2 : Indirect emissions	tCO_2-eq	201,899	195,890	170,190
GHG Emissions Intensity Based on production weight	tCO_2-eq/ton	0.51	0.54	0.56
GHG Emissions Intensity Based on separate Sales[5]	tCO_2-eq/100 million KRW	46.5	37.7	34.7
Scope 3 : Other indirect GHG emissions[6]	tCO_2-eq	-	-	145,776
(C1) Products and services purchased[6, 7]	tCO_2-eq	-	-	115,750
(C2) Capital goods	tCO_2-eq	-	-	1,667
(C3) Fuel-and-energy-related activities	tCO_2-eq	-	-	16,098
(C4) Upstream transportation and distribution	tCO_2-eq	-	-	11,128
(C5) Waste generated in operations	tCO_2-eq	-	-	956
(C6) Business travel	tCO_2-eq	-	-	177
Moorim SP				
TOTAL GHG EMISSIONS[2, 3]	tCO_2-eq	48,450	48,377	46,913
Scope 1 : Direct emissions	tCO_2-eq	26,878	26,828	26,825
Scope 2 : Indirect emissions	tCO_2-eq	21,572	21,549	20,088
GHG Emissions Intensity Based on production weight	tCO_2-eq/ton	0.61	0.63	0.65
GHG Emissions Intensity Based on separate Sales[5]	tCO_2-eq/100 million KRW	36.9	31.7	29.1
Scope 3 : Other indirect GHG emissions[6]	tCO_2-eq	-	-	51,363
(C1) Products and services purchased[6, 7]	tCO_2-eq	-	-	42,938
(C2) Capital goods	tCO_2-eq	-	-	734
(C3) Fuel-and-energy-related activities	tCO_2-eq	-	-	4,250
(C4) Upstream transportation and distribution	tCO2-eq	-	-	3,243
(C5) Waste generated in operations	tCO2-eq	-	-	167
(C6) Business travel	tCO2-eq	-	-	31

Category	Unit	2021	2022[1]	2023
Moorim P&P				
TOTAL GHG EMISSIONS[2, 3]	tCO_2-eq	244,396	238,946	251,659
Scope 1 : Direct emissions	tCO_2-eq	109,043	102,889	112,634
Scope 2 : Indirect emissions	tCO_2-eq	135,353	136,057	139,025
GHG Emissions Intensity Based on production weight	tCO_2-eq/ton	0.27	0.27	0.29
GHG Emissions Intensity Based on separate Sales[5]	tCO_2-eq/100 million KRW	43.0	32.7	35.0
Scope 3 : Other indirect GHG emissions[6]	tCO_2-eq	-	-	274,965
(C1) Products and services purchased[6, 7]	tCO_2-eq	-	-	186,032
(C2) Capital goods	tCO_2-eq	-	-	23,613[8]
(C3) Fuel-and-energy-related activities	tCO_2-eq	-	-	43,849
(C4) Upstream transportation and distribution	tCO_2-eq	-	-	17,072
(C5) Waste generated in operations	tCO_2-eq	-	-	4,124
(C6) Business travel	tCO_2-eq	-	-	275

1) Greenhouse gas emissions in 2022 were rounded for the previous year, and for this year, the disclosure standards were unified to decimal values, so some data are different from the previous year.
2) Greenhouse gas emissions calculation standards: Application of the "Guidelines for Emissions Reporting and Certification" and the "Guidelines for the Operation of the Greenhouse Gas Energy Target Management System, etc."
3) The boundaries of the partially occupied parts of the Moorim Building are set according to the distribution of the occupied area, and greenhouse gas emissions from small-emitting workplaces (Seoul/Jinju offices) for each corporation are included.
4) Moorim Paper filed an appeal against the 2022 emissions certification and corrected the greenhouse gas and energy usage with final approval from the Ministry of Environment after the previous year's announcement.
5) Greenhouse Gas emissions intensity is calculated on a separate basis from sales.
6) If there is a transaction between the three Moorim companies, it is excluded from the Scope 3 calculation of the purchasing company.
7) Ratio of EDP certified products to total sales in 2023: Moorim Paper 2.6%, Moorim P&P 70.4%
8) Emissions related to acquisition of eco-friendly high-efficiency boiler assets: 18,029 tons
※ Scope 3 emissions were calculated based on Moorim's own methodology, and additional calculation methodologies for processing and disposal of downstream C10 and C12 sold products are being developed.

ESG DATA

Environment

Energy

Category	Unit	2021	2022[1]	2023
Moorim Paper				
Total energy consumption[2, 3]	TJ	4,359	3,926[4]	3,400
Total energy consumption(Direct)	TJ	200	190	164
LNG	TJ	191	183	158
LPG	TJ	0.12	0.13	0.21
Diesel	TJ	8.3	7.4	6.0
Gasoline	TJ	0.20	0.22	0.20
Others (B-C oil, other liquid fuels, propane, etc.)	TJ	0	0	0
Subtotal of renewable energy consumption	TJ	0	0	0
Biomass	TJ	0	0	0
Biogas	TJ	0	0	0
Ratio of renewable energy use	%	0	0	0
Total energy consumption(Indirect)	TJ	4,159	3,736	3,236
Electricity	TJ	2,339	2,069	1,749
Steam	TJ	1,820	1,667	1,487
Grid power ratio	%	53.7	52.7	51.4
Energy Consumption Intensity Based on separate Sales[5]	TJ/100 million KRW	0.96	0.72	0.66
Energy Consumption Intensity Based on production weight	TJ/product tonnage	0.01	0.01	0.01

Category	Unit	2021	2022[1]	2023
Moorim SP				
Total energy consumption[2, 3]	TJ	980	977	947
Total energy consumption(Direct)	TJ	529	528	528
LNG	TJ	527	526	526
LPG	TJ	0.20	0.22	0.28
Diesel	TJ	2.4	2.2	2.3
Gasoline	TJ	0.15	0.17	0.10
Others (B-C oil, other liquid fuels, propane, etc.)	TJ	0	0	0
Subtotal of renewable energy consumption	TJ	0	0	0
Biomass	TJ	0	0	0
Biogas	TJ	0	0	0
Ratio of renewable energy use	%	0	0	0
Total energy consumption(Indirect)	TJ	451	449	419
Electricity	TJ	451	449	419
Steam	TJ	0	0	0
Grid power ratio	%	46.0	46.0	44.2
Energy Consumption Intensity Based on separate Sales[5]	TJ/100 million KRW	0.75	0.64	0.59
Energy Consumption Intensity Based on production weight	TJ/product tonnage	0.01	0.01	0.01

1) Energy consumption in 2022 was rounded compared to the previous year, and this year, the disclosure standards were unified to the decimal point of energy consumption by business location, so some data is different from the previous year.
2) Energy usage calculation standards: Applying the 「Guidelines for Emission Reporting and Certification」 and 「Guidelines for Greenhouse Gas Energy Target Management System Operation, etc.」
3) The boundaries of the partially occupied parts of the Moorim building are set according to the distribution of the occupied area, and the energy consumption of small emissions business sites (Seoul/Jinju offices) for each corporation is included.
4) Moorim Paper filed an appeal against the 2022 emissions certification and corrected the greenhouse gas and energy usage with final approval from the Ministry of Environment after the previous year's announcement.
5) Energy Consumption intensity is calculated on a separate basis from sales.

ESG DATA

Environment

Energy

Category	Unit	2021[1]	2022[1]	2023
Moorim P&P				
Total energy consumption[2, 3]	TJ	13,793	13,300	13,692
Total energy consumption(Direct)	TJ	10,965	10,457	10,787
LNG	TJ	571	667	678
LPG	TJ	0.11	0.21	0.28
Diesel	TJ	11.2	10.7	11.6
Gasoline	TJ	1.10	1.30	1.71
Others (B-C oil, other liquid fuels, propane, etc.)	TJ	889	758	879
Subtotal of renewable energy consumption	TJ	9,494	9,019	9,218
Biomass	TJ	8,064	7,863	8,162
Biogas	TJ	1,430	1,156	1,056
Ratio of renewable energy use	%	68.8	67.8	67.3
Total energy consumption(Indirect)	TJ	2,828	2,843	2,905
Electricity	TJ	2,828	2,843	2,905
Steam	TJ	0	0	0
Grid power ratio	%	20.5	21.4	21.2
Energy Consumption Intensity Based on separate Sales[5]	TJ/100 million KRW	2.43	1.82	1.90
Energy Consumption Intensity Based on production weight	TJ/product tonnage	0.02	0.02	0.02

1) Energy consumption in 2022 was rounded compared to the previous year, and this year, the disclosure standards were unified to the decimal point of energy consumption by business location, so some data is different from the previous year.
2) Energy usage calculation standards: Applying the 「Guidelines for Emission Reporting and Certification」 and 「Guidelines for Greenhouse Gas Energy Target Management System Operation, etc.」
3) The boundaries of the partially occupied parts of the Moorim building are set according to the distribution of the occupied area, and the energy consumption of small emissions business sites (Seoul/Jinju offices) for each corporation is included.
4) Energy Consumption intensity is calculated on a separate basis from sales.

