



萬洲國際
WH GROUP

萬洲國際有限公司
WH GROUP LIMITED

(Incorporated in the Cayman Islands with limited liability)

Stock code : 288



2019

Sustainability
R e p o r t





CONTENTS

2	Chairman's Statement
4	About This Report
5	About WH Group
7	Creating Sustainable Value
12	Focusing on High-Quality Products
20	Supply Chain Management
25	Focusing on Environment
33	Caring for Employees
40	Caring for Community
43	Appendix

CHAIRMAN'S STATEMENT

Wan Long

Chairman and Chief Executive Officer

Over the past few decades, WH Group has been dedicated to the meat industry and experienced robust growth. Nowadays WH Group is the largest pork processing enterprise in the globe and an industry leader and innovator in China, the United States and Europe. The year 2019 witnessed escalating international trade disputes, slowing economic growth and the spread of African Swine Fever (ASF) in several regions. Despite the difficult circumstances, WH Group leveraged its integrated business model and global platform, achieving satisfactory performance. Rapid and unexpected changes in the world made us more aware of the importance of sustainability and continuously pushed us to explore ways to turn sustainability risks into the new drivers of our business development.

We keep in close contact with stakeholders to better understand their expectations for the Company's sustainability performance and respond to the sustainability risks they concerned. This report is a supplement to WH Group's financial reports and covers performance and achievements related to environmental, social and governance factors, which includes sustainability management, food safety, environmental protection, and caring for our animals, employees and communities.

WH Group regards food safety as the foundation of its operations. We have established a Food Safety Committee to promote top-down management of product quality and food safety, along with a robust quality control system covering every link from feed production to hog production, from processing to transportation and delivery. During the year, we deepened our innovative research and development, introduced high-quality protein products for children and developed an innovative plant-based protein product line to provide consumers with more healthier and eco-friendly choices.



While maintaining stable growth, environmental protection has always been our key focus. We recognize the importance of reducing the carbon footprint of our products along the entire product lifecycle. We have reduced our greenhouse gas emissions through improvements in technology, energy management systems and business structure. During this year, we proactively used renewable energy such as biogas, wind and solar power to reduce our carbon footprint. Meanwhile, we improved our evaluation and management of water risks and ensured the smooth operations of treatment systems of wastewater and air-pollutants to minimize the impact on the environment. As such, we ensured high levels of efficiency in production and low consumption of resources.



Employees are a valuable part of WH Group. We adopt diversified and talent-oriented hiring principles, fully appreciate employees' value, and foster a fair and inclusive working environment. We not only protect employees' rights and interests, but also care for their health and safety. We provide them with diversified career paths, all-round training and communication channels to help them find an optimal work-life balance and achieve self-actualization.



As a leader in the industry, WH Group strives to achieve the sound development of the industry value chain. We support sustainable agriculture and production in the upstream, care for animals to ensure the respect and humane treatment of animals, and continue to strengthen our leading position in animal welfare in the hog production industry through innovation. Meanwhile, we proactively assume social responsibilities. For the principle of common development and benefitting all parties, we devote ourselves to education, poverty alleviation, and disaster relief to support our communities and give back to society.



The year 2020 will be challenging as we face the spread of the Coronavirus Disease 2019 ("COVID-19"). We will adopt effective measures to respond to the pandemic to ensure the health and safety of our employees. We will also fully utilize our global advantages, seize opportunities that result from global changes and industry integration, to consolidate our leading position in the industry, and ensure the sustainable development of our company.

ABOUT THIS REPORT



Overview

This report is the fourth annual sustainability report published by WH Group Limited (hereinafter referred to as the "Company" or "WH Group"), detailing the Company and its subsidiaries' (hereinafter referred to as "the Group" or "We") management measures and performance concerning sustainability issues from January 1, 2019 to December 31, 2019.



Definition of Names

Shuanghui

Refers to the Henan Shuanghui Investment & Development Co., Ltd.

Smithfield

Refers to the Smithfield Foods, Inc.



