MOORIM

FSC
www.fsc.org
FSC® C011933
The mark of responsible forestry

CO2 Carbon Footprint 630g KOREA
Low Carbon
MOORIM P&P NEO STAR MATT per 1ton

EPD KOREA
www.epd.or.kr
MOORIM PAPER ARTIZEN per 1ton

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This report is printed on FSC®, 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)

# Add Value, Think Green



Moorim Sustainability Report 2021

MOORIM

## About This Report

The Moorim Sustainability Report 2021 is the first report of its kind by Moorim. In this report, Moorim intends to disclose its ESG management strategies, activities, and performances while continuously communicating with its stakeholders.

### Reporting Standards and Verification Standards

This report was documented in accordance with the Core Option of GRI (Global Reporting Initiative) standards, the international sustainable management reporting guidelines, and information disclosure guidelines of SASB (Sustainability Accounting Standards Board). The financial information was reported on a consolidated basis according to the Korean version of the International Financial Reporting Standards (K-IFRS).

### Reporting Period

This report covers major activities and performances from January 1, 2021 to December 31, 2021 of Moorim Paper, Moorim SP, and Moorim P&P. For some activities, details from the first half of 2022 were included. In addition, three-year data were reported to show the continuous trend of performances.

### Report Assurance

For this report's fairness and reliability of preparation process and the compilation of public data and contents, it is assured by the BSI Group, a third-party assurance agency. The result of the review is available on the Report Assurance Statement in page 120-121.

### Reporting Cycle

Moorim's first Sustainability Report was published in 2022. Moorim publishes the Sustainability Report biennially.

### For Further Information

The report is published in Korean and English, which can be downloaded from the company website (www.moorim.co.kr).

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## Contents

### Making Better Tomorrow

004 Message from the CEO
006 Company Overview
008 The Moorim Way
010 Moorim's Pulp and Paper Producers
013 Moorim Affiliates
014 Our Main Products
016 Awards and Certifications
018 Moorim's Circular Economy

### Making Righteous Moorim

022 Governance
025 Ethical Management
030 Risk Management
032 Stakeholder Engagement
034 Materiality Assessment
036 Stakeholders' Interview

### Adding Values to Our Lives

040 **Producing Paper's New Possibilities**
042 Technological Innovation
046 Management Innovation
048 Sustainable Paper

052 **Keeping the Earth Green**
054 Eco-Friendly Management
057 Eco-Friendly System
060 Response to Climate Change
063 Forest and Timber

064 **Creating a Happy Workplace**
066 Safety Management
074 Talent Management
079 Human Rights Management
081 Information Security

082 **Sowing the Seeds of Mutual Prosperity**
084 Mutual Prosperity with the Supply Chain
088 Mutual Prosperity with Customers
089 Mutual Prosperity with Local Communities

### Appendix

094 ESG DATA
116 GRI Content Index
119 SASB Reference Table
120 Third-party Verification Report
122 Verification Statement on Greenhouse Gas(GHG) Emissions
125 Membership and Awards
126 Environmental Certifications

**Interactive PDF User Guide**

'Moorim Sustainability Report 2021' is provided in interactive PDF form to help viewer's understanding. Click on the titles on the contents page or on the navigation bar at the top of each page to move directly to the page.

# Making Better Tomorrow


Message from the CEO 04
Company Overview 06
The Moorim Way 08
Moorim's Pulp and Paper Producers 10
Moorim Affiliates 13
Our Main Products 14
Awards and Certifications 16
Moorim's Circular Economy 18

# Message from the CEO



Moorim Paper, Moorim SP, and
Moorim P&P
President & CEO

Lee. Dokyun

## Dear Respected Stakeholders,

We extend our gratitude for your continuous support and interest in Moorim even amid the uncertainties posed by COVID-19. We truly wish your well-being in all your endeavors.
Moorim strives to strengthen our competitiveness in the market and respond to fast-changing market conditions by implementing ESG strategies and developing eco-friendly technologies. In order to pursue both economic and social value, we are furthering our efforts in protecting the environment and the welfare of our stakeholders. In particular, we are continuously striving to achieve market dominance and enhance our green corporate image. In the publication of the first Sustainability Report, we would like to share our achievements so far.

## Creating New Values Beyond Paper

Since our incorporation in 1956, Moorim has led the Korean paper industry for over half a century. After succeeding in mass production of uncoated paper in 1959, we have marked major milestones in the Korean paper industry : becoming the first manufacturer of pulp in 1974, the first manufacturer of premium double-coated glossy paper in 1999, and establishing the one and only integrated pulp-paper mill in for the first time in 2011. Moving beyond the concept of simply manufacturing paper, we will invest in research and development for new eco-friendly materials in line with current ESG management trends, and present endless possibilities of 'paper' to create new values.

## Building a Sustainable Value Chain

Without being complacent on our current position of an industry leader within the paper manufacturing sector, Moorim plans to spearhead the movement towards conservation efforts of forests to protect the planet for our future generation. We will also strive to become a nature-friendly company that delivers green paper products with the lowest carbon footprint. To this end, Moorim will think environment throughout its value chain.

## Adding Values to Our Lives and Our Diverse Stakeholders

We will prioritize the interests and happiness of our employees based on a Hands-off strategy, a philosophy of not acting against rationality but following the ways of nature and thereby creating harmony. Following our business motto of 'righteous ambition' which encourages us to enhance capabilities and be future-oriented, we promise to become an agile and self-organized leader within the paper industry. As the only pulp manufacturer in Korea, we will stand by diverse stakeholders to spread the green values of paper and pulp materials and ultimately deliver greater values. The history of Moorim is shaped by our employees who have aspired to achieve and advance. We will strive to adopt management practices based on sustainability and stakeholders' interests.
We look forward to your continued support in our ambitious endeavor.

# Company Overview



## Moorim, a company that creates value

Moorim, a leader of the Korean paper industry, is creating new values through pleasant changes and innovations that defy existing conventions. Moorim demonstrated its commitment to going green by acquiring 'low-carbon product certification' and 'biodegradable product certification' for the first time within the Korean paper industry. We also developed alternative eco-friendly materials to show the paper industry's possibilities of expanding to new areas. Moorim will present infinite possibilities through paper with a sense of mission to create new values by contributing to our daily life.



## Moorim, a company that thinks green

It is our vow "not to use illegally logged trees, wood materials from non-designated forest areas, and genetically modified logs". Moorim has been at the forefront of sustainable forest management by being the first in the domestic paper industry to obtain the FSC®-CoC certification. With 'low carbon product' certifications, Our product line-up includes eco-friendly paper products with the least amount of carbon emission in Korea. We will lead the development of various eco-friendly paper products based on environmentally friendly production systems such as our pulp-paper integrated manufacturing plant that produces paper without using a drop of oil.



## Moorim, a company that communicates with customers

Moorim always puts its customers first. We will continuously communicate with our customers to become a more trusted company providing better value and convenience in addition to the highest quality products.

Moorim is focused on value that exceeds the paper. As the only pulp producer in Korea, we will concentrate on disseminating the eco-friendliness of paper and pulp materials while developing diverse new technologies to add higher value in our daily lives.



# Our Values and Mission

**Mission**

### Pulp & Paper Manufacturing Technology that Adds Value to Lives

Moorim adds value to our everyday life by constantly developing eco-friendly products with our finest technology in pulp and paper manufacturing.

**Vision**

### Infinite possibilities of pulp and new future of paper shaped by Moorim.

Major industry: pulp, paper manufacturing, and advanced materials

Major strategy: to expand the special purpose papers and eco-friendly papers

**Core Value**

### Righteous Ambition

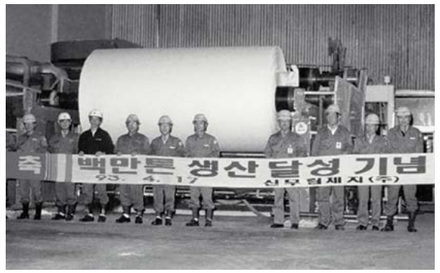
"Righteous Ambition" is derived from 'RIGHTEOUSNESS' and 'AMBITION'
This is our basic code of conduct for all actions and judgements that all Moorim employees should respect and follow while proceeding all tasks.



# The Moorim Way








1956~1959 | 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

1960~1979 | Thick and Dense Forest

## Built a Foundation as a Paper Manufacturer

1966. 09 Installed super calendar in Moorim Paper Manufacturing
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), change of name to 'Daerim Pulp Industries'

1980~1993 | Develop into a Nationwide Company,

## Reform Into an Integrated Paper Manufacturer

1980. 09 Completed construction of Donghae Pulp (current Moorim P&P) 1st Factory
1986. 12 Established Moorim Paper Research Institute
1987. 11 Established US subsidiary 'Moorim USA'
1993. 04 Shinmoorim Paper (current Moorim Paper) achieved 1-million-ton production

1994~2005 | with change and innovation

## Prepare the Global way

1995. 03 Established Shindong Energy Co., Ltd. (current Moorim Powertech)
1996. 12 Established Hong Kong Office
1998. 10 Shinmoorim Paper (current Moorim Paper) raised investments from overseas investment institutions (IFC, etc.)
1999. 12 Moorim Paper listed on KOSDAQ
2000. 11 Shinmoorim Paper received 37th Trade Day 'USD 100 Million Export Tower Award
2001. 09 Moorim inaugurated 'Neo-Club 21', a customer community
2004. 03 Established 'Moorim UK'
2004. 05 Shinmoorim Paper received 'Korea Marketing Awards for second consecutive year (Korea Management Association Consulting)

2006~2011 | from afforestation and pulp to paper manufacture

## Complete Vertical Affiliation

2006. 07 Celebrated 50th anniversary (Changed the company name, declared a new CI, and set up a PI-ERP system)
2007. 03 Moorim Paper ranked first in productivity for 6 consecutive years (Metso Paper), Moorim Paper acquired FSC®, first in Korean paper manufacturers
2007. 11 Moorim signed voluntary eco-friendly product purchase agreement
2007. 12 Ballot paper by Moorim SP used as official ballot paper for presidential election
2009. 06 Established Moorim Capital
2010. 04 Moorim Paper and Moorim SP acquired PEFC certification, first in Korean paper manufacturers
2010. 05 Moorim SP signed MOU with KOSMSCO
2010. 12 Established Middle East Office
2011. 03 Moorim Paper acquired first carbon footprint for coated paper in Korea
2011. 05 Moorim P&P completed Korea's first integrated pulp-paper mill in Korea

2012~2019 | 60 Years of Establishment, with pulp and paper technology

## Add the Value of Life

2012. 01 Moorim P&P selected as one of top 100 outstanding job creation company
2013. 05 Moorim P&P acquired first low carbon product certification in Korean paper industry
2015. 11 Moorim SP received 'President Citation' in 2015 Safety Culture Awards, Moorim received 'Minister of Environment Award' in 2015 Environment Mark Awards
2016. 06 Moorim P&P received 'Grand Prize' in 2016 Transparent Accounting Awards
2016. 07 Celebrated 60th anniversary (Proclaimed new value system)
2017. 02 Moorim P&P received Forestry Development Citation from Korea Forest Service
2017. 06 Organized '1st Moorim Paper Korean Cup Paper Air Plane Competition'
2018. 01 Opened 'Moorim Gallery', an integrated paper experience space, Moorim P&P produced 1st paper receiving KFCC certification

2020~ | which produces new possibilities

## Into an integrated eco-friendly advanced materials corporation

2020. 01 Moorim P&P's 'low carbon products' included in green production procurement object by Ministry of Environment
2020. 03 Mr. Lee Do-kyun inaugurated as representative director and CEO. Moorim Paper acquired 'OK compost' certification for biodegradability
2020. 07 Moorim proclaimed ethical management
2021. 03 Moorim SP awarded by the Vice Prime Minister on the occasion of National Taxpayers' Day.
2021. 08 Moorim Inje Forest, the first corporate forest in Korea to obtain a "Forest Management (FM) Certification from the Forest Stewardship Council ( FSC®)
2022. 01 Moorim is awarded the first prize in the category of 'paper manufacturing' for the 2022 Korea First Brand Awards. Neoforêt Aircushion Wins WorldStar Packaging Awards 2022

Establish-ment | Pioneering | Develop-ment | Growth | Leap | Soaring | Future









# Moorim's Pulp and Paper Producers

After opening the era of high-quality paper in Korea, Moorim has reinvented the value of paper as a longtime leader in the domestic pulp and paper business. Today, Moorim, with its three pulp and paper producers, is in its path towards creating value in our daily lives.




## Moorim Paper

### Eco-friendly Paper Company

Moorim Paper is not simply a paper manufacturer. It creates values to enrich our life with culture and arts through papers. It produces eco-friendly papers that make our life better based on excellent facilities and quality competitiveness. Moorim Paper has a global competitiveness with the world best productivity for six consecutive years and the best quality competitiveness based on the excellent facilities with average production speeds of 1,450m/min. The company takes the head in producing eco-friendly papers and was the first in the domestic papermaking field to obtain FSC® certification in 2007 and Carbon Footprint certification for coated paper as the nation's first in 2011. In addition, it received the Minister of Environment prize in 2015 Eco Labelling Award in 2015. Moorim Paper is trying to become an eco-friendly paper specialized company to add values to our lives based on the long history of papermaking technique.

### Business Areas

Moorim Paper offers following: eco-friendly products (Neoforêt Cup, Neo Star Art Shopping Bag, etc.), digital papers (Pro Digital, Neo Star Speedjet, etc.), ARTIZEN, coated papers (Neo Star Gloss, Neo Star Matt, Neo Star Green Release Paper), uncoated papers (Neo Star Uncoated Paper, Neo Star Ivory, etc.) and board paper products (Neo Star Beauty Pack, Neo Star MMB etc.).

**Company name**
Moorim Paper, Inc

**Date established**
December 1975

**Address**
1003, Namgang-ro, Jinju-si, Gyeongsangnam-do, 52809, Republic of Korea

**Sales**
KRW 456.1 billion
(as of 2021)

**Capital**
KRW 104 billion

**Employees**
Approx. 500

**Production**
418,920 tons

**Domestic Sales**
211,059 tons

**Overseas Sales**
201,751 tons

## Moorim SP

### A Company Specialized in High Value-added Special Paper

Moorim SP produces various high value-added special papers over 70 different types such as industrial, information, and commodity papers based on the distinct know-how and long history more than half century. Moorm SP's 'Neoforêt STRAW' a raw paper made of natural pulp that is used for production of straws obtained approvals from the Ministry of Food and Drug Safety (MFDS) and the US Food and Drug Administration (FDA). We also received approval from the German Federal Institute for Risk Assessment (BfR) and was recognized for its eco-friendliness. We also improve the quality of life through cutting edge papers such as security, ballot, and flame resistance honeycomb base paper and owns continued growth engine based on the tradition, history, and high-tech papermaking technique. Moorim SP is the new future in Korean papermaking history.

### Business Areas

Moorim SP offers following: eco-friendly papers (Neoforêt STRAW, Neoforêt LABEL, etc.), industrial papers (Neo CCP, Neo Release Base Paper, Neo TMB, and Neo Kraft, etc.) fancy papers (Neo Embossed Paper(Canveas, Linen, Eggshell), Bristol Board, etc.), information papers (Neo OMR Paper, Neo Security Paper, etc.), and commodity papers (Neo Uncoated Food Packaging Paper, Neo Drawing Paper, etc.).



**Company name**
Moorim SP, Inc.

**Date established**
July 1956

**Address**
205, Chimsan-ro, Buk-gu, Daegu, 41550, Republic of Korea

**Sales**
KRW 131.3 billion
(as of 2021)

**Capital**
KRW 11 billion

**Employees**
Approx. 200

**Production**
79,450 tons

**Domestic Sales**
66,802 tons

**Overseas Sales**
11,999 tons




## Moorim P&P

### The Total Company that Specializes in Pulp, Paper and Advanced Materials

Moorim P&P is the first and the only paper company in Korea to introduce an integrated pulp and paper mill to serve as a one-stop manufacturing system from pulp production to paper making. The integrated pulp and paper mill at Moorim P&P manufactures the finest natural paper and pulp and has suggested new paradigm to the history of Korean papermaking through one-stop manufacturing system from pulp production to paper making with price and environmental competitiveness. As a sole producer of pulp in Korea, Moorim P&P has been driving the development of advanced materials and products such as Molded Pulp, Bioplastic, and lignin to become a producer that creates higher value in our lives.

### Business Areas

Moorim P&P offers the following: Bleached Kraft Pulp, coated papers (Neo Star Gloss, Neo Star Matt, Neo Star Leaflet Paper, Neo Star Coat, etc.), MFC papers (Neo Star S Plus, Neo Star Premium Textbook Paper, etc.), uncoated papers (Neo Star Uncoated Paper, Neo Star Ivory, etc.), and advanced materials like lignin, black liquor, and cellulose.

| | |
|---|---|
| Company name | Moorim P&P, Inc. |
| Date established | Jan. 1974 |
| Address | 3-36, Ubonggangyang-ro, Onsan-eup, Ulju-gun, Ulsan, 45011, Republic of Korea |
| Sales | KRW 568.5 billion (as of 2021) |
| Capital | KRW 155.9 billion |
| Employees | Approx. 700 |
| Paper Production | 467,221 tons |
| Pulp Production | 423,749 tons |
| Domestic Sales | 407,536 tons |
| Overseas Sales | 277,871 tons |



# Moorim Affiliates

## Moorim Powertech, a Combined Heat and Power (CHP) Company

Moorim Powertech is building a low-energy production and consumption structure as it grows into an eco-friendly company. Currently, it is engaged in CHP generation, district cooling and heating, solar power generation, and energy-saving business as an energy service company (ESCO).

| | |
|---|---|
| Date stablished | Mar. 1995 |
| Sales | KRW 62.1 billion (as of 2021)* |
| Employees | 43 |

## Moorim Capital, a Financial Company Specializing in Loan Business

Moorim Capital supports companies in raising capital and invests in financial services and project financing (PF) that offer funds for different purposes. They also invest in Mezzanine bond investment and promising businesses.

| | |
|---|---|
| Date stablished | May 2009 |
| Sales | KRW 46.4 billion (as of 2021)* |
| Employees | 20 |

## Mirae Development, a Fully Integrated Resort with Great Accessibility

Mirae Development provides a vacation getaway including golf range, resorts, and ski slope, creating the top service and a new culture.

| | |
|---|---|
| Date stablished | March 1971 |
| Sales | KRW 27.1 billion (as of 2021)* |
| Employees | 31 |

## PT Plamsa Nutfah Marind Papua (PT. PNMP), an Overseas afforestation project

PT.PNMP, which was established to secure a stable supply of wood chips, a raw material for pulp, is in the process of afforestation in Papua Merauke County in Indonesia.

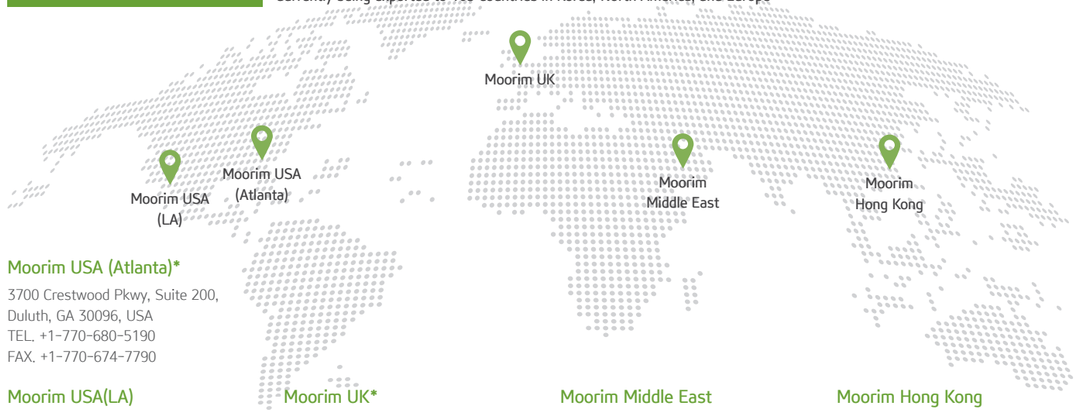
| | |
|---|---|
| Date stablished | April 2008 |
| Business area | Afforestation project |
| Employees | 164 |

* The sales above are based on individual financial statements

## Moorim Worldwide

a Leader that Sparked Wide Acclaim for Paper 'Made in Korea'

Currently being exported to 105 countries in Korea, North America, and Europe

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FAX. +852-2121-0073

* Moorim USA and Moorim UK were incorporated in 2021.

# Our Main Products

## Moorim Paper

| | | |
|---|---|---|
| Eco-Friendly Paper | Neoforêt | Neoforêt CUP |
| Printing Paper & Writing Paper | Coated Paper | Neo Star Gloss | Neo Star Matt<br>Neo Star Delight |
| | Uncoated Paper | Neo Star Uncoated |
| Industrial Paper | Digital Paper | Neo Star Speed Jet | Pro Digital |
| | Label Paper | Neo Star Label | Neo Star Power Label |
| | Release Paper | Neo Star Green Release Paper<br>Neo Star Release Paper (White/Yellow/Ivory) |
| | Transfer Paper | Neo Star Sublimation Paper<br>Neo Star Water Transfer Base Paper |
| Specialty Paper | Board Paper | Neo Star Beauty Pack | Neo Star MGB<br>Neo Star MMB | Neo Star Knight |
| Paper Used in Daily Life | Shopping Bag Paper | Neo Star Uncoated Shopping Bag<br>Neo Star Power Shopping Bag<br>Neo Star Art Shopping Bag |
| | Fancy Paper | ARTIZEN |

## Moorim SP

| | | |
|---|---|---|
| Eco-Friendly Paper | Neoforêt | Neoforêt STRAW | Neoforêt FLEX<br>Neoforêt Aircushion |
| Industrial Paper | Release Paper | Neo Release Paper |
| Specialty Paper | Board Paper | Neo CCP | Neo TMB |
| | Information Paper | Neo OMR Paper | Neo Gift Certificate Paper<br>Neo Lottery Paper | Neo Ballot Paper<br>Neo Security Paper |
| Paper Used in Daily Life | Food Packaging Paper | Neo Non Fluorescent Uncoated Paper<br>Neo Clean Pack | Neo Food Packaging Paper<br>Neo Uncoated Food Packaging Paper |
| | Fancy Paper | Neo Fancy | Neo Galaxy | Neo Drawing<br>Neo Drawing Paper |

## Moorim P&P

| | | |
|---|---|---|
| Pulp | | Bleached Kraft Pulp |
| Printing Paper & Writing Paper | Coated Paper | Neo Star Gloss | Neo Star Matt<br>Neo Star Coated | Neo Star Leaflet Paper |
| | Uncoated Paper | Neo Star Uncoated<br>Neo Star Uncoated(Ivory) |
| | MFC Paper | Neo Star S Plus |<br>Neo Star Premium Textbook Paper |
| Industrial Paper | Label Paper | Neo Star Label |



### Neoforêt Aircushion

Korea's first air-cushioning packaging material designated as recyclable paper material.



### Neoforêt FLEX

An eco-friendly product that can be used to make various products such as paper tubes and labels. It is a great alternative to flexible plastic packaging materials.



### Neoforêt CUP




An eco-friendly paper cup that allowed Moorim to become the first producer to acquire certification for biodegradability and recyclability.

### Neoforêt STRAW

Straws with enhanced durability compared to existing paper straws. It acquired FDA, BfR, biodegradability, and recyclability certifications for the first time among Korean paper producers.



### Neo Star Gloss

As the only low-carbon product in Korea, it is mainly used for high-quality printed materials, brochures, catalogs, etc. It is a high-gloss paper that is characterized by excellent print performance and color expression.




### Molded Pulp

Molded Pulp manufactured from natural pulp made internally at Moorim are not only safe from environmental hormones but can also be collected separately and recycled since they are not coated with PE.



### Neo Star Matt




A certified low-carbon product made with natural pulp that boasts outstanding strength and printability. Neo Star Matt has a matte finish that reflects gentle elegance, and it is used in various printed materials including premium leaflets, brochures, and catalogs.

### CellRim®



CellRim® products are made with eco-friendly pulp plastic, a type of biomass raw material. CellRim®'s hangers can reduce plastic material usage by up to 15~30% compared to regular plastic hangers.

# Awards and Certifications

Moorim strives to enhance eco-friendly policies and sustainability. Moorim started to embrace low-carbon green growth in 2007 by acquiring the FSC® certificate for “the first time in Korean paper manufacturing industry.” In 2011, we became the first paper manufacturer in Korea to receive the carbon footprint certification (current Environmental Product Declaration) for coated paper. Moreover, Moorim received the low-carbon product certificate for the first time in the Korean paper industry in 2013, and the OK Compost certificate, a biodegradable product certification, for the first time in the Korean paper sector in 2020.

### Received the Outstanding Taxpayer Award on the 55th Taxpayers' Day



Awarded a commendation by the Deputy Prime Minister and the Minister of Strategy and Finance

### 15th Korea Packaging Competition




Neoforêt Aircushion wins the Korea Star Award for cushioning materials

### UCC Competition for Industrial Safety & Health




Moorim's Safety Golden Rules Campaign Video received the Grand Prize

### Korea's Green Product of the Year 2021




Neoforêt CUP, Neoforêt STRAW, and Neoforêt Aircushion are designated as Korea's Green Product of the Year 2021

### 2021 Seoul Café Show



Molded Pulp was listed in Cherry's Choice as a product that is recognized by consumers and will lead the trend.

### Grand Prize Winner in the First Brand Awards 2022




Top brand satisfaction in the Paper Category

### Korea Packaging Design Competition 2021




Neoforêt Kit won the Bronze Prize (Korea Packaging Design Association)

### World Star Packaging Awards 2022




Neoforêt Aircushion won the World Star Packaging Award 2022

## FSC® – CoC / FSC® – FM

Moorim Paper, Moorim SP, and Moorim P&P are certified by FSC®, a global forest certification system, and they produce responsible products. Moorim also acquired the internationally recognized PEFC sustainable forest management certification to offer forest-friendly products.

## Eco-Label / EPD / Low Carbon Product

Moorim Paper obtained the Eco-Label by using 10-30% of paper by product and basis weight. Moorim Paper and Moorim SP acquired EPD certification for Neo Star Shopping Bag and Neo Ballot. Moorim P&P became the first paper company in Korea to acquire the Low Carbon product certification in 2013.

## PREPS

Moorim Paper and Moorim P&P received the Publisher's Database for Responsible Environmental Paper Sourcing (PREPS) grade by the UK Publishing Association, which identifies the source of pulp materials for paper products and displays the list of paper products that member companies can choose from.

## OK compost

Moorim SP and Moorim Paper's eco-friendly products hold the OK Compost certification provided by TUV Austria.

# Moorim's Circular Economy

Moorim manages the value chain throughout the entire product life cycle, from afforestation to supply of resources, product manufacture, and disposal. As a leader of Korea's pulp and paper industry, we will incorporate environmental value in the entire product life cycle and cherish the righteous ambition to deliver sustainable future to our future generations.

## Return to Nature

Moorim recognizes that moving away from a linear economy toward a circular economy is vital to the company management. By producing biodegradable products, we ensure that products return to nature without going through a separate process at the end of their life cycle.



## Procuring Raw Materials Through Afforestation

The key to sustainability in the paper production industry is afforestation.

Moorim works to create FSC®-certified forests in Korea and abroad to lower the impact on the environment and exert positive influence. We do not log natural forests but build a forest based on systemic management strategies so that trees in the plantation can absorb $CO_2$ and emit less carbon.

## Producing Competitive Paper

Carbon emitted during the manufacturing process is one of the challenges we must address.

Moorim fulfills our environmental and social responsibility as a paper company by acquiring numerous green certificates, recycling, producing biodegradable paper, and churning out products made from resources procured in tree plantations, while delivering paper with minimum $CO_2$ emissions. We will continue to pioneer our initiative of creating low-carbon products and high-quality paper with fresh wood fibers.

## Eco-friendly factories that minimizes the use of fossil fuels

Woods are a great source of carbon. Moorim manufactures electricity and steam from black liquor obtained from trees and uses them to generate paper; ultimately minimizing energy use and $CO_2$ emissions.

## Developing Fossil Fuel Alternatives

Acknowledging that reducing and replacing fossil fuels are our major mission to decrease our greenhouse gases (GHG) emissions, we seek to start a new wave in business as well as the environment through technological innovations such as Molded Pulp and bioplastic.

# **Making** Righteous **Moorim**


Governance 22

Ethical Management 25

Risk Management 30

Stakeholder Engagement 32

Materiality Assessment 34

Stakeholders' Interview 36

# Governance

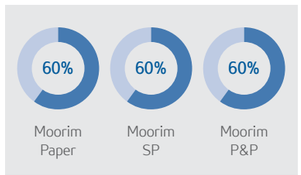
## Responsible Management of BOD

The Board of Directors (BOD) is the highest decision-making body where decisions are made according to the key management goals. It strives to make its utmost effort to create a transparent management environment.

### Composition and Operation of BOD

The BOD constantly provides information on major issues in accordance to the operating policies. Moorim CEO Do-kyun Lee acts as the chairman of the BOD for Moorim's three pulp and paper companies to facilitate responsible management centered on the BOD and agile decision making. Such arrangement is intended to encourage smooth, proactive communication between the CEO with vast experience and expertise in the industry and BOD the members, maximizing efficiency in corporate decision making. The BOD of Moorim's three pulp and paper companies consist of two executive directors and three independent directors. Directors' term of office is limited to three years pursuant to the articles of association. The background information of candidates is disclosed prior to the Annual General Meeting (AGM) and are appointed if they are approved by the shareholders following the recommendation of the BOD.