Water Resources

Category	Unit	2021	2022	2023
Moorim Paper				
Total water withdrawals	ton	4,736,720	4,558,432	3,787,612
Tap water	ton	65,909	76,941	67,691
Industrial water	ton	0	0	0
Groundwater	ton	0	0	0
Surface water	ton	4,465,400	4,269,690	3,500,335
Rain water	ton	0	0	0
Steam, Condensate	ton	205,411	211,801	219,586
Seawater	ton	0	0	0
Total water usage	ton	5,593,576	5,544,669	4,883,846
Water usage target[1]	ton	4,668,895	4,585,102	3,963,290
Tap water usage	ton	65,909	76,941	67,691
Industrial water usage	ton	0	0	0
Groundwater usage	ton	0	0	0
Surface water usage	ton	4,465,400	4,269,690	3,500,335
Rain water usage	ton	0	0	0
Steam, Condensate	ton	205,411	211,801	219,586
Recycled wastewater	ton	856,856	986,237	1,096,234
Seawater	ton	0	0	0
Discharge	ton	4,760,702	4,535,260	3,640,779
Sewage discharge	ton	1,810,210	1,643,627	1,590,894
Wastewater discharge	ton	2,950,492	2,891,633	2,049,885
Others	ton	0	0	0
Recycling rate	%	15.3	17.8	22.4
Water Use Intensit Based on separate Sales[2]	ton/100 million KRW	1,226.49	1,015.41	949.60
Percentage of water consumed in water stressed areas[3]	%	0	0	0

1) Moorim Paper sets and manages water usage targets for surface water (Nam River water intake performance).
2) Water use intensity is calculated on a separate basis from sales.
3) All of Moorim's business sites are not located in water stress areas.

ESG DATA

Environment

Water Resources

Category	Unit	2021	2022	2023
Moorim SP				
Total water withdrawals	ton	979,012	1,070,147	1,414,908
Tap water	ton	266,040	246,560	325,750
Industrial water	ton	0	0	0
Groundwater	ton	189,402	347,807	478,188
Surface water	ton	523,570	475,780	610,970
Rain water	ton	0	0	0
Steam, Condensate	ton	0	0	0
Seawater	ton	0	0	0
Total water usage	ton	2,296,302	2,219,507	2,225,018
Water usage target[1]	ton	854,360	882,931	1,257,773
Tap water usage	ton	266,040	246,560	325,750
Industrial water usage[2]	ton	0	0	0
Groundwater usage[2]	ton	189,402	347,807	478,188
Surface water usage	ton	523,570	475,780	610,970
Rain water usage	ton	0	0	0
Steam, Condensate	ton	0	0	0
Recycled wastewater	ton	1,317,290	1,149,360	810,110
Seawater	ton	0	0	0
Discharge	ton	410,760	535,240	863,250
Sewage discharge	ton	410,760	535,240	863,250
Wastewater discharge	ton	0	0	0
Others	ton	0	0	0
Recycling rate	%	57.0	51.8	36.4
Water Use Intensit Based on separate Sales[3]	ton/100 million KRW	1,759.04	1,455.68	1,380.79
Percentage of water consumed in water stressed areas[4]	%	0	0	0

Category	Unit	2021	2022	2023
Moorim P&P				
Total water withdrawals	ton	29,597,884	29,503,461	29,341,458
Tap water	ton	6,353	12,423	8,055
Industrial water	ton	20,412,781	20,359,482	20,277,506
Groundwater	ton	0	0	0
Surface water	ton	0	0	0
Rain water	ton	0	0	0
Steam, Condensate	ton	0	0	0
Seawater	ton	9,178,750	9,131,556	9,055,897
Total water usage	ton	38,181,789	37,500,867	37,279,043
Water usage target[1]	ton	20,596,161	20,769,413	20,459,978
Tap water usage	ton	6,353	12,423	8,055
Industrial water usage	ton	20,412,781	20,359,482	20,277,506
Groundwater usage	ton	0	0	0
Surface water usage	ton	0	0	0
Rain water usage	ton	0	0	0
Steam, Condensate	ton	0	0	0
Recycled wastewater	ton	8,583,905	7,997,406	7,937,585
Seawater	ton	9,178,750	9,131,556	9,055,897
Discharge	ton	22,749,339	20,722,043	19,745,220
Sewage discharge	ton	0	0	0
Wastewater discharge	ton	0	0	0
Others	ton	22,749,339	20,722,043	19,745,220
Recycling rate[5]	%	37.7	38.6	40.2
Water Use Intensit Based on separate Sales[3]	ton/100 million KRW	6,716.45	5,131.31	5,183.08
Percentage of water consumed in water stressed areas[4]	%	0	0	0

1) Moorim SP sets water usage targets for groundwater, surface water, and water supply, and Moorim P&P sets water usage targets for industrial water and manages performance.
2) As the standards for disclosure of water usage were changed, existing industrial water usage was announced as groundwater usage.
3) Water use intensity is calculated on a separate basis from sales.
4) All of Moorim's business sites are not located in water stress areas.
5) Moorim P&P calculates the water recycling rate announced in the environmental information disclosure system.

ESG DATA

Environment

Chemical Substance Usage

Category	Unit	2021	2022	2023
Moorim Paper				
Total hazardous chemical substance usage	ton	118	94	88
Hazardous Chemicals Use Intensity Based on separate Sales[1)]	ton/100 million KRW	0.03	0.02	0.02
Moorim SP				
Total hazardous chemical substance usage	ton	39	41	49
Hazardous Chemicals Use Intensity Based on separate Sales[1)]	ton/100 million KRW	0.03	0.03	0.03
Moorim P&P				
Total hazardous chemical substance usage	ton	84,429	77,305	75,219
Hazardous Chemicals Use Intensity Based on separate Sales[1)]	ton/100 million KRW	14.85	10.58	10.46

1) Hazardous Chemicals Use Intensity is calculated on a separate basis from sales.

Air Pollutant Emissions

Category	Unit	2021	2022	2023
Moorim Paper[1)]				
NOx	ton	4.0	-	4.6
SOx	ton	0.08	-	0.00
PM	ton	8.5	0.4	6.8
Moorim SP				
NOx	ton	9.4	8.8	8.3
SOx	ton	0.03	0.29	0.00
PM	ton	1.8	0.7	2.2
Moorim P&P				
NOx	ton	307.9	237.1	237.7
SOx	ton	3.57	21.52	40.95
PM	ton	8.3	2.8	3.0

1) In the case of Moorim Paper's NOx and SOx air pollutant emissions, measurements in 2022 will be replaced by measurements in 2021 and will not be conducted.

Water Pollutant Emissions

Category	Unit	2021	2022	2023
Moorim Paper				
SS	ton	303	122	43
BOD	ton	720	181	23
TOC[1)]	ton	490	191	79
Moorim SP				
SS	ton	3	2	0
BOD	ton	4	11	5
TOC[1)]	ton	19	24	6
Moorim P&P				
SS	ton	158	107	108
BOD	ton	39	26	37
TOC[1)]	ton	840	501	568

1) Starting in 2022, the water pollutant indicator will change from COD to TOC.

ESG DATA

Environment

Waste Emissions[1)]

Category		Unit	2021	2022	2023
Moorim Paper					
Total waste generation		ton	25,378	25,510	22,642
Amount of waste generated per unit	Based on separate Sales[2)]	ton/100 million KRW	5.6	4.7	4.4
General waste generation		ton	25,345	25,469	22,607
Designated waste generation		ton	33	41	36
Waste recycling rate		%	99.7	98.1	96.5
Total waste disposal volume		ton	25,378	25,510	22,642
Subtotal of general waste		ton	25,345	25,469	22,607
By method	Self-processing	ton	0	0	0
	Outsourced processing	ton	25,345	25,469	22,607
By disposal operations	Incineration	ton	0	0	0
	Landfill	ton	15	421	739
	Recycling	ton	25,265	24,987	21,815
	Others	ton	66	61	52
Subtotal of designated waste		ton	33	41	36
By method	Self-processing	ton	0	0	0
	Outsourced processing	ton	33	41	36
By disposal operations	Incineration	ton	2	2	3
	Landfill	ton	0	0	0
	Recycling	ton	30	39	30
	Others	ton	0	0	2
Waste generation target		ton			23,511

Category		Unit	2021	2022	2023
Moorim SP					
Total waste generation		ton	4,109	4,112	4,452
Amount of waste generated per unit	Based on separate Sales[2)]	ton/100 million KRW	3.1	2.7	2.8
General waste generation		ton	4,099	4,102	4,442
Designated waste generation		ton	10	10	11
Waste recycling rate		%	99.6	99.7	99.6
Total waste disposal volume		ton	4,109	4,112	4,452
Subtotal of general waste		ton	4,099	4,102	4,442
By method	Self-processing	ton	0	0	0
	Outsourced processing	ton	4,099	4,102	4,442
By disposal operations	Incineration	ton	14	8	13
	Landfill	ton	0	0	0
	Recycling	ton	4,086	4,094	4,428
	Others	ton	0	0	0
Subtotal of designated waste		ton	10	10	11
By method	Self-processing	ton	0	0	0
	Outsourced processing	ton	10	10	11
By disposal operations	Incineration	ton	4	4	5
	Landfill	ton	0	0	0
	Recycling	ton	6	6	6
	Others	ton	0	0	0
Waste generation target		ton			4,024

1) The values of waste by type were rounded individually, resulting in some discrepancies in subtotal values due to rounding.
2) Amount of waste generated per unit is calculated on a separate basis from sales.