Basis of Preparation

This report was prepared in accordance with the *Environmental, Social and Governance (ESG) Reporting Guide* published by the Hong Kong Exchanges and Clearing Limited (hereinafter referred to as HKEX). Appropriate references are made to the MSCI ESG ratings, HKQAA Sustainability Rating and Research, RobecoSAM Corporate Sustainability Assessment methodologies, and the Institutional Shareholder Services (ISS) ESG ratings. In addition, subsidiaries Shuanghui and Smithfield under the Company also published the Environmental, Social and Governance Report as well as a Sustainability Report respectively. The information above-mentioned can be regarded as a supplement to this report.



Data Item Description

Unless stated otherwise, all financial data in this report is in U.S. dollars. The production in metric tons only refers to fresh pork and packaged meats, not including hogs produced.



Data Reliability

The Board of Directors confirms that the information in this report contains no false records, misleading statements, or major omissions. The Board assumes responsibility for the authenticity, accuracy and completeness of the contents of this report.



Report Confirmation and Approval

After confirmed by Management, the report was approved by the Board of Directors on July 13, 2020.

ABOUT WH GROUP

Introduction

WH Group is the largest pork company in the world, whose market share ranks the first place in China, the United States, and key markets in Europe. WH Group has many well-known and trustworthy brands and runs a complete pork industry value chain, from hog production, hog harvesting, processing to packaged meats. Based on our unique globally integrated business platform, we are at the forefront in all the abovementioned key links in the industry value chain. WH Group is listed on the main board of the HKEX, with the Stock Code: 0288.

WH Group is a controlling shareholder of Shuanghui (listed on Shenzhen Stock Exchange, Stock Code: 000895.SZ), the largest meat processing company in Asia. The Company wholly owns Smithfield, the largest pork company in the United States. As the Group constantly strengthens its global market presence and is the owner of multiple famous brands, it holds a broad product portfolio and extensive market network across the globe.

Global Footprint

Dedicated to a global development strategy, we continue to expand our global footprint and development, and allocate assets worldwide to consolidate our leading position in the pork industry.



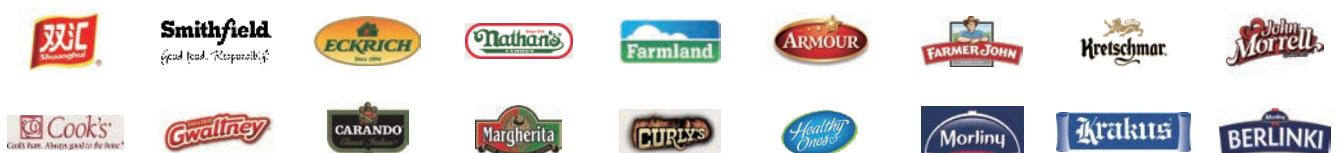
Business Segments

WH Group's business mainly covers packaged meats, fresh pork, and hog production, in which packaged meats is the core business. The Group also undertakes several supporting business sectors aside from the three main businesses, including harvesting and sales of poultry, manufacturing and sales of packaging materials, provision of logistics services, operation of finance companies and a chain of retail grocery stores, production of flavoring ingredients and natural casings, as well as sales of biological pharmaceutical materials. We rely on strict quality control and food safety systems to deliver premium products to consumers.

Through our own operations along with tens of thousands of suppliers and distributors, the Group has established a one-stop, farm-to-fork supply chain. Our business partners follow the high standards of WH Group's international procurement process, which enables us to ensure product quality and to work toward a more sustainable supply chain.