Ratio of External Directors




Composition of BOD Members at Moorim's Three Pulp and Paper companies

| | Category | Name | Date Appointed | Gender | Position | Career Highlights |
|---|---|---|---|---|---|---|
| Moorim Paper | Internal Director | Do-kyun Lee | 2021.03 | M | President & CEO / BOD Chairman | Moorim Paper, Inc. Head of Strategy, Head of the Management Division, Head of the Paper Business Division |
| | | Yong-su Im | 2020.03 | M | Director of Molded Pulp | Moorim Paper, Inc. Marketing Director, Strategic Management TF Team Leader, Printing Paper Sales 2 Team Leader |
| | External Director | Seung-tae Sohn | 2022.03 | M | Audit committee member | 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. |
| | | Jae-myung Lee | 2020.03 | M | Audit committee member | Management adviser to Parka ILT, Inc., Vice President of Secure Net, Inc. |
| | | Si-jong Park | 2021.03 | M | Audit committee member | Auditor of the Board of Audit and Inspection, Auditor of Hana USB Asset Management, Adviser of Yulchon LLC, Auditor of Daesang, Inc. |
| Moorim SP | Internal Director | Do-kyun Lee | 2021.03 | M | President & CEO / BOD Chairman | Moorim SP, Inc. Strategic Head, Head of the Management Headquarters, Head of the Paper Division |
| | | Yong-su Im | 2020.03 | M | Director of Molded Pulp | Moorim SP, Inc. Marketing Director, Strategic Management TF Team Leader, Printing Paper Sales 2 Team Leader |
| | External Director | Myung-hye Choi | 2020.03 | M | Audit committee member | President of the Daegu Regional Tax Office, SK Innovation external director, Hyundai Industrial Development external director, currently an adviser to Kim & Chang |
| | | Chul-hwan Kim | 2022.03 | M | Audit committee member | Currently a Professor of the Department of Environmental Forestry at Gyeongsang National University, President of the Korea Pulp Paper Engineering Society |
| | | Se-do Lee | 2020.03 | M | Audit committee member | Auditor General of the Board of Audit and Inspection, Standing Auditor of Korea Rural Community Corporation, Vice President of Korea Audit Association |
| Moorim P&P | Internal Director | Do-kyun Lee | 2021.03 | M | President & CEO / BOD Chairman | Moorim P&P, Inc. Strategic Head, Head of the Construction Headquarters, Head of the Management Department Headquarters, Head of the Paper Business Headquarters |
| | | Yong-su Im | 2020.03 | M | Director of Molded Pulp | Moorim P&P, Inc. Marketing Director, Strategic Management TF Team Leader, Printing Paper Sales 2 Team Leader |
| | External Director | Jae-duk Lee | 2022.03 | M | Audit committee member | Director of the Board of Audit and Inspection, Full-time Audit Committee member of KDB Life, Part-time Auditor of Hyundai Asset Management, Inc. |
| | | Dong-hyun Lee | 2022.03 | M | Audit committee member | An accountant at Samjeong Accounting Firm, an accountant at Daesung and Hankyung Accounting Firm, currently an accountant at Shinhan Accounting Firm, a Tax Accountant |
| | | Il-tae Kim | 2021.03 | M | Audit committee member | Auditor General of the Board of Audit and Inspection, Financial Supervisory Service Auditor, current part-time auditor of Eomji House, Inc. |

### Independence and Expertise

In order to enhance the independence of all directors including external directors, we carefully check whether directors have expertise in the given area and whether they are disqualified under the Trace Act before we recommend them as a candidate. Although the directors are appointed at the Annual General Meeting (AGM), the candidate's information is disclosed to the BOD along with the relationship with the recommender, the shareholders, the record of transactions with the company. We are also appointing a larger number of independent directors as compared to the legally mandated number for strengthened independence and objectivity of the BOD.

BOD Management Performance of Moorim's Three Pulp and Paper Companies

| | Number of BOD meetings | Number of resolutions | Board meeting attendance |
|---|---|---|---|
| Moorim Paper | 8 | 12 | 96% |
| Moorim SP | 8 | 12 | 100% |
| Moorim P&P | 8 | 13 | 94% |

### Reporting of ESG Agenda to the BOD

Moorim does not have an ESG Committee under the BOD but established an ESG Team in 2021 to frequently report ESG plans and accomplishments to the management. The ESG Team identifies important issues based on the opinions of various stakeholders and works to improve the company's response to ESG issues by benchmarking good practices for companies with advanced ESG strategies. The BOD implements and examines Safe Management Policies to create a safe workplace, and we periodically report and evaluate the corporate's safety and management records to enforce Safety and Health Activity Plans based on the areas of improvements identified in the BOD meeting.

### Audit Committee

Moorim's three pulp and paper companies introduced the Audit Committee to augment Moorim's supervisory function. The Audit Committee consists of three or more external directors appointed by the AGM. To ensure the competence of the Audit Committee, we appointed one or more accounting or financial professionals as Audit Committee member according to legal standards. The Audit Committee may participate in the BOD and other important meetings to administer directors' tasks independently and request the pertinent departments to submit all books related to general business and other relevant documents. The committee can receive briefing from the company about sales and get reports on the current operating status of the internal accounting management system from the internal accounting manager and assess such.

### Strengthening Shareholder Rights and Interests

Moorim's three pulp and paper companies adopted the e-Voting system to ensure that shareholders deliberate on the agenda sufficiently and reflect the opinions of the minority and fully leverage them in the AGM (Moorim Paper: March 24 / Moorim SP: March 23/ Moorim P&P: March 23). As more shareholders call for in-depth information, we are conducting a wide range of extensive investor relations (IR) activities while revealing the relevant records and corporate governance data on the company website. We are stiving to broaden shareholders' understanding and confidence in Moorim by releasing a Sustainability Report 2021 in response to the latest trend of bolstering ESG management.

## A System that Empowers Shareholders' Voting Rights

Moorim is implementing good policy practices of corporate governance to improve transparency and efficiency while maximizing corporate value. First of all, in order to protect the rights of shareholders, we try to hold AGMs on different dates from other companies, participate in an autonomous program to disperse AGMs, and strive to ensure that shareholders' voting rights are exercised fairly through direct and proxy events and eVoting systems. We provide corporate data fairly through IR's corporate briefings and disclosures and control internal dealings to promote the transparent, responsible management so that the company gains greater trust from shareholders as well as stakeholders.

## Corporate Governance Assessment

Moorim Paper and Moorim P&P were evaluated by the Korea Corporate Governance Service (KCGS). In 2021, the two companies got an ESG rating of A, showing higher ESG performance compared to the previous year.

Moorim's Corporate Governance ESG Ratings

| | 2019 | 2020 | 2021 |
|---|---|---|---|
| Moorim Paper | B+ | B+ | A |
| Moorim P&P | B+ | B+ | A |

* KCGS

** Moorim SP is listed on KOSDAQ and is not subject to ESG evaluations





# Ethical Management

Moorim's core corporate value is Righteous Ambition, and it has endeavored to make Moorim a fair company. Starting with the introduction of the Internal Accounting Management System for enhanced internal control in 2007, Moorim enacted and announced ethical standards and guidelines for compliance and ethical management in 2020 to raise ethical awareness of employees. In addition, we are transparently disclosing our overall ethical management activities on our website.

Moorim's History of Ethical Management

- 2007 · Adoption of internal accounting management system
- 2015 · Implementation of internal accounting management system
  · Introduction of compliance officer system
  · Implementation of insider transaction review committee system
  · Introduction of Happy Man system
- 2019 · Introduction of anonymous anti-corruption reporting center
- 2020 · Declaration of Ethical Management
  · Enactment of Moorim Code of Ethics
- 2021 · Strengthening of the anonymous anti-corruption reporting center
  · Spread of ethical management to business partners

## Ethical Management System

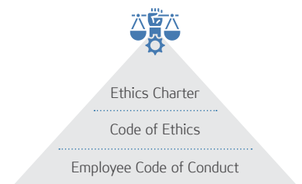
The Compliance Support Team developed the basic framework for ethical management system and environment. Currently, the Compliance Support Team has expanded as the ESG Team to create an independent ethical management team. The ESG Team manages and augments the ethical management system to help establish and spread a sound ethical management culture.

Moorim's Ethical Management System

| | | | |
|---|---|---|---|
| Goals | Realization of Righteous Ambition through ethical management | | |
| Steps Taken | Stage 1<br>Ethical management control by a dedicated team | Stage 2<br>Creating the right environment to practice ethical management | Stage 3<br>Spreading the culture of ethical management |
| Responsible Dept. | Ethical management team (ESG Team) | ESG Team | PR Team / HR Team / ESG Team |
| Activities | - Formation of an independent team dedicated to the operation of corporate ethical management<br>- Development of systemic operation and enhancement of ethical management<br>- Opening of an anonymous anti-corruption reporting center | - Enactment of Code of Ethics<br>- Introduction of specific behavioral guidelines including the Ethics Chart<br>- Declaration of Code of Ethics Announcement of the management's strong determination to embrace ethical management at the HQ (Hanmoim), plants (Management briefing), and Code of Ethics declaration ceremony<br>- Signing of Ethical Pledge by all employees | - Launch of an ethical management campaign<br>- Providing education on ethical management<br>- Penalties and rewards provided in relation to the Code of Ethics<br>- Informing suppliers of the ethical management declaration<br>- Allowing suppliers access to the anonymous reporting center<br>- Supplier agreement to follow the Code of Conduct (to be adopted in 2022) |

## Moorim's Code of Ethics

The Code of Ethics consists of three systems—Ethics Charter, Code of Ethics, and Employee Code of Conduct—structured similar to the legal system. The Ethics Charter declares Moorim's corporate philosophy including the founding philosophy and the value system. The Code of Ethics specifies what employees need to practice in their relationship with the company's major stakeholders based on the Ethics Charter. The Employee Code of Conduct contains specific behavior guidelines in preparation for ethical conflict that employees could potentially face at the workplace.



## Ethics Charter

The Ethics Charter is the highest standard in the Code of Ethics and the declaration of values, which serves as the criteria when interpreting the Code of Ethics and the Code of Conduct. It also includes the founding philosophy, the mission statement, and Moorim's core value of Righteous Ambition.

"Moorim seeks to create a new future based on its pulp and paper technologies that add value to lives as a leader of the Korean paper industry with a philosophy of working to recompense the nation under the object of full domestic self-sufficiency of paper. Thus, all Moorim employees pledge to take Righteous Ambition as their core value to abide by laws and principles, undertake work fairly and faithfully, and respect one another based on honesty and mutual trust."
- Moorim Ethics Charter

## Code of Ethics

Code of Ethics is a set of codes that gives shape to the Ethics Charter, specifying practices that the company and employees must abide by when dealing with key stakeholders (e.g., shareholders, customers, business partners, and suppliers).

1. As Moorim people with Righteous Ambition, we abide by the principles and act appropriately.
2. We value our pledges to customers and give them the finest products.
3. We put the interests of our shareholders first and transparently disclose our business performances.
4. We prohibit unreasonable requests or solicitation from suppliers and cooperate with them based on trust.
5. We follow fair market order and pursue mutual development with competitors through competition in good faith.
6. We respect each other based on honesty and trust and refrain from acting against the interests of the Moorim community.
7. We do not use the information obtained through our positions or while performing tasks to pursue our own interests.
8. We conduct our business fairly and do not give unreasonable instructions or solicit co-workers.

## 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.

1. Prohibition on giving or receiving money or valuables
   - No money or gifts allowed
   - Prohibition on receiving congratulatory money contrary to social norms
   - Prohibition on passing on expenses, including dinner expenses
   - Prohibition on provision of unfair entertainment, convenience, or sponsorship
2. Prohibition on unfair trade practices
   - Giving fair opportunities
   - Prohibition of unfair practices
3. Prohibition on private use of company assets

## Ethics Pledges

All Moorim's employees have agreed to the ethical management declaration and vowed to join the pledge. They signed the Ethical Pledge and received training on the internal ethical management guidebook.


무림 윤리경영 준수 서약서

성 명 :
소 속 :

- 무림 윤리실천강령 -

1. 나는 건전한 속상을 기초 무림인으로서 정직한 준수하며 바르게 행동합니다.
2. 나는 고객으로 약속을 소중히 여기며, 최고의 제품으로 고객에게 보답합니다.
3. 나는 주주의 이익을 최우선 하여 업업하며, 경영성과를 투명하게 공개합니다.
4. 나는 협력사에 대한 부당한 요구나 알선을 금지하며, 신뢰를 바탕으로 협력합니다.
5. 나는 공정한 시장질서를 준수하며, 선의의 경쟁으로 경쟁사와 공동발전을 추구합니다.
6. 나는 정직과 신의로 상호 존중하며, 무림 공동체의 이익에 반하는 행동을 하지 않습니다.
7. 나는 지위나 직무상 알게 된 정보를 통해 사익추구에 이용하지 않습니다.
8. 나는 공정하게 업무를 수행하며, 불공정한 부탁은 지거나 알선을 하지 아니합니다.

서약 인

무림제지㈜ • 무림에스피㈜ • 무림파앤피㈜ 귀 중

Pledge of compliance with Moorim Ethical Management

# Ethical Management Practices

To help ethical management take root within the company, Moorim is making continuous efforts by setting up a system such as Happy Man and the anonymous anti-corruption reporting center, offering periodic training on ethical management, and introducing new systems to spread the ethical management culture.

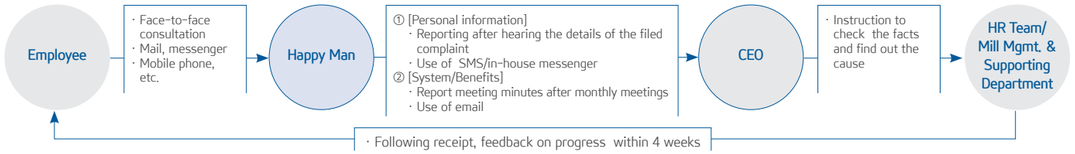
## Ethical Management System

In order to curb unethical activities and develop an ethical corporate culture, we are running the Happy Man system and the anonymous anti-corruption reporting center. Happy Man refers to a system wherein Moorim employees create and improve ethical environment. The anonymous anti-corruption reporting center is a proactive self-purification effort that enables not only our employees but also external stakeholders (e.g., suppliers and customers) to request investigations and improvement whenever they discover unethical situations.

| Happy Man System | Ethical Management System | Anonymous anti-corruption reporting center |
|---|---|---|
| ·Appointed per business site/ position on the basis of recommendations by employees | Members | ·Run by: Legal manager in the ESG Team<br>·Investigated by: Lawyer in charge of the law firm |
| ·Moorim employees | Coverage | ·Moorim and supplier employees |
| ·Internal grievances<br>·Internal illegitimate dealings | Issues covered | ·Internal corruption and illegitimate dealings<br>·Corruption and illegitimate dealings in external business relationships |
| ·Reception: Face-to-face/Non-face-to-face report at Happy man<br>·Deliberation: Internal review by the department in charge of the topic discussed<br>·Handling: Improvement measures taken by the department in charge of the issue | Process | ·Reception: Reported to the external anonymous anti-corruption reporting center<br>·Investigation: Investigation of facts by the lawyer in charge at the law firm (independent) (No intervention allowed by Moorim employees)<br>·Handling: Improvement measures taken by the department in charge of the issue, including disciplinary measures |
| ·Deliberation result directly reported to the CEO<br>·Run freely by people selected as members of Happy Man | Reporting system | ·Directly reported to the CEO<br>·Report receipt of information, investigation plan, investigation results, etc.<br>·Entire process strictly controlled by the CEO |
| ·Reviews only submitted reports: A passive role<br>·A deliberative body, not a decision-making body: An advisory role<br>·Implementation of final improvement measures is carried out by the department in charge of the issue | Roles | ·Investigation of recognized matters ex officio: An active role<br>·A deliberation and investigation body: An advisory role including disciplinary actions<br>·May provide recommendations or orders for improvement to the department in charge of the issue |
| ·Smooth communication among employees<br>·Encourages responsibility by selecting members through votes | Characteristics | ·Identity of the informant kept undisclosed (guarantees anonymity)<br>·Can recognize and investigate external corruption early |

## Happy Man

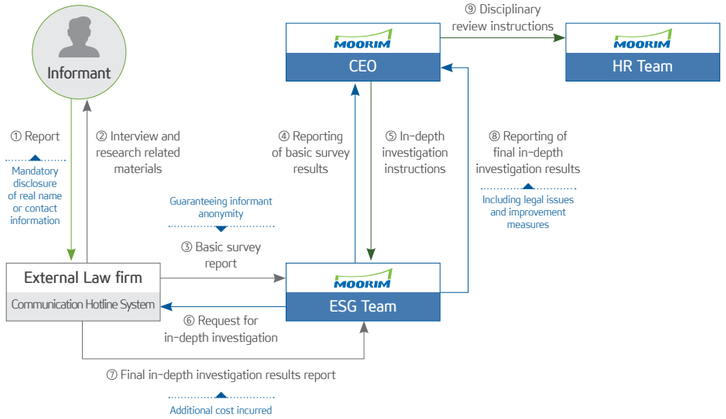
Moorim is operating the Happy Man to handle employees' various complaints. The Happy Man consists of representatives of different positions of each business locations who are appointed based on employee recommendations. They receive overall complaints regarding life at work, including use of abusive language, assault, and sexual harassment and directly report it to the CEO while keeping the anonymity of informants. The CEO instructs the HR Team or Mill Mgmt. & Supporting Department location to ensure that proper measures are taken.



## Anonymous Anti-Corruption Reporting Center

Moorim opened the anonymous anti-corruption reporting center in 2019 to conduct an internal investigation on unethical behavior and make improvements on the matter. Since adopting a reporting process through an external law firm in 2021, we have bolstered the anonymity of informants and expertise of the investigation. Reports submitted to the anonymous reporting center guarantee the anonymity of reporters, with the law firm investigating the facts.

Process for managing external consignment operations




Performance of the Anonymous Anti-Corruption Reporting Center

| | Cases reported/Cases handled (Percentage of cases processed) |
|---|---|
| 2019 | 11/11(100%) |
| 2020 | 5/5(100%) |
| 2021 | 3/3(100%) |

Activities performed : Interview of pertinent people, improvement measures, inspection on measures taken

## Prevention of Unfair Practices and Training on Ethical Management

We are training employees on unfair practices to create a fair market economy and complying with anti-collusion guidelines. We devised a plan for our training programs against collusion when setting the business goals and plans for 2022. We conduct a document survey on supplier trade status led by the Fair-Trade system to prevent unfair transactions related to subcontracting.

### Establishment of a Fair-Trade System

To prevent unfair trade and to establish transparent and fair-trade relations, the ESG Team is carrying out the compliance work and is striving to set a fair-trade system by educating employees on fair-trade laws through distributing relevant materials.

Establishment of an Ethical System for Fair Competition

| Indirect acquisition of industry/market information through customers, etc. | Avoid industry gatherings (including social gatherings) | Regular training of employees on the Fair-Trade Act |
|---|---|---|

### Training on Ethical Management

Every year, we are offering training on ethical management to improve awareness and to spread consensus. Through this, we are encouraging employees to reflect on their roles and obligations to practice ethical management and learn how to handle ethical conflicts in an effort to strengthen our practices. Going forward, we will invite legal experts as instructors and offer online programs to provide various forms of education as well as offer practical support to our employees.

Ethical Management Education Performance

| | Trainees(Completion Rate) |
|---|---|
| 2020 | 1,321(100%) |
| Topics Discussed : Moorim's ethical management and Code of Ethics, signing of the Ethical Pledge | |
| 2021 | 1,271(100%) |
| Topics Discussed : Cases of Moorim's Code of Conduct | |

* Excluding people on leave or under medical care

## Spreading Ethical Management Practices to Suppliers

With strong commitment to ethical management, Moorim feels the responsibility to spread ethical management practices to our suppliers. We will make diverse efforts to help suppliers embrace ethical management practices together with Moorim.

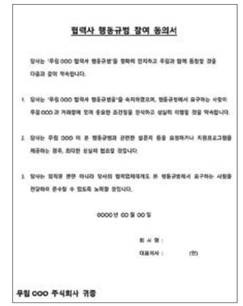
### Reinforcement of Ethical Obligations Under Contract

We will insert a paragraph on integrity obligations in all contracts to help ethical management practices take root by preventing corruption and promoting fair trade.

**Article X [Integral Obligations]**

① Moorim XXX and XXX shall endeavor to maintain a mutually fair-trade relationship in the process of signing and implementing the contract and shall not engage in any of the following illicit acts:
1. Provision of financial benefits such as unfair rebates, commissions, donations of company shares, and investment in company shares (unlisted companies) to the other party
2. Direct or indirect provision of unfair benefits such as money and entertainment to the other party's executives and employees
3. Revealing confidential information such as management and technical secrets of the other party
4. Unfair acts that undermine fair trade order, such as collusion

② Any party violating the paragraphs above shall not raise any objection to any disadvantageous disposition in civil or criminal lawsuits, including termination or cancellation of the contract and compensation for damages.




Parter Code of Conduct and Engagement Agreement Sample

### Encouraging Suppliers to Embrace Ethical Management Practices

Moorim has enacted a Supplier Code of Conduct for mutual development with our suppliers. We plan to disseminate the ethical management practices by informing all suppliers of the code of conduct and getting their consent. Furthermore, we will check the ethical management status of our suppliers by conducting ESG surveys & audits and make continuous efforts to realize ethical management among all suppliers by terminating trade deals with unethical suppliers, along with other measures.




Moorim Group Clean Sticker

# Risk Management

## Management of Financial Risks

To minimize the risk of fraud and financial errors that may occur in financial reports, we are operating the risk control system that is built through our internal accounting management system, covering everything from financial policies and systems to our daily tasks. We also set up a dedicated accounting team to document the internal accounting management system so that we can exercise internal control more efficiently and ensure the reliability of our financial data.

Operation Process of the Internal Accounting Management System

| | |
|---|---|
| Designation of scope of assessment | - Identification of major account items and annotation data; identification of significant processes<br>- Identification of major control activities, determining the department subject to assessment |
| Design assessment | - Evaluates whether the system is effectively designed to control the risks of flaws in financial statements properly |
| Operation assessment | - Evaluation on whether control activities are performed as planned while undertaking business |
| Report on the operational status | - Evaluating the shortcomings and identifying areas of improvement<br>- Obligation of the CEO to report on the operating status of the internal accounting management system<br>- Holding of face-to-face meetings with the Audit Committee in relation to the internal accounting management system |
| Performing the certification process | - Disclosure of the operation status report on the internal accounting management system<br>- Audit and disclosure of the internal accounting management system by an independent auditor |

### Operating Status of the Internal Accounting Management System

In response to the adoption of the New External Audit Act, we have revised the control process by revamping the internal accounting for the period between the latter half of 2019 and the first half of 2020. We are taking the lead in expanding and improving the automated system by efficiently implementing the control measures. We plan to set up a consolidated internal accounting management system in preparation for the audit of the consolidated internal accounting management system to be applied at Moorim starting from 2024, following the separate internal accounting audit beginning in 2020.

### Employee Training on the Internal Accounting Management System

In parallel with the systemic expansion aimed at establishing a control system, Moorim provided training on the internal accounting management system to 652 employees (259 at Moorim P&P, 198 at Moorim Paper, and 195 at Moorim SP) working on the internal accounting management system, accounting managers, accounting team, and Audit Committee subject to training programs in 2021 (limited to office workers and technicians), and everyone successfully completed the program. In the future, we will offer regular training to broaden understanding and raise awareness of the internal accounting management system.

Internal Accounting Management System Progress

**2019~2020**
- **Overhaul of the internal accounting system** Advancement

**2020~ ***
- **Start of internal accounting and audit** A separate standard

**2022~2023**
- **Establishment of audit consolidated internal accounting management system** Advancement of consolidated system

**2024~ ****
- **Start of the consolidated internal accounting management system and audit** Consolidated basis

* As for the separate accounting system, Moorim P&P and Moorim Paper will start the audit in 2020, and Moorim SP, in 2022

** As for the consolidated accounting system, Moorim P&P and Moorim Paper will start the audit in 2024, and Moorim SP, in 2025

## Management of Non-Financial Risks

In case of emergencies in relation to the business activities (e.g., aggravation of the business environment, safety accidents, fires, big customer claims, malicious rumors, wind and flood damage, strike, spread of infectious diseases), companies incur considerable damage. Thus, Moorim is running an Emergency Response Committee to mitigate the situation early via an unified control and reporting system and to minimize damage by appropriately distributing available resources (manpower and material resources)

### Revision of the Emergency Reporting System

Moorim newly added pandemics like COVID-19 that began in 2020 as a type of emergency. We created a unified reporting system headed by the Emergency Response Committee, so that we can immediately and effectively handle emergencies.

Composition of the Emergency Response Committee

| Category | | Responsibility | Remarks |
|---|---|---|---|
| Emergency Response Committee | Chairman | Head of Management Support Division | Emergencies related to business activities |
| | Member | Head of each division | |
| | Support Group | Head of Business Planning Department | HR, labor, funds, general affairs, legal, PR, etc. |
| Working Committee for Emergency Response | Chairman | Person designated by the chairman of the Emergency Response Committee | When emergency occurs locally in a specific business premise |

Emergency Response Committee Reporting System




### Investment Management Committee

The role of the Pre-Investment Review Committee expanded from conducting investment feasibility survey and investment decision making to examining the cause of non-financial risks, setting up of measures, and conducting post-effect analysis. Consequently, the name of the committee changed to the Investment Management Committee. This committee which is headed by the CEO includes other employees, executives, team leaders and department heads as participating members to gather various opinions. The committee meets semiannually to verify facility investment, investment effects and develop measures to maximize the effect.

# Stakeholder Engagement

## Stakeholder Communication

Moorim stakeholders include customers, employees, shareholders, investors, suppliers, local communities, government, associations, and professional organizations. The ESG Team groups our stakeholders in consideration of their business area and their impact and reports this to the management to meet stakeholder's requests. The company collects diverse perspectives and requests from stakeholders via multiple communication channels and to apply them to actual management activities at Moorim.

| Stakeholders | Definition | Communication Channels | Key Issues |
|---|---|---|---|
| Customers | Stakeholders that are crucial for Moorim's sustainable growth as they purchase Moorim's products and services. | · Customer Center<br>· Webpage, Social media<br>· Exhibitions, NeoClub21<br>· Moorim Gallery<br>· Neoforêt brand webpage | · Technological innovation<br>· Eco-friendly products and packaging<br>· Quality and customer satisfaction |
| Employees | The main players of product production and all supporting activities whose capabilities make up Moorim's capabilities | · Happy Man<br>· Anonymous Anti-Corruption Reporting Center<br>· Internal training on Metaverse<br>· Company newsletters (I'm Moorim, Moorim Sympathy) | · Work environment<br>· Human rights management<br>· Employee participation and labor-management cooperation<br>· Talent development<br>· Workplace safety and health<br>· Information security |
| Shareholders & Investors | Stakeholders who provide financial resources to Moorim so that it can carry out various strategies, conduct business, and maintain sustainable growth | · AGM<br>· BOD<br>· Disclosure data | · Board integrity<br>· Market competitiveness and corporate value<br>· Response to environmental regulations |
| Suppliers | Stakeholders responsible for supplying and transporting materials and parts to promote the success of Moorim's business; their competitiveness affects the quality of Moorim products | · eProcurement purchase management system | · Workplace safety and health<br>· Supply chain management<br>· Sustainable raw materials |
| Local communities | People in all areas affected by Moorim's business activities including residents near the company's business premises; Moorim strives to achieve the sustainable development of local communities | · Moorim Paper KOREAN CUP Paper Airplane Competition<br>· Companywide COVID-19 prevention activities<br>· Local volunteer activities<br>· Website and social media campaigns | · Community contribution<br>· Response to environmental policies<br>· Biodiversity<br>· Water management<br>· Waste management<br>· Energy management<br>· Air pollution management<br>· Reduction of GHG |
| Government | Stakeholders who can affect Moorim's business activities by enacting the relevant laws and deciding on policy levels related to company operations | · Press release<br>· Participation in government policies | · Legal compliance<br>· Ethics and anti-corruption |

## Creation and Distribution of Economic Value

Moorim endeavors to fulfil its corporate social responsibility by sharing the economic values created through its economic activities with diverse stakeholders including the suppliers, the employees, the investors, the local communities, and the government. We will share Moorim's new future and values created by the finest pulp and paper technologies with our stakeholders to achieve sustainable growth.

(Unit: KRW)

| | | Moorim Paper | Moorim SP | Moorim P&P |
|---|---|---|---|---|
| Employees | Wages | 2019 32,554,000<br>2020 31,826,000<br>2021 33,448,000 | 2019 14,229,000<br>2020 14,511,000<br>2021 14,659,000 | 2019 46,227,000<br>2020 44,977,000<br>2021 46,214,000 |
| | Benefits | 2019 5,972,470<br>2020 6,107,592<br>2021 6,060,650 | 2019 2,383,070<br>2020 2,394,098<br>2021 2,390,486 | 2019 9,747,982<br>2020 8,317,435<br>2021 8,241,751 |
| Investors | Interests | 2019 18,991,965<br>2020 15,567,532<br>2021 13,073,340 | 2019 1,540,163<br>2020 1,128,965<br>2021 775,690 | 2019 10,702,719<br>2020 9,687,852<br>2021 9,316,691 |
| Suppliers | Raw materials cost | 2019 253,073,000<br>2020 173,126,000<br>2021 245,604,000 | 2019 67,187,000<br>2020 47,504,000<br>2021 65,261,000 | 2019 232,345,000<br>2020 180,271,000<br>2021 206,212,000 |
| Local communities | Donation, social contribution | 2019 138,000<br>2020 71,318<br>2021 140,226 | 2019 6,987<br>2020 119,950<br>2021 11,100 | 2019 87,825<br>2020 73,795<br>2021 71,313 |
| Government | Corporate tax | 2019 -1,325,392<br>2020 397,298<br>2021 -4,864,625 | 2019 25,575<br>2020 1,582,361<br>2021 1,436,872 | 2019 10,577,065<br>2020 -4,543,924<br>2021 33,123,988 |

# Materiality Assessment

Moorim conducted a materiality assessment to effectively manage and respond to key issues regarding sustainable management. Through comprehensive assessment of media analysis, internal and external stakeholder surveys, and benchmarking analysis, we identified 23 ESG issues along with 8 key material issues that must be primarily reported and managed. We incorporated the analysis of impacts and opportunities presented by eight material issues into ESG Team's annual draft plan and reported them to the management. The Sustainability Report 2021 includes our plans and achievements of countermeasures that were established based on the analysis of 8 material issues.