ESG DATA

Environment

Waste Emissions[1)]

Category		Unit	2021	2022	2023
Moorim P&P					
Total waste generation		ton	69,371	66,303	76,222
Amount of waste generated per unit	Based on separate Sales	ton/100 million KRW	12.2	9.1	10.6
General waste generation		ton	69,282	66,183	76,134
Designated waste generation		ton	89	120	88
Waste recycling rate		%	99.5	99.7	88.9
Total waste disposal volume		ton	69,301	66,299	76,187
Subtotal of general waste		ton	69,211	66,179	76,187
By method	Self-processing	ton	0	0	30
	Outsourced processing	ton	69,211	66,179	76,157
By disposal operations	Incineration	ton	235	114	135
	Landfill	ton	18	48	8,335
	Recycling	ton	68,958	66,017	67,716
	Others	ton	0	0	0
Subtotal of designated waste		ton	89	120	88
By method	Self-processing	ton	0	0	0
	Outsourced processing	ton	89	120	88
By disposal operations	Incineration	ton	17	19	26
	Landfill	ton	0	0	0
	Recycling	ton	72	102	62
	Others	ton	0	0	0
Waste generation target		ton			69,935

1) The values of waste by type were rounded individually, resulting in some discrepancies in subtotal values due to rounding.
2) Amount of waste generated per unit is calculated on a separate basis from sales.

Environmental Management System (ISO 14001)

Category	Unit	2021	2022	2023
Moorim Paper				
Certified business establishment ratio	%	100	100	100
Number of certified business establishments	Number	1	1	1
Number of businesses targeted for certification	Number	1	1	1
Moorim P&P				
Certified business establishment ratio	%	100	100	100
Number of certified business establishments	Number	1	1	1
Number of businesses targeted for certification	Number	1	1	1

ESG DATA

Environment

Environmental Laws and Regulations

Category	Unit	2021	2022	2023
Moorim Paper				
Number of legal regulation violations	Number of times	1	0	1
Total amount of fines	KRW	0	0	0
Number of lawsuits filed	Case	0	0	0
Number of non-monetary sanctions	Case	1	0	1
Environmental-related liabilities	million KRW	0	0	0
Moorim SP				
Number of legal regulation violations	Number of times	0	0	0
Total amount of fines	KRW	0	0	0
Number of lawsuits filed	Case	0	0	0
Number of non-monetary sanctions	Case	0	0	0
Environmental-related liabilities	million KRW	0	0	0
Moorim P&P				
Number of legal regulation violations	Number of times	3	5	1
Total amount of fines	KRW	0	0	0
Number of lawsuits filed	Case	0	0	0
Number of non-monetary sanctions	Case	0	0	1
Environmental-related liabilities	million KRW	0	0	0

Environmental Investment Costs

Category	Unit	2021	2022	2023
Moorim Paper				
Facility investment	million KRW	618	2,623	949
Moorim SP				
Facility investment	million KRW	90	1,909	-
Moorim P&P				
Facility investment	million KRW	3,670	5,862	3,092

Sales of Environmentally Certified Products[1)]

Category	Unit	2021	2022	2023
Moorim Paper				
Total sales amount	million KRW	424,425	500,913	480,595
Sales amount of environmentally certified products	million KRW	150,303	208,001	193,198
Sales ratio of environmentally certified products	%	35.4	41.5	40.2
Moorim SP				
Total sales amount	million KRW	114,097	127,695	128,479
Sales amount of environmentally certified products	million KRW	53,460	61,219	69,262
Sales ratio of environmentally certified products	%	46.9	47.9	53.9
Moorim P&P				
Total sales amount	million KRW	419,973	546,828	554,219
Sales amount of environmentally certified products	million KRW	300,061	371,551	467,978
Sales ratio of environmentally certified products	%	71.4	67.9	84.4

1) Scope of environmentally certified products: Includes FSC®, KFCC/PEFC, Environment mark, Low carbon product certification, PTS, UL, OK Compost

Product Production

Category	Unit	2021	2022	2023
Moorim Paper				
Pulp production[1)]	ton	-	-	-
Paper production	ton	418,920	378,756	319,609
Moorim SP				
Pulp production[1)]	ton	-	-	-
Paper production	ton	79,450	77,392	72,378
Moorim P&P				
Pulp production[2)]	ton	423,749	414,717	424,261
Paper production	ton	467,221	458,094	458,717

1) Moorim Paper and Moorim SP do not produce pulp.
2) Including slurry pulp input to the pulp and paper integrated mill.

ESG DATA

Environment

Raw Materials

Category	Unit	2021	2022	2023
Moorim Paper				
Total amount of main raw materials used	ton	267,217	238,368	199,067
Pulp raw material usage[1)]	ton	260,488	232,254	195,043
Recycled raw material usage	ton	6,729	6,114	4,024
Total amount of subsidiary raw materials used	ton	259,557	239,537	206,087
Moorim SP				
Total amount of main raw materials used	ton	72,376	72,107	68,028
Pulp raw material usage[1)]	ton	72,343	71,942	67,806
Recycled raw material usage	ton	33	165	222
Total amount of subsidiary raw materials used	ton	21,807	20,242	19,643
Moorim P&P				
Total amount of main raw materials used	ton	274,555	269,401	266,572
Pulp raw material usage[1)]	ton	274,541	268,971	266,561
Recycled raw material usage	ton	14	430	11
Total amount of subsidiary raw materials used[2)]	ton	518,211	508,808	523,282

1) All pulp raw materials used are FSC®/KFCC certified pulp (3rd party certified forest land ratio: 100%)
2) Moorim P&P subsidiary raw materials usage is the total amount of pulp/paper subsidiary raw materials used.

Society

Employee Status by Employment Type[1)]

Category	Unit	2021	2022	2023
Moorim Paper				
Total number of employees	Person	485	424	438
Regular employees	Person	464	424	438
	%	95.67	100	100
Non-regular employees	Person	21	0	0
	%	4.33	0	0
Contract workers within the workplace	Person	289	264	267
Moorim SP				
Total number of employees	Person	207	210	206
Regular employees	Person	206	210	206
	%	99.52	100	100
Non-regular employees	Person	1	0	0
	%	0.48	0	0
Contract workers within the workplace	Person	102	166	83
Moorim P&P				
Total number of employees	Person	688	702	702
Regular employees	Person	686	699	696
	%	99.71	99.57	99.15
Non-regular employees	Person	2	3	6
	%	0.29	0.43	0.85
Contract workers within the workplace	Person	335	340	333

1) Due to the different management standards of the Seoul office and each corporation (business site), the employee status data has changed slightly compared to the previous disclosure.

ESG DATA

Society

Employee Status by Gender

Category	Unit	2021	2022	2023
Moorim Paper				
Total number of male employees	Person	468	409	423
Regular employees	Person	447	409	423
Non-regular employees	Person	21	0	0
Total number of female employees	Person	17	15	15
Regular employees	Person	17	15	15
Non-regular employees	Person	0	0	0
Moorim SP				
Total number of male employees	Person	198	202	199
Regular employees	Person	198	202	199
Non-regular employees	Person	0	0	0
Total number of female employees	Person	9	8	7
Regular employees	Person	8	8	7
Non-regular employees	Person	1	0	0
Moorim P&P				
Total number of male employees	Person	633	646	641
Regular employees	Person	631	644	638
Non-regular employees	Person	2	2	3
Total number of female employees	Person	55	56	61
Regular employees	Person	55	55	58
Non-regular employees	Person	0	1	3

Employee Status by Age

Category		Unit	2021	2022	2023
Moorim Paper					
Age	20's	Person	87	58	57
	30's	Person	146	113	117
	40's	Person	160	162	157
	Over 50's	Person	92	91	107
Moorim SP					
Age	20's	Person	38	39	33
	30's	Person	69	66	55
	40's	Person	51	63	80
	Over 50's	Person	49	42	38
Moorim P&P					
Age	20's	Person	100	96	96
	30's	Person	237	240	228
	40's	Person	172	178	189
	Over 50's	Person	179	188	189

ESG DATA

Society

Employee Status by Region

Category		Unit	2021	2022	2023
Moorim Paper					
Total number of employees		Person	485	424	438
Region	Headquarters employees	Person	68	72	76
	Local branch employees	Person	415	350	360
	Overseas employees	Person	2	2	2
Moorim SP					
Total number of employees		Person	207	210	206
Region	Headquarters employees	Person	24	23	22
	Local branch employees	Person	183	187	184
	Overseas employees	Person	0	0	0
Moorim P&P					
Total number of employees		Person	688	702	702
Region	Headquarters employees	Person	130	126	125
	Local branch employees	Person	558	576	577
	Overseas employees	Person	0	0	0

Employee Composition by Managerial Level

Category		Unit	2021	2022	2023
Moorim Paper					
Male	Total number of male employees	Person	468	409	423
	Executives	Person	9	9	8
	Executive ratio	%	1.9	2.1	1.8
	Managers (section head or higher, excluding executives)	Person	127	117	118
	Managerial ratio	%	26.2	27.6	26.9
	Non-managerial (assistant or below)	Person	332	283	297
	Non-managerial ratio	%	68.5	66.7	67.8
Female	Total number of female employees	Person	17	15	15
	Executives	Person	0	0	0
	Executive ratio	%	0	0	0
	Managers (section head or higher, excluding executives)	Person	4	3	3
	Managerial ratio	%	0.8	0.7	0.7
	Non-managerial (assistant or below)	Person	13	12	12
	Non-managerial ratio	%	2.7	2.8	2.7

ESG DATA

Society

Employee Composition by Managerial Level

Category		Unit	2021	2022	2023
Moorim SP					
Male	**Total number of male employees**	Person	198	202	199
	Executives	Person	1	1	1
	Executive ratio	%	0.5	0.5	0.5
	Managers (section head or higher, excluding executives)	Person	62	65	65
	Managerial ratio	%	30.0	31.0	31.6
	Non-managerial (assistant or below)	Person	135	136	133
	Non-managerial ratio	%	65.2	64.8	64.6
Female	**Total number of female employees**	Person	9	8	7
	Executives	Person	0	0	0
	Executive ratio	%	0	0	0
	Managers (section head or higher, excluding executives)	Person	2	2	2
	Managerial ratio	%	1	1	1
	Non-managerial (assistant or below)	Person	7	6	5
	Non-managerial ratio	%	3.4	2.9	2.4