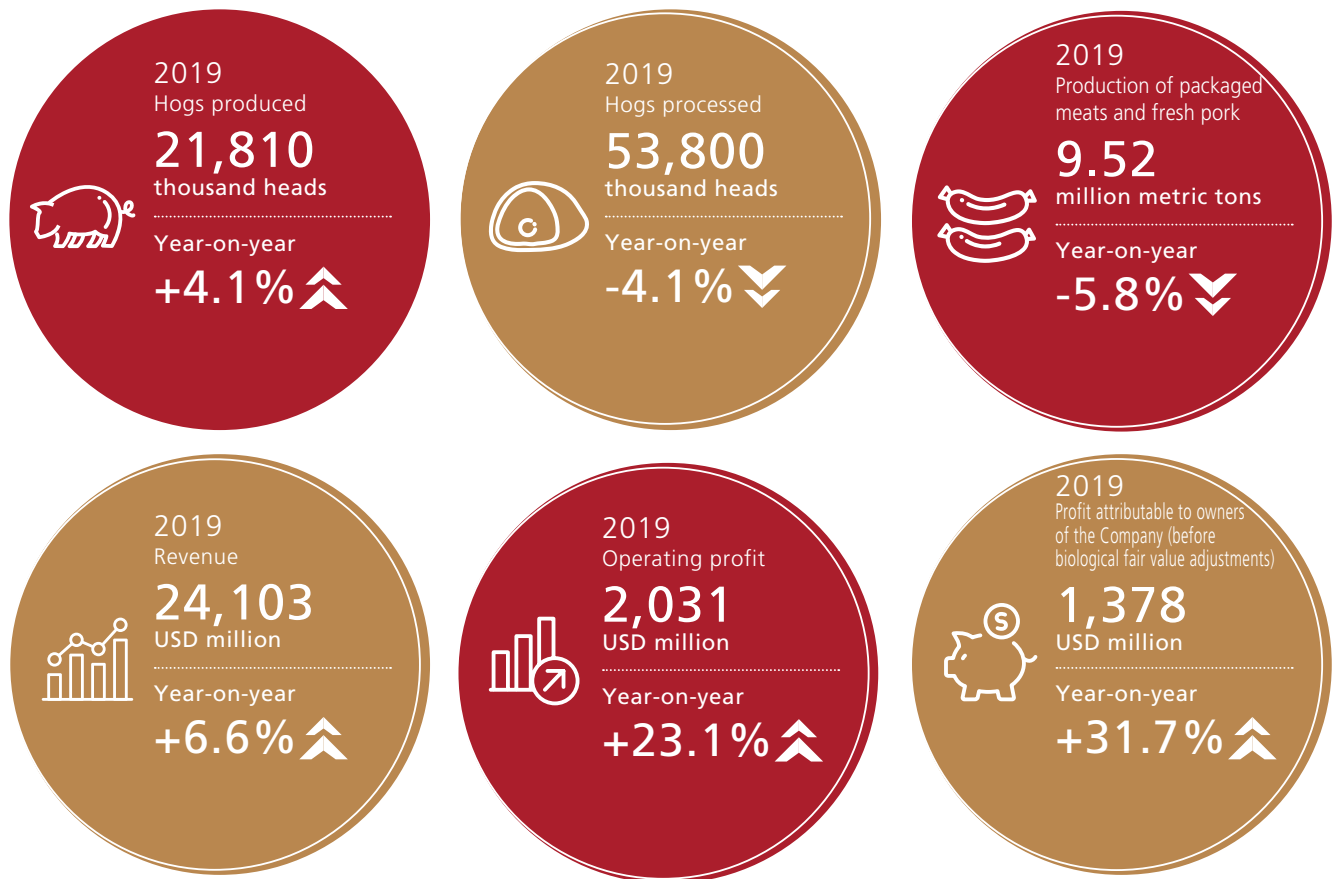
Brand Management

The Group is the largest pork company in the world and the market leader in China, the United States and key markets in Europe. We own multiple well-known household brands, which mainly include:

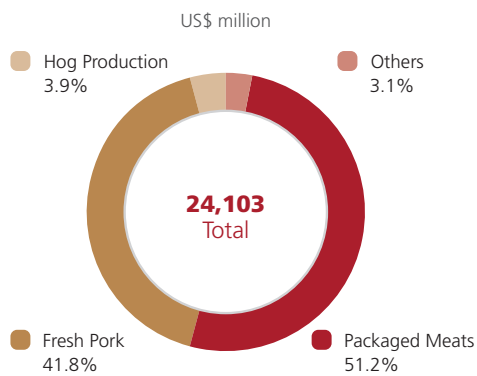


Business Performance

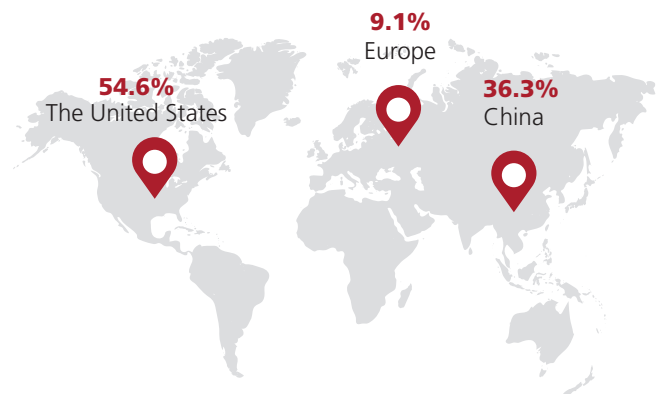
During the year, by leveraging its advantages in terms of global resources, scale, integrated business model and management, WH Group further boosted synergies and overcame various risks and challenges, with both revenue and profit hitting historical highs.



2019 Revenue by Business Segments



Region-Based Revenue in 2019

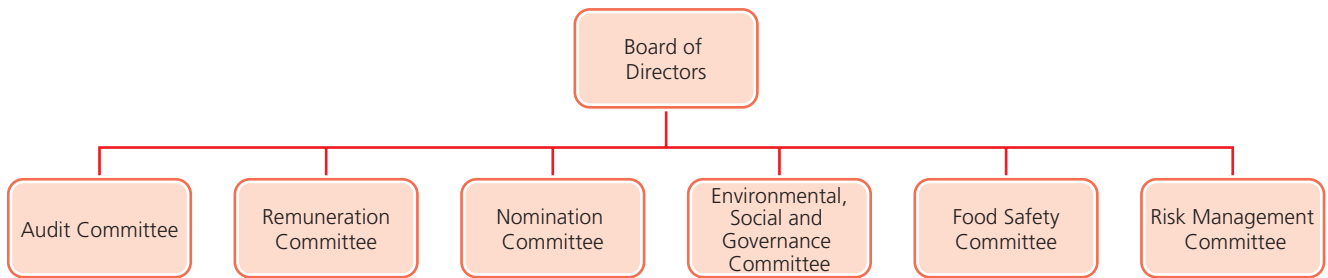


CREATING SUSTAINABLE VALUE



Corporate Governance

Company development is inseparable from its governance system. WH Group holds itself to a high standard of governance and complies with local laws and regulatory provisions where the Group operates. WH Group has set up several committees to ensure Directors are held accountable for their decisions:



WH Group continuously provides professional training and reading materials to members of the Board to ensure that they are aware of the latest updates in commerce, laws and the regulatory environment to help them maintain the essential knowledge and skills needed to fulfill their responsibilities.

During the reporting period, WH Group convened an annual general meeting, five Board meetings, three Audit Committee meetings, and seven other Board Committees meetings.

Compliance and Business Ethics

The Group operates with integrity, regards business ethics and compliance as a major component of the Group's culture and implements high standards of corporate governance in daily operations. Pursuant to applicable laws and regulatory provisions of the regions where the Group is listed or operates businesses, such as the *Anti-Unfair Competition Law of the People's Republic of China* and the *Sherman Antitrust Act*, the Group continuously prevents conflicts of interests, fraud, insider trading and other behaviors that violate business ethical standards to promote correct business practices and values.

WH Group's major subsidiaries have formed internal control polices to prevent and control business ethics and compliance risks. In the United States, we have formed the *Code of Business Conduct and Ethics*, which explains how we operate the business in compliance with applicable laws and the commitment of "doing the right thing." All the employees must sign a statement showing that they understand the requirements of relevant business conduct and ethics and that they will comply with them. We expect our suppliers to adhere to high ethical, legal and social responsibility standards, detailed in our *Supplier Code of Conduct*. In China, we have established the *Code of Conduct* and other business ethic standards to require all the employees and partners to behave with honesty, follow laws, compete fairly to maintain an honest, clean, and compliant business environment. While we continue to enhance our monitoring and accountability system, we focus on building the employees' awareness of business ethics by promoting the culture of integrity and training.

In 2019, the Group did not have any noncompliance issues that violate any laws related to fair competition.