## Materiality Assessment Process

| | |
|---|---|
| [1-Stage 1] Collecting feedback from stakeholders | We collected stakeholder requests and their opinions on business environment and industry trend through various communication channels and applied them when organizing the issue pool. |
| [1-Stage 2] Issue Pool Configuration | We identified a list of issues by examining the corporate status and the business environment (media, benchmarking, international standards) and made an ESG issue pool that consists of 23 issues closely related to Moorim. |
| [2-Stage 1] Likelihood analysis | We analyzed internal and external demands as well as the potential issues that could be brought up to check to apprehend the risk probability.<br>① Media risk analysis (reflected negative articles and frequency of the articles)<br>② Stakeholder awareness analysis (risk probability) ③ Analysis of internal response |
| [2-Stage 2] Impact analysis | We assessed the impacts of issues that affect the overall evaluation of the company and relative evaluation factors. Industry analysis and assessment of stakeholder awareness (impact when faced with the risk) |
| [Stage 3] Selection of material issues | We identified eight key material issues based on risk probability and impact analysis. We developed the report considering the relevant issues. |

## Moorim ESG Issue Pool

### Environment

- ⓐ Sustainable raw materials
- ⓑ Reduction of GHG
- ⓒ Air pollution management
- ⓓ Energy management
- ⓔ Waste management
- ⓕ Water management
- ⓖ Biodiversity
- ⓗ Response to environment policies
- ⓘ Eco-friendly products and packaging

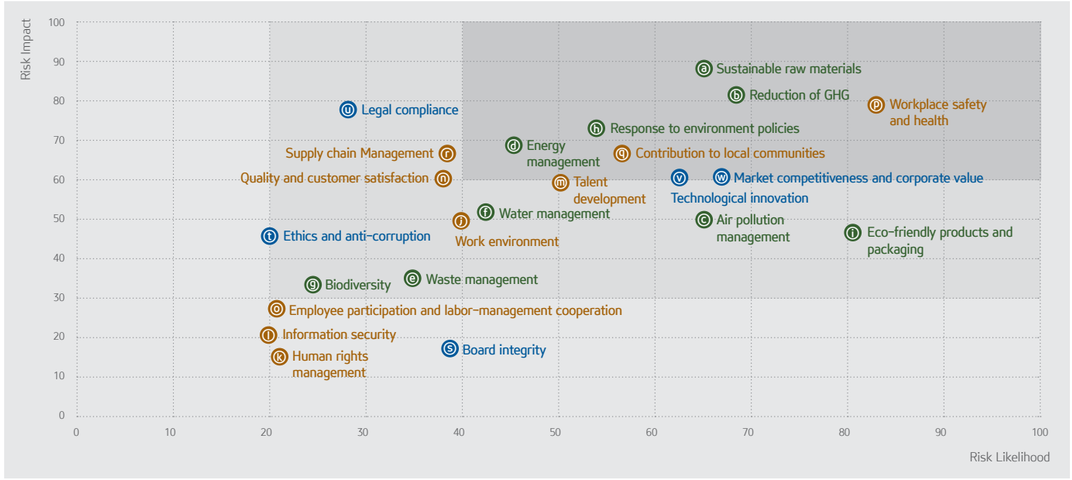
### Society

- ⓙ Work environment
- ⓚ Human rights management
- ⓛ Information security
- ⓜ Talent development
- ⓝ Quality and Customer Satisfaction
- ⓞ Employee participation and labor-management cooperation
- ⓟ Workplace safety and health
- ⓠ Contribution to local communities
- ⓡ Supply chain management

### Governance

- ⓢ Board integrity
- ⓣ Ethics and anti-corruption
- ⓤ Legal compliance
- ⓥ Technological innovation
- ⓦ Market competitiveness and corporate value

## Materiality Assessment Matrix




| Key ESG Material Issues | Category | Likelihood | Impact | Impact Assessment of Key Material Issues | Moorim's Response Status |
|---|---|---|---|---|---|
| 1. Workplace safety and health | Society (S) | ● | ● | Ensures employee safety and enhances work efficiency through improved workplace safety control. Reduces corporate and social loss from workplace accidents. | Creating a happy workplace<br>· Safe management |
| 2. Sustainable raw materials | Environment (E) | ● | ● | Minimizes GHG emission within the value chain by introducing sustainable raw materials. | Keeping the Earth green<br>· Environment-friendly management |
| 3. Reduction of GHG emissions | Environment (E) | ● | ● | Minimizes air pollution and improves the local environment through the GHG reduction project. | Keeping the Earth green<br>· Environment-friendly system |
| 4. Market competitiveness and corporate value | Governance (G) | ● | ● | Strengthens market competitiveness to augment brand power. Raises investor benefit by improving corporate value. | Making Better Tomorrow<br>· Moorim's pulp and paper companies |
| 5. Technological innovation | Governance (G) | ● | ● | Secures new growth engine and maximizes growth by acquiring green technologies and developing advanced materials. Minimizes carbon emissions and recycles more by expanding the number of sustainable products. | Producing paper's new possibilities<br>· Technology innovation, quality management |
| 6. Response to environment policies | Environment (E) | ● | ● | Minimizes corporate loss and risks by responding to environment policies. Participation in global initiatives to reduce GHG by stepping up our response to environment policies within our value chain. | Keeping the Earth green<br>· Response to climate change |
| 7. Contribution to local communities | Society (S) | ● | ● | Offering economic and environmental benefits to local communities through material, financial, and social donations, thereby enhancing brand image within the community. | Sowing the seed of mutual prosperity<br>· Mutual prosperity with local communities |
| 8. Energy management | Environment (E) | ● | ● | Reduction of cost through efficient use of energy and minimizing carbon emissions within the business premises. | Keeping the Earth green<br>· Eco-friendly system |

* Risk probability and impact assessment: ● High ● Medium ● Low

# Stakeholders' Interview

Moorim listens to the perspectives of our internal and external stakeholders on its current status and future directions. We seek to heed various voices for sustainable mutual development with all stakeholders and embrace them in future steps.

## Supplier



Managing Director
**Sung-nam Ahn,**
Trinseo Korea

The cooperation between Trinseo Korea and Moorim has considerable benefits. Moorim runs the only pulp and paper integrated mill in Korea under the slogan of adding value to lives with its finest pulp and paper technology. The company produces a wide range of offerings and boasts of exceptional R&D capabilities that commensurate the slogan. The biggest advantage is that we can create a virtuous cycle that benefits both parties by sharing product and technology data that customers need and applying them to our research.
We are living in challenging times with soaring raw and supplementary materials prices and supply chain disruptions due to COVID-19. By turning the current situation into an opportunity and developing a long-term model for mutual development, we can achieve a sustainable partnership.

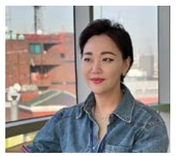
## Supplier

Punglim is a forestry company with focus on the lumbering industry. We are also engaged in corporate plantations, afforestation, and wood chip business. Thanks to Moorim's active support in the process of manufacturing hard wood (H/W) and soft wood (S/W) chips, Punglim was able to settle stably in the Korean market.
Collaboration with Moorim is beneficial to Punglim on various fronts. Moorim's share in Korea's H/W market is over 60%, and the company has strived to expand sustainable production and use of wood, ultimately contributing to the rise in self-sufficiency rate by increasing the market size, along with the forestation efforts by the Korea Forest Service. With the arrival of the era of ESG management, Moorim is on the path to becoming a sustainable market leader in the raw materials market, as a pioneer in carbon neutrality and forest protection by boosting corporate value and securing the market.



Vice President
**Jong-won Kim,**
Punglim

## Employee



Team Leader
**Noh-young Kim,**
Moorim

Moorim is spearheading the effort to lead a sustainable management through eco-friendly product development and research. It released a series of biodegradable paper products and got recognized by the market for its superb technology and marketability, attracting the keen attention of various media, institutions, and corporate world. Moorim has worked hard as an entire company to carry out practical activities tailored to the needs of the paper industry, rather than focusing on obtaining higher ESG ratings. If we gradually materialize and carry out feasible activities that leverage our strengths, I am certain that it will yield significant results.

## Contribution to Local Communities

Since 2011, Moorim has been a sponsor of paper for the magazine Big Issue from social company Big Issue Korea, which helps housing-vulnerable groups become self-reliant. Moreover, it is working closely with us by engaging in social contribution activities, going beyond the simple provision of goods. Thanks to Moorim's support, we can provide housing-vulnerable groups the rights to sell Big Issue and other job services through which we provide 50% of our sales, leading to the creation of sustainable self-sufficiency solutions. Paper provided from Moorim significantly lowered the production cost and boosted our market competitiveness and the sustainability of our services. Our relationship with Moorim continuously yields a positive impact on local communities. I hope more people learn about Moorim's philosophy of not only pursuing profit but also creating social benefit and value.



General Manager
**Byung-hoon Ahn,**
Big Issue Korea

## Shareholder/Investor



Director
**Jong-ryul Park,**
Heungkuk Securities Co., Ltd.

As a shareholder and an investor, I consider environment, social, and governance of ESG management to be all important elements, but personally, I put higher value on social contribution. For a company to achieve sustainable growth, how much you contribute to society determines whether you'd become an exceptional company beloved by customers. Moorim can be evaluated as a company that satisfies both its employees and customers. In terms of environmental impact, it may adversely affect pulp and paper companies, but it can be positively evaluated that Moorim is making a large-scale tree plantation in Indonesia. I hope they can maximize the creation of added value in all areas and share the benefit with their shareholders.

## Expert

I believe that there are many risks as well as opportunities ahead for the paper industry. First is the obligation to obtain resources (timber) and manage the supply chain, comply with standards for water resources and chemical substances used in pulp and paper and social criteria, and disclose data. Second is the corporate responsibility of establishing an internal policy on the worldwide sustainable purchase of timber and preserving natural forests. Third is the lack of timber production due to climate change and possible crisis due to shortage in eco-friendly forest resources. When Moorim's ESG management activities and operation and responsibility with regard to overseas afforestation projects are disclosed to enhance Moorim's ESG management and to boost stakeholder satisfaction, this will bring about greater accomplishments.



CEO
**Soo-young Lee,**
Control Union

## Customer



Team Leader
**Suk-hyun Park,**
Chogwang Printing

Customers today are increasingly interested in eco-friendly products and are making related inquiries. Moorim has sufficient level of competitiveness in the market as it produces low carbon-certified products and is making positive contributions to the needs of our society for decarbonization and eco-friendly production. However, currently not many people are aware about Moorim's eco-friendly products, so I hope that more people get the opportunity to learn about them. In addition, Moorim is a company that pursues mutual benefit and trust with customers. It doesn't just seek short-term benefit and growth but pursues common prosperity with customers. We would like to accompany Moorim on its journey toward further growth and development.

# **Adding Values** to Our Lives


Producing Paper's New Possibilities — 40

Keeping the Earth Green — 52

Creating a Happy Workplace — 64

Sowing the Seeds of Mutual Prosperity — 82

# Producing paper's new possibilities



ISSUE

Market competitiveness and corporate value



Likelihood



Impact

Technological innovation



Likelihood



Impact

## BACKGROUND

The paper industry is a typical capital-intensive equipment industry that requires relatively little demand for labor due to automation of the integrated process. It is also sensitive to fluctuations in raw and supplementary material prices. Most domestic paper companies are importing the majority of pulp they are using, thus the rise in pulp prices can hurt profitability as it can lead to an increase in raw materials cost.

### RISK

- Drop in competitiveness due to lack of technology
- Deteriorating profit following fluctuations in raw and supplementary materials

### OPPORTUNITY

- Securing market competitiveness by acquiring advance technologies
- Increase in research capacity through industry-academe cooperation
- Identification of new growth engine through the development of eco-friendly products

## MOORIM'S APPROACH

As a response to worsening climate change risks and increasing demand for eco-friendly products, Moorim is dedicated to research and development of a sustainable manufacturing processes as well as advanced materials. Moorim is expanding our product portfolio through research on advanced materials, including molded pulp.

## MOORIM'S ACHIEVEMENT IN 2021

Neoforêt Aircushion

won the KITECH President's award in the 15th Korea Packaging Competition

Moorim developed molded pulp and bioplastic products

Improved in the production processes and products based on the quality management system (QMS)

125 cases

## THE NEXT STEP

Moorim will strive to facilitate the development of eco-friendly products and increase the diversity of product lineups and secure a new growth engine by developing advanced materials (lignin and cellulose). We will advance the product development process for new eco-friendly technology and products by introducing QMS and enhance work efficiency through various business innovations.

# Technological Innovation

The global pulp and paper market is undergoing rapid change with the heightened response to climate crisis and the introduction of more stringent environmental policies on disposable products. Taking this crisis as an opportunity, Moorim is endeavoring to adopt innovative technology to improve the business structure and obtain the momentum of growth. We are increasing investment to develop more sustainable materials and products including our flagship pulp and paper products, improve process efficiency, obtain the latest technology through continuous research on green technology and collaboration with advanced research institutes worldwide, and enhance our research capabilities.

## Pulp and Paper R&D Team

Since the launch of an integrated research center in 1986, Moorim has been working hard to achieve technological innovation in the pulp and paper industry, from technology-intensive hi-tech paper to research on eco-friendly pulp advanced materials. The research center studies four main areas—pulp, paper, new products, and advanced materials—and it is equipped with not only precision analysis equipment but also diverse research equipments that enable researchers to conduct lab and pilot-scale studies. The center also works with various external institutions to conduct research aimed at improving expertise and efficiency. It focuses on securing original technology and patent technology with major universities in Korea and professional research institutions to develop eco-friendly products through joint research on composite materials, packaging, and cosmetics with customers. Going forward, Moorim will expand research and collaboration with various industry-academic research institutes to develop eco-friendly materials that meet the demands of the times and customer needs, while concentrating on technological innovations and development of new pulp and paper technology.



Moorim Research Center Structure

**Moorim Research Center**

| | Advanced Materials R&D Team | New Product R&D Team | Pulp R&D Team | Paper R&D Team |
|---|---|---|---|---|
| Roles | · Development of new items using main and by-products from pulping (cellulose, lignin) and research on their application | · Development of next generation technologies for new growth engine<br>· Development of sustainable eco-friendly papers | · Eco-friendly technology research<br>· Improvement in the pulp process<br>· Cost optimization | · Development of new technology<br>· Process improvement<br>· Cost optimization |
| Research areas | · Development of cellulose nanofiber manufacturing and applications<br>· Development of cellulose-based eco-friendly materials<br>· Development of eco-friendly high value-added/functional lignin materials | · Development of eco-friendly barrier technology and paper<br>· Joint projects with companies with demand for eco-friendly products and develop functional paper that can replace plastic<br>· Research on quality and improvement of production process of special functional paper | · Research on lignin production technology<br>· Advancement of water treatment technology<br>· Research on eco-friendly bleaching technology | · Reduction of pulp and increase in paper strength by developing new high-filling technology<br>· Treatment of insoluble properties of broken paper<br>· Strategic response according to the supply and demand of raw materials |
| Research direction | · Development of cellulose/lignin-derived eco-friendly materials and low-cost manufacturing process to replace fossil fuel-based materials<br>· Establishment of basis for commercialization through joint research with customers by use | · Expansion of eco-friendly paper portfolio (diversification of uses including board paper, packaging paper, etc.)<br>· Strategic improvement in paper quality/process | · Environment-friendly production process<br>· Commercialization of lignin<br>· Joint development of new technologies with overseas companies and institutions | · Deviating from the costly structure by developing new technology and cost optimization<br>· Enhancing product brand value by increasing profit and quality by reducing manufacturing cost |

## Major R&D Activities and Accomplishments

We use pulp, the raw material for paper, and black liquor generated during pulp production to research ways of enhancing paper quality and develop different advanced materials and new products.

### R&D Activities to Achieve Carbon Neutrality

With the increased seriousness of international talks on carbon neutrality and carbon tax, Moorim is conducting research using renewable energy and development of low-carbon eco-friendly products to proactively respond to the decarbonization trend.

#### Leader of the Green Power Generation Business

Black liquor generated from the mix of lignin and other extracts that remain after manufacturing pulp becomes biomass fuel. Moorim burns black liquor on the recovery boiler to produce steam and electricity. Further, the ash is recycled into a chemical needed in producing pulp through a chemical recovery process. This way, Moorim not only protects the environment but also contributes to reducing carbon emissions.

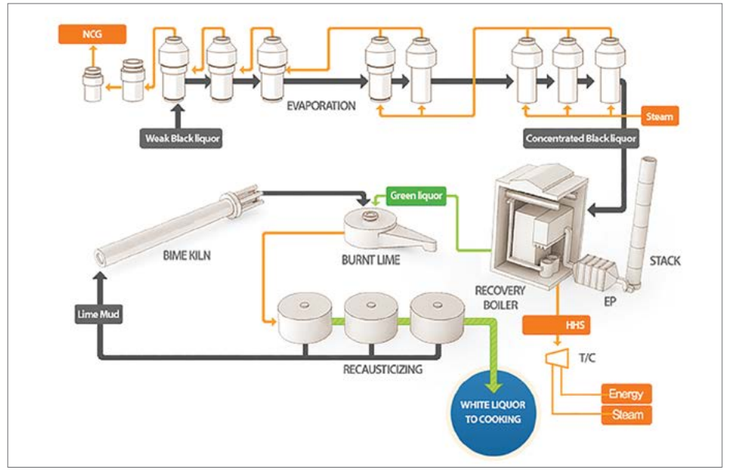
* Moorim replaced 870,000 tons of CO2eq fossil fuel a year with biomass such as black liquor and biogas (as of 2017)

In addition to being used as a recycled energy, black liquor is drawing attention as an alternative to petrochemical products that helps achieve carbon neutrality. There is active research being conducted on black liquor overseas. The green plastics made from synthesis of lignin extracted from black liquor and the existing polymer resins can be used to make eco-friendly car interior materials. As the sole pioneer in the black liquor sector in Korea, Moorim will continue to undertake research in the field.



Black liquor

Combined heat and power generation and retrieval of chemical substances



## R&D Activities for Plastic-Free Life

New regulations on reducing plastic waste are established across the world, and the Korean Government is reinforcing its policy of cutting down the use of plastic with the goal of reducing the amount of plastic waste by 50% until 2030. In contrast, demand for disposable goods has skyrocketed after COVID-19, which resulted in a surge in social demand for products with proven biodegradability like bioplastic. To respond to these changes proactively, Moorim has increased its portfolio on green technology while identifying and collaborating with customers seeking eco-friendly products to conduct joint development of new products.

### Scaling up the Molded Pulp Business

As the only pulp producer in Korea, Moorim is undertaking research on plastic alternatives based on wood pulp as part of its deplastic initiatives. Molded pulp, a plastic alternative, is made from 100% fresh un-dried slurry pulp and is biodegradable. It can be molded into various shapes, with high business scalability as it can be transformed into industrial packaging materials. It is harmless to the human body as it uses water and oil resistant substances that passed food safety tests by institutions like FDA and BfR. It is also produced in factories with food safety system certification (FSSC22000). Since molded pulp does not emit harmful substances when used in a microwave, it will be an alternative to plastic food and beverage containers, home meal replacements (HMRs), and various industrial materials.



Molded pulp

### Intensive Research on Alternatives to Plastic Flexible Packaging

Most of the flexible packaging materials that constitute the second largest market in the global packaging market are made of plastic. Moorim has successfully commercialized eco-friendly alternatives to plastic straws, disposable cup, and cushioning materials that satisfy customer demand. We are also carrying out research on eco-friendly barrier paper that blocks the intrusion of oxygen and moisture for the medium- and long-term storage of the content. By conducting research on paper alternatives for multi-layer plastic film structure, we are concentrating on enhancing the biodegradability of products and production of eco-friendly products in partnership with leading Korean brands that extensively use flexible packaging.



Neoforêt aircushion

### Bioplastic Business

There are growing interest and demand for bioplastic due to plastic waste that generates microplastic. Moorim is taking the lead in the study of bioplastic to replace the general plastic that is widely used in packaging and consumer goods. Moorim's bioplastics reduce the environmental impact as it is made of pulp and wood particle that are biodegradable as well as reduce carbon emissions.

Moorim bioplastic is generally used to make daily products or cosmetics containers. In a recent collaboration with a fashion brand, Moorim co-developed carbon-reducing hangers and green mannequins made of pulp and wood particles for the first time in Korea and released them in the market.



Bioplastic



## R&D Activities Geared Toward Securing a New Growth Engine

Moorim is striving to secure diverse new growth engines to respond proactively to potential internal and external risks including climate change. To achieve sustainable growth that is independent of the paper industry and market circumstances, we are making a major investment in the development of new business and advanced materials, leveraging our production capability for pulp and paper.

### Research on Green Functional Materials Based on Cellulose

Moorim produces eco-friendly functional materials based on cellulose using pulp that we produce internally, such as cellulose nanofiber (CNF) and microcrystalline cellulose (MCC). Then we research ways to apply them in various fields.

CNF is a new eco-friendly material made by breaking down cellulose fiber extracted from pulp into nanometer (about one billionth of a meter) particles. Although low in density, it is strength, stable against heat, and hydrophilic, and it can hold water.

Moorim is working hard to gain competitive edge in production cost and quality by manufacturing CNF at low cost and at different grades depending on their usage. We are carrying out joint research with domestic customers to develop new products, and we expect to apply the result in a wide array of industries such as bio-composite materials used as car interior materials, films and packaging such as food packaging materials, functional cosmetics, and additives designed to improve paper quality.

MCC can be used as additives to medicine, eco-friendly powder for cosmetics, and food and beverage. We are researching how to scale up production by applying our eco-friendly, low-cost production process, making prototypes, and developing applications. Through our research on eco-friendly functional materials based on cellulose such as CNF and MCC, we seek to replace plastic materials based on fossil fuel, achieve carbon neutrality, and realize Moorim's philosophy of ESG management.



Cellulose nanofiber (CNF)



Films and cosmetics made using CNF



MCC and products made using MCC (pills, eye shadow)

### Research on wood-derived lignin

Lignin produced in the pulp process derived from natural timber is drawing attention as an alternative to petrochemical products that will help achieve carbon neutrality. Lignin production technology was developed and commercialized in some North European countries, US, and Canada only. The global lignin market is growing, but Korean companies are completely relying on import when using lignin.

Seeing the high growth potential of the lignin market, Moorim has laid the foundation for the low-cost development of lignin production technology by developing a patented technology for high-purity lignin production made from by-products. We are working with the world's leading pulp research institutes to be a step closer to the commercialization of domestically produced lignin. Moorim will continue its research on production technology aimed at the commercialization of lignin and contribute to replacing petrochemical products like plastic with eco-friendly products by distributing lignin around the country.



Lignin

# Management Innovation

## Quality Management System (QMS)

Moorim's QMS has set up a customer-oriented preliminary control system designed to maximize customer satisfaction (product/service). Under the system, we are reorganizing the quality management process, supplementing the system, and introducing new systems.

### QMS Goals

QMS aims to set up a comprehensive (perennial-preliminary/post) operation system that improves management quality, job quality, and ultimately product quality based on a customer-oriented process that evolved from the existing operating system (quality assurance and control with emphasis on products) centered on quality control (QC) activities. We will identify and solve issues by fostering communication between teams performing the same task to boost the overall quality of work.

### QMS Process

In order to realize the quality policy of maximizing customer satisfaction, Moorim has established a customer-centered quality management system by shifting its focus from the existing quality management process [product development- production- delivery] to customer orientation, prevention, work efficiency, and safety/environment.

### QMS Activities

To reach this goal, we formed a company-wide QMS division and a QMS building team. These teams inspected the process, identified issues, and selected 125 out of a total of 737 issues identified. In May 2021, we held a QMS workshop for all three affiliates and formed a consensus on future directions.

### Achievements by the QMS

Moorim is making improvements on 125 issues derived and, based on this, redesigning the process, supplementing the system, and introducing a new system while tackling new issues derived from the newly revised process. Eventually, we created a system wherein we constantly monitor the overall process.

| 13cases | 38cases | 57cases | 17cases |
|---|---|---|---|
| Customer-oriented | Preliminary control | Work efficiency | Safety&environment |



Meeting to derive QMS issues

## Suggestion System

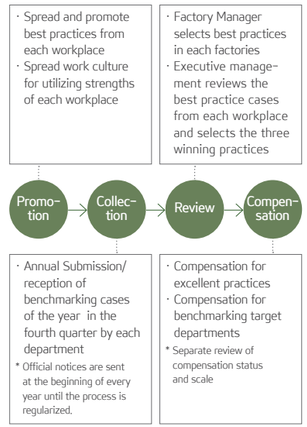
Moorim is systemically operating a manufacture suggestion system, one of the factory innovation activities. The department in charge reviews the proposed ideas from multiple perspectives, including cost reduction, improved productivity, quality enhancement, management innovation, and job improvement, and rewards outstanding proposals. In 2021, we received a total of 6,627 fresh ideas, which were applied to factory sites to improve quality and productivity, while preventing accidents. In particular, a total of 20 outstanding ideas that resulted in high performance were submitted, helping Moorim strengthen its factory competitiveness.

(Unit: Cases, KRW Thousand)

| | No. of proposals | No. of high-grade proposals | Amount of high-grade proposal effect |
|---|---|---|---|
| Moorim Paper | 1,933 | 6 | 136,486 |
| Moorim SP | 1,372 | 4 | 318,468 |
| Moorim P&P | 3,322 | 10 | 352,014 |

## Best Practice Benchmarking

Moorim promotes a culture that actively benchmarks and utilizes success stories from other businesses in the course of work. We were able to facilitate exchange among Moorim's pulp and paper companies by sharing and rewarding the best operational practices from their workplace. In addition, we are encouraging innovation in the operation process of the workplace by proactively expanding and applying best practices. In the second half of 2021, we received a total of 42 cases, and best practices for each of the three workplaces were selected and shared across the company to create a culture of work innovation. Best practice was adopted as a pilot project in the second half of 2021 and will be introduced as a regular activity beginning 2022. In parallel, we plan to promote communication between each workplace by conducting non-contact meetings through metaverse.




## Moorim Visual Planning (VP)

Moorim VP is a supplementary tool designed to share corporate goals with departments and achieve them efficiently. We have placed a VP board in each department where they put up ① organizational goals, ② strategies for sub-organizational goals, ③ management of organizational performances, and ④ operational goals related to the current year's strategies and core tasks. We share the progress and accomplishments made with all team members, facilitate communications among teams, and provide team support and feedback as needed to maximize work efficiency.

## Quality Management

Moorim provides high-quality products requested by customers through the most economical means and delivers them on time for customer satisfaction. We not only establish, implement, and maintain the QMS but also take the lead in making constant improvements to the system.

### Quality Management Certificates

We are maintaining the international certification on the quality management system enacted and enforced by the International Organization for Standardization (ISO) in order to meet international quality standards. We are also responding to the needs of our customers to be eco-friendly by acquiring various other environmental certifications and the FSC®-CoC.

Moorim's ISO 9001 Certification Status



Moorim Paper | Moorim SP | Moorim P&P

# Sustainable Paper

## Paper Made with the Planet in Mind

### Return to forest, Neoforêt

Moorim launched the brand Neoforêt after making a roadmap for eco-friendly products in 2019. Neoforêt products have achieved high environmental and quality results, earning a variety of 'first' records and environmental certifications. Neoforêt products meant to return to forests are high-quality products with outstanding recyclability and biodegradability, but we will take a step further to develop more diverse materials that can replace plastic, going beyond the limitations posed by the existing paper.

Neoforêt's Key Features

**Sustainability**

Neoforêt uses wood from plantations that use the circular planting method that puts minimum pressure on nature.

**Biodegradability**

Neoforêt begins from nature and returns to nature.

**Safety**

Neoforêt, which started out with an environment-friendly process, is certified to pose no harm to the body.

**Recyclability**

Neoforêt uses eco-friendly water-soluble coating to enhance recyclability and biodegradability.

Eco-friendly paper straw made with virgin pulp

### Neoforêt STRAW

Neoforêt STRAW are more durable than conventional paper straws certified by the US Food and Drug Administration (FDA) and the German Federal Institute for Risk Assessment (BfR) to be harmless to the human body.



The only paper cup in Korea certified as biodegradable and recyclable

### Neoforêt CUP

The eco-friendly coating of Neoforêt CUP returns to nature within 45 days as it gets decomposed by microorganisms and they are safer than conventional paper cups with PE coating.

| | Neoforêt Cups | PE-coated Paper Cups |
|---|---|---|
| Coating ingredients | Water-based dispersion coating | PE (polyethylene) |
| Biodegradability | Decomposed in four months | Not decomposed |
| Recycling rate | 90% and higher | Less than 80% |
| Energy consumed | Produced at 150℃ | Produced at 325℃ or higher |
| Environmental impact | Low | High |
| Water resistance | High | High |







Recyclable aircushion-type packaging material.

### Neoforêt Aircushion

Neoforest aircushion is the first air cushioning material developed in Korea. It can protect the product even with a small amount of air. Also, it is easy to dispose and has been approved to be discarded as paper.

A versatile less-plastic eco-friendly product that can be used as paper tubes and labels.

### Neoforêt FLEX

Neoforêt FLEX is a eco-friendly product that can be used for multiple purposes such as paper tubes and labels. It guarantees safety even when wet (e.g., impregnation, refrigeration, freezing).



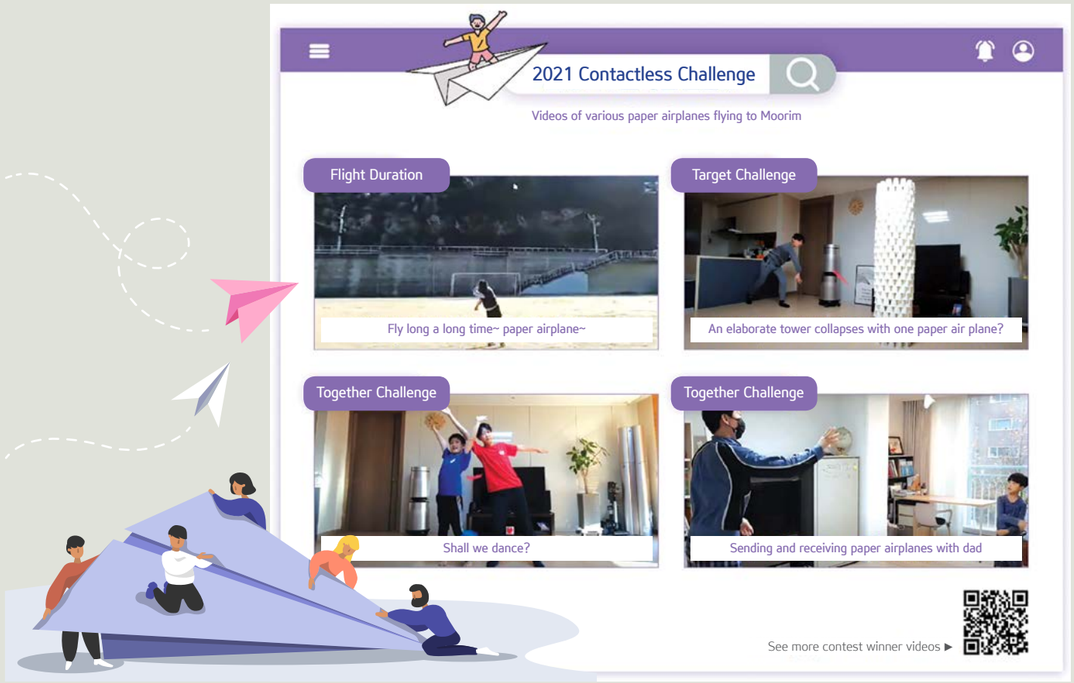
# Paper that Moves Along with Society

Moorim believes that paper does not only plays the role of a product but also, can act as a bridge that connects people and people, people and the world. Based on this philosophy, we are pursuing social values by opening opportunities for families to communicate and bringing the marginalized groups closer to the world via paper.

## Moorim Paper Korean Cup Paper Airplane Competition

Hosted by Korea's leading eco-friendly paper company Moorim, 'Moorim Paper Korean Cup Paper Airplane Competition' is meant to provide an opportunity for families to take part, communicate, and enjoy their time together through paper airplanes. Since the first competition held in 2017, it grew into the only paper airplane competition in Korea attended by approximately 3,000 people. After the pandemic, we held the competition online in 2020 and 2021 even when faced with the risk of cancellation and attracted the attention of paper plane lovers as a unique event.




## Moorim X Big Issue Korea

Moorim has provided paper since 2011 to the Big Issue magazine that helps housing vulnerable groups become self-reliant. Apart from that, we are engaging in various social contribution activities such as volunteering activities involving employees to help housing-vulnerable groups (homeless) become self-reliant. In addition, we are making various efforts to improve the negative perceptions of the homeless.



### Sponsoring Paper for Magazine Printing

The provision of paper to the Big Issue magazine has been proven to be significantly helpful to the socially vulnerable groups. Thanks to Moorim's support, the Big Issue can make the magazine in a more stable environment and offer jobs to the housing-vulnerable groups as magazine sales representatives. The income generated can then be used to support them to be self-reliant, acting as the backbone for the homeless to get back on their feet. The social contribution partnership between Moorim and Big Issue was recognized for its accomplishments, and the program was given the Grand Prize in the Korea Marketing Awards.