Category		Unit	2021	2022	2023
Moorim P&P					
Male	**Total number of male employees**	Person	633	646	641
	Executives	Person	4	6	5
	Executive ratio	%	0.6	0.9	0.7
	Managers (section head or higher, excluding executives)	Person	170	182	178
	Managerial ratio	%	24.7	25.9	25.4
	Non-managerial (assistant or below)	Person	459	458	458
	Non-managerial ratio	%	66.7	65.2	65.2
Female	**Total number of female employees**	Person	55	56	61
	Executives	Person	0	0	0
	Executive ratio	%	0	0	0
	Managers (section head or higher, excluding executives)	Person	0	0	1
	Managerial ratio	%	0	0	0.1
	Non-managerial (assistant or below)	Person	55	56	60
	Non-managerial ratio	%	8.0	8.0	8.5

ESG DATA

Society

New Hiring

Category		Unit	2021	2022	2023
Moorim Paper					
Total new hires		Person	32	8	38
Gender	Male	Person	32	8	36
	Female	Person	0	0	2
Age group	20's	Person	23	7	29
	30's	Person	9	1	8
	40's	Person	0	0	1
	Over 50's	Person	0	0	0
Position level	Executives	Person	0	0	0
	Managerial	Person	0	0	1
	Non-managerial	Person	32	8	37
Moorim SP					
Total new hires		Person	12	17	17
Gender	Male	Person	10	17	17
	Female	Person	2	0	0
Age group	20's	Person	11	15	15
	30's	Person	1	2	2
	40's	Person	0	0	0
	Over 50's	Person	0	0	0
Position level	Executives	Person	0	0	0
	Managerial	Person	0	0	0
	Non-managerial	Person	12	17	17

Category		Unit	2021	2022	2023
Moorim P&P					
Total new hires		Person	47	41	57
Gender	Male	Person	33	29	46
	Female	Person	14	12	11
Age group	20's	Person	41	30	45
	30's	Person	5	11	11
	40's	Person	1	0	0
	Over 50's	Person	0	0	1
Position level	Executives	Person	0	0	0
	Managerial	Person	0	0	0
	Non-managerial	Person	47	41	57

ESG DATA

Society

Parental Leave[1)]

Category		Unit	2021	2022	2023
Moorim Paper					
Parental leave users	Male	Person	2	7	6
	Female	Person	1	2	1
Individuals eligible for return after parental leave	Male	Person	2	7	6
	Female	Person	1	2	1
Individuals who returned to work after parental leave	Male	Person	2	7	6
	Female	Person	1	2	1
Return-to-work rate after parental leave	Male	%	100	100	100
	Female	%	100	100	100
Individuals who remained employed for 12 months or more after returning to work following parental leave	Male	Person	2	6	6
	Female	Person	1	2	-
Rate of individuals remaining employed for 12 months or more after returning to work following parental leave	Male	%	100	86	100
	Female	%	100	100	-
Moorim SP					
Parental leave users	Male	Person	0	1	0
	Female	Person	0	1	0
Individuals eligible for return after parental leave	Male	Person	-	1	-
	Female	Person	-	1	-
Individuals who returned to work after parental leave	Male	Person	-	1	-
	Female	Person	-	1	-
Return-to-work rate after parental leave	Male	%	-	100	-
	Female	%	-	100	-
Individuals who remained employed for 12 months or more after returning to work following parental leave	Male	Person	-	1	-
	Female	Person	-	1	-
Rate of individuals remaining employed for 12 months or more after returning to work following parental leave	Male	%	-	100	-
	Female	%	-	100	-

Category		Unit	2021	2022	2023
Moorim P&P					
Parental leave users	Male	Person	1	1	2
	Female	Person	1	2	2
Individuals eligible for return after parental leave	Male	Person	1	1	2
	Female	Person	1	2	2
Individuals who returned to work after parental leave	Male	Person	1	1	2
	Female	Person	1	2	2
Return-to-work rate after parental leave	Male	%	100	100	100
	Female	%	100	100	100
Individuals who remained employed for 12 months or more after returning to work following parental leave	Male	Person	0	1	2
	Female	Person	1	1	2
Rate of individuals remaining employed for 12 months or more after returning to work following parental leave	Male	%	0	100	100
	Female	%	100	50	100

1) Excluding spouse childbirth leave and split leave, there has been a change in the data.

ESG DATA

Society

Composition of Resigning Employees

Category		Unit	2021	2022	2023
Moorim Paper					
Total number of employees who resigned		Person	32	56	22
Gender	Male	Person	30	54	20
	Female	Person	2	2	2
Total number of employees who resigned		Person	32	56	22
Age group	20's	Person	16	22	12
	30's	Person	6	19	4
	40's	Person	4	5	4
	Over 50's	Person	6	10	2
Total retirement rate[1]		%	6.6	13.2	5.0
Voluntary retirement rate[2]		%	5.2	5.2	4.1
Moorim SP					
Total number of employees who resigned		Person	11	21	23
Gender	Male	Person	9	20	22
	Female	Person	2	1	1
Total number of employees who resigned		Person	11	21	23
Age group	20's	Person	4	11	13
	30's	Person	2	2	2
	40's	Person	0	0	2
	Over 50's	Person	5	8	6
Total retirement rate[1]		%	5.3	10.0	11.2
Voluntary retirement rate[2]		%	2.9	6.2	7.3

Category		Unit	2021	2022	2023
Moorim P&P					
Total number of employees who resigned		Person	39	37	54
Gender	Male	Person	33	27	48
	Female	Person	6	10	6
Total number of employees who resigned		Person	39	37	54
Age group	20's	Person	17	19	22
	30's	Person	11	8	20
	40's	Person	4	0	3
	Over 50's	Person	7	10	9
Total retirement rate[1]		%	5.7	5.3	7.7
Voluntary retirement rate[2]		%	4.7	3.7	6.0

1) Total number of retirements/Total number of executives and employees
2) Total number of voluntary retirements/Total number of executives and employees

ESG DATA

Society

The Employment Status of Foreign Nationals

Category	Unit	2021	2022	2023
Moorim Paper				
Number of foreign nationals in domestic workplaces	Person	0	0	0
Proportion of foreign nationals in domestic workplaces	%	0	0	0
Foreign nationalities				
Moorim SP				
Number of foreign nationals in domestic workplaces	Person	0	0	0
Proportion of foreign nationals in domestic workplaces	%	0	0	0
Foreign nationalities				
Moorim P&P				
Number of foreign nationals in domestic workplaces	Person	1	1	1
Proportion of foreign nationals in domestic workplaces	%	0.15	0.14	0.14
Foreign nationalities		Bangladesh	Bangladesh	Bangladesh

Talent Development

Category	Unit	2021	2022	2023
Moorim Paper				
Number of employees in capacity building training	Person	980	727	969
Average training cost per employee in capacity building training	One million KRW	0.1	0.1	0.1
Average training hours per employee in capacity building training	Hour	3.4	6.4	7.8
Total training expenses	One million KRW	72	47	59
Total training hours	Hour	3,356	4,674	7,545
Average training expenses per person	One million KRW	0.1	0.1	0.1
Average training per person	Hour	6.9	11.0	17.2
Moorim SP				
Number of employees in capacity building training	Person	360	295	401
Average training cost per employee in capacity building training	One million KRW	0.1	0.1	0.1
Average training hours per employee in capacity building training	Hour	3.7	7.6	7.8
Total training expenses	One million KRW	22	15	41
Total training hours	Hour	1,314	2,231	3,108
Average training expenses per person	One million KRW	0.1	0.1	0.2
Average training per person	Hour	6.3	10.6	15.1
Moorim P&P				
Number of employees in capacity building training	Person	1,560	1,168	1,731
Average training cost per employee in capacity building training	One million KRW	0.1	0.1	0.1
Average training hours per employee in capacity building training	Hour	3.7	7.9	8.8
Total training expenses	One million KRW	168	109	147
Total training hours	Hour	5,739	9,228	15,241
Average training expenses per person	One million KRW	0.2	0.2	0.2
Average training hours per person	Hour	8.3	13.1	21.7

ESG DATA

Society

Welfare Benefits

Category	Unit	2021	2022	2023
Moorim Paper				
Total welfare expenses	million KRW	6,061	5,823	6,262
Welfare expenses per person	million KRW/Person	12.50	13.73	14.30
Moorim SP				
Total welfare expenses	million KRW	2,390	2,498	2,715
Welfare expenses per person	million KRW/Person	11.55	11.90	13.18
Moorim P&P				
Total welfare expenses	million KRW	8,242	8,806	10,531
Welfare expenses per person	million KRW/Person	11.98	12.54	15.00

1) Welfare expenses is managed according to internal management criteria.
2) Welfare expenses per person are calculated as total welfare expenses divided by the total number of employees, and in 2022, it was calculated based on the total number of regular employees, resulting in a change in the data.