Anti-Corruption

WH Group advocates a culture of integrity by continuously fighting against and preventing corruption and fraud. The Group strictly follows local laws against corruption, bribery, and money laundering where it operates, and have formulated internal control policies to combat corruption based on the laws in our operational locations. Our subsidiary Shuanghui has established a *Code of Integrity*, Smithfield has formulated the *Code of Business Conduct and Ethics* (<https://www.smithfieldfoods.com/pdf/code-ethics/English-Code-of-Business.pdf>), which stipulates the definition of corruption and bribery and the Company's penalties for such violations.

We encourage employees to report dishonest behaviors via the designated channels, and we protect the personal information of whistle blowers to prevent any possible attempts at revenge. In China, Shuanghui has set up an audit center to receive reports and appeals of misbehavior, dishonesty, and corruption from various reporting channels. Reports are made in confidence, based on truth, and the reporter's information is protected. We introduced measures to protect and award whistleblowers, including: setting up a "special protection list"; conducting the reporting process – acceptance, registration, safekeeping, investigation and reward – in strict confidentiality; reporting to the Chairman after the examination of a major report; rewarding the whistle blower appropriately. Our subsidiary Smithfield accepts the reporting of any corrupt behavior through a public whistle-blowing hotline and launches an investigation once a case has been successfully filed. We have provided our employees and customers with anti-corruption training, and require them to abide by all company's regulations on anti-corruption to prevent corrupt behaviour.

During the reporting period, the Group did not identify any material cases related to corruption.

CREATING SUSTAINABLE VALUE

Risk Management

Risk management is essential to WH Group's sustainable development. Our Risk Management Committee is responsible for managing corporate risk-related issues. To promote unified enterprise risk management within the Group, the Group will continue to strengthen its Enterprise Risk Management (ERM) program, to form an ongoing and effective process to identify complicated and emerging risks (internal and external) of the Group that might hamper the achievement of its strategic, financial, and compliance targets.

ERM includes regular risk identification and assessment, control measures to mitigate the impact of risks, management and monitoring of key risks, and reporting in a timely manner. ERM has incorporated the relevant elements of sustainable development. In 2019, we recognized 26 key risk areas, of which we prioritized eight areas with regard to the risk probability and impacts, including commercial price and market, food safety, epidemic, international trading, foreign exchange, industrial competition, laws, policies and listing rules, and plans and strategies. Based on the risk assessment, we formulated measures to reduce their impacts.



Concept of Sustainable Development

As the largest pork company in the world, WH Group is fully aware of its responsibility in the industry. We have always held ourselves to a high standard over the years, and formed our sustainability strategy through the accumulation of management experience that not only suits our strategic development goals but also addresses our stakeholders' concerns. We steadily build a culture of sustainability to lay a solid foundation for development and to create sustainable value for society.

We highlight WH Group's concept and plans for sustainable development in five pillars. Approaches and results we have achieved so far will also be detailed in this report.

Food Safety and Product Quality

WH Group strives to provide high-quality products for consumers. Food safety and product quality are the foundation of our business. Therefore, we adhere to the highest quality standards and laws.

Our consumers hold high expectations of our product safety and quality. With the mission of providing a better service and response to consumers, we offer various healthy product options as well as clear and accurate product information that enables them to make healthy choices.

Environment

As a company focused on the processing of agricultural products and food, effective environmental management is crucial to the achievement of long-term sustainability goals. We not only comply with local environmental laws and regulations, but also continuously improve our environmental management system, and use a modern industrial production model to promote sustainability. We are committed to consuming energy, water and other natural resources in a responsible way, reducing exhaust gas, wastewater, waste and greenhouse gas emissions through process innovation, technological transformation, recycling and being more energy efficient.

Employees

Being a people-oriented company, WH Group gives full acknowledgement to employees' value in the Company. We work hard to create a win-win platform for enterprise and employees, caring for their livelihood and wellbeing, supporting their development and protecting their dignity. With a fair and competitive salary and remuneration, we provide job opportunities to staff in farms and processing plants and encourage them to learn and develop within WH Group. We value internal promotion. We support employee education by providing them with abundant training and learning opportunities to promote their vocational development. Meanwhile, we are dedicated to building a safe and healthy work place and an inclusive and safe working environment.