### Nanum Flash Mob with Moorim's Employees

Moorim assembles Nanum (referring to sharing in Korean, implying they share social value) flash mobs to learn about the value of sharing and to increase social awareness of the vulnerable populations. At Hongdae and Gangnam stations, the busiest spots in Seoul, a large number of Moorim employees delivered a performance of taking out the Big Issue magazine and reading them all together to raise social interest in the homeless. The event was canceled in 2021 due to the pandemic, but we plan to resume the performance in the near future.




### Big Issue Cover Design Contest for the Special Christmas Issue

Moorim and Big Issue jointly held a Big Issue Cover Design Contest for the special Christmas issue targeting children to attract social interest in the homeless who face difficulty in finding shelters and jobs during the cold winter season. Children aged 5-12 submitted various artworks with Christmas as theme, with the final selection artwork in the contest becoming the cover of the Special Christmas Issue. In addition, Moorim donated more paper to make Big Issue Christmas postcards and gave them away to citizens to disseminate the meaning of sharing.

**Achievements from Sponsoring Magazine Paper for Big Issue**

Big Issue printed **3.4 million** Big Issue copies with paper donations from Moorim.

This provided sales representative jobs to as many as **1,200 people** in the housing-vulnerable groups.

The sales representatives **sold over 2 million copies** on their own, generating KRW 5.1 billion in profit.

# Keeping the Earth Green



ISSUE

| Sustainable raw materials | | Reducing GHS | | Response to environmental regulations | | Energy management | |
|---|---|---|---|---|---|---|---|
| 66.5 / 100 | 88.0 / 100 | 68.8 / 100 | 85.1 / 100 | 52.1 / 100 | 72.5 / 100 | 47.8 / 100 | 68.4 / 100 |
| Likelihood | Impact | Likelihood | Impact | Likelihood | Impact | Likelihood | Impact |

## BACKGROUND

The 26th United Nations Climate Change Conference, or COP26, adopted the Glasgow Climate Pact, emphasizing the need for a global response to climate change by governments and private organizations by reducing GHG and investing in decarbonization.

| RISK | OPPORTUNITY |
|---|---|
| · Exceeding the cap on allowed carbon emissions | · Revenue generation from the emissions trading |
| · Reinforced emissions regulations | · Expansion of market for coal-free alternatives |
| · Market reduction due to the development of alternative materials | · Securing an eco-friendly corporate image through proactive response |

## MOORIM'S APPROACH

Moorim strives to reduce the society's overall $CO_2$ emissions through by establishing the green management system that provides more low-carbon products in the paper market. We are recycling the biomass generated in the production process into energy to contribute to the reduction of $CO_2$ emissions. In addition, we are building forests to carry forward responsible environmental management.

## MOORIM IN 2021

through installing fenton oxidation facilities

**Cut down theory of constraints (TOC) by 46.4%**

Recorded in sales of environment-certified products worldwide

**KRW 440.6 billion**

**FSC®-FM**

Inje Corporate Forest acquired the Forest Stewardship Council's Forest Management Certification

## THE NEXT STEP

Moorim seeks to establish and implement a sweeping improvement plan to reduce environmental load. In accordance to the national roadmap for carbon neutrality, we will devise measures to cut down GHG emissions as well as energy use. Moreover, we will lead the eco-friendly management efforts to responsibly manage our forests.

# Eco-Friendly Management

## Green Management System

Building on our environmental vision of Eco-friendly Global Pulp & Paper Company, we have developed three strategies for our green management system—operation of an environment-friendly system, development and management of eco-friendly products, and response to climate change—to follow the global trend of shifting to low-carbon economy.

Green Management System

**Eco-friendly Global Pulp & Paper Company**

| Operation of eco-friendly system | Development and Management of eco-friendly products | Response to climate change |
|---|---|---|
| · Minimum pollution and enhanced pollution control<br>· Building an eco-friendly culture<br>– Operation of an environment-friendly system<br>– Green social contribution activities | · Acquire more eco-friendly product certifications<br>· Development of a management system for Eco-friendly products<br>– Management of harmful substances<br>– Establishment of green purchase policies | · Maximum internal control on GHG emissions<br>– Setting up a basis for energy control<br>– GHG emission reduction activities<br>– Expansion of the afforestation business in Korea and abroad<br>– Acquiring more low-carbon product certificates<br>– Green partnership projects |

## Environment Management Policies

Moorim strictly complies with the environmental regulations and other requirements in Korea and abroad. At the same time, we are laying the foundation for minimizing pollution and setting up an eco-friendly management system. We are developing legitimate environmental measures and encouraging all employees to place the highest priority on these policies.

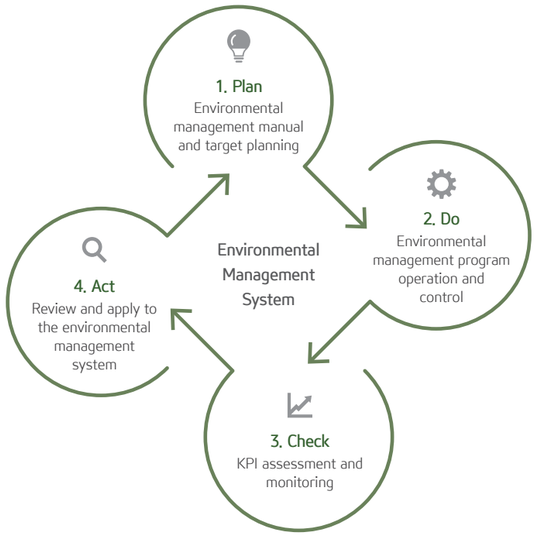
Moorim's Environmental Policies

1. We set up an efficient environmental management system and continuously improve the system through constant monitoring.
2. We document environmental policies, establish environmental objectives and detailed goals, and implement environmental management plans for the efficient management of environmental performance.
3. We allow our stakeholders to apply our environmental measures and guarantee the transparency of environmental management by implementing environmental measures and acquiring certifications.
4. We offer systematic environmental training to all employees to raise awareness of the environment and contribute to worldwide efforts to preserve the environment.
5. We minimize the emission of pollutants and practice 3 Rs (Reduce, Reuse, and Recycle) for the more efficient use of resources and energy.
6. All employees faithfully and actively take on their roles and responsibilities given to them to maximize the impact of the environmental management system.
7. We readily accept and comply with other environmental regulations and requirements to protect the environment.
8. Moorim's management representative has the responsibility and authority with regard to the operation and maintenance of the environmental management system in accordance with these environmental policies and the ISO 14001 requirements.



## Certification of Environmental Management System

By maintaining ISO 14001, the international standard for environmental management systems, Moorim is minimizing negative elements that may occur in the business while leading efforts to consume energy efficiently and restore the environment. Based on the transparent, green management, we are strengthening the water, atmosphere, industrial waste, and noise control system across the pulp and paper production process. In addition, we are making extensive efforts to develop low-carbon, eco-friendly products and reduce GHG emissions.




ISO14001 certificate




Moorim Paper




Moorim P&P

### Environmental Risk Control Process

In order to minimize environmental risks posed by wastewater, air pollutants, and industrial waste, we are developing control measures by item, and we have also developed an environmental management process in response to the enactment and revision of laws and changes in policies. We are providing continuous legal training on water quality, atmosphere, and industrial waste as well as on ISO 14001 to our employees through external expert institutions. We will provide professional training on top of the existing legal training to prevent the occurrence of environmental risks.

Environmental Risk Management Process

| Identification | Assessment | Handling | Monitoring |
|---|---|---|---|
| Internal and external conditions | Impact | Measures (reinforcement or reduction) | Follow-up management |

## Responsible Investment in Environment

We are fulfilling our environmental and social responsibilities through continuous investment to prevent and improve environmental pollution. As part of efforts to improve the company's environmental performance such as reduction in pollutants and improved energy efficiency, we are making investments tailored to each business operation. Moreover, we are inducing voluntary environment improvement activities within the supply chain through green purchase policies. This way, we are practicing sustainable environmental management by building an environment-friendly partnership with the supply chain.

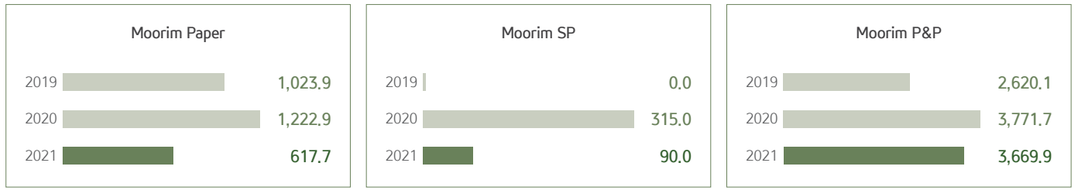
Major Environmental Investments Made in the Past Three Years

**2019~2020**
Moorim P&P, Investment in the $ClO_2$ scrubber facility

**2021**
Moorim Paper installed a wastewater treatment facility in response to TOC regulations

Moorim's Environmental Investment Status

(Unit: KRW 1 million)




## Our Environmental Management Efforts

We are devising environmental management strategies based on our environmental management performance from the previous year to stabilize environmental management practices and control environmental risks effectively. The environment department thoroughly analyzes and improves environment and energy issues by setting up monthly target values for water, wastewater sludge, electricity, and fuel costs and compares them with the quantitative performance. As a result, we managed to minimize the possibility of environmental accidents, resolved environmental issues, and cut down costs of environmental management.
All of our business operations are also collaborating with expert agencies that offer integrated environmental licenses to follow the integrated environment licensing system implemented by the Environment Ministry. Going forward, we plan to continue our efforts to strengthen our environment control at all our business operations.

Integrated Environmental Management




# Eco-Friendly System

## Environment-Friendly System

Moorim strictly manages the environment system to comply with the relevant laws and policies and minimize environmental risks that arise during the production process.

### Water Management

Moorim Paper rigorously purifies wastewater generated in the production process. In 2021, we installed Fenton oxidation facilities, an advance treatment facility, in response to the intensified TOC emission standards and took the lead in the wastewater purification efforts.
Moorim SP applies a three-stage purification process to the wastewater. After the third purification stage, it uses bag filters to recycle water to contribute to the industrial efforts to reduce wastewater.
Moorim P&P recycles pump sealing water and condensate water used in the process, along with white water from the drying process to minimize water consumption and wastewater discharge and maintains the quality of wastewater to meet the discharged water quality standards. It checks the level of 32 harmful substances every quarter to monitor the generation and discharge of specific substances. In order to reduce wastewater sludge fundamentally, we installed a filter press dehydrator and a drying machine, which we plan to adopt in larger numbers as the need increases with the reduction in moisture in wastewater sludge.

2021 Results of Recycling Wastewater and Sludge

| | |
|---|---|
| Moorim Paper | 24,397 ton (100%) |
| Moorim SP | 3,985 ton (100%) |
| Moorim P&P | 53,458 ton (100%) |

* Purpose of recycling: To turn them into green soil, fecal soil, steelmaking sedatives, raw cement materials, humus soil, etc.

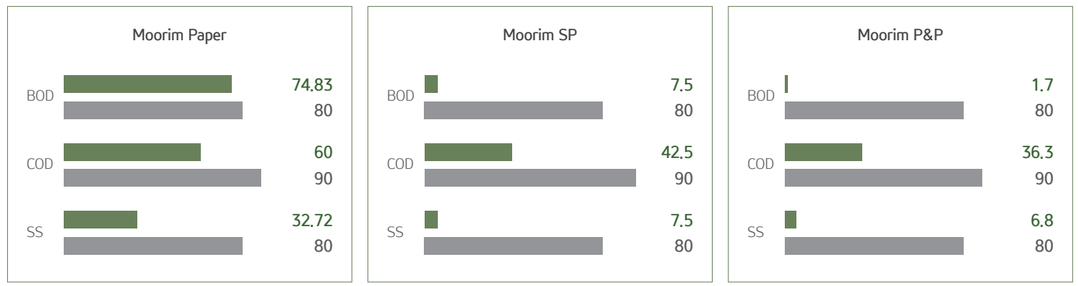





Water Pollutant Emissions Status by Business Site in 2021

■ Actual concentration level emitted ■ Emission allowable concentration

(Unit: ppm)




* Biochemical Oxygen Demand (BOD): The amount of oxygen consumed by microorganism to break down the organic matter inside water
* Chemical Oxygen Demand (COD): The amount of oxygen consumed to oxidize water pollutants chemically
* Suspended Solid (SS): Water impurity particles

## Air Management

Moorim is making continuous efforts to cut down pollutants emitted by paper production facilities. Moorim Paper is generating minimum air pollutants by supplying steam from the CHP power plant, whereas Moorim SP uses green fuel, LNG, to contribute to the prevention of atmospheric pollution. Moorim P&P installed the $ClO_2$ scrubber to reduce air pollutants in 2020 to slash NOx and SOx, which are major air pollutant indicators, by 70.0% and 72.4%, respectively. Based on these accomplishments, Moorim P&P plans to install the $ClO_2$ scrubber in the new recovery boiler in 2024.

Furthermore, Moorim is generating revenue with its proactive response to the emissions cap system. We will revise our emissions cap and respond early to the integrated environment management system to implement environmental management from the medium and long-term perspectives.

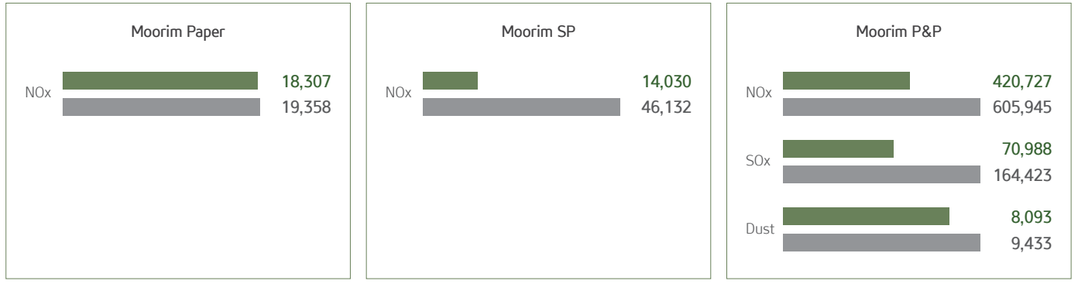
Result of Introducing the $ClO_2$ Scrubber

| | |
|---|---|
| NOx | Decreased by 70.0% |
| SOx | Decreased by 72.4% |

* NOx: nitrogen oxide
* SOx: sulfur oxide

Emissions Cap Status by Business Site in 2021

■ Actual emissions ■ Cap (Unit: kg)




* Legally classified as facilities using LNG, Moorim Paper and Moorim SP are excluded from the allocation of SOx and dust emissions.

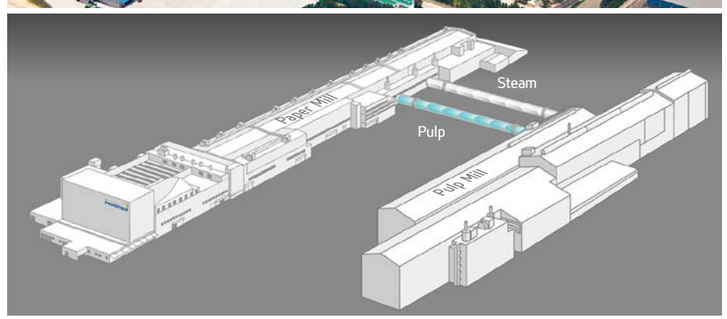
## Chemical Management

Moorim Paper, Moorim SP, and Moorim P&P, which handle hazardous chemicals, monitor and proactively respond to the revision and enactment of laws to carefully manage chemical substances. In 2018, Moorim P&P registered sodium chlorate as a substance subject to the Act on the Registration and Evaluation, etc. of Chemical Substances for the first time in the paper industry, followed by a substance solely registered by a council representative, a substance whose exemption as intermediate substance has been applied for, and six substances for passive participation. Environmental departments from each company offer regular training on harmful substances to supervisors and managers in charge of harmful substances. Moorim P&P in particular conducted safety training on chemical substances to a total of 708 employees including 299 employees from suppliers. We are endeavoring to comply with safety policies to ensure that chemical substances are handled safely by reviewing MSDS(Material Safety Data Sheets) and chemical information when receiving chemicals from suppliers.

## An Integrated Pulp & Paper Mill

The integrated pulp and paper mill at Moorim P&P built a vertical manufacturing system that covers afforestation, pulp, and paper to deliver high-quality paper. The integrated process lowered the production cost by using less power and water, further enhancing brand competitiveness.



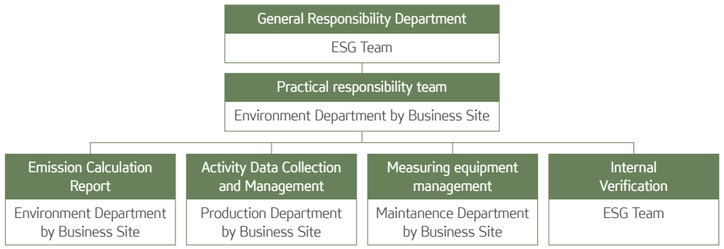



# Response to Climate Change

In line with the global trend of pursuing carbon neutrality, we are constantly thinking of ways to reduce GHG emissions and implementing them across our value chain.

## Climate Change Management System

Moorim has set up an organizational system by business operation to respond to regulations like Emissions Trading System. The ESG Team from the Seoul office reviews GHG data managed and observed in each of Moorim's three pulp and paper companies to supervise overall duties in responding to GHG regulations.



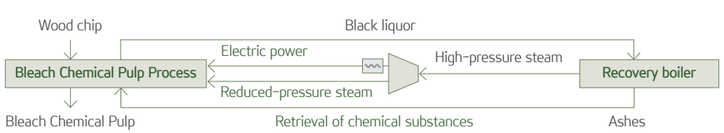

## GHG Emissions Control and Reduction

Moorim is maximizing the internal control on GHG to pioneer the reduction efforts. We built an IT system on GHG inventory that we are refining and for which we are adding transparency and consistency of GHG emissions by verifying the system via external institutes.

## Biomass Energy

Moorim P&P produces black liquor and biogas in the process of making pulp from timber. The pulp producion process is a matter and energy cycle system wherein the recovery boiler produces electricity and steam from biomass fuels and recovers chemicals. Since Moorim P&P internally supplies the energy needed in the bleached chemical pulp process based on biomass fuels, it replaces fossil fuels. By using minimal fossil fuels in the production process, they can reduce energy consumption and effectively respond to GHG reduction efforts.

Black Liquor Heat Recovery Process




Greenhouse Gas Reduction Effect of Black Liquor

Total calorific value of black liquor

12.16GJ/ton

Annual savings compared to LNG use

KRW 186 billion

*Based on production in 2017

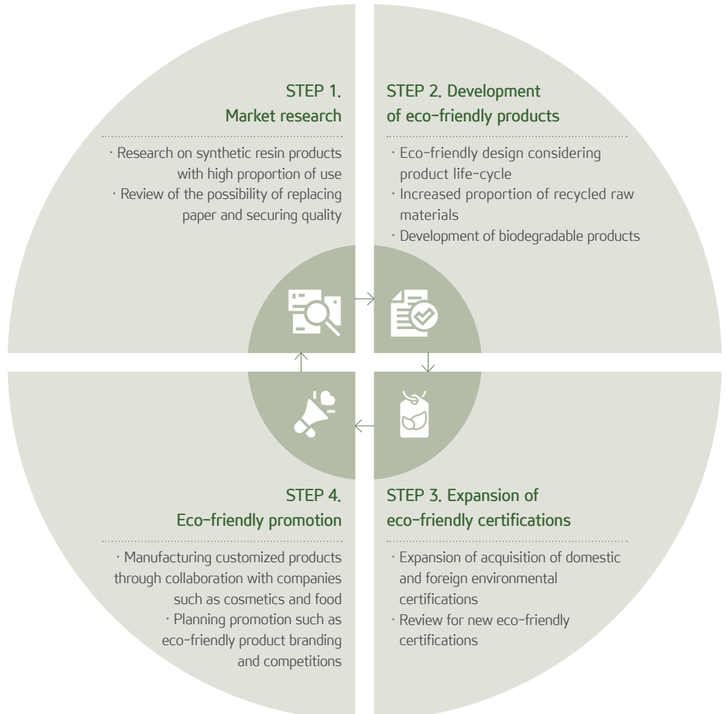
* Combined heat generation: A system that generates power and heat from one energy source at the same time, resulting in high overall hear utilization efficiency.

## Eco-Friendly Products

### Our Sustainability Roadmap

Moorim's Sustainability Roadmap shows the company's attitude of considering the environment throughout the entire process, from product planning to development and sales. We consider 3 Rs (Reduce, Reuse, and Recycle) and biodegradability to make eco-friendly products with consideration for environmental impact throughout the product lifecycle.

Sustainability Roadmap




Number of Environmental Certificates Acquired Worldwide

| | |
|---|---|
| Moorim Paper | 26 |
| Moorim SP | 13 |
| Moorim P&P | 20 |

Eco-Friendly Products Jointly Developed in 2021



Moorim X CJ Logistics

We developed paper aircushion to reduce plastic wastes.




Moorim X Kolmar Korea

We signed an MOU on the development of eco-friendly cosmetics containers and raw materials for packaging. We are currently examining the use of nano cellulose, an eco-friendly material derived from pulp.

## Expansion of Low-Carbon Products

In 2005, Moorim received eco-label for its products, including Neo Clean Polaris and Neo Green Release Paper. In 2013, Moorim became the first in the Korean paper industry to acquire low-carbon certification for Neo Star Uncoated Paper (0.535 tons based on 1 ton of finished products) and Neo Star Matt (0.639 tons based on 1 ton of finished products) for emitting the least GHG in the sector. Refusing to rest on its laurels, Moorim is expanding the number of certified low-carbon products. Moorim will continue to search for ways to curtail GHG emission in the process of making its products and take the lead in the effort to achieve low-carbon, green growth.

Low-Carbon Product Certification

Moorim acquired EPD and low-carbon product certification offered to products after measuring the amount of GHG emitted throughout the entire production process.

Active development is underway to find a sustainable alternative to plastic. Moorim recently produced wood plastic composite (WPC) hangers made from pulp, and it will develop new products with enhanced practicability such as eco-friendly film, food packaging containers, and anti-condensation shopping bags to evolve into a company that pursues harmony between people and the environment.

## Sustainability Communication

Moorim is providing people with environmental information and notifying them on the sustainable aspects of our products through multiple channels. We are helping spread the eco-friendly culture through the official website for Moorim Paper and Neoforêt, Moorim's leading eco-friendly brand, and various campaigns.

Go Go Relay Challenge




We expressed our determination to embrace more sustainable options as a leader of eco-friendly paper by participating in the Go Go Challenge aimed at reducing the use of plastic in daily life.



Moorim's Sustainability Communication





# Forest and Timber

The paper industry is inseparable from forests. Moorim directly builds and manages forests to complete a vertically-integrated system. We will continue to explore ways to realize the mutual development of the environment and corporate management and fulfill our responsibility.



Creation of Afforestation



Procurement of wood chips and pulp manufacturing



Product manufacturing

## Afforestation Business in Korea and Abroad

Moorim has 2,000ha of oak and birch forests in Inje, Gangwon-do Province, and is running a corporate forest based on systematic forest management. In 2014, Moorim opened a local company in Indonesia called PT. PNMP an afforestation business with nearly 64,050ha of forests.

## Forest Certification

### FSC® Certification

The FSC® system is an international certification provided by the Forest Stewardship Council to promote the sustainable management of forests. Moorim's three pulp and paper companies obtained the FSC® Chain of Custody (FSC®-CoC), with Moorim P&P acquiring the FSC® Forest Management (FM) certification for the Inje corporate Forest.

Main Principles of the FSC®-FM Certification Standard

- Principle 01. We must comply with all forest laws and treaties in Korea and manage the forests according to all FSC® principles and standards.
- Principle 03. We must acknowledge and respect the legal and customary rights of indigenous people to own, use, and manage their land, territories, and resources.
- Principle 04. Forest management and operation must maintain or improve the long-term social and economic welfare of forest workers and local community.
- Principle 06. We must preserve biodiversity and related value, water resources, soil, unique and vulnerable ecosystem, and landscape. Thus, manage the forest in such a way that it preserves its ecological functions and original appearance.
- Principle 10. We must plan and manage artificial forests according to the principles and standards #1 through 9 and standards in principle #10. Artificial forests provide various social and economic benefits and contribute to satisfying the global demand for forest products, but we must reduce pressure to use natural forests and facilitate the restoration and preservation of natural forests.

### KFCC Certification

Moorim's three pulp and paper companies earned CoC certification from the Korea Forest Certification Council (KFCC). Having the CoC certification means using wood produced from forests that are certified for forest management from processing, manufacture, and distribution to sales.



FSC® Certification



KFCC Certification



# Creating a Happy Workplace

ISSUE

Workplace Safety & Health







## BACKGROUND

Since the enactment of the Serious Accidents Punishment Act in 2022, Moorim has reinforced the safety management of its operations. The safety and health of all workers in our business premises are a vital element to corporate operation and product manufacture. In addition to workplace safety, respecting human rights and other legally guaranteed rights increases workers' organizational commitment and job satisfaction, resulting in improved work performance and creation of a healthy corporate culture.

### RISK

- Legal risks from serious accidents
- Tarnished corporate image due to lukewarm response to safety issues

### OPPORTUNITY

- Securing a safe workplace by preventing industrial accidents
- Increased satisfaction of employees thanks to improved safety and health conditions
- Training and securing experts by supporting employees in developing their capabilities
- Development of a healthy corporate culture through human rights management

## MOORIM'S APPROACH

Moorim prioritized safety by upgrading the safety management organization to an executive level organization under the direct supervision of the CEO. Moorim's three pulp and paper companies established a common set of Safety Management measures and Safety Golden Rules to establish the basic attitude and actions that Moorim workers should take. In addition, Moorim is striving to protect the safety and health of its employees by quickly responding to changes in the government policies caused by COVID-19.

## MOORIM IN 2021

Established the Safety Management Center

Set up and implemented Moorim's Safety Golden Rules

Trained employees about the Moorim Way by utilizing metaverse.

## THE NEXT STEP

Moorim puts its employees first, and we have been working to manage our human resources better. We will strengthen our safety and health management system, following the reinforced laws and regulations, while proactively operating our programs designed to foster a fair corporate culture based on mutual respect and bolster employee capacity.

# Safety Management

Moorim will embrace safety management that fulfills our corporate role and responsibility to satisfy our customers through healthy workplace and products.

## Safety Management Policies

Since Moorim fully acknowledge that a safe workplace leads to the sustainable future of our employees, we have enacted the five safety management policies that we share with all employees as well as our suppliers.

Safe Management Policies

**Safety first**

Moorim considers safety, health, and related activities as the top priority and practices.

**People-centered**

Moorim establishes a people-centered safety system that encompasses not only its employees but also those of partner companies.

**Site-oriented**

Moorim pursues site-oriented safety management through strict management supervision and thorough improvement activities based on the establishment of a systematic safety management system.

**Autonomous safety**

Moorim raises employees' awareness of safety management through continuous safety technology education and preventive activities and builds an autonomous safety and health system through this.

**Responsible management**

Moorim provides optimal resources for accident-free, disaster-free workplace creation and employee health insurance and fulfills a series of responsibilities for safety and health.

## Health and Safety Management System Certification

For safety and health management Moorim has converted the existing OHSAS 18001 and KOSHA 18001 certifications with ISO 45001, an international standard for management systems of occupational health and safety, and KOSHA-MS from the Korea Occupational Safety and Health Agency in October 2020.



Moorim ISO 45001

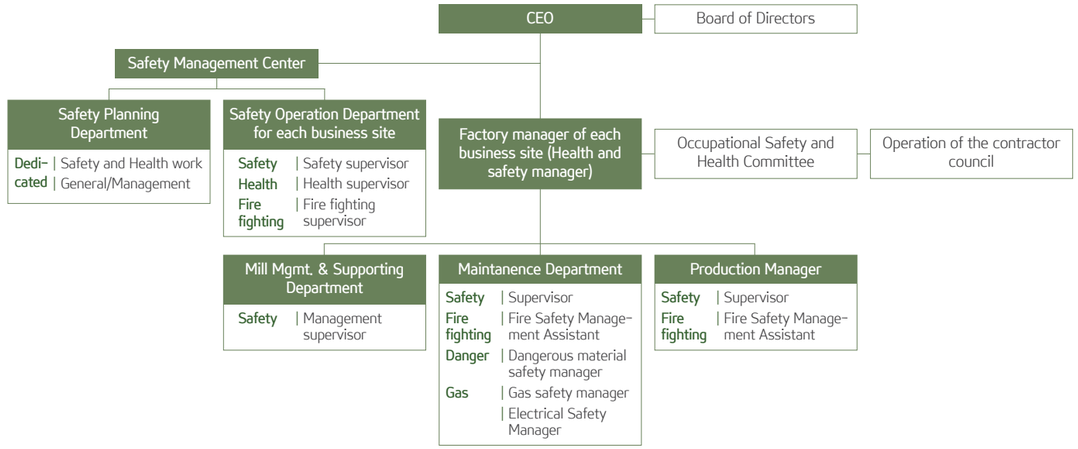


Moorim KOSHA-MS certificate

## Safety Management System

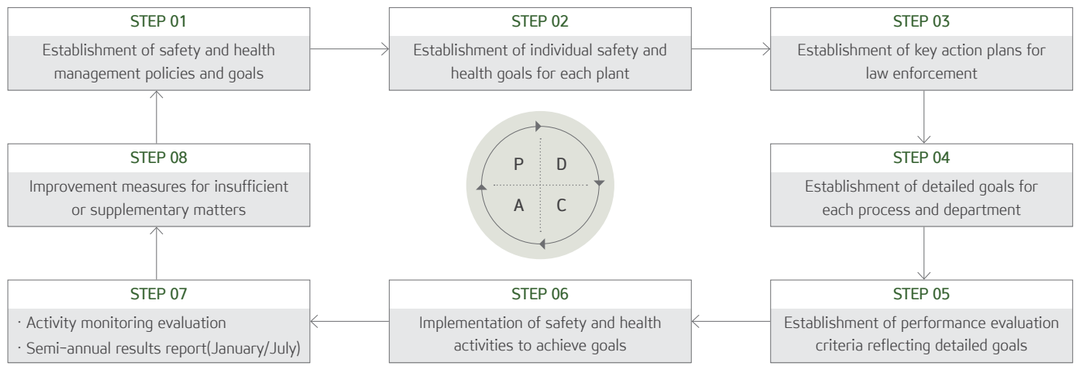
### Reorganization of the Safety Management Organization

In 2021, Moorim set up the Safety Management Center under the direct control of the CEO and reorganized the safety management organization in response to the Serious Accidents Punishment Act and to systematically handle safety management. We also appointed a health and safety executive to build an independent, rapid decision-making system.




### Safety Management Control System Process

Moorim has introduced and implemented a safety management control system through formulating health and safety goals for each workplace in accordance with our safety and health management policy, which we continue to supplement as needed.