Compensation for Members

Category		Unit	2021	2022	2023
Moorim Paper					
Average wage		One thousand KRW	70,000	78,241	74,372
Gender	Male	One thousand KRW	70,655	78,974	79,118
	Female	One thousand KRW	52,238	58,675	57,378
Gender pay ratio (male to female)		%	73.93	74.30	72.52
Moorim SP					
Average wage		One thousand KRW	71,163	70,457	78,361
Gender	Male	One thousand KRW	72,290	71,167	74,871
	Female	One thousand KRW	46,490	52,609	60,252
Gender pay ratio (male to female)		%	64.31	73.92	80.47
Moorim P&P					
Average wage		One thousand KRW	67,527	80,450	74,159
Gender	Male	One thousand KRW	69,862	83,190	76,844
	Female	One thousand KRW	40,773	49,040	46,169
Gender pay ratio (male to female)		%	58.36	58.95	60.08

1) Excluding executives, there has been a change in the average compensation for employees.

ESG DATA

Society

Labor-Management Cooperation

Category	Unit	2021	2022	2023
Moorim Paper				
Number of employees covered by labor union/collective agreements[1]	Person	323	294	300
Percentage of employees covered by labor union/collective agreements[2]	%	66.6	69.3	68.5
Number of employee grievance received	Case	12	18	29
Number of employee grievance resolved	Case	12	18	29
Employee grievance resolution rate	%	100	100	100
Moorim SP				
Number of employees covered by labor union/collective agreements[1]	Person	150	156	150
Percentage of employees covered by labor union/collective agreements[2]	%	72.5	74.3	72.8
Number of employee grievance received	Case	6	15	11
Number of employee grievance resolved	Case	6	15	11
Employee grievance resolution rate	%	100	100	100
Moorim P&P				
Number of employees covered by labor union/collective agreements[1]	Person	427	429	432
Percentage of employees covered by labor union/collective agreements[2]	%	62.1	61.1	61.5
Number of employee grievance received	Case	23	48	28
Number of employee grievance resolved	Case	23	48	28
Employee grievance resolution rate	%	100	100	100

1) Collective agreements are applied to all labor union members.
2) The percentage of manpower covered by labor unions and collective agreements is calculated as the total number of manpower divided by the total number of employees.
3) This is the total number of grievance handling (Happy Man System) cases, and in the case of Seoul office agenda, the ratio was distributed according to the number of people in the three Moorim companies.

Mutual Growth Cooperation

Category	Unit	2021	2022	2023
Moorim Paper				
Total scale of partner companies	Number	466	451	428
Total purchase amount from partner companies	million KRW	315,205	332,292	227,841
Moorim SP				
Total scale of partner companies	Number	457	341	338
Total purchase amount from partner companies	million KRW	75,349	102,469	72,720
Moorim P&P				
Total scale of partner companies	Number	635	633	641
Total purchase amount from partner companies	million KRW	374,610	491,991	591,908

Partner company monitoring evaluation

Category	Unit	2021	2022	2023
Moorim Paper				
Number of partner companies with excellent ratings	Number	27	13	36
Moorim SP				
Number of partner companies with excellent ratings	Number	17	13	28
Moorim P&P				
Number of partner companies with excellent ratings	Number	52	31	16

ESG DATA

Society

Resolution of safety and health grievances from partner companies

Category	Unit	2021	2022	2023
Moorim Paper				
Number of grievance cases received from in-house partner companies	Case	32	42	45
Number of grievance cases resolved for in-house partner companies	Case	32	42	45
Grievance resolution rate for in-house partner companies	%	100	100	100
Moorim SP				
Number of grievance cases received from in-house partner companies	Case	25	27	108
Number of grievance cases resolved for in-house partner companies	Case	25	27	108
Grievance resolution rate for in-house partner companies	%	100	100	100
Moorim P&P				
Number of grievance cases received from in-house partner companies	Case	69	69	66
Number of grievance cases resolved for in-house partner companies	Case	69	69	66
Grievance resolution rate for in-house partner companies	%	100	100	100

Social Contribution Activity Status[1), 2), 3)]

Category	Unit	2021	2022	2023
Moorim Paper				
Social contribution costs	million KRW	147	444	785
Moorim SP				
Social contribution costs	million KRW	11	16	25
Moorim P&P				
Social contribution costs	million KRW	71	108	111

1) Social contribution activities include tangible and intangible social value activities such as paper and other in-kind and cash donations, paper airplane contests, paper adventures, and employee volunteer activities.
2) The cost of social contribution activities is based on the amount stated in the letter of acceptance and result report, and includes all donations, event expenses, etc. In the case of donated items, It was calculated by converting it into an amount.
3) Events jointly organized by the three Moorim pulp and paper companies were included in 'Moorim Paper' social contribution activities.

Health and Safety Management System[1)]

Category	Unit	2021	2022	2023
Moorim Paper				
Certification Rate for Occupational Health and Safety Management System (ISO 45001)	%	100	100	100
Number of Certified Establishments	Number	1	1	1
Number of Establishments Subject to Certification	Number	1	1	1
Moorim SP				
Certification Rate for Occupational Health and Safety Management System (ISO 45001)	%	100	100	100
Number of Certified Establishments	Number	1	1	1
Number of Establishments Subject to Certification	Number	1	1	1
Moorim P&P				
Certification Rate for Occupational Health and Safety Management System (ISO 45001)	%	100	100	100
Number of Certified Establishments	Number	1	1	1
Number of Establishments Subject to Certification	Number	1	1	1

1) Scope of certification : Moorim Paper (Design and Manufacture of Paper), Moorim SP (Manufacture of woodfree printing & writing papers, coated papers and CCP), Moorim P&P(Design and Manfacture of Paper and Pulp)

ESG DATA

Society

Industrial Safety

Category		Unit	2021	2022	2023
Moorim Paper					
Industrial Safety Training Hours		Hour	18,648	16,056	16,008
Total Training Hours	Employees	Hour	11,256	9,840	9,504
	Partners	Hour	7,392	6,216	6,504
Total Number of Training Participants[1)]	Employees	Person	427	368	360
	Partners	Person	308	259	271
Moorim SP					
Industrial Safety Training Hours		Hour	7,168	7,168	7,284
Total Training Hours	Employees	Hour	5,032	5,032	5,028
	Partners	Hour	2,136	2,136	2,256
Total Number of Training Participants[1)]	Employees	Person	177	177	181
	Partners	Person	89	89	94
Moorim P&P					
Industrial Safety Training Hours		Hour	22,232	23,112	21,904
Total Training Hours	Employees	Hour	14,216	15,096	14,680
	Partners	Hour	8,016	8,016	7,224
Total Number of Training Participants[1)]	Employees	Person	511	533	552
	Partners	Person	334	334	301

1) Safety training participants include only factory personnel, excluding Seoul office personnel.

Employee Health and Safety (Status of Health Check-ups)

Category	Unit	2021	2022	2023
Moorim Paper				
Employees	Person	465	418	410
Moorim SP				
Employees	Person	193	193	195
Moorim P&P				
Employees	Person	663	663	661

ESG DATA

Society

Industrial Accidents

Category		Unit	2021	2022	2023
Moorim Paper					
Number of Accidents	Employees	Case	2	1	2
	Partners	Case	9	5	0
Industrial Accident Rate	Employees	%	0.5	0.3	0.6
	Partners	%	2.9	1.9	0
Lost Time Injury Frequency Rate (LTIR)[1]	Employees	-	1.7	1.0	2.3
Lost Time Injury Severity Rate (LTISR)[2]	Employees	-	0.2	0.1	0.3
Lost Workdays		Day	837	315	285
Work-related Fatality Rate[3]		‰	0.00	0.00	0.28
Moorim SP					
Number of Accidents	Employees	Case	2	3	1
	Partners	Case	0	0	2
Industrial Accident Rate	Employees	%	1.1	1.7	0.5
	Partners	%	0	0	2.1
Lost Time Injury Frequency Rate (LTIR)[1]	Employees	-	3.8	5.7	2.2
Lost Time Injury Severity Rate (LTISR)[2]	Employees	-	0.2	0.5	0.1
Lost Workdays		Day	104	274	90
Work-related Fatality Rate[3]		‰	0.00	0.00	0.00

Category		Unit	2021	2022	2023
Moorim P&P					
Number of Accidents	Employees	Case	2	2	3
	Partners	Case	3	7	3
Industrial Accident Rate	Employees	%	0.4	0.4	0.5
	Partners	%	0.9	2.1	1.0
Lost Time Injury Frequency Rate (LTIR)[1]	Employees	-	1.3	1.3	2.2
Lost Time Injury Severity Rate (LTISR)[2]	Employees	-	0.1	0.1	0.1
Lost Workdays		Day	264	229	112
Work-related Fatality Rate[3]		‰	0.00	0.00	0.00

1) LTIFR (Lost Time Injury Frequency Rate) =
(Number of work losses due to disasters/Total number of working hours per year)*1,000,000
2) LTISR (Lost Time Injury Severity Rate) =
(Number of working days lost due to disaster/total number of working hours per year)*1,000
3) Number of deceased workers/Number of full-time workers*10,000 (persons)

ESG DATA

Governance

Board of Directors

Category		Unit	2021	2022	2023
Moorim Paper					
Board composition	Total number of directors	Person	5	5	5
	Internal Director	Person	2	2	2
	External Director	Person	3	3	3
	Female director	Person	0	0	0
Number of board meetings held	Number of board meetings held	Number	8	7	7
Board attendance rate	Internal Director Attendance Rate	%	100	93	100
	External Director Attendance Rate	%	94	86	100
Average tenure of directors		Years	3.15	4.15	3.35
Board agendas	Total number of board agendas	Case	20	25	23
	Number of agendas on which the External Directors expressed opposition	Case	0	0	0
Moorim SP					
Board composition	Total number of directors	Person	5	5	5
	Internal Director	Person	2	2	2
	External Director	Person	3	3	3
	Female director	Person	0	0	0
Number of board meetings held	Number of board meetings held	Number	8	7	6
Board attendance rate	Internal Director Attendance Rate	%	100	93	100
	External Director Attendance Rate	%	100	95	94
Average tenure of directors		Years	3.35	4.35	3.55
Board agendas	Total number of board agendas	Case	16	24	22
	Number of agendas on which the External Directors expressed opposition	Case	0	0	0