Animal Care

The protection of animal welfare is not only for humane reasons, but also serves as a guarantee to our products' quality. We respect animals and fully value their welfare in all aspects biologically, environmentally, health-wise, activity-wise and psychologically. We also share leading practices with all our suppliers and clients.

When raising animals, we ensure they receive abundant high-quality food and water, clean and comfortable housing and prompt medical treatment when they are injured or sick. During transportation, we adopt various measures to keep them safe and comfortable to minimize negative physical and emotional effects. During harvesting, we do our best to minimize any suffering.

Community

WH Group appreciates its friendly and harmonious relationships with local communities. We could not be successful without community support. Only by contributing to our communities' growth and development can our business continue to flourish.

WH Group actively communicates with local communities located in the regions of operation and gives back to them. We undertake our social responsibility in many aspects, with a particular focus on education, poverty alleviation, fighting hunger and disaster relief.

Moreover, we are constantly looking for issues pertaining to food safety and make it a key consideration in governance to coincide with sustainability management. We set up a Food Safety Committee under the Board to be the highest decisive team for food safety management. Chairman of the Group Mr. Wan Long personally chairs the committee, and so far the committee has promoted food safety awareness within the Company with a high level of attentiveness and responsibility.

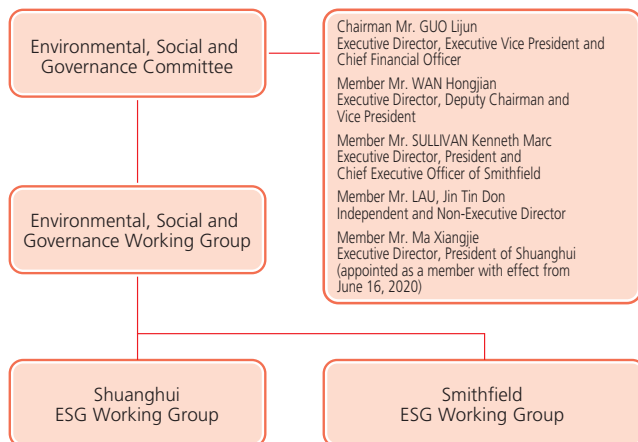
In 2019, the ESG Committee held two meetings covering topics of concern to stakeholders, strategic decisions on WH Group's sustainability, and implementation of sustainability-related risk control.



Governance Structure in Sustainability

To ensure that sustainability-related work develops smoothly, WH Group has set up an ESG Committee at the Board level, making sustainability a regular key topic in Board meetings. The Committee is responsible for: identifying business-related ESG issues that affect shareholders and other stakeholders, setting up detailed sustainability goals and plans, reviewing sustainability performance, reporting and providing suggestions to the Board. At the executive level, the ESG working group coordinates with the ESG working groups in Shuanghui and Smithfield and reports to the ESG Committee. (Please see detailed responsibilities of *ESG Committee in Terms of Reference of the Environmental, Social and Governance Committee*, <http://www.wh-group.com/pdf/esgc.pdf>). Although Shuanghui and Smithfield established their sustainability governance systems respectively based on their different market and supervisory background, WH Group has established a frequent and detailed internal communication system under the guidance of the ESG Committee to promote communications of the subsidiaries.

Below shows the WH Group's governance structure in sustainable development:



Sustainability Competitiveness

WH Group has demonstrated strong corporate governance and business practice in the face of economic, environmental and social challenges and opportunities, winning praise and approval from the capital market. Since 2014, WH Group has been included in multiple mainstream ranking indices of the capital market, further demonstrating its capability to create long-term value for investors.

FTSE Index

2014
The Company was included in multiple FTSE Indexes, including the FTSE All-World Index, FTSE Mandatory Provident Fund (MPF) Index, FTSE Multinationals Index, and FTSE Global Style Index



MSCI Index

2014
The Company was integrated into the MSCI Hong Kong Index



Hang Seng Index

2017
The Company was selected as a constituent stock of the Hang Seng Index

2019
The Company was granted A-grade by the Hang Seng Corporate Sustainability Index ratings for a second consecutive year