## Reporting of Industrial Accidents and Recurrence Prevention Measures

Moorim is running a reporting system that enables workers to report industrial accidents that occurred in the workplace directly to the CEO. In 2020, we introduced a systematic verification system for recurrence prevention measures that allows the relevant departments to participate in the establishment process of the measures to verify and supplement preventive measures.

Safety Accident Reporting Process

| | |
|---|---|
| Disaster occurrence | - All industrial accidents in the workplace |
| Report | - Wire reporting immediately upon occurrence<br>- Disaster status summary report within 1 day |
| Accident investigation and analysis | - Conducting on-site investigation to analyze the cause of the accident |
| Accident analysis report | - Report the final analysis result to the CEO |

Establishment of a Recurrence Prevention and Verification Process

| | |
|---|---|
| Disaster occurrence | - All industrial accidents in the workplace |
| Establishment of measures to prevent recurrence | - Establishment of measures to prevent recurrence within 4 weeks of accident occurrence centered on the disaster department |
| Holding a recurrence prevention measure verification meeting | - Holding a verification meeting of the relevant departments on the countermeasures of the disaster department |
| Establishment and reporting of measures to prevent recurrence | - Report to the CEO on the final establishment measures reflecting the results of the verification meeting |

## Safety Education

All Moorim's employees receive two hours of monthly health and safety education, and supervisors are subject to 16-hour safety education annually to strengthen safety management at our workplace.

Status of Safety Training in 2021

| Category | Moorim Paper | Moorim SP | Moorim P&P |
|---|---|---|---|
| Attendance | 407 | 180 | 550 |
| Participation rate in the safety education program | 100% | 100% | 100% |
| Total hours spent on safety education | 10,760 hours | 4,320 hours | 15,168 hours |
| Total hours spent on safety education per person | 26.43 hours | 24 hours | 27.58 hours |

* Includes safety & health education (2hr/month), supervisor training (16hr/year)

# Elimination of Serious Accidents

## Moorim's Safety Golden Rules

According to the enforcement of the Serious Accidents Punishment Act, we introduced the Safety Golden Rules aimed at reinforcing the importance of preventing serious industrial accidents in January 2021. Safety Golden Rules apply to all Moorim employees; in case an industrial accident takes place due to a violation of the Safety Golden Rules, severe disciplinary actions are taken against the injured as well as those involved.

Moorim's Safety Golden Rules

01. Put on safety protective gear (e.g., safety cap, safety shoes, earplugs).
02. Use the safety path within the premises and do not run.
03. Do not arbitrarily release safety and protective devices.
04. Take safety measures (e.g., measuring oxygen and gas concentration levels) when entering enclosed places.
05. Before the repair, turn off power and put up a sign.
06. Follow the safety rules (e.g., do not move the lower part, fasten hooks on either sides) when working with heavy cargo.
07. Take safety measures (e.g., safety belt, safety rope, hangers) when working at high places.
08. Put on protective gear (e.g., safety glasses and gloves) when handling chemicals.
09. Wearing of gloves is banned when working with rotating equipment with squeezing or nipping points.
10. Forklifts must be run by qualified operators; the operator must put on a seat belt and remove the key when getting off from the forklift.
11. Smoking is prohibited outside the designated area.
12. Attend tool box meeting (TBM).





Joint labor-management safety inspection

## Serious Accidents Prevention Activities

We are fulfilling our responsibility to prevent serious accidents through various activities and to foster a safety-first culture in our workplace.

On-Site Activities That Prevent Serious Accidents

| | |
|---|---|
| Safety Didimdol | · Conducting mutual inspection of safety factors at the site by forming a safety group of 2-3 fellow employees who engage in the same or similar work for on-site technical workers<br>· Quarterly awards for outstanding activity groups |
| On-site patrol operation | · On-site safety patrol inspections are conducted once a month, with the results of the inspections reported to the CEO and follow-up measures thoroughly carried out when problems are found.<br>· Operated in conjunction with the safety manager system beginning 2022 |
| Daily safety manager operation | · Special safety and health education by worksite supervisors (heads of department/part heads) for the prevention of serious accidents and listening to opinions such as complaints from workers<br>· Discovery of harmful risk factors by listening to workers' opinions on safety and health and safety patrol for the implementation of the Serious Accidents Punishment Act and improvement measures |
| Operation of Safety Day | · Monthly discussion and inspection of safety issues under the supervision of the factory manager |
| Occupational Safety and Health Committee | · The occupational safety and health committee with business partners is convened every quarter and used as a communication channel to share and respond to major safety-related issues at worksites |



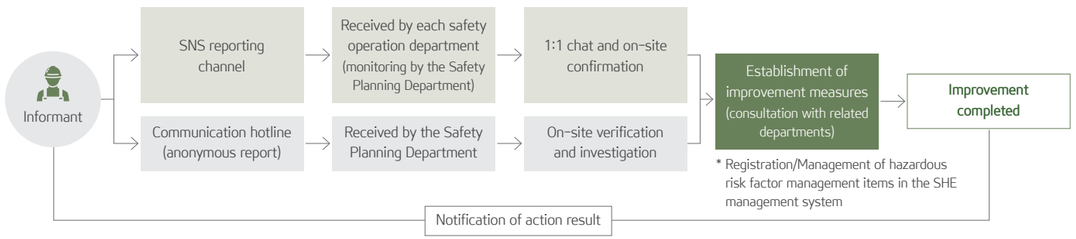
Safety Didimdol activities



Poster activities within business sites

## Safety Reporting System

We are running a safety reporting system through which our employees can request improvements on safety issues, and which consequently enables us to listen to the voices of all workers regarding safety. Employees can make a general request on social media and receive the result individually. The reporter's identity is kept confidential throughout the process.




## Safety Management Performance

All Moorim's workplaces have established and implemented the health and safety promotion culture based on Moorm's safety management policy and the Safety Golden Rules.

Moorim Paper's Key Safety Management Performance in 2021

| Category | Major Activities |
|---|---|
| Identification and improvement of risk factors | · Identification of various risk factors<br>· Reward provided to people with outstanding performance in identifying hazardous risks (e.g., selection of outstanding Didimdol team, safety assurance award)<br>· Renovation of risky equipment (completed 160 renovations) |
| Fire response capabilities | · Replacement of fire detectors with a new model to prevent malfunction of detector and to monitor fire in real time |
| Capability of the person in charge of the safety and health management system | · Training on ISO 45001, KOSHA-MS by expert institutions(Those who completed the system training are designated as internal auditors) |
| Enactment of Safe Work Standard, Job Safety Analysis (JSA) | · Identification of risk factors and establishment of safe work standards by work phase per department.<br>· Number of safe work standards made in 2021: 1,068. |
| Design of safety, health, and environment (SHE) system | · Design of the corporate-wide SHE system aimed at enhancing the management level and efficiency of safety and health management |
| Introduction of Buffer Time | · Reflection of buffer time to prevent accidents caused by hastiness and impatience on-site to the work plan<br>· Application of 15-minute buffer time every two hours when working on repair duties with high-risk potential |
| Mitigation of Risks on Safety Path and Blind Spots | · Securing enough space for paths and mitigating risks posed by blind spots by designating the appropriate volume of inventory |

Moorim SP's Key Safety Management Performance in 2021

| Category | Major Activities |
|---|---|
| Safety Control | · Reinforced the repeat training and risk awareness activities through workplace safety drills |
| COVID-19 response, stimulation of safety training and events | · Intensified safety training in small groups, arranged dual response and offered training to new hires every month<br>· We held safety events, including online mobile events during COVID |
| Improving the tool box meeting (TBM) | · TBMs help increase awareness of risks by visualizing prediction training and checking areas pointed out as risk factors |
| Identification and improvement of hazardous and risk factors | · Improved a total of 138 areas in the on-site improvement activities conducted in the first half and second half of the year |
| Safety and health management system certification | · We converted the existing certification into KOSHA-MS in 2021 and ISO 45001 in 2020 |
| Maintenance of PSM evaluation rating | · Maintained the S rating in Process Safety Management (PSM) in 2021 |

Moorim P&P's Key Safety Management Performance in 2021

| Category | Major Activities |
|---|---|
| Intensified preventive activities for safety accidents | · Identified and implemented Moorim's Safety Golden Rules<br>① Instruction given to implement the safety guidelines across the company (including suppliers); put up signs and posters of the guidelines<br>② Won the Grand Prize at the 6th Industrial Safety & Health Knowledge Sharing Market UCC Competition<br>· Stabilized the Safety Didimdol activities<br>· Checked the cause of accidents, appropriateness of recurrence prevention measures, and maintenance status to prevent the occurrence of similar accidents<br>· A joint inspection team reexamined whether safety measures have been taken, set up the JSA, and conducted training on past safety accident cases |
| Intensified safety control of suppliers | · Performed an internal risk assessment of suppliers to build a safety and health management system and reinforce responsibilities |

Moorim's Safety Management Directions for 2022

| Moorim Paper | Moorim SP | Moorim P&P |
|---|---|---|
| Intensified the identification and improvement of risks | Make it a daily routine to be aware of risks | Strengthen preventive activities against accidents |
| Maintain and enhance workplace safety by reassessing and renewing the safe work standards | Comply with Moorim's Safety Golden Rules and listen to the voice of workers periodically to reestablish the internal safety practices | Reexamine the accident response manuals and systemize the emergency evacuation drill to enhance the response capacity |
| Check the validation of previously established measures against serious accidents | Reinforce the safety management procedures through the responsibility system based on the process unit and high-risk areas/spots | Intensive safety control inspection during the maintenance period |
| Investigate the major causes of muscular skeletal diseases and make a safety training video | | |
| Conduct activities that enhance awareness of safety culture and safety awareness | | Safety management support for suppliers |










Safety Campaign within business sites

## Workplace Health Control

We are offering diverse health control systems to create a safe, pleasant workplace free of elements that threaten our employees' health.

| Health and safety care | Medical examination (general/special) | Health management | Hazardous factor investigation | Working environment measurement | Chemical substance management |
|---|---|---|---|---|---|
| · Closed space work program<br>· Hearing conservation program | · Medical examination (general/special)<br>· Follow-up management (screening, etc.) | · Assessment of risk of developing brain and cardiovascular diseases (every other year)<br>· Job stress (every other year) | · Regular investigation (every 3 years)<br>· Occasional investigation (when a cause occurs) | · Work environment measurement | · Chemical substance risk assessment<br>· Material safety data sheet (MSDS) management |

## Improving Employees' Health

### Stress Management at Work

We have a stress management program called Stress Zero to help new hires and those who have worked at Moorim for up to three years as a way of maintaining high employee satisfaction. We are also supporting all our employees in managing their stress through the Stress-Free Week program. Moorim is striving to improve employee satisfaction by taking the lead in creating a stress-free workplace.

### Moorim Hyu Counseling Center

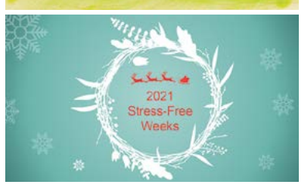
Since 1995, Moorim has operated the Moorim Hyu (Korean word meaning rest) Counseling Center where a professional Counseling Psychologist offers counseling. The resident Counseling Psychologist visits all companies once a month to offer personal counseling, psychological tests, team/group programs, and stress management programs. Educational sessions on laws, safety, and sexual harassment are also provided. The Moorim Hyu Counseling Center is directly supervised by the CEO, and matters discussed in the center are kept confidential. The Counseling Psychologist compiles the anonymous reports and directly reports to the CEO to ensure that the employees do not face any disadvantage at work.

**Major Activities Performed at the Moorim Hyu Counseling Center in 2021**

· Year-round one-on-one face-to-face/online video/phone counseling
· MBTI team programs to promote interaction and communication
· Stress Zero program operated at each company
· Stress-Free Weeks, How Am I Doing Lately? Program (Self-stress checks and five therapies)
· Training on Happy Man
· Moorim Takes Action column on in the Moorim newsletter






## Response to COVID-19

We set up a control system to effectively respond to COVID-19. At the same time, we are making and implementing a systematic manual based on which we can take preliminary action as needed.

### COVID-19 Control System

As COVID-19 has become a long-term health crisis, we have prepared a daily control system to support our employees' health management.

COVID-19 Control System of Three Moorim Companies

| | | | |
|---|---|---|---|
| Sharing of information between companies | Employee health screening | Building access control | Restriction of public facilities within buildings |
| Disinfection of premises | Prohibition of overseas business trips and phasing out of domestic business trips | Instructing people to work in quarantine when there is a need | Working separately and work from home implemented in stages depending on the spread of COVID-19 and social distancing policy |

### Attendance Management During COVID-19

We provide two days of paid leave per vaccination when employees get vaccinated against COVID-19. We encouraged our employees to get vaccinated by allowing them to choose when to take the leave: either on the day they are vaccinated or the day after they are vaccinated. We also developed an attendance standard by expanding the scope of people subject to special sick leave to block the spread of COVID-19 and to protect the health of our employees. Moreover, we authorized leaves during the quarantine period even when COVID-19 became a long-term to support employees' health management efforts.







Online new year's ceremony



Installation of thermometer in the workplace

# Talent Management

Moorim hires promising talents who lead innovation and growth and provides various educational opportunities based on its fair personnel management system. Guided by the philosophy that the employee's happiness is the company's happiness and a social value, we develop talents not only equipped with expertise in work but also have great character, sense of mission, and strong drive for success.

## Our Ideal Employees

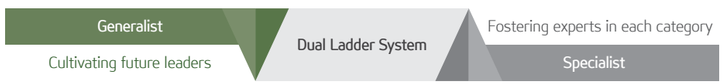
We recruit and train talents who can maintain dignity and dedication with righteous ambition.

| | | |
|---|---|---|
| Slogan | Moorim maintains dignity and dedication with righteous ambition. | |
| Enabler | Dignity | Dedication |
| Statement | We always strive to enhance our dignity and personality | We do our best in our roles based on the spirit of craftsmanship |
| Keywords | Respect (for customers and colleagues)<br>Professionalism (for high quality) | Responsibility (for role performance)<br>Persistence (to complete assigned tasks) |

## Our Talent Development System

Moorim seeks to develop its employees into the world's top experts who create global social value. To that end, we set up a Dual Ladder System to train our employees under the two-track approach of Future Leaders and Specialists.

Diagram of Talent Development System of Three Moorim Companies




## Our Talent Development Program

Moorim is running an emotion management mentoring program 'Mr. Guardianship' as well as OJT to enhance the job competency of new hires. The Learning Center has an ongoing education system and offers educational programs designed to train talents, including the Moorim Way, promotional training, leadership training, and foreign language.

Moorim's Major Education Program as of 2021

- New Manager Training
- New Assistant Manager Training
- Onboarding Training (including people with experience)
- Happy Man Training (first half/ second half)
- Pulp Comprehension Training
- Moorim Way 2021
- New Team Leader Training
- Online Executive Training
- World Knowledge Forum
- OPIC Assessment

### OJT for New Employees

Moorim offers a six-month OJT to educate new hires on specific knowledge, skills, and attitude that are required while performing daily tasks. During the OJT period, we assign clear roles to participants to ensure that it offers a practical experience and helps new hires to enhance their capabilities.

| Roles Assigned to Different Participants during the OJT | Roles |
|---|---|
| OJT Leader (Dept Head) | Develop OJT programs and manage the overall program process |
| OJT Assistants (Senior employees) | Assigned based on subjects and lead the program |
| HR Team/Mill Mgmt. & Supporting Department | Devise the OJT plan and check the progress (training results) |

### Mr. Guardianship

Mr. Guardianship, a mentoring system that is provided to new employees, is designed to improve individual competency at work. Moreover, we put our best effort in helping them emotionally to adjust to the new environment.

| New employee department placement | Appointing Guardian of affiliated department | Implementing Guardian Activities | Posting Guardian activities review | Submitting personal opinions |
|---|---|---|---|---|
| Appointing OJT working department | An employee who serves as a role model among senior employees who have worked for five years or more. Female guardian is recommended when new employee is a female. | Activities are implemented on free topics such as Grievances counseling, building common grounds, etc. | Sharing the reviews of new employees | Strengths/ Weaknesses of new employees and other notes for human resources development |

### Foreign Language Programs

We are offering year-round foreign language programs to those who are interested to enhance their language skills. Employees can apply for the program they want and check their performance through an internal test at the end of the each year.

Status of Educational Programs in 2021

| Attendance | | Total hours spent in the program | | Average hours spent per person | | Total spent (unit: KRW 1,000) | | Average spent per person (unit: KRW 1,000) | |
|---|---|---|---|---|---|---|---|---|---|
| Moorim Paper | 980 | Moorim Paper | 3,356 | Moorim Paper | 3 | Moorim Paper | 72,066 | Moorim Paper | 73 |
| Moorim SP | 360 | Moorim SP | 1,314 | Moorim SP | 4 | Moorim SP | 22,050 | Moorim SP | 61 |
| Moorim P&P | 1,560 | Moorim P&P | 5,739 | Moorim P&P | 4 | Moorim P&P | 168,380 | Moorim P&P | 108 |

## Moorim Way

As a program offered across the company to office and technical workers, the Moorim Way is aimed at developing the Can-do Spirit and the Ability to Act Based on Core Values built on Moorim's management philosophy. We use direct and indirect experience modules to enhance the can-do spirit so that participants can embrace the meaning and importance of core values. We present various cases to broaden understanding of our core values and encourage the participation of all employees to increase the sense of unity. In 2021, the Moorim Way was offered online using our metaverse training platform. We created consensus on our challenge to catapult into a Producer of Eco-Friendly Advanced Materials and saw the potential of online activities using metaverse.




## Ongoing Education System at the Learning Center

The Moorim Learning Center offers customized Competency-Based Courses that provide different trainings required in diverse types of jobs such as leadership, duties, and technical duties when employees get promoted or transferred to different departments. Employees can take internal and external educational programs online or offline offered by the Moorim Learning Center.



## Career Development System

The career development system enables selected people to transfer to a different job position. The system takes candidate screening by considering their desired position and their competency according to what they filled out in individual development plan (IDP). Annually, we ask employees to fill out an IDP and apply for an internal transfer to carry out transfers based on each eligible employee's desired position or department. Based on this data, we examine and carry out job transfers (cycles) of the selected employees. As a result, they can experience other positions and improve their capabilities, ultimately continuing the self-development process.

## Interdisciplinary Major Offered Via Industry-Academe Partnership

Moorim trains top talents in partnership with universities in Korea. We provide students with an opportunity to experience company life and explore the job with our field placement system, while training, hiring, and supporting top pulp talents through an interdisciplinary major program like Pulp & Paper Chemical Engineering at Gyeongsang National University.

# Rewards and Assessment

Moorim has a fair reward and assessment system in place. To ensure the legitimacy of our evaluations, we conduct preliminary evaluator training. After the assessment is completed, we run an assessment rating committee in which evaluators participate to adjust the assessment ratings. Based on the assessment result, we provide feedback to employees during individual interview session and determine whether to promote or reward the employees.

## Assessment System

Moorim conducts periodic assessments (capacity assessment) to implement a systematic, effective personnel system. Position holders are evaluated for common capacity and leadership capacity, whereas non-position holders are evaluated for common capacity and job capacity. The assessment result is used as standard data for our personnel system that deals with promotions, rewards, and employee development.

## Promotion System

Moorim's promotion system tallies the standard promotion points (competency assessment, knowledge Sharing/suggestion, foreign language rating) and supplementary promotion points (reward/penalties, special points) and selects candidates based on those who meet the required points for different positions, and they are then considered for promotion.

## Rewards System

Moorim encourages employees to deliver outstanding performance to propel the continued growth of the company by offering profit & loss/productivity bonuses and achievement bonus offered based on their performance against the target performance on top of the basic salary.

## Various Reward Systems Including the Moorim Award

The Moorim Award is presented to employees who deliver superb performance or those who practiced Moorim's core values remarkably, acknowledging their achievements and highlighting Moorim's direction forwards. Every year, we select up to five people in the production/R&D, sales, and management support categories and one person in the core values category. The winners receive prize money and promotion points. Apart from this, we have diverse reward systems such as the Factory Manager Award (within 1% of incumbent employees) provided to the best employee of the year from each factory and the Labor-Management Unity Award presented to employees to contribute to the labor-management partnership and stabilization of relations.



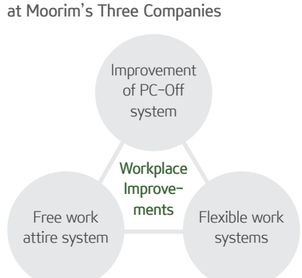

# Improving Our Workplace

Moorim introduced multiple systems to enhance the work environment and improve the corporate culture.

## Workplace Improvement Systems

As our way of systemically endorsing the 52 hours work per week standard, we introduced the PC-Off System to create a culture wherein employees leave the office on time. We also adopted diverse flexible work systems to create work-life balance and bolster work efficiency and productivity. In addition, we expanded the casual day held on Fridays to the free work attire system in order to create a flexible organizational culture where employees can immerse themselves in their work and achieve the set goals.

Workplace Improvement Systems at Moorim's Three Companies



## Increasing Solidarity Through Communication

### Company Periodicals

Moorim publishes I'm Moorim, a quarterly newsletter that delivers company news and diverse stories of employees. During those times when I'm Moorim is not released, we publish Moorim Sympathy to share rich content including critical corporate news, employee stories, and any other helpful work information through the efficient operation of company periodicals.




### MoorimTV

Moorim is delivering more vivid news and employee stories through the official YouTube channel Moorim TV since June 2021. MoorimTV is receiving favorable reviews from employees thanks to a wide array of content including corporate news conveyed in a fun and easy-to-understand manner, videos that facilitate communication among employees through games, and product videos that introduce new offering through exciting tests. Viewers can access them online anytime, anywhere without any physical restrictions; thus, making them an effective two-way communication channel.




## Employee Benefits

Moorim is working to improve the work environment and employee benefits so that employees can feel secure and satisfied at both work and home. We strive to provide the best benefits in the pulp and paper industry to increase the sense of belonging and commitment in a stable environment.

Moorim's Employee Benefits

| | |
|---|---|
| Children's education | · Financial support from K-5 to undergraduate education |
| Housing and livelihood stability support (varies by company) | · Housing purchase, lease, and livelihood stability funds |
| Health checkups | · Employees and their spouses |
| Medical fees | · Employees, their spouses, and children |
| Leisure activities | · Resorts<br>· Operation and support funds for company social clubs by company |
| Sick leaves, congratulatory and condolatory leaves | · Supports sick leave and vacation expenses<br>· Offers congratulatory and condolatory leaves and cash gifts |
| Others | · Corporate housing<br>· Cafeteria point system<br>· Incentive plan for long-tenured employees<br>· Language learning expenses<br>· Prize for suggesting excellent ideas |



# Human Rights Management

## Our Human Rights Management Principle

Moorim respects the human dignity and value built on its principle of human rights management and does its best to realize these values during the course of the management activities.

Moorim's Principle of Human Rights Management

**No Forced Labor**

Moorim neither forces people into labor nor unduly restricts their mental or physical freedom.

**Freedom of Association**

Moorim guarantees freedom of association pursuant to the Constitution and labor laws and does not treat employees unfairly because they are engaged in labor union activities.

**No Discrimination**

Moorim does not discriminate people In the working conditions including job opportunities., compensation, promotions, and job benefits based on their ethnicity, age, gender, nationality, religion, disability, pregnancy and marriage status, and political and sexual orientations.

**No Child Labor**

Moorim complies with the minimum employment age specified in labor laws and regulations.

**Wages**

Moorim guarantees the minimum wage set by labor laws and regulations.

**Working Hours**

Moorim follows the statutory working hours for regular hours, overtime, and holiday work specified in labor laws and regulations.

## Respect for Human Rights

Moorim is eradicating all human rights violations that seriously undermine the company's management philosophy and core values. For prevention, education and psychological counseling are conducted for executives and employees. Human rights violations are not only reported through related departments but also through Happy Man as well as Anti-Corruption Anonymous Reporting Center. In 2021, we received a pledge to ban verbal abuse, assault, and sexual harassment from all executives and employees of Moorim to establish an improved organizational culture and urge employees to actively participate.

**Sexual Harassment Prevention Education** _Hours per person: 1 hour

| Moorim Paper | Moorim P&P | Moorim SP | Seoul Office |
|---|---|---|---|
| 100% | 100% | 100% | 100% |

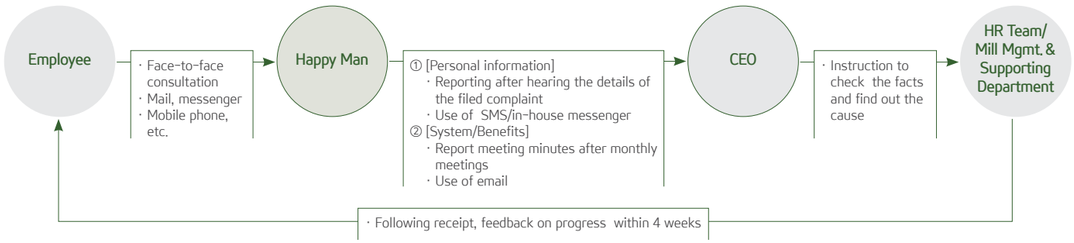
**Education on Improving Awareness of People with Disability** _Hours per person: 1 hour

| Moorim Paper | Moorim P&P | Moorim SP | Seoul Office |
|---|---|---|---|
| 100% | 100% | 100% | 100% |

## Managing Workplace Grievances

Moorim introduced the Happy Man system and counseling from psychology expert to manage employee dissatisfaction or complaints and contribute to the establishment of an organizational culture of mutual respect.

Grievance Handling Procedure




Grievance Handling System Performance

| Division | Moorim Paper | Moorim SP | Moorim P&P |
|---|---|---|---|
| Number of cases reported | 12 | 6 | 23 |
| Number of cases handled | 12 | 6 | 23 |
| Response rate (%) | 100% | 100% | 100% |

### Happy Man System

Happy Man members are selected through anonymous voting. They are trained by professional psychology expert before they start working as counselors. Happy Man places the highest priority on security and anonymity and focuses on continuously resolving issues to ensure that they do not recur in the future.

| | |
|---|---|
| Membership Composition | · Composed of representatives of each company and different positions<br>· Elected based on employee recommendations and voting<br>· Serves six-month terms that may be continued consecutively or non-consecutively |
| How Cases are Accepted | · An informant submits a report to Happy Man either online or offline<br>· Employee dissatisfaction or irrationally handled matters<br>· The informant's identity is revealed to the first Happy Man who receives the case |
| Roles | · Deliberation on received reports: A passive role<br>· A deliberation body rather than a decision-making body: An advisory role<br>· Implementation of the corrective actions taken by the department concerned |
| Reporting System | · The deliberation results are reported directly to the CEO<br>· Personal matters related to illegitimately handled matters can be directly reported to the CEO<br>· Autonomous format |

# Information Security

## Information Security Governance

Moorim appoints an executive-level officer as the director of the information security and privacy management system, who supervises the company's overall information security. We establish the cyber security and privacy protection plans and implement them through the System Planning Team, a team dedicated to information security under the information security supervisor.

Head of Management Support Division (General Information Protection Officer/ Personal Information Protection Officer)
▼
Head of Business Planning Department
▼
System Planning Team

## Information Security Activities

With the Personal Information Protection Act intensified in May 2020, Moorim reviewed the internal system and improved the pertinent technology based on the review results by encrypting, limiting access, recording the access history to personal data, development of website security codes, and establishment of real-time network security control service to reinforce its information protection measures. Moorim will update its information security guidebook annually in accordance to the revised information security regulations, while checking and reporting compliance with the personal data protection process.

Moorim's Information Security Education & Training Status for 2021

| Division | Unit | Moorim Paper | Moorim SP | Moorim P&P |
|---|---|---|---|---|
| Number of employees who completed the training | People | 166 | 67 | 287 |
| Number of information security training sessions per year | Times | 1 | 1 | 1 |



# Sowing the Seeds of Mutual Prosperity

ISSUE

Contribution to the local community




## BACKGROUND

COVID-19 has made the response to supply chain disruptions an important task for companies worldwide. Society is increasingly calling on enterprises to embrace corporate citizenship and fulfill their environmental and social responsibility. Accordingly, communication with local communities and social responsibility of companies are discussed as a vital issue in their pursuit of minimizing negative impact while maximizing the positive impact on the environment and society.

### RISK

- Management risk due to lack of preparation of suppliers regarding ESG issues
- Disruptions in resource procurement due to geopolitical factors
- Delay in business caused by backlash from local communities

### OPPORTUNITY

- Improved sustainability through suppliers' ESG evaluations
- Enhanced corporate competitiveness by supporting suppliers in various ways
- Creating environmental and social impact by contributing to local communities



## MOORIM'S APPROACH

Moorim is building various systems designed to promote mutual prosperity with its suppliers. We will consider safety first when evaluating our suppliers and manage our supply chain according to the code of conduct focused on sustainability. We are taking part in diverse social contribution activities and wielding a positive influence on society as a corporate citizen through living our mission of Adding Value to Lives.

## MOORIM IN 2021

Improvement of Construction Partners' Safety Management System

Supplying Paper for Big Issue Magazine

Supporting Kakao Brunch Publishing Project

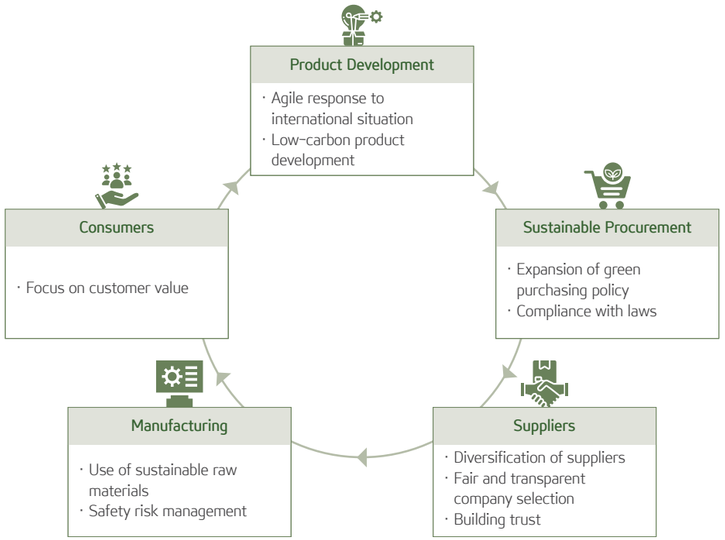
## THE NEXT STEP

Moorim will conduct surveys among its suppliers according to the code of conduct and engage in various social contribution activities to make concrete efforts to fulfill its social responsibilities. This way, we will wield positive impact on the environment and society in close connection with local communities.

# Mutual Prosperity with the Supply Chain

## Supply Chain Management Strategy

We propose an integrated supply chain management strategy for sustainable development with our suppliers worldwide. We seek to fulfill ethical, environmental, and social roles across the supply chain to enhance sustainability from resource procurement to production of the end product, while ensuring the best quality based on fairness and transparency. To that end, we will encourage the voluntary participation of suppliers in eco-friendly activities by making green purchase policies to reduce the negative impact on the environment. Meanwhile, we are working to improve communication among control systems to secure a stable supply of raw materials amid the rapidly changing dynamics in international relations.