Category		Unit	2021	2022	2023
Moorim P&P					
Board composition	Total number of directors	Person	6	5	5
	Internal Director	Person	2	2	2
	External Director	Person	4	3	3
	Female director	Person	0	0	0
Number of board meetings held	Number of board meetings held	Number	8	10	7
Board attendance rate	Internal Director Attendance Rate	%	100	95	100
	External Director Attendance Rate	%	91	100	100
Average tenure of directors		Years	3.30	3.75	4.15
Board agendas	Total number of board agendas	Case	21	30	25
	Number of agendas on which the External Directors expressed opposition	Case	0	0	0

ESG DATA

Governance

Audit Committee

Category	Unit	2021	2022	2023
Moorim Paper				
External Director Ratio	%	100	100	100
Number of board meetings held	Number	7	7	7
Attendance rate	%	75.00	85.67	100
Moorim SP				
External Director Ratio	%	100	100	100
Number of board meetings held	Number	6	6	8
Attendance rate	%	100	94.33	73.61
Moorim P&P				
External Director Ratio	%	100	100	100
Number of board meetings held	Number	6	7	7
Attendance rate	%	100	100	100

Shareholder-friendly Management

Category	Unit	2021	2022	2023
Moorim Paper				
Total cash dividends	million KRW	1,040	2,080	3,121
Cash dividend payout ratio	%	-	13.7	89.9
Cash dividend per share (common stock)	KRW	25	50	75
Moorim SP				
Total cash dividends	million KRW	553	332	221
Cash dividend payout ratio	%	0	0	13.2
Cash dividend per share (common stock)	KRW	25	15	10
Moorim P&P				
Total cash dividends	million KRW	7,795	9,355	6,236
Cash dividend payout ratio	%	41.9	20.8	28.4
Cash dividend per share (common stock)	KRW	125	150	100

Internal Compliance Management

Category	Unit	2021	2022	2023
Moorim Paper				
Number of reports	Case	4	2	3
Moorim SP				
Number of reports	Case	0	1	0
Moorim P&P				
Number of reports	Case	5	5	5

ESG DATA

Governance

Violation of Laws and Regulations

Category		Unit	2021	2022	2023
Moorim Paper					
Compliance-related legal action	The amount of fine imposed	million KRW	0	0	0
	Violation of legal obligations/regulations	Case	0	0	0
Violation of fair trade	The amount of fine imposed	million KRW	0	0	0
	Legal action against unfair trade practices such as anti-competitive practices and monopoly	Case	0	0	0
	Total monetary loss incurred as a result of legal proceedings related to the regulation of anti-competitive practices	Case	0	0	0
Moorim SP					
Compliance-related legal action	The amount of fine imposed	million KRW	0	0	0
	Violation of legal obligations/regulations	Case	0	0	0
Violation of fair trade	The amount of fine imposed	million KRW	0	0	0
	Legal action against unfair trade practices such as anti-competitive practices and monopoly	Case	0	0	0
	Total monetary loss incurred as a result of legal proceedings related to the regulation of anti-competitive practices	Case	0	0	0
Moorim P&P					
Compliance-related legal action	The amount of fine imposed	million KRW	0	10	11
	Violation of legal obligations/regulations	Case	0	1	2
Violation of fair trade	The amount of fine imposed	million KRW	0	0	0
	Legal action against unfair trade practices such as anti-competitive practices and monopoly	Case	0	0	0
	Total monetary loss incurred as a result of legal proceedings related to the regulation of anti-competitive practices	Case	0	0	0

Ethics and Compliance Training

Category	Unit	2021	2022	2023
Moorim Paper				
Number of programs	Number	1	1	1
Number of participants	Person	458	364	428
Moorim SP				
Number of programs	Number	1	1	1
Number of participants	Person	188	196	203
Moorim P&P				
Number of programs	Number	1	1	1
Number of participants	Person	617	667	699

Information Security Investment

Category	Unit	2021	2022	2023
Moorim Paper				
Number of employees who participated in training	Person	166	156	156
Training hours	hours	166	156	156
Information security training hours per person	hours/person	1	1	1
Moorim SP				
Number of employees who participated in training	Person	67	59	70
Training hours	hours	67	59	70
Information security training hours per person	hours/person	1	1	1
Moorim P&P				
Number of employees who participated in training	Person	287	287	304
Training hours	hours	287	287	304
Information security training hours per person	hours/person	1	1	1

ESG DATA

Governance

Human Rights Risk Management

Category	Unit	2021	2022	2023
Moorim Paper				
Establishments subject to human rights impact assessment	Number	-	-	1
Establishments conducting human rights impact assessment	Number	-	-	1
Human rights impact assessment results	Score	-	-	94.5
Moorim SP				
Establishments subject to human rights impact assessment	Number	-	-	1
Establishments conducting human rights impact assessment	Number	-	-	1
Human rights impact assessment results	Score	-	-	94.5
Moorim P&P				
Establishments subject to human rights impact assessment	Number	-	-	1
Establishments conducting human rights impact assessment	Number	-	-	1
Human rights impact assessment results	Score	-	-	94.5

GRI CONTENT INDEX

Standard usage statement	Moorim reported in accordance with the GRI Standards for the reporting period (January 1, 2023 to December 31, 2023).
GRI 1 used	GRI 1: Foundation 2021
Applicable GRI industry standards	N/A

GRI 2: General Disclosures 2021

Topic	No.	Standards	Page
Organization and Reporting Practices	2-1	Organization details	2, 6-9
	2-2	Entities included in the organization's Sustainability Reporting	2
	2-3	Reporting period, frequency and contract point	2
	2-4	Restatements of information	2
	2-5	External assurance	124-127
Activities and Employees	2-6	Activities, value chain and other business relationships	6-12, 63, 107
	2-7	Employees	98-101
	2-8	Workers who are not employees	98
Governance	2-9	Governance structure and composition	76
	2-10	Nomination and selection of the highest decision-making body	77
	2-11	Chair of the highest governance body	76
	2-12	Role of the highest governance body in overseeing the management of impacts	16, 20
	2-13	Delegation of responsibility for managing impacts	16
	2-14	Role of the highest governance body in Sustainability Reporting	16, 21
	2-15	Conflicts of interest	20, 76-77
	2-16	Communication of critical concerns	77, 83
	2-17	Collective knowledge of the highest governance body	76-77
	2-18	Evaluation of the performance of the highest governance body	77
	2-19	Remuneration policies	77
	2-20	Process to determine remuneration	77
	2-21	Annual total compensation ratio	N/A[1)]

Topic	No.	Standards	Page
Strategy, policies, and practices	2-22	Statement on sustainable development strategy	5, 58
	2-23	Policy commitments	58-59, 62
	2-24	Embedding policy commitments	59, 62-64
	2-25	Process to remediate negative impacts	60-61, 80-81
	2-26	Mechanisms for seeking advice and raising concerns	39-40, 60-61
	2-27	Compliance with laws and regulations	97, 112-113
	2-28	Membership associations	123
Stakeholder engagement	2-29	Approach to stakeholder engagement	20
	2-30	Collective bargaining agreements	107

1) This information is not disclosed to the public due to management judgment.

GRI 3: Material Topics 2021

Topic	No.	Standards	Page
Disclosure of Material Topics	3-1	Process to determine material topics	21-22
	3-2	List of materiality topics	22-23
	3-3	Management of material topics	22-23

GRI CONTENT INDEX

Economic Standards (GRI 200)

Topic	No.	Standards	Page
Economic Performance	201-1	Direct economic value generated and distributed	89
	202-2	Proportion of senior management employed from the local community where the business is located	100-101
Indirect Economic Impacts	203-1	Infrastructure investments and services supported	69-71
	203-2	Significant indirect economic impacts	55, 68-74
Anti-Corruption	205-1	Operations assessed for risks related to corruption	60
	205-2	Communication and training about anti-corruption policies and procedures	79-81
	205-3	Confirmed incidents of corruption and action taken	80, 112-113

Environment Standards (GRI 300)

Topic	No.	Standards	Page
Materials	301-1	Materials used by weight or volume	98
	301-2	Recycled input materials used	98
Energy	302-1	Energy consumption within the organization	91-92
	302-3	Energy intensity	91-92
Water	303-1	Interactions with water as a shared resource	47, 92-93
	303-2	Management of water discharge-related impacts	47
	303-3	Water withdrawal	92-93
	303-4	Water discharge	92-93
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	50-51
	304-2	Significant impacts of activities, products and services on biodiversity	49-50
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	50-51

Topic	No.	Standards	Page
GHG Emissions	305-1	Direct (Scope 1) GHG emissions	28, 90
	305-2	Energy Indirect (Scope 2) GHG emissions	28, 90
	305-3	Other Indirect (Scope 3) GHG emissions[1)]	28, 90
	305-4	GHG emissions intensity	90
	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx) and other significant air emissions	94
Waste	306-1	Waste generation and significant waste-related impacts	43-46, 48
	306-2	Management of significant waste-related impacts	30-32, 46
	306-3	Waste generated	95-96
	306-4	Waste diverted from disposal	95-96
	306-5	Waste directed to disposal	95-96
Supplier Environmental Assessment	308-2	Negative environmental impacts in the supply chain and actions taken	64