CREATING SUSTAINABLE VALUE



Now a Part of **S&P Global**

Dow Jones Sustainability Indices

2019
The Company was selected as a constituent stock of DJSI (Dow Jones Sustainability Index) Emerging Markets

Additionally, WH Group was selected to be one of China's Top 500 Enterprises in 2019 by *Fortune* and was at the top of FBIF 2019 China's Top 100 Food & Beverage Companies. Its subsidiaries, Shuanghui and Smithfield, also won multiple awards with their excellent performance. In 2019, Shuanghui was selected to be BrandZ™ Top 100 Most Valuable Chinese Brands; it was ranked as the 150th in *Asia's Top 500 Brands for 2019* released by World Brand Lab; it was nominated in 2019 Top 10 Brands for Food and Beverage in Asia; it was awarded as an Enterprise with Leading Social Responsibility in the 17th China Food Safety Annual Conference. Due to its good performance on sustainability, Smithfield was included in the Best for Vets Employers 2019 rankings by *Military Times*, and was awarded the 10-year Environmental Stewardship Award by North Carolina Environmental Stewardship Initiative and the 2019 Manufacturing Leadership Awards by the National Association of Manufacturers.



Stakeholder Engagement

WH Group attaches great importance to communicating with stakeholders, proactively builds a multi-channel communication mechanism to promote in-depth exchanges with stakeholders, and understands stakeholders' views and opinions on sustainability issues. The main stakeholders we identified

include investors, employees, suppliers, regulators, industrial institutes and experts, non-governmental organizations, think tanks for sustainability, media, distributors and consumers.

During the reporting period, we held more than ten indepth interviews with our stakeholders. Meanwhile, Shuanghui performed peer benchmarking, media analysis and other ways to obtain feedback from stakeholders; for more details regarding the stakeholder engagement process by Smithfield, please refer to the company's official corporate website (<https://www.smithfieldfoods.com/sustainability/stakeholder-engagement>).

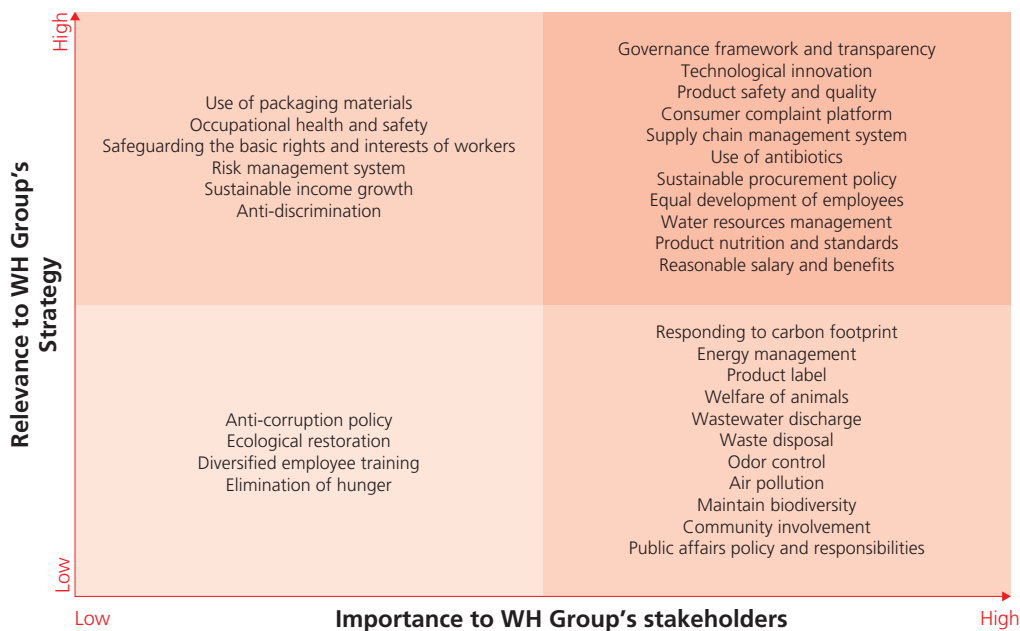


Material Issues

We believe that identifying and analyzing major ESG issues will underpin effective sustainability management. Analysis of major ESG issues helps WH Group address the issues stakeholders concerned in the Sustainability Report and allocate resources properly to improve the Company's performance in sustainability.