### Moorim's Green Purchase Policies

1. Moorim preserves nature, complies with the relevant laws and regulations, and fulfills its responsibility through green purchase.
2. Moorim strives to secure proper suppliers for the stable production of eco-friendly products and continued improvement of product quality.
3. Moorim maintains a close partnership with suppliers to endeavor to set up an eco-friendly supply chain.

## Supply Chain Status

Moorim is closely monitoring suppliers of wood chips and pulp as its main raw materials and suppliers of supplementary raw materials including chemical substances. Suppliers of main resources consist of 10 companies in Korea and 22 companies overseas. There are 81 companies with a track record of supplying supplementary resources in 2021. Other than that, we also worked with 831 machinery suppliers and 21 packaging material suppliers. Understanding the importance of suppliers who contribute to the pulp and paper production activities, we are building a supply chain which we can count on by directly signing the contract.

* Main raw materials: Wood chips, pulp, and similar materials used to manufacture products.

* Supplementary raw materials: All supplementary materials besides the main material used additionally in production.

| 32 companies for main raw materials | | |
|---|---|---|
| 10 companies for domestic wood chips | 5 companies for overseas wood chips | 17 companies for overseas pulp |
| 81 companies for supplementary raw materials | | |
| 831 companies for machinery | | |



### Moorim's Overseas Pulp Supplier Status




## Supply Chain Management

We are managing our supply chain by periodically enacting and revising our purchase management policies. Firstly, we purchase our main and supplementary raw materials from our suppliers quickly and efficiently based on our purchase policies. Secondly, we develop an investment plan for facility renovation for the stable production of products from the head office and each company based on our facility investment and purchase policies. This way, we can maximize the impact of investment and conduct post-evaluations. Lastly, we implement a supplier management policy based on which we select and manage suppliers, which contributes not only to our main and supplementary suppliers to the production of our products but also to the delivery of our products and facility maintenance. New suppliers are selected through a five-step process based on their track record and professional feedback from the department in charge.

| Items Investigated When Registering a New Supplier* | Items Assessed in Supplier Evaluations* |
|---|---|
| · Basic company information (e.g., name, industry, representative, type of business, registration number, date established, address)<br>· Financial information (capital, sales for the last three years)<br>· Contact information (name, contact information)<br>· Products<br>· Status of major facilities<br>· Date written, author | · Credit rating<br>· Business classification<br>· Opinion<br>· Whether it has worked with other companies or not<br>· Date of evaluation, evaluator |

As for supplementary materials that consist mostly of chemical materials, the environment/safety department examines the harmful effects and sends the result to the purchase department, which then decides whether to purchase the material or not through a comprehensive assessment. When chemicals are confirmed to have harmful effects, we conduct safety training using the Material Safety Data Sheet (MSDS) before implementing the work to pursue stringent safety control from delivery to handling of supplementary materials.

| | |
|---|---|
| Selection | Selection of new registration target companies |
| Investigation | Investigation of status of new registration target companies |
| Evaluation | Evaluation of new registration target companies |
| Registration | Supplier approval and registration |
| Management | Supplier management |

# Supply Chain Assessment

## Supplier Assessment System

We conduct an annual assessment of suppliers that meet the given criteria. Suppliers that are chosen as the outstanding supplier through the assessment process are provided with various benefits such as prize money.

Supplier Assessment & Management Process

**Selecting New Suppliers**
- The department in charge of the given item selects the new suppliers
- Investigation of general status of the new supplier (through visits, document survey, or interviews)
- Supplier approval and registration

→

**Periodic Assessment**
- The purchase manager conducts assessment every January
- Assessment items categorized based on the characteristics of the company (Total of 7 items including safety and technical assessments)

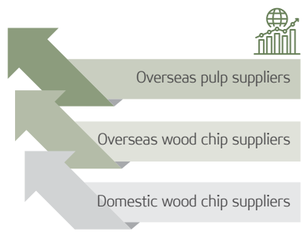
→

**Monitoring**
- Outstanding suppliers are rewarded with benefits and incentives
- Training or penalties provided to suppliers that receive claims

In 2021, we conducted an assessment on wood chip suppliers in Korea. As a result, we rewarded two companies that were chosen as outstanding suppliers in December 2021. For companies that need improvement, we plan on preparing a system that offers guidance and training to deliver a positive outcome. Based on the result of the assessment conducted in 2021, we will continue to improve our evaluation index to strengthen our ability to assess the excess or lack of capacity of suppliers effectively.

## Expanded Scope of Supplier Assessment

We performed supplier assessment on 10 wood chip suppliers in Korea in 2021, and we plan to cover overseas wood chip and pulp suppliers in the future. On top of the existing evaluation of new suppliers, we will evaluate all our suppliers to improve the sustainability of the overall supply chain.




# Mutual Development Program for Suppliers

## Mutual Development Support for Our Suppliers

We are actively incorporating the system that improves our self-sufficiency of logs, in which our suppliers directly purchase and deliver logs. We also share industry best practices to help suppliers produce high-quality raw materials. This reduced the bark content in our raw materials and enabled us to supply high-quality pulp. Furthermore, we visit our suppliers in person to conduct training on the importance of risk management to promote mutual growth and enhance supplier management. These systems are applied to our suppliers of the main raw materials, and we are seeking ways to expand our support system in collaboration with the department responsible for managing suppliers of supplementary materials. Moorim has led the effort to provide financial support to wood chip suppliers in Korea by paying the cost in two installments per month. We also pay companies that unload and transport domestic wood chips and pulp in cash. This way, we are taking the lead in supporting our suppliers in joining Moorim in the production of eco-friendly products and enhancing the quality of these products.

Suppliers Eligible for Financial Support

| | |
|---|---|
| Moorim P&P | 12 |
| Moorim Paper | 1 |

## Strengthening the Supply Chain Based on ESG

With growing importance and calls for stringent management of ESG supply chain, Moorim has prepared measures to strengthen its supply chain. Currently, we have completed Stage 1: Development of Supplier Code of Conduct, and we plan to make it mandatory for suppliers to submit the Code of Conduct pledge when signing the supplier contract. Starting 2023, we will conduct an annual supplier assessment to minimize risks on our supply chain.

Code of Conduct for Moorim Suppliers

| | | | |
|---|---|---|---|
| Respect for workers' labor and human rights | Safety and Health | Environmental protection | Business ethics and fair trade |

**STEP 1**
Establishment of Code of Conduct for suppliers

**STEP 2**
Reflection of the submission of "Code of Conduct Pledge" to the contract terms of suppliers

**STEP 3**
Conducting annual ESG survey assessments

# Mutual Prosperity with Customers

Moorim hopes to offer safe and healthy products that would result in customer satisfaction. Therefore, we will listen to the voice of our customers and continue our efforts to meet their needs.

## Communicating with Customers

We are communicating with our customers through various channels. We inform and communicate the eco-friendliness and excellence of our products not only to direct customers such as designers and paper distributors, but also to our end-users who use the products.

**Our Communi-cation with Customers**

**Company Webpage**

We provide basic company information as well as investment/product information, and sustainability information. We recently added a search feature to assist visitors in finding the information they are looking for.

**Social Media**

We provide corporate info, story on eco-friendly paper, and customer events on social media. In addition, we offer diverse general facts on paper together with useful information to make it a great channel for two-way communication tailored to our customers.

**Neo Zone**

Neo Zone is a channel for our corporate customers where they can obtain information and submit dissatisfaction reports or complaints.

**Moorim Gallery**

Moorim Gallery is a place for various hands-on experience and activities that offer a new value of paper. Resident paper experts also provide counseling services regarding diverse paper products.




Moorim Gallery

## Customer Safety

Since paper is used every day, customer safety should always remain as the utmost priority. Children being one of the frequent paper users, Moorim proved its safety for 13 products including Drawing Paper, Neo Star Gloss and Neo Star Premium Textbook Paper through the children's product conformance test.




Children's Product Conformance Test Report for Neo Star Premium Textbook paper by Moorim P&P



# Mutual Prosperity with Local Communities

## Social Contribution Strategy

Moorim follows a certain principle, conducting social contribution activities. Instead of opting for a one-time event, we intend to make it an opportunity and a greater happiness in the future. In keeping with this principle, we donate paper to encourage the start of new hope and enrich the lives of people by supporting culture & art projects and revitalization projects. We are also taking part in diverse volunteer and donation activities to share love and pain with the local community to create a world where we can be happy together.

Moorim's Social Contribution Strategy




## Social Contribution Activities

Instead of being a number one company that is happy alone, we will shape a world where all members are happy. Our mission of adding value to lives with our pulp and paper technology demonstrates our determination to go beyond simply helping society but to sow the seeds of greater opportunities and happiness. Moorim is sharing its value with the local communities through various social contribution activities such as paper donation, culture and art revitalization projects, and activities that seek mutual prosperity with the communities.

Moorim's Major Social Contribution Activities

**Paper Donations**

- Big Issue Social Contribution Partnership
- Support for a publishing project by Kakao Brunch
- Paper support to the National Museum of Modern and Contemporary Art
- Support for the production of Braille sheet music and music materials for the visually impaired
- Drawing paper support for art psychotherapy

+

**Revitalization of Culture and Arts**

- Moorim Paper Korean Cup Paper Air Plane Competition
- Support for the Mecenat Association
- Jinju Children's Art Contest Sponsorship
- Jinju Lantern Festival Sponsorship

+

**Mutual Prosperity with the Local Community**

- Donation of rice of love
- Kimchi-making event
- Donation for the marginalized groups
- Scholarship for local elementary schools
- Donation of goods for local residents

## Paper Donations

We are sharing paper to send a message of encouragement and hope to help not only the marginalized groups who are losing the interest of society but also those who are working hard to pursue their dreams.

### Social Contribution Partnership with Big Issue

We have formed a partnership with Big Issue, a social magazine that helps housing-vulnerable groups regain self-sufficiency and have provided paper to the magazine since 2011. On top of that, we are undertaking diverse joint activities with Big Issue, including the Nanum flash mob by new hires and the Christmas Issue Cover Art Contest.

### A Publishing Project by Kakao Brunch

Since 2021, we have offered paper for all publications by new writers with Kakao Brunch. We support new authors' hopes and dreams of telling fascinating original stories by providing quality paper on which their books will be printed.

### Paper Support for MMCA

In November 2021, we signed a contract with the National Museum of Modern and Contemporary Art (MMCA) to foster the development of Korean culture and arts, and we are offering paper to brochures for prominent artists like Soo-geun Park. Going forward, we will not only provide paper for exhibition brochures but also offer various products for hands-on programs for children.

## Revitalization of Culture and Arts

Enjoying rich arts and cultural activities is one of the vital elements closely associated with happiness. Moorim works hard to close the cultural gap among people through various arts and cultural support and revitalization projects so that anyone can take pleasure in the rich art and culture.

### Moorim Paper's KOREAN Cup Paper Airplane Competition

Moorim has hosted the only and official paper airplane competition in Korea that everyone can participate and enjoy since 2017. Despite the COVID-19 pandemic, Moorim held Korea's first virtual paper airplane competition through which we earned raves among participants.

### Support for the Mecenat Association

We have been forming a partnership with local art groups through the Mecenat Association in Gyeongsangnam Province since 2008 to support the creative works of local artists. Through this enterprise-culture group partnership, we are growing and developing together.



Big Issue Nanum Flash Mob



A Publishing Project by Kakao Brunch




Paper Support for MMCA




Moorim Paper's KOREAN Cup Paper Airplane Competition



### Sponsorship of Jinju Art Contest for Children and Teenagers

We are supporting local students who take part in art and cultural activities by sponsoring a regional art contest for children and teenagers.

### Jinju Lantern Festival Sponsorship

As part of our social contribution activities for local communities, we are sponsoring Jinju's representative event, the Lantern festival, to help revitalize local festivals.

## Supporting Local Communities

We are continuously seeking ways to achieve mutual prosperity with local residents for they are our precious stakeholders.

### Moorim Sarang Nanumi (Love Sharing)

Moorim's 'Sarang Nanumi' is a volunteer program that our employees actively participate in. To achieve mutual prosperity with local residents, our employees from each workplace participate in rice of love donation programs, a kimchi-making event, and contactless at-home volunteer activities with their family members. We will continue to support local communities and share our love with the underprivileged and marginalized groups.



Rice donation for Chuseok Holidays



Scholarship for Students at Chimsan Elementary School




Donation for underprivileged groups in the region

### Environment Preservation Activity

As an eco-friendly company, Moorim not only produces various eco-friendly paper products but also takes part in environment protection activities, including picking up trash around its factories and rivers and streams nearby.

### Promising Talent Development

We launched Korea's first Pulp & Paper (P&P) Chemical Engineering department at Gyeongsang National University through an agreement to train pulp and paper professionals. In 2021, prospective graduates from the school were placed in the field at the Moorim P&P plant in Ulsan to offer them an opportunity to hone their skills in the field.



Sponsorship of Jinju Art Contest for Children and Teenagers




Jinju Lantern Festival Sponsorship



Moorim Sarang Nanumi in Activity




Environment Preservation Activity



Promising Talent Development

# Appendix


ESG DATA — 94

GRI Content Index — 116

SASB Reference Table — 119

Third-party Verification Report — 120

Verification Statement on Greenhouse Gas(GHG) Emissions — 122

Membership and Awards — 125

Environmental Certifications — 126

# ESG DATA

## Economic

Brief consolidated financial information

### Moorim Paper

(Unit: KRW million)

| Division | 49th (End of 2021) | 48th (End of 2020) | 47th (End of 2019) |
|---|---|---|---|
| **Current Assets** | **788,840** | **747,558** | **667,652** |
| Quick Assets | 588,870 | 577,218 | 460,767 |
| Inventories | 199,970 | 170,340 | 206,885 |
| **Non-Current Assets** | **1,495,577** | **1,447,424** | **1,490,896** |
| Investment Assets | 264,276 | 190,556 | 191,842 |
| Property, plant, and equipment | 1,201,852 | 1,229,372 | 1,232,481 |
| Intangible Assets | 8,798 | 9,991 | 44,702 |
| Other non-current assets | 20,651 | 17,505 | 21,871 |
| **Total Assets** | **2,284,417** | **2,194,982** | **2,158,548** |
| Current liabilities | 916,793 | 745,824 | 771,429 |
| Non-current liabilities | 721,071 | 804,308 | 699,209 |
| **Total liabilities** | **1,637,864** | **1,550,132** | **1,470,638** |
| Equity | 104,023 | 104,023 | 104,023 |
| Capital Surplus | 36,792 | 36,792 | 36,792 |
| Retained earnings | 111,128 | 116,608 | 155,419 |
| Accumulated other comprehensive income (loss) | -29 | -1,355 | -348 |
| Other capital components | 142,241 | 142,231 | 142,224 |
| Non-controlling equity | 252,398 | 246,551 | 249,800 |
| **Total Equity** | **646,553** | **644,850** | **687,910** |

(Unit: KRW million)

| Division | 49th (End of 2021) | 48th (End of 2020) | 47th (End of 2019) |
|---|---|---|---|
| Revenue | 1,055,273 | 949,655 | 1,123,726 |
| Operating profit | 29,810 | 27,266 | 68,822 |
| Profit before income tax | 3,035 | -40,372 | 7,931 |
| Net income | 410 | -37,849 | -6,845 |
| Controlling interest | -6,366 | -38,500 | -9,612 |
| Non-controlling interest | 6,776 | 651 | 2,767 |
| Basic EPS | -153 | -925 | -231 |
| No. of companies included in consolidation | 9 | 10 | 9 |

* The above financial information and detailed financial statements are disclosed in the 2021 business report.

### Moorim SP

(Unit: KRW million)

| Division | 49th (End of 2021) | 48th (End of 2020) | 47th (End of 2019) |
|---|---|---|---|
| **Current Assets** | **96,754** | **83,789** | **81,878** |
| Quick Assets | 64,083 | 60,028 | 52,458 |
| Inventories | 32,671 | 23,761 | 29,419 |
| **Non-Current Assets** | **212,157** | **212,763** | **216,864** |
| Investment Assets | 152,730 | 138,074 | 128,887 |
| Property, plant, and equipment | 51,786 | 66,743 | 65,751 |
| Intangible Assets | 7,490 | 7,565 | 7,572 |
| Other non-current assets | 151 | 381 | 14,653 |
| **Total Assets** | **308,911** | **296,552** | **298,741** |
| Current liabilities | 59,395 | 36,409 | 44,952 |
| Non-current liabilities | 37,264 | 54,046 | 48,711 |
| **Total liabilities** | **96,659** | **90,455** | **93,662** |
| Owners of the controlling company | 210,737 | 204,719 | 203,739 |
| Equity | 11,069 | 11,069 | 11,069 |
| Capital Surplus | 38,720 | 38,720 | 38,720 |
| Accumulated other comprehensive income (loss) | 17,206 | 16,642 | 16,841 |
| Other capital components | -1,831 | -1,831 | -1,831 |
| Capital Surplus | 145,573 | 140,119 | 138,941 |
| Non-controlling equity | 1,515 | 1,378 | 1,340 |
| **Total Equity** | **212,252** | **206,097** | **205,079** |

(Unit: KRW million)

| Division | 49th (End of 2021) | 48th (End of 2020) | 47th (End of 2019) |
|---|---|---|---|
| Revenue | 132,202 | 125,407 | 137,894 |
| Operating profit | 6,101 | 6,607 | 1,179 |
| Profit before income tax | 5,638 | 2,997 | -3,669 |
| Net income | 4,332 | 1,798 | 1,413 |
| Controlling interest | 4,196 | 1,760 | 1,355 |
| Non-controlling interest | 136 | 38 | 58 |
| Basic EPS | 190 | 79 | 61 |
| No. of companies included in consolidation | 1 | 1 | 1 |

* The above financial information and detailed financial statements are disclosed in the 2021 business report.

## Moorim P&P

(Unit: KRW million)

| Division | 49th (End of 2021) | 48th (End of 2020) | 47th (End of 2019) |
|---|---|---|---|
| **Current Assets** | **456,652** | **466,939** | **391,029** |
| Quick Assets | 358,902 | 371,830 | 265,919 |
| Inventories | 97,750 | 95,109 | 125,110 |
| **Non-Current Assets** | **1,026,940** | **963,501** | **959,283** |
| Investment Assets | 38,567 | 37,066 | 28,653 |
| Property, plant, and equipment | 732,092 | 741,870 | 736,616 |
| Intangible Assets | 2,238 | 2,981 | 3,694 |
| Other non-current assets | 254,043 | 181,584 | 190,323 |
| **Total Assets** | **1,483,592** | **1,430,440** | **1,350,312** |
| Current liabilities | 527,378 | 432,017 | 392,355 |
| Non-current liabilities | 337,272 | 397,006 | 337,399 |
| **Total liabilities** | **864,650** | **829,023** | **729,754** |
| Equity | 155,921 | 155,921 | 155,921 |
| Capital Surplus | 121,319 | 121,319 | 121,319 |
| Retained earnings | 336,530 | 320,927 | 340,052 |
| Accumulated other comprehensive income (loss) | -404 | -1,447 | -551 |
| Other capital components | -2,965 | -2,944 | -2,929 |
| Non-controlling equity | 8,541 | 7,641 | 6,746 |
| **Total Equity** | **618,942** | **601,417** | **620,558** |

(Unit: KRW million)

| Division | 49th (End of 2021) | 48th (End of 2020) | 47th (End of 2019) |
|---|---|---|---|
| Revenue | 613,699 | 527,908 | 631,257 |
| Operating profit | 29,387 | 6,314 | 49,416 |
| Profit before income tax | 25,988 | -5,467 | 24,467 |
| Net income | 19,730 | -7,568 | 10,363 |
| Controlling interest | 18,590 | -8,640 | 10,104 |
| Non-controlling interest | 1,140 | 1,072 | 259 |
| Basic EPS | 298 | -139 | 162 |
| No. of companies included in consolidation | 3 | 4 | 3 |

* The above financial information and detailed financial statements are disclosed in the 2021 business report.

# Environment

## Greenhouse Gases

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | GHG emissions | Total Emissons | $tCO_2eq$ | 216,596.0 | 200,122.6 | 212,197.7 |
| | | Scope 1 emissions | $tCO_2eq$ | 13,546.0 | 11,616.9 | 10,298.7 |
| | | Scope 2 emissions | $tCO_2eq$ | 203,050.0 | 188,505.7 | 201,899.0 |
| | Intensity | | $tCO_2eq$/total production (ton) | 0.5 | 0.5 | 0.5 |
| Moorim SP | GHG emissions | Total Emissons | $tCO_2eq$ | 50,621.5 | 47,804.8 | 48,450.2 |
| | | Scope 1 emissions | $tCO_2eq$ | 28,383.5 | 26,702.8 | 26,878.0 |
| | | Scope 2 emissions | $tCO_2eq$ | 22,237.9 | 21,102.0 | 21,572.2 |
| | Intensity | | $tCO_2eq$/total production (ton) | 0.6 | 0.6 | 0.6 |
| Moorim P&P | GHG emissions | Total Emissons | $tCO_2eq$ | 252,242.7 | 235,768.9 | 244,396.4 |
| | | Scope 1 emissions | $tCO_2eq$ | 120,484.4 | 111,102.9 | 109,043.4 |
| | | Scope 2 emissions | $tCO_2eq$ | 131,758.3 | 124,666.0 | 135,353.0 |
| | Intensity | | $tCO_2eq$/total production (ton) | 0.3 | 0.3 | 0.3 |

* The Seoul office established boundaries for the occupied area in the Moorim Group building thus, classified as a small-scale emission business site
* KRW unit is based on paper and pulp production
* Criteria for calculating emissions: Moorim Paper (Application of 「Guidelines for Reporting and Certification of Emissions」 and 「Guidelines for operation of GHG energy management」)
* Moorim P&P (Guideline [Attachment 6] Fixed combustion solid fuel, liquid fuel, gas fuel Tier 1-3 emission calculation formula/Guideline [Attachment 6] Mobile combustion (road), Tier 1 emission calculation formula/Guideline [Attachment 6] Externally supplied electricity, appropriate application of Tier 1 emission calculation formula)

## Energy

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Total energy consumption | | TJ | 4,593.0 | 4,110.3 | 4,358.9 |
| | Fuel | Total | TJ | 263.8 | 225.9 | 199.9 |
| | | LNG | TJ | 255.6 | 218.1 | 191.4 |
| | | LPG | TJ | 0.1 | 0.1 | 0.1 |
| | | Diesel | TJ | 7.8 | 7.5 | 8.3 |
| | | Petroleum | TJ | 0.2 | 0.2 | 0.2 |
| | Electricity consumption | | TJ | 2,434.7 | 2,197.8 | 2,339.0 |
| | Steam consumption | | TJ | 1,894.5 | 1,686.6 | 1,820.0 |
| | Renewable energy consumption | | TJ | - | - | - |
| | | Biomass generated power consumption | TJ | - | - | - |
| | | Other renewable energy power consumption | TJ | - | - | - |
| | Ratio of renewable energy consumption | | % | 0.00 | 0.00 | 0.00 |
| | Intensity of energy consumption | | MJ/total production(ton) | 10,103.1 | 10,468.0 | 10,405.4 |

## Energy

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim SP | Total energy consumption | | TJ | 1,016.1 | 959.7 | 980.1 |
| | Fuel | Total | TJ | 558.3 | 525.2 | 529.3 |
| | | LNG | TJ | 555.4 | 522.7 | 526.6 |
| | | LPG | TJ | 0.0 | 0.0 | 0.2 |
| | | Diesel | TJ | 2.6 | 2.4 | 2.4 |
| | | Petroleum | TJ | 0.2 | 0.1 | 0.1 |
| | Electricity consumption | | TJ | 457.9 | 434.5 | 450.8 |
| | Steam consumption | | TJ | 0.0 | 0.0 | 0.0 |
| | Renewable energy consumption | | TJ | - | - | - |
| | | Biomass generated power consumption | TJ | - | - | - |
| | | Other renewable energy power consumption | TJ | - | - | - |
| | Ratio of renewable energy consumption | | % | 0.00 | 0.00 | 0.00 |
| | Intensity of energy consumption | | MJ/total production(ton) | 12,392.5 | 12,487.5 | 12,336.2 |
| Moorim P&P | Total energy consumption | | TJ | 14,784.1 | 13,015.7 | 13,794.5 |
| | Fuel | Total | TJ | 1,502.8 | 1,535.9 | 1,472.1 |
| | | LNG | TJ | 572.4 | 652.2 | 571.1 |
| | | LPG | TJ | 0.2 | 0.1 | 0.1 |
| | | Diesel | TJ | 12.5 | 11.8 | 11.2 |
| | | Petroleum | TJ | 1.5 | 1.3 | 1.1 |
| | | Other (B-C oil, other liquid fuels, propane, etc.) | TJ | 916.2 | 870.5 | 888.7 |
| | Electricity consumption | | TJ | 2,712.9 | 2,566.8 | 2,828.4 |
| | Steam consumption | | TJ | 0.0 | 0.0 | 0.0 |
| | Renewable energy consumption | | TJ | 10,568.4 | 8,913.0 | 9,494.0 |
| | | Black liquor (Biomass) consumption | TJ | 8,836.9 | 7,652.3 | 8,063.8 |
| | | Biogas consumption | TJ | 1,731.5 | 1,260.7 | 1,430.2 |
| | Ratio of renewable energy consumption | | % | 71.49 | 68.48 | 68.82 |
| | Intensity of energy consumption | | MJ/total production(ton) | 15,584.0 | 15,628.3 | 15,482.6 |

* The Seoul office established boundaries for the occupied area in the Moorim Group building thus, classified as a small-scale emission business site

## Pollutant Emissions

| Division | Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Air pollutants | Moorim Paper | Total emission | NOx | ton | - | - | 4.0 |
| | | | SOx | ton | - | - | 0.1 |
| | | | PM | ton | 0.0 | 0.2 | 8.5 |
| | Moorim SP | Total emission | NOx | ton | 34.0 | 12.1 | 9.4 |
| | | | SOx | ton | 0.9 | 0.0 | 0.03 |
| | | | PM | ton | 0.8 | 0.3 | 1.8 |
| | Moorim P&P | Total emission | NOx | ton | 585.0 | 420.0 | 307.0 |
| | | | SOx | ton | 162.0 | 71.0 | 3.0 |
| | | | PM | ton | 12.0 | 8.0 | 8.0 |
| Water pollutants | Moorim Paper | Total emission | SS | ton | 206.9 | 271.1 | 302.6 |
| | | | BOD | ton | 150.6 | 181.7 | 720.2 |
| | | | COD | ton | 329.6 | 342.4 | 490.4 |
| | Moorim SP | Total emission | SS | ton | 4.6 | 4.5 | 2.5 |
| | | | BOD | ton | 4.5 | 3.3 | 3.5 |
| | | | COD | ton | 20.0 | 20.5 | 18.9 |
| | Moorim P&P | Total emission | SS | ton | 91.0 | 117.0 | 158.0 |
| | | | BOD | ton | 30.0 | 34.0 | 39.0 |
| | | | COD | ton | 758.0 | 698.0 | 840.0 |

* Moorim Paper: Air poluttion emissions began in 2021, due to revision of the Equipment laws
* Moorim Paper and Moorim SP conducted analysis through external laboratory analysis agency while Moorim P&P conducted analysis through TMS and external laboratory analysis agency.

## Chemical Substances

| Division | Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Hazardous chemical substances | Moorim Paper | Total consumption of hazardous chemical substances | ton | 106.9 | 116.0 | 118.2 |
| | Moorim SP | Total consumption of hazardous chemical substances | ton | 37.6 | 38.9 | 38.7 |
| | Moorim P&P | Total consumption of hazardous chemical substances | ton | 372,744.0 | 79,196.0 | 84,429.0 |

* Moorim Paper: Total consumption: Solid caustic soda (98%)
* Moorim P&P : Total consumption for 2019 is higher as it was before the exclusion of chlorine dioxide license (Consumption of chlorine dioxide : 273,339ton)
* Moorim SP : Harzardous chemical substances consumed are formic acid and caustic soda

## Water resources

| Division | Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Water consumption | Moorim Paper | Total water consumption | | ㎥ | 4,994,469.0 | 5,220,633.0 | 5,593,576.0 |
| | | | Municipal water | ㎥ | 108,903.0 | 84,425.0 | 65,909.0 |
| | | | Stream water | ㎥ | 3,756,379.0 | 4,098,765.0 | 4,465,400.0 |
| | | | Industrial water | ㎥ | - | - | - |
| | | | Steam, Condensate | ㎥ | 204,049.0 | 176,077.0 | 205,411.0 |
| | | | Recycled waste water | ㎥ | 925,138.0 | 861,366.0 | 856,856.0 |
| | Moorim SP | Total water consumption | | ㎥ | 2,258,985.0 | 2,022,465.0 | 2,309,725.0 |
| | | | Municipal water | ㎥ | 210,970.0 | 199,290.0 | 269,735.0 |
| | | | Stream water | ㎥ | 563,560.0 | 525,600.0 | 530,710.0 |
| | | | Industrial water | ㎥ | 104,025.0 | 90,155.0 | 191,990.0 |
| | | | Steam, Condensate | ㎥ | - | - | - |
| | | | Recycled waste water | ㎥ | 1,380,430.0 | 1,207,420.0 | 1,317,290.0 |
| | Moorim P&P | Total water consumption | | ㎥ | 20,656,897.0 | 19,059,959.0 | 20,414,034.0 |
| | | | Municipal water | ㎥ | - | - | - |
| | | | Stream water | ㎥ | - | - | - |
| | | | Industrial water | ㎥ | - | - | - |
| | | | Steam, Condensate | ㎥ | - | - | - |
| | | | Recycled waste water | ㎥ | - | - | - |
| Wastewater treatment | Moorim Paper | Total wastewater discharged | | ㎥ | 4,090,892.0 | 4,310,513.0 | 4,760,702.0 |
| | | | Sewage treatment plant | ㎥ | 1,707,196.0 | 1,858,523.0 | 1,810,210.0 |
| | | | Wastewater treatment plant | ㎥ | 2,383,696.0 | 2,451,990.0 | 2,950,492.0 |
| | | | River | ㎥ | - | - | - |
| | | | Other | ㎥ | - | - | - |
| | | Wastewater recycling | Amount of wastewater recycled | ㎥ | 925,138.0 | 861,366.0 | 856,856.0 |
| | | | Wastewater recylcing rate | % | 18.44 | 16.65 | 15.25 |
| | | | Net water consumption | ㎥ | 903,577.0 | 910,120.0 | 832,874.0 |
| | | Ratio of water consumed from water stress areas | | % | 0 | 0 | 0 |
| | Moorim SP | Total wastewater discharged | | ㎥ | 564,120.0 | 416,465.0 | 410,760.0 |
| | | | Sewage treatment plant | ㎥ | 564,120.0 | 416,465.0 | - |
| | | | Wastewater treatment plant | ㎥ | - | - | - |
| | | | River | ㎥ | - | - | - |
| | | | Other | ㎥ | - | - | - |
| | | Wastewater recycling | Amount of wastewater recycled | ㎥ | 1,380,430.0 | 1,207,420.0 | 1,299,130.0 |
| | | | Wastewater recylcing rate | % | 61.00 | 60.00 | 57.00 |
| | | | Net water consumption | ㎥ | - | - | - |
| | | Ratio of water consumed from water stress areas | | % | 0 | 0 | 0 |
| | Moorim P&P | Total wastewater discharged | | ㎥ | 20,768,535.0 | 20,092,706.0 | 22,749,339.0 |
| | | | Sewage treatment plant | ㎥ | - | - | - |
| | | | Wastewater treatment plant | ㎥ | - | - | - |
| | | | River | ㎥ | - | - | - |
| | | | Other | ㎥ | - | - | - |
| | | Wastewater recycling | Amount of wastewater recycled | ㎥ | 9,092,396.0 | 8,088,451.0 | 8,583,905.0 |
| | | | Wastewater recylcing rate | % | 43.76 | 40.26 | 37.73 |
| | | | Net water consumption | ㎥ | - | - | - |
| | | Ratio of water consumed from water stress areas | | % | 0 | 0 | 0 |

*All business sites of Moorim do not fall under water stress areas

## Waste

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Waste generation | Total waste generated | ton | 20,181.1 | 22,226.2 | 25,378.1 |
| | Waste discharge | Total waste discharged | ton | 20,181.1 | 22,226.2 | 25,378.1 |
| | | General waste | ton | 20,145.2 | 22,178.8 | 25,345.5 |
| | | Specified waste | ton | 36.0 | 47.4 | 32.6 |
| | Waste treatment | Amount of landfill | ton | 122.9 | 402.9 | 15.1 |
| | | Amount of incineration | ton | 4.3 | 2.1 | 2.3 |
| | | Total amount of other waste treated | ton | 20,053.9 | 21,821.2 | 25,360.7 |
| | Waste recycling | Total amount of waste reycled | ton | 20,042.0 | 21,787.6 | 25,294.9 |
| | | Ratio of total waste recycled | % | 99.31 | 98.03 | 99.67 |
| Moorim SP | Waste generation | Total waste generated | ton | 4,112.5 | 4,296.2 | 4,108.5 |
| | Waste discharge | Total waste discharged | ton | 4,112.5 | 4,296.2 | 4,108.5 |
| | | General waste | ton | 4,101.0 | 4,059.7 | 4,099.1 |
| | | Specified waste | ton | 11.5 | 12.6 | 9.4 |
| | Waste treatment | Amount of landfill | ton | - | 224.0 | - |
| | | Amount of incineration | ton | - | - | - |
| | | Total amount of other waste treated | ton | 4,112.5 | 4,072.2 | 4,108.5 |
| | Waste recycling | Total amount of waste reycled | ton | 4,101.0 | 4,060.0 | 4,005.0 |
| | | Ratio of total waste recycled | % | 99.72 | 94.50 | 97.48 |
| Moorim P&P | Waste generation | Total waste generated | ton | 69,272.8 | 59,331.2 | 69,300.7 |
| | Waste discharge | Total waste discharged | ton | 69,272.8 | 59,331.2 | 69,300.7 |
| | | General waste | ton | 69,201.5 | 59,232.9 | 69,211.3 |
| | | Specified waste | ton | 71.3 | 98.3 | 89.4 |
| | Waste treatment | Amount of landfill | ton | 32.0 | 108.5 | 18.6 |
| | | Amount of incineration | ton | 313.9 | 410.3 | 252.1 |
| | | Total final amount of other waste treated | ton | 68,926.9 | 58,812.4 | 69,030.0 |
| | Waste recycling | Total amount of waste reycled | ton | 68,926.9 | 58,812.4 | 68,907.0 |
| | | Ratio of total waste recycled | % | 99.50 | 99.13 | 99.43 |

* Total final amount of other waste treated includes recycling treatment, intermediate disposal, etc.