1) Scope 3 emissions were calculated based on Moorim's own methodology

GRI CONTENT INDEX

Social Standards (GRI 400)

Topic	No.	Standards	Page
Employment	401-1	New employee hires and employee turnover	102
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	58, 106
	401-3	Parental leave	103
Occupational Health and Safety	403-1	Occupational health and safety management system	34, 108
	403-2	Hazard identification, risk assessment & incident investigation	36-38
	403-3	Occupational health services	36
	403-4	Worker participation, consultation, and communication on occupational health and safety	39
	403-5	Worker training on occupational health and safety	39, 109
	403-6	Promotion of worker health	36, 58, 109
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	36-38
	403-8	Workers covered by an occupational health and safety management system	33-34
	403-9	Work-related injury	110
Training and Education	404-1	Average hours of training per year per employee	59, 85, 105, 109, 113
	404-2	Programs for upgrading employee skills and transition assistance programs	53-55
Diversity and Equal Opportunity	405-1	Diversity of governance bodies and employees	76, 111
	405-2	Ratio of basic salary and remuneration of women to men	106
Non-Discrimination	406-1	Incidents of discrimination and corrective actions taken	61, 80-81
Freedom of Association and Collective Bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk.	60
Child Labor	408-1	Operations and suppliers at significant risk for incidents of child labor	60
Forced or Compulsory Labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	60
Security Practices	410-1	Security personnel trained in human rights policies or procedures	59
Local communities	413-1	Operations with local community engagement, impact assessments, and development programs	68-74
Supplier Social Assessment	414-2	Negative social impacts in the supply chain and actions taken	40
Customer Health and Safety	416-1	Assessment of the health and safety impacts of product and service categories	66
Marketing and Labeling	417-1	Requirements for product and service information and labeling	121-122
Customer Privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	84-85

SASB INDEX

Moorim has disclosed metrics in its report according to the SASB Industry Standards for the Pulp & Paper Products business area within the Renewable Resources & Alternative Energy sector

Topic	Code	Metric	Unit	Page
GHG Emissions	RR-PP-110a.1	Gross global Scope 1 GHG emissions	tCO_2e	90
	RR-PP-110a.2	Discussion of long and short term plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	tCO_2e	24-27
Air Quality	RR-PP-120a.1	Air emissions of the following pollutants:	ton	94
		(1) NOx (excluding N2O)		
		(2) SO_2		
		(3) Volatile organic compounds (VOCs)		
		(4) Particulate matter 10 (PM)		
		(5) Hazardous air pollutants (HAPs)		
Energy Management	RR-PP-130a.1	(1) Total energy consumed	GJ, %	91-92
		(2) Percentage grid electricity		
		(3) Percentage from biomass		
		(4) Percentage from other renewable energy		
		(5) Total self-generated energy		
Water Management	RR-PP-140a.1	Percentage of each in regions with High or Extremely High Baseline Water Stress	m^3, %	92-93
		(1) Total water withdrawn		
		(2) Total water consumed		
	RR-PP-140a.2	Description of water management risks and discussion of strategies and practices to mitigate those risks	N/A	47
Supply Chain Management	RR-PP-430a.1	(1) Percentage of wood fiber sourced from third-party certified forestlands and percentage to each standard	% by weight	98
		(2) Percentage of wood fiber meeting other fiber sourcing standards and percentage to each standard		
	RR-PP-430a.2	Amount of recycled and recovered fiber procured	ton	98
Activity Metrics	RR-PP-000.A	Pulp production	ton	6-8, 97
	RR-PP-000.B	Paper production	ton	6-8, 97
	RR-PP-000.C	Total wood fiber sourced	ton	98

TCFD INDEX

Category	TCFD Recommendations	Page
Governance	a. Describe the board's oversight of climate-related risks and opportunities.	24
	b. Describe management's role in assessing and managing climate-related risks and opportunities.	24
Strategy	a. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	24
	b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	24
	c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	24
Risk Management	a. Describe the organization's processes for identifying and assessing climate-related risks.	25
	b. Describe the organization's processes for managing climate-related risks.	25
	c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	25
Metrics and Targets	a. Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	25-28
	b. Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	25-28
	c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	25-28

UN SDGs(UN Sustainable Development Goals) INDEX

UN SDGs		Key Activities in 2023	Page
Goal 1	End poverty in all its forms everywhere	• Supporting homeless self-reliance through Big Issue paper sponsorship	69
Goal 3	Ensure healthy lives and promote well-being for all at all ages	• Employee safety and health management • Support for health check-ups for employees' families and spouses	36, 58, 109
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	• Support for interdisciplinary majors through industry-academia cooperation	55
Goal 5	Achieve gender equality and empower all women and girls	• Establishment of human rights management policies • Operation of the Happy Man system	58-61
Goal 6	Ensure availability and sustainable management of water and sanitation for all	• Management of water use and recycling rates • Management of pollutants discharged into water	47
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all	• Use of renewable energy • Reduction and efficiency management of energy use	24-28
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	• Creating a safe and healthy working environment • Management of accident rates	33-40
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	• Research and development (R&D) investment	89

UN SDGs		Key Activities in 2023	Page
Goal 10	Reduce inequality within and among countries	• Expansion of diversity and inclusion among employees • Operation of anonymous reporting center	58-61, 80-81
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable	• Acquisition of verification for zero landfill waste disposal • Investment in facilities to reduce air pollutants	48-49
Goal 12	Ensure sustainable consumption and production patterns	• Development of sustainable products • Goals and management of hazardous chemical handling	29-32, 48
Goal 13	Take urgent action to combat climate change and its impacts	• Establishment of carbon neutrality strategies and roadmaps	24-28
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	• Activities and campaigns for marine ecosystem conservation • One-to-one river activities through collaboration with local communities	49-51
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	• Identification of endangered species near business sites • Expansion of sustainable forestry management	49-51
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	• Development and education of ethical and compliance management policies • Operation of grievance channels for issues such as corruption and bribery	79-81

STATUS OF DOMESTIC AND INTERNATIONAL ENVIRONMENTAL CERTIFICATIONS

Certification Mark	Certification Details
	**FSC®-CoC / FSC®- FM** Moorim Paper, Moorim SP and Moorim P&P produce responsible products by obtaining FSC® certification, a globally recognized forest certification system. **FSC®-CoC** • FSC® - C011933: Moorim Paper • FSC® - C018374: Moorim USA • FSC® - C018671: Moorim SP • FSC® - C006970: Moorim UK • FSC® - C018671: Moorim P&P **FSC®-FM** • FSC®-C161318: Moorim P&P
	**PEFC™** Moorim Paper, Moorim SP and Moorim P&P produce forest-friendly products by obtaining PEFC certification, an international forest certification system that promotes sustainable forest management. • PEFC/43-31-005: Moorim Paper • PEFC/43-31-006: Moorim SP • PEFC/43-31-007: Moorim P&P
	**KFCC™** Moorim Paper, Moorim SP and Moorim P&P produce products using raw materials sourced from sustainably managed forests, recycled materials, and controlled sources. • KFCC/03-005: Moorim Paper • KFCC/03-004: Moorim SP • KFCC/03-003: Moorim P&P
	**Environmental Mark** Moorim Paper has obtained the eco-friendly Environmental Mark certification from the Korea Environmental Industry & Technology Institute by using 10-30% recycled paper for each product and weight category. Through this effort, Moorim Paper is doing its utmost to conserve resources and minimize the generation of pollutants.
	**Low Carbon Products** Moorim P&P was the first in the domestic paper industry to acquire low-carbon product certification in 2013, and currently holds low-carbon product certification for a total of eight products.

STATUS OF DOMESTIC AND INTERNATIONAL ENVIRONMENTAL CERTIFICATIONS

Certification Mark	Certification Details
PTS	**Papiertechnische Stiftung** Moorim Paper, Moorim SP, and Moorim P&P have received recycling certification from PTS (Papiertechnische Stiftung), a German testing and certification agency.
OK compost TÜV AUSTRIA INDUSTRIAL S1220	**OK compost** Moorim Paper, Moorim SP, and Moorim P&P hold the OK compost certification from TÜV Austria, which evaluates biodegradability and environmental toxicity over a certain period of time for environmental impact assessment.
OK biobased TÜV AUSTRIA S1318	**OK biobased** Moorim P&P has obtained OK biobased certification for CellRim® CP-130.
PREPS	**PREPS** Moorim Paper and Moorim P&P have received a rating from the UK Publishers Association. This rating identifies the sources of pulp for their paper products, providing a list of paper products from which members can choose.
eve VEGAN	**EVE VEGAN** Moorim SP and Moorim P&P have obtained the EVE VEGAN certification from Vegan France Interpro, a global vegan certification body.

MEMBERSHIP ASSOCIATION & STATUS

Association	Moorim Paper	Moorim SP	Moorim P&P
Korea Paper Association	○	○	○
Korea Wood Chip Association			○
Jinju Chamber of Commerce	○		
Daegu Chamber of Commerce and Industry		○	
Ulsan Chamber of Commerce			○
Korea Listed Companies Association	○		○
Onsan Industrial Estate Association			○
Daegu Enterprises Federation		○	
KOSDAQ Listed Companies Association		○	
Korea Technical Association of the Pulp and Paper Industry	○	○	○
Korean Standards Association	○		
Korea International Trade Association	○	○	○
Korea Customs Logistics Association	○	○	○

GHG EMISSION VERIFICATION OPINION

Moorim Paper Co., Ltd.