## Environmental investment

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Amount of environmental investment | Total expenditure | KRW million | 1,023.9 | 1,222.9 | 617.7 |
| Moorim SP | Amount of environmental investment | Total expenditure | KRW million | 0.0 | 315.0 | 90.0 |
| Moorim P&P | Amount of environmental investment | Total expenditure | KRW million | 2,620.1 | 3,771.7 | 3,669.9 |

## Environmental Management Certifications

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | ISO 14001 certified business site | Total no. of business sites | number | 1 | 1 | 1 |
| | | No. of certified business sites | number | 1 | 1 | 1 |
| | | Certification rate | % | 100.00 | 100.00 | 100.00 |
| Moorim SP | ISO 14001 certified business site | Total no. of business sites | number | 1 | 1 | 1 |
| | | No. of certified business sites | number | 0 | 0 | 0 |
| | | Certification rate | % | 0 | 0 | 0 |
| Moorim P&P | ISO 14001 certified business site | Total no. of business sites | number | 1 | 1 | 1 |
| | | No. of certified business sites | number | 1 | 1 | 1 |
| | | Certification rate | % | 100.00 | 100.00 | 100.00 |

* Refer to 'results/certification' column at Moorim's website

* Scope of certification : Moorim Paper (Design and Manufacture of Paper), Moorim P&P(Design and Manfacture of Paper and Pulp)

## Domestic and foreign sales of environmental certified products

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Sales of environmentally certified products | Total sales amount | KRW thousand | 517,172,329.1 | 408,679,150.7 | 424,425,014.1 |
| | | Sales of environmentally certified products | KRW thousand | 4,483,314.9 | 35,210,261.1 | 66,089,506.9 |
| | | Sales ratio of environmentally certified products | % | 0.9 | 8.6 | 15.6 |
| Moorim SP | Sales of environmentally certified products | Total sales amount | KRW thousand | 120,401,791.7 | 109,835,682.4 | 114,097,135.2 |
| | | Sales of environmentally certified products | KRW thousand | 3,697,720.9 | 31,223,509.4 | 52,035,128.6 |
| | | Sales ratio of environmentally certified products | % | 3.1 | 28.4 | 45.6 |
| Moorim P&P | Sales of environmentally certified products | Total sales amount | KRW thousand | 463,640,741.2 | 382,605,326.6 | 419,973,235.6 |
| | | Sales of environmentally certified products | KRW thousand | 327,640,132.9 | 277,607,070.0 | 322,537,130.5 |
| | | Sales ratio of environmentally certified products | % | 70.7 | 72.6 | 76.8 |

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

## Compliance with Environmental Laws

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Violation of environmental laws | No. of violations of legal obligations and regulations | cases | 0 | 0 | 1 |
| | | Total amount of fine | KRW | 0 | 0 | 0 |
| Moorim SP | Violation of environmental laws | No. of violations of legal obligations and regulations | cases | 0 | 0 | 0 |
| | | Total amount of fine | KRW | 0 | 0 | 0 |
| Moorim P&P | Violation of environmental laws | No. of violations of legal obligations and regulations | cases | 1 | 2 | 3 |
| | | Total amount of fine | KRW | 0 | 0 | 0 |

* Moorim Paper, Moorim P&P: Measures for improvement due to violation of legal obligations and regulations have been completed



# Governance

## Diversity of the Board of Directors

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Gender | Male | persons | 5 | 5 | 5 |
| | | Female | persons | 0 | 0 | 0 |
| | By age | Under 30 | persons | 0 | 0 | 0 |
| | | 30 to 50 | persons | 1 | 1 | 1 |
| | | Over 50 | persons | 4 | 4 | 4 |
| Moorim SP | Gender | Male | persons | 5 | 5 | 5 |
| | | Female | persons | 0 | 0 | 0 |
| | By age | Under 30 | persons | 0 | 0 | 0 |
| | | 30 to 50 | persons | 1 | 1 | 1 |
| | | Over 50 | persons | 4 | 4 | 4 |
| Moorim P&P | Gender | Male | persons | 5 | 5 | 6 |
| | | Female | persons | 0 | 0 | 0 |
| | By age | Under 30 | persons | 0 | 0 | 0 |
| | | 30 to 50 | persons | 2 | 2 | 2 |
| | | Over 50 | persons | 3 | 3 | 4 |

## Board of Directors (BoD) operation

| Division | Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|
| Operational status of the BoD | Moorim Paper | No. of board convened | | times | 9 | 7 | 8 |
| | | No. of agendas | Overall agenda | cases | 26 | 20 | 20 |
| | | | Resolution/Report agenda | cases | 26 | 20 | 20 |
| | | | Speical report agenda | cases | 0 | 0 | 0 |
| | | Attendance rate of board meetings | | % | 93 | 98 | 96 |
| | | Attendance rate of external directors | | % | 100 | 95 | 94 |
| | Moorim SP | No. of board convened | | times | 9 | 7 | 8 |
| | | No. of agendas | Overall agenda | cases | 26 | 19 | 16 |
| | | | Resolution/Report agenda | cases | 26 | 19 | 16 |
| | | | Speical report agenda | cases | 0 | 0 | 0 |
| | | Attendance rate of board meetings | | % | 89 | 96 | 100 |
| | | Attendance rate of external directors | | % | 96 | 93 | 100 |
| | Moorim P&P | No. of board convened | | times | 9 | 7 | 8 |
| | | No. of agendas | Overall agenda | cases | 27 | 22 | 21 |
| | | | Resolution/Report agenda | cases | 27 | 22 | 21 |
| | | | Speical report agenda | cases | 0 | 0 | 0 |
| | | Attendance rate of board meetings | | % | 88 | 95 | 94 |
| | | Attendance rate of external directors | | % | 94 | 90 | 91 |
| No. of directors | Moorim Paper | Total no. of directors | | persons | 5 | 5 | 5 |
| | | No. of internal directors | | persons | 2 | 2 | 2 |
| | | No. of external directors | | persons | 3 | 3 | 3 |
| | | No. of independent external directors | | persons | 0 | 0 | 0 |
| | | No. independent audits | | persons | 0 | 0 | 0 |
| | | No. of directors with relevant industry experience | | persons | 2 | 2 | 2 |
| | Moorim SP | Total no. of directors | | persons | 5 | 5 | 5 |
| | | No. of internal directors | | persons | 2 | 2 | 2 |
| | | No. of external directors | | persons | 3 | 3 | 3 |
| | | No. of independent external directors | | persons | 0 | 0 | 0 |
| | | No. independent audits | | persons | 0 | 0 | 0 |
| | | No. of directors with relevant industry experience | | persons | 2 | 2 | 2 |
| | Moorim P&P | Total no. of directors | | persons | 5 | 5 | 6 |
| | | No. of internal directors | | persons | 2 | 2 | 2 |
| | | No. of external directors | | persons | 3 | 3 | 4 |
| | | No. of independent external directors | | persons | 0 | 0 | 0 |
| | | No. independent audits | | persons | 0 | 0 | 0 |
| | | No. of directors with relevant industry experience | | persons | 2 | 2 | 2 |

# Social

## Employee Status

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Total no. of employees | | persons | 484 | 484 | 485 |
| | Gender | Male | persons | 465 | 465 | 468 |
| | | Female | persons | 19 | 19 | 17 |
| | By age | 20s | persons | 97 | 94 | 87 |
| | | 30s | persons | 156 | 149 | 146 |
| | | 40s | persons | 162 | 156 | 160 |
| | | Above 50 | persons | 69 | 85 | 92 |
| | Senior Citizens (Over 60) | No. of Senior employees | persons | 0 | 0 | 0 |
| | By employment type | No. of permanent employees | persons | 455 | 466 | 454 |
| | | Non-permanent employees | persons | 29 | 18 | 31 |
| | By position | No. of directors | persons | 9 | 8 | 9 |
| | | No. of male directors | persons | 9 | 8 | 9 |
| | | No. female directors | persons | 0 | 0 | 0 |
| | | Management position or higher (Excluding executives) | persons | 47 | 48 | 42 |
| | | No. of male management position holders | persons | 47 | 47 | 41 |
| | | No. of female management position holders | persons | 0 | 1 | 1 |
| | | Other persons | persons | 428 | 428 | 434 |
| | | Male | persons | 409 | 409 | 417 |
| | | Female | persons | 19 | 19 | 17 |
| | Employee diversity | Employees with foreign nationality | persons | 0 | 0 | 0 |
| | Employement support targets | Disabled employees | persons | 6 | 6 | 6 |
| | | No. of employees eligible for veteran benefits | persons | 17 | 16 | 15 |
| Moorim SP | Total no. of employees | | persons | 210 | 208 | 207 |
| | Gender | Male | persons | 201 | 199 | 198 |
| | | Female | persons | 9 | 9 | 9 |
| | By age | 20s | persons | 32 | 37 | 38 |
| | | 30s | persons | 72 | 68 | 69 |
| | | 40s | persons | 47 | 52 | 51 |
| | | Above 50 | persons | 59 | 51 | 49 |
| | Senior Citizens (Over 60) | No. of Senior employees | persons | 7 | 4 | 6 |
| | By employment type | No. of permanent employees | persons | 208 | 207 | 205 |
| | | Non-permanent employees | persons | 2 | 1 | 2 |

## Employees

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim SP | By position | No. of directors | persons | 2 | 1 | 1 |
| | | No. of male directors | persons | 2 | 1 | 1 |
| | | No. female directors | persons | 0 | 0 | 0 |
| | | Management position or higher (Excluding executives) | persons | 19 | 19 | 18 |
| | | No. of male management position holders | persons | 19 | 19 | 18 |
| | | No. of female management position holders | persons | 0 | 0 | 0 |
| | | Other persons | persons | 189 | 188 | 188 |
| | | Male | persons | 180 | 179 | 179 |
| | | Female | persons | 9 | 9 | 9 |
| | Employee diversity | Employees with foreign nationality | persons | 0 | 0 | 0 |
| | Employement support targets | Disabled employees | persons | 2 | 2 | 2 |
| | | No. of employees eligible for veteran benefits | persons | 1 | 1 | 0 |
| Moorim P&P | Total no. of employees | | persons | 681 | 680 | 688 |
| | Gender | Male | persons | 634 | 634 | 633 |
| | | Female | persons | 47 | 46 | 55 |
| | By age | 20s | persons | 105 | 95 | 100 |
| | | 30s | persons | 252 | 243 | 237 |
| | | 40s | persons | 167 | 171 | 172 |
| | | Above 50 | persons | 157 | 171 | 179 |
| | Senior Citizens (Over 60) | No. of Senior employees | persons | 9 | 5 | 9 |
| | By employment type | No. of permanent employees | persons | 671 | 669 | 682 |
| | | Non-permanent employees | persons | 10 | 11 | 6 |
| | By position | No. of directors | persons | 7 | 6 | 4 |
| | | No. of male directors | persons | 7 | 6 | 4 |
| | | No. female directors | persons | 0 | 0 | 0 |
| | | Management position or higher (Excluding executives) | persons | 45 | 44 | 46 |
| | | No. of male management position holders | persons | 45 | 44 | 46 |
| | | No. of female management position holders | persons | 0 | 0 | 0 |
| | | Other persons | persons | 629 | 630 | 638 |
| | | Male | persons | 582 | 584 | 583 |
| | | Female | persons | 47 | 46 | 55 |
| | Employee diversity | Employees with foreign nationality | persons | 1 | 1 | 1 |
| | Employement support | Employees with disability | persons | 15 | 15 | 16 |
| | | No. of employees eligible for veteran benefits | persons | 17 | 16 | 18 |

## New recruits

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | New employee hire | Total persons | persons | 44 | 21 | 32 |
| | Gender | Male | persons | 43 | 20 | 32 |
| | | Female | persons | 1 | 1 | 0 |
| | By age | 20s | persons | 35 | 19 | 23 |
| | | 30s | persons | 8 | 2 | 9 |
| | | 40s | persons | 1 | 0 | 0 |
| | | Above 50s | persons | 0 | 0 | 0 |
| Moorim SP | New employee hire | Total persons | persons | 12 | 8 | 12 |
| | Gender | Male | persons | 10 | 8 | 10 |
| | | Female | persons | 2 | 0 | 2 |
| | By age | 20s | persons | 11 | 7 | 11 |
| | | 30s | persons | 1 | 1 | 1 |
| | | 40s | persons | 0 | 0 | 0 |
| | | Above 50s | persons | 0 | 0 | 0 |
| Moorim P&P | New employee hire | Total persons | persons | 44 | 20 | 47 |
| | Gender | Male | persons | 36 | 17 | 33 |
| | | Female | persons | 8 | 3 | 14 |
| | By age | 20s | persons | 32 | 15 | 41 |
| | | 30s | persons | 11 | 2 | 5 |
| | | 40s | persons | 1 | 1 | 1 |
| | | Above 50s | persons | 0 | 2 | 0 |

## Welfare benefits

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | Welfare expenses per person | KRW thousand | 12,339.8 | 12,619.0 | 12,496.2 |
| | Total welfare expenses | KRW thousand | 5,972,470.0 | 6,107,592.0 | 6,060,650.0 |
| Moorim SP | Welfare expenses per person | KRW thousand | 11,348.0 | 11,510.1 | 11,548.2 |
| | Total welfare expenses | KRW thousand | 2,383,070.0 | 2,394,098.0 | 2,390,486.0 |
| Moorim P&P | Welfare expenses per person | KRW thousand | 14,314.2 | 12,231.5 | 11,979.3 |
| | Total welfare expenses | KRW thousand | 9,747,982.0 | 8,317,435.0 | 8,241,751.0 |

## Retirement and Turnovers

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Retiree | Total | persons | 40 | 20 | 32 |
| | | Male | persons | 38 | 19 | 30 |
| | | Female | persons | 2 | 1 | 2 |
| | Turnovers | Total | persons | 6 | 7 | 9 |
| | | Male | persons | 6 | 7 | 8 |
| | | Female | persons | 0 | 0 | 1 |
| | | Turnover rate | % | 1.2 | 1.4 | 1.9 |
| | Age group of turnovers | 20s | persons | 4 | 5 | 5 |
| | | 30s | persons | 2 | 2 | 2 |
| | | 40s | persons | 0 | 0 | 2 |
| | | Above 50s | persons | 0 | 0 | 0 |
| Moorim SP | Retiree | Total | persons | 5 | 9 | 8 |
| | | Male | persons | 4 | 9 | 6 |
| | | Female | persons | 1 | 0 | 2 |
| | Turnovers | Total | persons | 2 | 1 | 3 |
| | | Male | persons | 2 | 1 | 3 |
| | | Female | persons | 0 | 0 | 0 |
| | | Turnover rate | % | 1.0 | 0.5 | 1.4 |
| | Age group of turnovers | 20s | persons | 2 | 0 | 1 |
| | | 30s | persons | 0 | 1 | 2 |
| | | 40s | persons | 0 | 0 | 0 |
| | | Above 50s | persons | 0 | 0 | 0 |
| Moorim P&P | Retiree | Total | persons | 29 | 24 | 39 |
| | | Male | persons | 22 | 20 | 33 |
| | | Female | persons | 7 | 4 | 6 |
| | Turnovers | Total | persons | 7 | 2 | 7 |
| | | Male | persons | 7 | 2 | 6 |
| | | Female | persons | 0 | 0 | 1 |
| | | Turnover rate | % | 1.0 | 0.3 | 1.0 |
| | Age group of turnovers | 20s | persons | 5 | 2 | 4 |
| | | 30s | persons | 2 | 0 | 2 |
| | | 40s | persons | 0 | 0 | 1 |
| | | Above 50s | persons | 0 | 0 | 0 |

## Parental leave

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Employees on parental leave | Total | persons | 14(3) | 23(5) | 21(6) |
| | | Male | persons | 13(2) | 22(4) | 20(5) |
| | | Female | persons | 1(1) | 1(1) | 1(1) |
| | Employees who returned after parental leave | Total | persons | 14(3) | 23(5) | 21(6) |
| | | Male | persons | 13(2) | 22(4) | 20(5) |
| | | Female | persons | 1(1) | 1(1) | 1(1) |
| | In continous employment of one year or longer after returning from parental leave | Total | persons | 13(2) | 22(4) | 20(5) |
| | | Male | persons | 12(1) | 21(3) | 19(4) |
| | | Female | persons | 1(1) | 1(1) | 1(1) |
| | Return rate from parental leave | Total | % | 100(100) | 100(100) | 100(100) |
| | | Male | % | 100(100) | 100(100) | 100(100) |
| | | Female | % | 100(100) | 100(100) | 100(100) |
| | Rate of continuous serivce of over one year | Total | % | 93(66) | 96(80) | 95(83) |
| | | Male | % | 92(50) | 95(75) | 95(80) |
| | | Female | % | 100(100) | 100(100) | 100(100) |
| Moorim SP | Employees on parental leave | Total | persons | 10(0) | 6(0) | 10(0) |
| | | Male | persons | 10(0) | 6(0) | 10(0) |
| | | Female | persons | 0(0) | 0(0) | 0(0) |
| | Employees who returned after parental leave | Total | persons | 10(0) | 6(0) | 10(0) |
| | | Male | persons | 10(0) | 6(0) | 10(0) |
| | | Female | persons | 0(0) | 0(0) | 0(0) |
| | In continous employment of one year or longer after returning from parental leave | Total | persons | 10(0) | 6(0) | 10(0) |
| | | Male | persons | 10(0) | 6(0) | 10(0) |
| | | Female | persons | 0(0) | 0(0) | 0(0) |
| | Return rate from parental leave | Total | % | 100(-) | 100(-) | 100(-) |
| | | Male | % | 100(-) | 100(-) | 100(-) |
| | | Female | % | 0(0) | 0(0) | 0(0) |
| | Rate of continuous serivce of over one year | Total | % | 100(-) | 100(-) | 100(-) |
| | | Male | % | 100(-) | 100(-) | 100(-) |
| | | Female | % | 0(0) | 0(0) | 0(0) |
| Moorim P&P | Employees on parental leave | Total | persons | 20(2) | 26(3) | 23(3) |
| | | Male | persons | 20(2) | 25(3) | 22(2) |
| | | Female | persons | 0(0) | 1(0) | 1(1) |
| | Employees who returned after parental leave | Total | persons | 20(2) | 26(3) | 23(3) |
| | | Male | persons | 20(2) | 25(3) | 22(2) |
| | | Female | persons | 0(0) | 1(0) | 1(1) |
| | In continous employment of one year or longer after returning from parental leave | Total | persons | 20(2) | 26(3) | 22(2) |
| | | Male | persons | 20(2) | 25(3) | 21(1) |
| | | Female | persons | 0(0) | 1(0) | 1(1) |
| | Return rate from parental leave | Total | % | 100(100) | 100(100) | 100(100) |
| | | Male | % | 100(100) | 100(100) | 100(100) |
| | | Female | % | N/A | 100(-) | 100(100) |
| | Rate of continuous serivce of over one year | Total | % | 100(100) | 100(100) | 96(66) |
| | | Male | % | 100(100) | 100(100) | 95(50) |
| | | Female | % | N/A | 100(-) | 100(100) |

* Total no. of employees on parental leave including spouse maternity leave (acutal no. of employees on parental leave)

## Employee Education/Training

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | Total no. of participants | persons | 1,523 | 1,000 | 980 |
| | Total hours of training | hours | 10,095.5 | 4,947.2 | 3,356.0 |
| | Total training expense | KRW thousand | 142,860.0 | 62,935.0 | 72,066.0 |
| | Average hours of education per employee | hours | 6.6 | 4.9 | 3.4 |
| | Average expense of education per employee | KRW thousand | 93.8 | 62.9 | 73.5 |
| Moorim SP | Total no. of participants | persons | 578 | 350 | 360 |
| | Total hours of training | hours | 3,777.0 | 1,312.0 | 1,314.0 |
| | Total training expense | KRW thousand | 49,844.0 | 13,906.0 | 22,050.0 |
| | Average hours of education per employee | hours | 6.5 | 3.7 | 3.7 |
| | Average expense of education per employee | KRW thousand | 86.2 | 39.7 | 61.3 |
| Moorim P&P | Total no. of participants | persons | 2,203.0 | 1,464.0 | 1,560.0 |
| | Total hours of training | hours | 16,732.4 | 7,265.6 | 5,739.0 |
| | Total training expense | KRW thousand | 209,444.0 | 109,625.0 | 168,380.0 |
| | Average hours of education per employee | hours | 7.6 | 5.0 | 3.7 |
| | Average expense of education per employee | KRW thousand | 95.1 | 74.9 | 107.9 |

## Compliance with social regulations

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Violation of social regulations | Total amount of fines | KRW thousand | 0 | 0 | 0 |
| | | Breach of leagal obligations/regulations | cases | 0 | 0 | 0 |
| Moorim SP | Violation of social regulations | Total amount of fines | KRW thousand | 0 | 0 | 0 |
| | | Breach of leagal obligations/regulations | cases | 0 | 0 | 0 |
| Moorim P&P | Violation of social regulations | Total amount of fines | KRW thousand | 0 | 3,000.00 | 0 |
| | | Breach of leagal obligations/regulations | cases | 0 | 1 | 0 |

* Violations social regulations are recorded only for safety-related

** No legal actions taken for unfair trade practices such as competition-inhibiting acts and monopolies

## Status of trade union membership and collective agreement membership

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | No. of emplopyees registered in trade union | persons | 319 | 331 | 323 |
| | Trade union registration rate | % | 65.9 | 68.4 | 66.6 |
| | Collective agreements registration rate | % | 65.9 | 68.4 | 66.6 |
| Moorim SP | No. of emplopyees registered in trade union | persons | 154 | 153 | 150 |
| | Trade union registration rate | % | 73.3 | 73.6 | 72.5 |
| | Collective agreements registration rate | % | 73.3 | 73.6 | 72.5 |
| Moorim P&P | No. of emplopyees registered in trade union | persons | 438 | 433 | 427 |
| | Trade union registration rate | % | 64.3 | 63.7 | 62.1 |
| | Collective agreements registration rate | % | 64.3 | 63.7 | 62.1 |

* Collective agreement has been applied to all trade union members

## Occupational safety and health

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Industrial accidents | No. of industrial accidents | cases | 2 | 6 | 2 |
| | | Rate of industrial accidents | % | 0.5 | 1.5 | 0.5 |
| | | Accident frequency rate | hours/million working hours | 8,194.45 | 7,637.21 | 2,276.82 |
| | | Lost time incident rate | hours/million working hours | 2.2 | 6.2 | 2.1 |
| | | No. of employee casualities | cases | 2 | 6 | 2 |
| | | No. of employee deaths | cases | 0 | 0 | 0 |
| | | Lost operating hours | hours | 7,552.0 | 5,288.0 | 2,224.0 |
| Moorim SP | Industrial accidents | No. of industrial accidents | cases | 0 | 4 | 2 |
| | | Rate of industrial accidents | % | 0.0 | 0.02 | 0.01 |
| | | Accident frequency rate | hours/million working hours | 0 | 16,296.3 | 2,222.2 |
| | | Lost time incident rate | hours/million working hours | 0 | 9.3 | 4.6 |
| | | No. of employee casualities | cases | 0 | 4 | 2 |
| | | No. of employee deaths | cases | 0 | 0 | 0 |
| | | Lost operating hours | hours | 0 | 7,040.0 | 960.0 |
| Moorim P&P | Industrial accidents | No. of industrial accidents | cases | 1 | 3 | 2 |
| | | Rate of industrial accidents | % | 0.2 | 0.5 | 0.4 |
| | | Accident frequency rate | hours/million working hours | 555.5 | 3,092.6 | 1,277.8 |
| | | Lost time incident rate | hours/million working hours | 0.8 | 2.3 | 1.5 |
| | | No. of employee casualities | cases | 1 | 3 | 2 |
| | | No. of employee deaths | cases | 0 | 0 | 0 |
| | | Lost operating hours | hours | 720.0 | 4,008.0 | 1,656.0 |

## Certification of health and safety management system

| Company | Subdivision | Scope | Unit | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | ISO 45001 Certified business sites | Total no. of business sites | number | 1 | 1 |
| | | No. of ceritified business sites | number | 1 | 1 |
| | | Ratio of certification | % | 100.00 | 100.00 |
| | KOSHA-MS certified business sites | No. of ceritified business sites | number | 1 | 1 |
| | | Ratio of certification | % | 100.00 | 100.00 |
| Moorim SP | ISO 45001 Certified business sites | Total no. of business sites | number | 1 | 1 |
| | | No. of ceritified business sites | number | 1 | 1 |
| | | Ratio of certification | % | 100.00 | 100.00 |
| | KOSHA-MS certified business sites | No. of ceritified business sites | number | 1 | 1 |
| | | Ratio of certification | % | 100.00 | 100.00 |
| Moorim P&P | ISO 45001 Certified business sites | Total no. of business sites | number | 1 | 1 |
| | | No. of ceritified business sites | number | 1 | 1 |
| | | Ratio of certification | % | 100.00 | 100.00 |
| | KOSHA-MS certified business sites | No. of ceritified business sites | number | 1 | 1 |
| | | Ratio of certification | % | 100.00 | 100.00 |

* 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)

## Safety training

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Status of safety training | Total nol of participants | persons | 384 | 401 | 407 |
| | | Participation rate | % | 100.0 | 100.0 | 100.0 |
| | | Total training hours | hours | 10,224.0 | 10,632.0 | 10,760.0 |
| | | Training hours per employee | hours | 26.6 | 26.5 | 26.4 |
| Moorim SP | Status of safety training | Total nol of participants | persons | 180 | 180 | 180 |
| | | Participation rate | % | 100.0 | 100.0 | 100.0 |
| | | Total training hours | hours | 40.0 | 40.0 | 40.0 |
| | | Training hours per employee | hours | 24.0 | 24.0 | 24.0 |
| Moorim P&P | Status of safety training | Total nol of participants | persons | 540 | 550 | 550 |
| | | Participation rate | % | 100.0 | 100.0 | 100.0 |
| | | Total training hours | hours | 14,384.0 | 15,056.0 | 15,168.0 |
| | | Training hours per employee | hours | 26.6 | 27.4 | 27.6 |

* Excludes employees on leave at the time of training (Parental leave, industrial accident, etc.)
* Participants only inlcude business personnel. i.e., exludes the employees at the Seoul office

## Information Security

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Information Security Training | No. of employees who completed the training | persons | 172 | 170 | 166 |
| | | No. of information security training sessions | number | 1 | 1 | 1 |
| | Information security breaches | | cases | 0 | 0 | 0 |
| | Amount of damage regarding information infringement | | KRW | 0 | 0 | 0 |
| Moorim SP | Information Security Training | No. of employees who completed the training | persons | 69 | 71 | 67 |
| | | No. of information security training sessions | number | 1 | 1 | 1 |
| | Information security breaches | | cases | 0 | 0 | 0 |
| | Amount of damage regarding information infringement | | KRW | 0 | 0 | 0 |
| Moorim P&P | Information Security Training | No. of employees who completed the training | persons | 292 | 280 | 287 |
| | | No. of information security training sessions | number | 1 | 1 | 1 |
| | Information security breaches | | cases | 0 | 0 | 0 |
| | Amount of damage regarding information infringement | | KRW | 0 | 0 | 0 |

* Training conducted only for office technicians

## Ethics and Human rights training

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Three Moorim Paper companies | No. of employees who completed the training | persons | N/A | 1,321 | 1,271 |
| | Completion rate | % | N/A | 100 | 100 |

* Moorim Paper , Moorim SP, Moorim P&P mutual footnote: Ethical training performance was not totalled in 2019, and after 2020, the training was conducted at the same time for all three Moorim paper companies.
* Moorim Paper , Moorim SP, Moorim P&P mutual footnore: Excludes employees on leave (Parental leave, industrial accident, etc.)