Verification Scope

Korean Standards Association has conducted verification for GHG emissions based on GHG report provided by Moorim Paper Co., Ltd. which includes Scope1 and Scope2 emissions.

Verification Standards and Guidelines

To conduct verification activities, verification team applied verification standards and guidelines. The standards and guidelines are as follows.

- Guidance for reporting and verification of GHG emissions trading scheme (No. 2023-221 provided by Ministry of Environment, Republic of Korea)
- Verification Guidelines for the Operation of the Greenhouse Gas Emission Trading System (No. 2021-112 provided by Ministry of Environment, Republic of Korea)
- For matters not specified in other guidelines, refer to 2006 IPCC Guidelines, KS I ISO 14064-1: 2018 and KS I ISO 14064-3: 2019

Level of Assurance

Moorim Paper Co., Ltd. GHG emissions satisfies the under Reasonable Assurance.
(less than ±5.0% of total emissions)

Verification Conclusion

As a result of verification activities, verification team has found no significant errors, omissions, and misstatements. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

2023 Emissions(Scope1, Scope2) (Unit : tCO_2eq)

Year	Scope 1	Scope 2	Total
2023	8,479.419	170,189.98	178,669

※ Decimal place is not considered when calculating the emission of each workplace.
※ This emissions is based on the cost of submitting emission rights, and the final emission value is subject to change.

June 05, 2024

KOREAN STANDARDS ASSOCIATION

Moorim SP Co., Ltd.

Verification Scope

Korean Standards Association has conducted verification for GHG emissions based on GHG report provided by Moorim SP Co., Ltd. which includes Scope1 and Scope2 emissions.

Verification Standards and Guidelines

To conduct verification activities, verification team applied verification standards and guidelines. The standards and guidelines are as follows.

- Guidance for reporting and verification of GHG emissions trading scheme (No. 2023-221 provided by Ministry of Environment, Republic of Korea)
- Verification Guidelines for the Operation of the Greenhouse Gas Emission Trading System (No.2021-112 provided by Ministry of Environment, Republic of Korea)
- For matters not specified in other guidelines, refer to 2006 IPCC Guidelines, KS I ISO 14064-1: 2018 and KS I ISO 14064-3: 2019

Level of Assurance

Moorim SP Co., Ltd. GHG emissions satisfies the under Reasonable Assurance.
(less than ±5.0% of total emissions)

Verification Conclusion

As a result of verification activities, verification team has found no significant errors, omissions, and misstatements. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

2023 Emissions(Scope1, Scope2) (Unit : tCO_2eq)

Year	Scope 1	Scope 2	Total
2023	26,825.525	20,087.979	46,913

※ Decimal place is not considered when calculating the emission of each workplace.
※ This emissions is based on the cost of submitting emission rights, and the final emission value is subject to change.

June 05, 2024

KOREAN STANDARDS ASSOCIATION

GHG EMISSION VERIFICATION OPINION

Moorim P&P Co., Ltd.

Verification Scope

Korean Standards Association has conducted verification for GHG emissions based on GHG report provided by Moorim P&P Co., Ltd. which includes Scope1 and Scope2 emissions.

Verification Standards and Guidelines

To conduct verification activities, verification team applied verification standards and guidelines. The standards and guidelines are as follows.

- Guidance for reporting and verification of GHG emissions trading scheme (No. 2023-221 provided by Ministry of Environment, Republic of Korea)
- Verification Guidelines for the Operation of the Greenhouse Gas Emission Trading System (No. 2021-112 provided by Ministry of Environment, Republic of Korea)
- For matters not specified in other guidelines, refer to 2006 IPCC Guidelines, KS I ISO 14064-1: 2018 and KS I ISO 14064-3: 2019

Level of Assurance

Moorim P&P Co., Ltd. GHG emissions satisfies the under Reasonable Assurance.
(less than ±5.0% of total emissions)

Verification Conclusion

As a result of verification activities, verification team has found no significant errors, omissions, and misstatements. Therefore, Korean Standards Association confirms that following emissions data are adequately quantified.

2023 Emissions(Scope1, Scope2) (Unit : tCO_2eq)

Year	Scope 1	Scope 2	Total
2023	112,634.849	139,026.683	251,659

※ Decimal place is not considered when calculating the emission of each workplace.
※ This emissions is based on the cost of submitting emission rights, and the final emission value is subject to change.

June 05, 2024

KOREAN STANDARDS ASSOCIATION

INDEPENDENT ASSURANCE STATEMENT

To readers of 2024 Moorim Sustainability Report

Introduction

Korea Management Registrar (KMR) was commissioned by Moorim to conduct an independent assurance of its 2024 Sustainability Report (the "Report"). The data and its presentation in the Report is the sole responsibility of the management of Moorim. KMR's responsibility is to perform an assurance engagement as agreed upon in our agreement with Moorim and issue an assurance statement.

Scope and Standards

Moorim described its sustainability performance and activities in the Report. Our Assurance Team carried out an assurance engagement in accordance with the AA1000AS v3 and KMR's assurance standard SRV1000. We are providing a Type 2, moderate level assurance. We evaluated the adherence to the AA1000AP (2018) principles of inclusivity, materiality, responsiveness and impact, and the reliability of the information and data provided using the Global Reporting Initiative (GRI) Index provided below. The opinion expressed in the Assurance Statement has been formed at the materiality of the professional judgment of our Assurance Team. Confirmation that the Report was prepared in accordance with GRI standards 2021 was included in the scope of the assurance. We have reviewed the topic-specific disclosures of standards which were identified in the materiality assessment process.

- GRI Sustainability Reporting Standards 2021
- Universal standards
- Topic specific standards
  - GRI 205: Anti-Corruption
  - GRI 206: Anti-competitive Behavior
  - GRI 301: Materials
  - GRI 302: Energy
  - GRI 303: Water and Effluents
  - GRI 304: Biodiversity
  - GRI 305: Emissions
  - GRI 306: Waste
  - GRI 401: Employment
  - GRI 403: Occupational Health and Safety
  - GRI 404: Training and Education
  - GRI 413: Local Communities
  - GRI 414: Supplier Social Assessment
  - GRI 417: Marketing and Labeling
  - GRI 418: Customer Privacy

As for the reporting boundary, the engagement excludes the data and information of Moorim' partners, suppliers and any third parties.

KMR's Approach

To perform an assurance engagement within an agreed scope of assessment using the standards outlined above, our Assurance Team undertook the following activities as part of the engagement:

- reviewed the overall Report;
- reviewed materiality assessment methodology and the assessment report;
- evaluated sustainability strategies, performance data management system, and processes;
- interviewed people in charge of preparing the Report;
- reviewed the reliability of the Report's performance data and conducted data sampling;
- assessed the reliability of information using independent external sources such as Financial Supervisory Service's DART and public databases.

Limitations and Recommendations

KMR's assurance engagement is based on the assumption that the data and information provided by Moorim to us as part of our review are provided in good faith. Limited depth of evidence gathering including inquiry and analytical procedures and limited sampling at lower levels in the organization were applied. To address this, we referred to independent external sources such as DART and National Greenhouse Gas Management System (NGMS) and public databases to challenge the quality and reliability of the information provided.

Conclusion and Opinion

Based on the document reviews and interviews, we had several discussions with Moorim on the revision of the Report. We reviewed the Report's final version in order to make sure that our recommendations for improvement and

INDEPENDENT ASSURANCE STATEMENT

revision have been reflected. Based on the work performed, it is our opinion that the Report applied the GRI Standards. Nothing comes to our attention to suggest that the Report was not prepared in accordance with the AA1000AP (2018) principles.

Inclusivity
Moorim has developed and maintained different stakeholder communication channels at all levels to announce and fulfill its responsibilities to the stakeholders. Nothing comes to our attention to suggest that there is a key stakeholder group left out in the process. The organization makes efforts to properly reflect opinions and expectations into its strategies.

Materiality
Moorim has a unique materiality assessment process to decide the impact of issues identified on its sustainability performance. We have not found any material topics left out in the process.

Responsiveness
Moorim prioritized material issues to provide a comprehensive, balanced report of performance, responses, and future plans regarding them. We did not find anything to suggest that data and information disclosed in the Report do not give a fair representation of Moorim' actions.

Impact
Moorim identifies and monitors the direct and indirect impacts of material topics found through the materiality assessment, and quantifies such impacts as much as possible.

Reliability of Specific Sustainability Performance Information

In addition to the adherence to AA1000AP (2018) principles, we have assessed the reliability of economic, environmental, and social performance data related to sustainability performance. We interviewed the in-charge persons and reviewed information on a sampling basis and supporting documents as well as external sources and public databases to confirm that the disclosed data is reliable. Any intentional error or misstatement is not noted from the data and information disclosed in the Report.

Competence and Independence

KMR maintains a comprehensive system of quality control including documented policies and procedures in accordance with ISO/IEC 17021·2015 - Requirements for bodies providing audit and certification of management systems. This engagement was carried out by an independent team of sustainability assurance professionals. KMR has no other contract with Moorim and did not provide any services to Moorim that could compromise the independence of our work.

June 2024 Seoul, Korea

CEO E. J Hwang

KMR SRV1000 Sustainability Committee Assurance AA1000 Licensed Report 000-129/V3-EV8C4

MOORIM









This report is printed on Low carbon product and Environmental Product Declaration certified paper using soy ink.

▶ Cover: Moorim Paper Artizen (Extra White) 230g/m² (Environmental Product Declaration Certified)

▶ Inside: Moorim P&P Neo Star Matt 120g/m² (Low Carbon Product certified)