## Handling employee complaints

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | Complaints received | cases | 82 | 29 | 12 |
| | No. of complaints handled | cases | 82 | 29 | 12 |
| | Response rate | % | 100.0 | 100.0 | 100.0 |
| Moorim SP | Complaints received | cases | 33 | 8 | 6 |
| | No. of complaints handled | cases | 33 | 8 | 6 |
| | Response rate | % | 100.0 | 100.0 | 100.0 |
| Moorim P&P | Complaints received | cases | 95 | 28 | 23 |
| | No. of complaints handled | cases | 95 | 28 | 23 |
| | Response rate | % | 100.0 | 100.0 | 100.0 |

* Moorim Paper , Moorim SP, Moorim P&P Mutual footnote: *No. reflects the total complaints received through an internal complaint handling program (Happy Man), and the complaints received through the Seoul office has been distributed between three companies based on the ratio of the total no. of employees

## Social contribution activities of Three Moorim Paper & Pulp companies

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Social contribution expenses | Total donation | KRW thousand | 138,000 | 71,318 | 140,226 |
| | | Ratio of charitable contribution | % | 100.0 | 100.0 | 100.0 |
| Moorim SP | Social contribution expenses | Total donation | KRW thousand | 6,987 | 119,950 | 11,100 |
| | | Ratio of charitable contribution | % | 100.0 | 100.0 | 100.0 |
| Moorim P&P | Social contribution expenses | Total donation | KRW thousand | 87,825 | 73,795 | 71,313 |
| | | Ratio of charitable contribution | % | 100.0 | 100.0 | 100.0 |

* Moorim P&P Scope of social contribution expenses : 2019, 2020 : Local community donations, 2021 : Local community donations + Culture of sharing (Including KRW 10,385 thousand)
* Social contribution activities from 2019 to 2021 include Paper Airplane Competitions, Brunch, National Museum of Modern and Contemporary Art, support of love vests, paper cup donations.
* Expenses are entered as accurately as possible based on the budget however, as for the cost of the paper, it includes the cost of printing and cutting/ donations in case of offline events(Material donations have been incorporated based on their costs) + Expenses for all events are also included.
* The expenses related to events that are co-hosted by three Moorim Pulp & Paper companies such as Big Issue Flashmob, Love sharing box activities, Hands-on home serives are included under the social contribution expenses of Moorim Paper

## Gender wage gap

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Average employee salary | Male | KRW thousand/year | 72,386 | 69,411 | 72,638 |
| | | Female | KRW thousand/year | 50,127 | 48,494 | 52,328 |
| | | Ratio of female wages to male wages | % | 69.25 | 69.87 | 72.04 |
| Moorim SP | Average employee salary | Male | KRW thousand/year | 70,881 | 71,401 | 72,701 |
| | | Female | KRW thousand/year | 45,871 | 50,438 | 46,490 |
| | | Ratio of female wages to male wages | % | 64.72 | 70.64 | 63.95 |
| Moorim P&P | Average employee salary | Male | KRW thousand/year | 72,118 | 69,412 | 70,515 |
| | | Female | KRW thousand/year | 43,832 | 43,746 | 40,773 |
| | | Ratio of female wages to male wages | % | 60.78 | 63.02 | 57.82 |

* Moorim Paper , Moorim SP, Moorim P&P Mutual footnote: In case an executive receives payment from all three companies, the cost is included in only one of the companies base on the employment insurance.

## Social products

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Number of socially responsible products | | cases | 5 | 5 | 5 |
| | Safety assessment | Number of assessed products | cases | 67 | 72 | 79 |
| | | Percentage of assessed products | % | 100 | 100 | 100 |
| Moorim SP | Number of socially responsible products | | cases | 2 | 2 | 2 |
| | Safety assessment | Number of assessed products | cases | 93 | 96 | 91 |
| | | Percentage of assessed products | % | 100 | 100 | 100 |
| Moorim P&P | Number of socially responsible products | | cases | 6 | 6 | 6 |
| | Safety assessment | Number of assessed products | cases | 27 | 30 | 34 |
| | | Percentage of assessed products | % | 100 | 100 | 100 |

* Moorim Paper , Moorim SP, Moorim P&P Mutual footnote: No. socially responsible products: same safety standards as child friendly products.
* Moorim Paper , Moorim SP, Moorim P&P Mutual footnote: Safety evaluations of products and services: classification of paper type units based on domestic product sales, classification of coated paper and non-coated paper based on report cards

# Other

## Research and Development

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | R&D cost | Annual R&D cost | KRW million | 4,113.0 | 3,726.0 | 4,306.0 |
| | | Cost of sales ratio | % | 0.83 | 0.92 | 0.94 |
| | R&D personnel | Total | persons | 18 | 17 | 19 |
| Moorim P&P | R&D cost | Annual R&D cost | KRW million | 2,555.0 | 2,120.1 | 2,559.4 |
| | | Cost of sales ratio | % | 0.43 | 0.44 | 0.45 |
| | R&D personnel | Total | persons | 20 | 20 | 19 |

* Moorim SP's R&D is conducted under Moorim Research Center of Moorim Paper and Moorim P&P

## Production

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | Pulp production | ton | N/A | N/A | N/A |
| | Paper production | ton | 454,618.0 | 392,660.0 | 418,920.0 |
| Moorim SP | Pulp production | ton | N/A | N/A | N/A |
| | Paper production | ton | 81,996.0 | 76,855.0 | 79,450.0 |
| Moorim P&P | Pulp production | ton | 453,797.0 | 392,572.0 | 423,749.0 |
| | Paper production | ton | 494,872.0 | 440,257.0 | 467,221.0 |

* Moorim Paper and Moorim SP do not produce pulp.

## Ethics training completion

| Company | Subdivision | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|
| Moorim Paper | Number of completion | persons | N/A | 442 | 458 |
| Moorim SP | Number of completion | persons | N/A | 202 | 188 |
| Moorim P&P | Number of completion | persons | N/A | 672 | 617 |
| Total | | persons | N/A | 1,316 | 1,263 |

* Parental leaves and leaves due to industrial accident are excluded.
* In 2019, ethics traing program was not took place.

## Economic value creation and distribution

| Company | Subdivision | Scope | Unit | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|
| Moorim Paper | Supplier | Raw material | KRW thousand | 253,073,000 | 173,126,000 | 245,604,000 |
| | Employee | Wage | KRW thousand | 32,554,000 | 31,826,000 | 33,448,000 |
| | | Welfare expenses | KRW thousand | 5,972,470 | 6,107,592 | 6,060,650 |
| | Investor | Interest cost | KRW thousand | 18,991,965 | 15,567,532 | 13,073,340 |
| | Government | Corporate tax | KRW thousand | -1,325,392 | 397,298 | -4,864,625 |
| | Local community | Social contribution expenses | KRW thousand | 138,000 | 71,318 | 140,226 |
| Moorim SP | Supplier | Raw material | KRW thousand | 67,187,000 | 47,504,000 | 65,261,000 |
| | Employee | Wage | KRW thousand | 14,229,000 | 14,511,000 | 14,659,000 |
| | | Welfare expenses | KRW thousand | 2,383,070 | 2,394,098 | 2,390,486 |
| | Investor | Interest cost | KRW thousand | 1,540,163 | 1,128,965 | 775,690 |
| | Government | Corporate tax | KRW thousand | 25,576 | 1,582,361 | 1,436,872 |
| | Local community | Social contribution expenses | KRW thousand | 6,987 | 119,950 | 11,100 |
| Moorim P&P | Supplier | Raw material | KRW thousand | 232,345,000 | 180,271,000 | 206,212,000 |
| | Employee | Wage | KRW thousand | 46,227,000 | 44,977,000 | 46,214,000 |
| | | Welfare expenses | KRW thousand | 9,747,982 | 8,317,435 | 8,241,751 |
| | Investor | Interest cost | KRW thousand | 10,702,719 | 9,687,852 | 9,316,691 |
| | Government | Corporate tax | KRW thousand | 10,577,065 | -4,543,924 | 33,123,988 |
| | Local community | Social contribution expenses | KRW thousand | 87,825 | 73,795 | 71,313 |

* Refer to Annual Report 2019-2021
* Moorim P&P Scope of social contribution expenses : 2019, 2020 : Local community donations, 2021 : Local community donations + Culture of sharing (Including KRW 10,385 thousand)
* Social contribution activities from 2019 to 2021 include Paper Airplane Competitions, Brunch, National Museum of Modern and Contemporary Art, support of love vests, paper cup donations.
* Expenses are entered as accurately as possible based on the budget however, as for the cost of the paper, it includes the cost of printing and cutting/ donations in case of offline events(Material donations have been incorporated based on their costs) + Expenses for all events are also included.
* The expenses related to events that are co-hosted by three Moorim Pulp & Paper companies such as Big Issue Flashmob, Love sharing box activities, Hands-on home serives are included under the social contribution expenses of Moorim Paper

# GRI Content Index

| Category | Index | Description | Page | Remarks |
|---|---|---|---|---|
| Organizational Profile | 102-1 | Name of the organization | 10-13 | |
| | 102-2 | Activities, brands, products, and services | 14-15 | |
| | 102-3 | Location of headquarters | 2 | |
| | 102-4 | Location of operations | 10-13 | |
| | 102-5 | Ownership and legal form | 10-13 | Moorim Paper 2021 Business Report 3-11<br>Moorim SP 2021 Business Report 3-8<br>Moorim P&P 2021 Business Report 3-6 |
| | 102-6 | Markets served | 13 | |
| | 102-7 | Scale of the organization | 10-13, 94-96 | |
| | 102-8 | Information on employees and other workers | 105-108 | |
| | 102-9 | Supply chain | 84-85 | |
| | 102-10 | Significant changes to the organization and its supply chain | 13 | |
| | 102-11 | Precautionary Principle or approach | 40-41, 52-53, 64-65, 82-83 | |
| | 102-12 | External initiatives | | No external initiatives |
| | 102-13 | Membership of associations | 125 | |
| Strategy | 102-14 | Statement from senior decision-maker | 4-5 | |
| Ethics and Integrity | 102-16 | Values, principles, standards, and norms of behavior | 6-7 | |
| | 102-17 | Mechanisms for advice and concerns about ethics | 25-28 | |
| Governance | 102-18 | Governance structure | 22-24 | |
| Stakeholder Engagement | 102-40 | List of stakeholder groups | 32 | |
| | 102-41 | Collective bargaining agreements | 110 | |
| | 102-42 | Identifying and selecting stakeholders | 32 | |
| | 102-43 | Approach to stakeholder engagement | 32 | |
| | 102-44 | Key topics and concerns raised | 32, 34 | |
| Reporting Practice | 102-45 | Entities included in the consolidated financial statements | 94-96 | |
| | 102-46 | Defining report content and topic Boundaries | 34 | |
| | 102-47 | List of material topics | 35 | |
| | 102-48 | Restatements of information | - | No restatements as this is the first publication. |
| | 102-49 | Changes in reporting | - | No changes in reporting as this is the first publication |
| | 102-50 | Reporting period | 2 | |
| | 102-51 | Date of most recent report | 2 | |
| | 102-52 | Reporting cycle | 2 | |
| | 102-53 | Contact point for questions regarding the report | 2 | |
| | 102-54 | Claims of reporting in accordance with the GRI Standards | 2 | |
| | 102-55 | GRI Content Index | 116-118 | |
| | 102-56 | External assurance | 120-124 | |

## Topic Specific Standards

| Category | Index | Description | Page |
|---|---|---|---|
| **Materiality Issue** | | | |
| **Workplace Health and Safety** | | | |
| Occupational Health and Safety | 103-1, 2, 3 | Management Approach | 64-65 |
| | 403-1 | Occupational health and safety management system | 66-73 |
| | 403-2 | Hazard identification, risk assessment, and incident investigation | 66-73 |
| | 403-3 | Occupational health services | 66-73 |
| | 403-5 | Worker training on occupational health and safety | 66-73 |
| | 403-6 | Promotion of worker health | 72-73 |
| | 403-7 | Prevention and mitigation of occupational health and safety impacts directly linked by business relationships | 66-73 |
| | 403-9 | Work-related injuries | 111 |
| **Sustainable Raw materials** | | | |
| Raw Materials | 103-1, 2, 3 | Management Approach | 18-19 |
| | - | Acquirement of Forest Management Certification | 63 |
| **Reduction of Greenhouse Gas emissions** | | | |
| Emissions | 103-1, 2, 3 | Management Approach | 52-53 |
| | 305-1 | Direct (Scope 1) GHG emissions | 97-98 |
| | 305-2 | Energy indirect (Scope 2) GHG emissions | 97-98 |
| | 305-4 | GHG emissions intensity | 97-98 |
| | 305-7 | Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions | 58, 99-101 |
| **Market Competitiveness and Corporate Value** | | | |
| Economic Performance | 103-1, 2, 3 | Management Approach | 40-41 |
| | 201-1 | Direct economic value generated and distributed | 33, 115 |
| Indirect Economic Impacts | 103-1, 2, 3 | Management Approach | 40-41 |
| | 203-1 | Infrastructure investments and services supported | 50-51, 89-91 |
| **Technological Innovation** | | | |
| Technological Innovation | 103-1, 2, 3 | Management Approach | 40-41 |
| | - | Technical Research and Development of new product/material | 42-45 |
| **Response to Environmental Regulation** | | | |
| Water and Effluent | 103-1, 2, 3 | Management Approach | 52-53 |
| | 303-2 | Management of water discharge-related impacts | 57 |
| | 303-3 | Water withdrawal | 100 |
| | 303-5 | Water consumption | 100 |
| Waste | 103-1, 2,3 | Management Approach | 52-53 |
| | 306-3 | Waste generated | 101 |
| | 306-4 | Waste diverted from disposal | 101 |
| | 306-5 | Waste directed to disposal | 101 |

| Category | Index | Description | Page |
|---|---|---|---|
| **Materiality Issue** | | | |
| Contribution to local communities | | | |
| Local communities | 103-1, 2, 3 | Management approach | 82-83 |
| | 413-1 | Operations with local community engagement, impact assessments, and development programs | 89-91, 113 |
| Energy Management | | | |
| Energy | 103-1, 2, 3 | Management approach | 52-53 |
| | 302-1 | Energy consumption within the organization | 97-98 |
| | 302-2 | Energy consumption outside of the organization | 97-98 |
| | 302-3 | Energy intensity | 97-98 |
| **General reporting topics** | | | |
| Social | | | |
| Employment | 401-1 | New employee hires and employee turnover | 106-108 |
| | 401-2 | Benefits provided to full-time employees that are not provided to temporary or part-time employees | 78, 107 |
| | 401-3 | Parental leave | 109 |
| Education and Training | 404-1 | Average hours of training per year per employee | 110 |
| | 404-2 | Programs for upgrading employee skills and transition assistance programs | 75-76 |
| | 404-3 | Percentage of employees receiving regular performance and career development reviews | 76-77 |
| Diversity and Equal Opportunity | 405-1 | Diversity of governance bodies and employees | 106 |
| Customer Health and Safety | 416-1 | Assessment of the health and safety impacts of product and service categories | 66, 88, 111 |
| Customer Privacy | 418-1 | Substantiated complaints concerning breaches of customer privacy and losses of customer data | 81 |
| Socioeconomic compliance | 419-1 | Non-compliance with laws and regulations in the social and economic area | 110 |

* Moorim Paper 2021 Business Report, Moorim SP 2021 Business Report, Moorim P&P 2021 Business Report

# SASB Reference Table

Moorim provides various stakeholders including investors with useful information that will assist in their decision-making process by reporting the SASB Framework, the voluntary disclosure standards for sustainable issues by industry developed by the Sustainability Accounting Standards Board (SASB). Based on the sustainable industry classification system, we reported sustainability information for the Pulp & Paper Products of the Renewable Resources & Alternative Energy Sector.

| Topic | Code | Accounting metric | Unit of measure | Page |
|---|---|---|---|---|
| Greenhouse Gas Emissions | RR-PP-110a.1 | Gross global Scope 1 emissions | Metric tons (t) $CO_2$-e | 97-98 |
| | RR-PP-110a.2 | Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets | n/a | 97-98 |
| Air Quality | RR-PP-120a.1 | Air emissions of the following pollutants:<br>(1) NOx (excluding N2O),<br>(2) $SO_2$,<br>(3) volatile organic compounds (VOCs),<br>(4) particulate matter (PM), and<br>(5) hazardous air pollutants(HAPs) | Metric tons (t) | 58, 99 |
| Energy Managment | RR-PP-130a.1 | (1) Total energy consumed,<br>(2) percentage grid electricity,<br>(3) percentage from biomass,<br>(4) percentage from other renewable energy | Gigajoules (GJ),<br>Percentage (%) | 97-98 |
| Water Management | RR-PP-140a.1 | (1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress | Thousand cubic meters($m^3$),<br>Percentage (%) | 100 |
| | RR-PP-140a.2 | Description of water management risks and discussion of strategies and practices to mitigate those risks | n/a | 57 |
| Supply Chain Management | RR-PP-430a.1 | Percentage of wood fiber sourced from<br>(1) third-party certified forestlands and percentage to each standard and (2) meeting other fiber sourcing standards and percentage to each standard | Percentage (%) by weight | 63 |
| | RR-PP-430a.2 | Amount of recycled and recovered fiber procured | Metric tons (t) | 42~45, 59, 114 |
| Activity Metric | RR-PP-000.A | Pulp production | Air-dried metric tons (t) | 114 |
| | RR-PP-000.B | Paper production | Air-dried metric tons (t) | 114 |
| | RR-PP-000.C | Total wood fiber sourced | Metric tons (t) | 84~85, 115 |

# Third-party Verification Report

To: The Stakeholders of Moolim Paper, Moolim SP and Moolim P&P

## Introduction and objectives of work

BSI Group Korea (hereinafter "the Assurer") was asked to verify Moolim's '2021 Sustainability Report' (hereinafter "the Report"). This assurance statement applies only to the relevant information contained in the scope of the assurance.
Moolim is solely responsible for all information and assertion contained in the report. The responsibility of the assurer is to provide independent assurance statement with expert opinions to Moolim's executives by applying the verification methodology and to provide this information to all stakeholders of Moolim.

## Assurance Standards and Levels

This assurance was based on the AA1000AS v3 (2020) Assurance Standard and confirmed that the report is prepared in accordance with the Core Option of GRI Standards. The assurance level was based on the Type 1 that confirmed compliance with the four principles of AA1000 AP (2018) in accordance with the AA1000 AS and the Type 2 assurance that verified the quality and reliability of the information disclosed in the report.
The Type 2 assurance was applied to the following disclosure of the GRI Specific Topic Standards related to material topics:

- GRI 200(Economic):201-1
- GRI 300(Environmental): 302-1, 302-3, 303-3, 303-5, 305-2, 305-4, 305-7, 306-3, 306-4, 306-5
- GRI 400(Social): 403-1, 403-7, 403-9, 413-1

## Scope of Assurance

The scope of assurance applied to this report is as follows;

- Based on the period from January 1st to December 31st, 2021 included in the report
- Appropriateness and consistency of processes and systems for data collection, analysis and review
- Major assertion included in the report such as sustainability management policies, strategies, objectives, business and performance
- Information related to material issues determined as a result of materiality assessment
- The following items were not included in this assurance
  - Financial information and SASB Index included in the report appendix
  - Other related additional information such as the website presented in the report

## Methodology

As part of its independent assurance, the assurer has used the methodology developed to collect relevant evidence to comply with the verification criteria and to reduce errors in the reporting, and has performed the following activities;

- To determine verification priorities, review of materiality issue analysis process and verification of the results;
- System review for sustainability strategy process and implementation;
- Review the evidence to support the material issues through interviews with senior managers with responsibility for them;
- Verification of data generation, collection and reporting for each performance index

## Assurance Opinion

On the basis of our methodology and the activities described above, it is our opinion that

- The information and data included in Moolim`s Sustainability Report are accurate and reliable and the assurer cannot point out any substantial aspects of material with mistake or misstatement.
- The report was prepared according to the Core option of the GRI Standards

The assurance opinion on the four principles presented by the AA1000 AP (2018) is as follows.

AA1000 AP (2018)

**Inclusivity**: Stakeholder Engagement and Opinion
Moolim has a stakeholder engagement process in which key stakeholders such as executives and employees, shareholders and investors, customers, suppliers, local communities and government participate. It was confirmed that key stakeholders' expectations and various opinions are collected and the drawn agenda is reflected in decision-making on sustainability management.

**Materiality**: Identification and reporting of material sustainability topics
Moolim conducted international standard analysis, industry issue analysis, advanced company benchmarking, media research, and stakeholder survey to derive economic, social, and environmental material reporting issues related to sustainability management, and determined priorities by measuring influence on stakeholder's and evaluating business impact, and reported a total of 8 material sustainability management topics.

**Impact**: Impact of an organization's activities and material sustainability topics on the organization and stakeholders
Moolim implemented the process to identify and evaluate the impact on organizations and stakeholders related to material topics, and from a sustainability perspective, the impacts determined on material topics were disclosed in the report.

**Responsiveness**: Responding to material sustainability topics and related impacts
Moolim established and implemented plans for each topic to appropriately respond to identified material topics in a way that reflects stakeholders' expectations, and detailed response activities and performance on material topics were disclosed in the Sustainability Commitment in the report.

## Key areas for ongoing development

To the extent that the results of the verification are not affected, the following comments were made.

- Although the impact on organizations and stakeholders related to material issues is identified in terms of risk, it is recommended to include a means to measure potential impacts, including environmental and social impacts.
- It may be effective to operate the materiality assessment process and processes related to ESG plan establishment and management decision-making to respond to material issues as documented procedures.
- In order to identify material issues, it is necessary to include a wider range of sustainability themes in the pool, and when selecting material topics, it is necessary to increase the proportion of external stakeholders so that issues with high social interest can be selected.
- In each area of the report, relatively positive aspects are explained and efforts to further develop are expressed. At the same time, it will help to improve the balance of reporting if issues with poor performance are identified and specific plans for resolving them are specified.

## Statement of independence and competence

The assurer is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with almost 120 years history in providing independent assurance services. No member of the assurance team has a business relationship with Moolim. We have conducted this verification independently, and there has been no conflict of interest. All assurers who participated in the assurance have qualifications as AA1000AS assurer, have a lot of assurance experience, and understand the BSI Group's assurance standard methodology.

## Evaluation against GRI 'In Accordance' Criteria

The assurer confirmed that this report was prepared in accordance with the GRI Standards Core Option and the disclosures related to the following Universal Standards and Topic-specific Standards Indicators based on the data provided by Moolim.

[Universal Standards]
Organizational Profile 102-1~13, Strategy 102-14, Ethics and Integrity 102-16~17, Governance 102-18, Stakeholder Engagement 102-40~44, Reporting practice 102-45~56, Management Approach 103-1~3

[Topic-specific Standards]
- Economic: 201-1, 203-1
- Environmental: 302-1/3, 303-3/5, 305-1/2/4/7, 306-3~5
- Social: 401-1/2/3, 403-1/3/5/6/7/9, 404-1~3, 405-1, 413-1, 416-1. 419-1

25 May 2022
**S. H. Lim** / BSI Group Korea, Managing Director

AA1000 Licensed Report 000-47/V3-BYCUB

# Verification Statement on Greenhouse Gas(GHG) Emissions

## MOORIM PAPER Co.,Ltd.

### Verification Scope

Korean Standards Association has conducted verification for GHG emissions under reasonable level of assurance, 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.

· GHG&Energy Target Scheme, Korea ETS guideline provided by Ministry of Environment, Republic of Korea
· KS Q ISO 14064-1,2,3 : 2019
· 2006 IPCC Guidelines for National Greenhouse Gas Inventories

### 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.

· 2021 Emissions(Scope1, Scope2)

(Unit : $tCO_2eq$)

| Year | Scope 1 | Scope 2 | Total |
|---|---|---|---|
| 2021 | 10,298.743 | 201,898.956 | 212,197 |

* Decimal place is not considered when calculating the emission of each workplace.

June 8, 2022

KOREAN STANDARDS ASSOCIATION

## MOORIM SP Co.,Ltd.

### Verification Scope

Korean Standards Association has conducted verification for GHG emissions under reasonable level of assurance, 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.

· GHG&Energy Target Scheme, Korea ETS guideline provided by Ministry of Environment, Republic of Korea
· KS Q ISO 14064-1,2,3 : 2019
· 2006 IPCC Guidelines for National Greenhouse Gas Inventories

### 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.

· 2021 Emissions(Scope1, Scope2)

(Unit : $tCO_2eq$)

| Year | Scope 1 | Scope 2 | Total |
|---|---|---|---|
| 2021 | 26,878 | 21,572 | 48,450 |

* Decimal place is not considered when calculating the emission of each workplace.

June 8, 2022

KOREAN STANDARDS ASSOCIATION

MOORIM P&P Co.,Ltd.

## Verification Scope

Korean Standards Association has conducted verification for GHG emissions under reasonable level of assurance, 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.

· GHG&Energy Target Scheme, Korea ETS guideline provided by Ministry of Environment, Republic of Korea
· KS Q ISO 14064-1,2,3 : 2019
· 2006 IPCC Guidelines for National Greenhouse Gas Inventories

## 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.

· 2021 Emissions(Scope1, Scope2)

(Unit : $tCO_2eq$)

| Year | Scope 1 | Scope 2 | Total |
|---|---|---|---|
| 2021 | 109,043 | 135,353 | 244,396 |

* Decimal place is not considered when calculating the emission of each workplace.

June 8, 2022

KOREAN STANDARDS ASSOCIATION





# Membership and Awards

## Membership

| Association | Moorim Paper | Moorim SP | Moorim P&P |
|---|---|---|---|
| Korea Paper Association | ◎ | ◎ | ◎ |
| Korea Wood Chip Association | | | ◎ |
| Jinju Chamber of Commerce | ◎ | | |
| Korea Listed Companies Association | ◎ | | ◎ |
| Onsan Industrial Estate Association | | | ◎ |
| Ulsan Chamber of Commerce | | | ◎ |
| KOSDAQ Listed Companies Association | | ◎ | |
| Korea Technical Association of The Pulp and Paper Industry | ◎ | ◎ | ◎ |
| Korean Standards Association | ◎ | | |
| Korea Customs Logistics Association | ◎ | ◎ | ◎ |
| Korea Electric Engineers Association | ◎ | ◎ | ◎ |
| Korea Fire Safety Institute | ◎ | ◎ | ◎ |

* Registered in a total of 41 organizations and associations including the ones in the above list.

## Awards

| Division | Date | Awards | Contents | Issuer |
|---|---|---|---|---|
| Moorim SP | 2021. 03. 03 | Taxpayers' Day | Received the Outstanding Taxpayer Award | the Minister of Strategy and Finance |
| Moorim Paper | 2021. 03. 18 | Korean Graphic Industry Award 2021 | President of Korea Graphic Technology Association Award | Korea Graphic Technology Association |
| Moorim SP | 2021. 05. 25 | 15th Korea Packaging Competition | Neoforêt Aircushion wins the Korea Star Award for cushioning materials | President of Korea Institute of Industrial Technology |
| Moorim P&P | 2021. 07. 22 | UCC Competition for Industrial Safety & Health | Moorim's Safety Golden Rules Campaign Video received the Grand Prize | Ministry of Employment and Labor |
| Moorim Paper/ Moorim SP | 2021. 11. 10 | Korea's Green Product of the Year 2021 | Neoforêt CUP, Neoforêt STRAW, and Neoforêt Aircushion are designated as Korea's Green Product of the Year 2021 | Korea Green Purchasing Network |
| Moorim | 2021. 11. 10 | 2021 Seoul Café Show | Molded Pulp was listed in Cherry's Choice as a product that is recognized by consumers and will lead the trend. | Seoul Café Show |
| Moorim Paper | 2021. 11. 29 | Korea Packaging Design Competition 2021 | Neoforêt Kit won the Bronze Prize (Korea Packaging Design Association) | Seoul package Design Association |
| Moorim | 2022. 01. 13 | Grand Prize Winner in the First Brand Awards 2022 | Top brand satisfaction in the Paper Category | Customers Council |
| Moorim | 2022. 01. 26 | World Star Packaging Awards 2022 | Neoforêt Aircushion won the World Star Packaging Award 2022 | World Packaging Organization |

# Environmental Certifications

| Certification Mark | Certification details |
|---|---|
| FSC | **FSC®-CoC / FSC®- FM**<br>Moorim Paper, Moorim SP and Moorim P&P have all acquired FSC® - CoC(Forest Stewardship Council®- Chain of Custody), FSC® - FM (Forest Management) certifications. We are equipped with the system to produce more responsible forestry FSC® certified products.<br>**FSC®-CoC**<br>· FSC® - C011933: Moorim Paper<br>· FSC® - C015965: Moorim SP<br>· FSC® - C018671: Moorim P&P<br>· FSC® - C018374: Moorim USA<br>· FSC® - C006970: Moorim UK<br>· FSC® - C161318: Moorim P&P<br>**FSC® - FM**<br>· FSC®-C161318: Moorim P&P |
| PEFC | **PEFC™**<br>Moorim Paper, Moorim SP, and Moorim P&P produce eco-friendly products through PEFC, an international forest certification system which promotes sustainable forest management.<br>· PEFC/43-31-005: Moorim Paper<br>· PEFC/43-31-006: Moorim SP<br>· PEFC/43-31-007: Moorim P&P |
| KFCC | **KFCC™**<br>Moorim Paper, Moorim SP and Moorim P&P's products is from sustainably managed forests, recycled and controlled sources.<br>· KFCC/03-005: Moorim Paper<br>· KFCC/03-004: Moorim SP<br>· KFCC/03-003: Moorim P&P |
| Korea Eco-Label | **Korea Eco-Label**<br>Moorim Paper acquired the Korea Eco-Label, from KEITI(Korea Environmental Industry & Technology Institute) through the use of 10-30% of notices by product and weight. We are doing our best to save resources and minimize the generation of pollutants. |
| EPD KOREA | **Environmental Product Declaration**<br>Moorim Paper and Moorim SP have acquired Environmental Product Declaration for its Neostar Uncoated Shopping Bag and its Neo Ballot Paper. |
| CO2 Low Carbon | **Low-Carbon Product**<br>Moorim P&P obtained 'Carbon Footprint Labeling-Low Carbon Product' certification in printing paper for the first time in Korean paper manufacturing industry in 2013. So Moorim P&P contribute to reduction of greenhouse gas and prevention of global warming. |
| OK compost TÜV AUSTRIA | **OK compost**<br>A range of environmentally-friendly products by Moorim SP and Moorim Paper have acquired the OK Compost certification, a certification awarded by TUV Austria based on an evaluation of the environmental impact the products have, most notably their biodegradability and environmental toxicity. |
| OK biobased TÜV AUSTRIA | **OK biobased**<br>Moorim P&P has acquired the Ok biobased certification on CellRim® CP-130. |
| PREPS | **PREPS**<br>Moorim Paper & Mooirm P&P have obtained a grade from PREPS (The Publishers' database for Responsible Environmental Paper Sourcing), a joint initiative of major publishers in Britain, to identify the forest source of the papers used, and offer a list of the paper products PREPS members can select. |