During the reporting period, we interviewed our investors to understand their opinions or suggestions on WH Group's development strategy. Moreover, based on the communications with stakeholders, we held management workshops to discuss the issues stakeholders concerned, while taking our sustainability development strategy into consideration. We have further examined the stakeholders' feedback and evaluation and discussed them with management. For issues that concern stakeholders and matter more in WH Group's strategic development, we list them as material issues as below.

The analysis results and the importance level of each issue are showed in the ESG issues matrix. ESG issues that are deemed of high importance by stakeholders and can be incorporated into WH Group's development are in the top-right corner. Such issues are crucial to the Company to create and maintain value and will be highlighted in this Report:





Dialogue with Stakeholders

Q:

What kind of water resource-related risks does WH Group face, and has WH Group taken any countermeasures for such risks?

A:

As water is an important natural resource for us and communities, we consider water resources protection as our top priority. During the reporting period, we did not suffer from any shortage of water resources and were not at risk of water pollution. In order to reduce the impact of the use of water resources and wastewater discharge on the environment globally, we created water management policies to minimize our impact on water resources. Additionally, we also reduced the impact of wastewater on the environment by reducing water consumption and pretreating our wastewater.

To ensure a sustainable water supply in our operations, Smithfield, our subsidiary, used the World Resources Institute (WRI) Global Water Tool and the Global Environmental Management Initiative (GEMI) Local Water Tool to assess risk associated with local water supplies where we operate in 2016. The results indicate our operations face little to no risk, do not significantly impact local water supplies, and none of our water comes from protected sources. For the few operations facing limited risk, we monitor water availability and potential changes closely. We have proposals to start a new assessment process in 2020. Smithfield has also set a target of reducing 10% of its water consumption by 2020 compared to 2014. We also collaborate with local communities and authorities in protecting and maintaining local water supply systems.

In China, we analyze water shortage risks faced by factories and set up annual water consumption targets. We continue to enhance water consumption efficiency and formulate *Emergency Plans* to deal with emergencies promptly, reducing the impact of water scarcity.

Q:

How does WH Group mitigate risks arising from its carbon footprint?

A:

To mitigate climate-related risks, we are dedicated to reducing the carbon footprint throughout our product lifecycle. It is expected that our subsidiary Smithfield will reduce 25% of the carbon emission throughout its supply chain by 2025 compared to a 2010 baseline.

In the United States, we collaborate with the University of Minnesota on the NorthStar Initiative for Sustainable Enterprise, an initiative that keeps track of our greenhouse gases emissions throughout the entire lifecycle of our products. We also partnered with the Environmental Defense Fund (EDF) to help farmers optimize the use of fertilizer and improve soil quality. The program helps raise the yield rates of crops despite reduced use of fertilizer, which is a crucial step in reducing the carbon footprint of our supply chain.

We lower our carbon footprint throughout our operations by optimizing fertilizer use in our grain supply chain, creating renewable biogas on our farms, reducing energy consumption at our facilities, improving transportation efficiencies, setting emissions targets and purchasing renewable energy.

Q:

How does WH Group ensure food safety and quality?

A:

Our commitment to food safety and quality takes first place in our list of considerations so we can produce safe, high-quality meat products for consumers. We require that our suppliers comply with a high standard of food safety requirements and stringently select raw materials to control product quality starting from the very beginning. In the production process, a series of food safety management policies are formulated and food safety production training courses are provided for our employees to regulate production operations and ensure food safety and quality. During this year, we actively launched and strictly followed the certification process of our international advanced system, such as the *Food Safety Management System Certification* and the *Quality Management System Certification*.

Our subsidiary Smithfield prides itself as a global leader in food safety policies, procedures, and performance and strives to minimize risks relating to food safety continuously. Adopting the Global Food Safety Initiative (GFSI) and ISO 22000 Food Safety Management System as a foundation of food safety management helps us to achieve our leading position in the industry.

We take great care of the health and wellness of our consumers and work hard to develop healthy food products that are low sodium, and low fat. At the same time, we use alternative proteins, such as plant-based proteins, to satisfy diverse needs of flexitarian consumers.

FOCUSING ON HIGH-QUALITY PRODUCTS

WH Group has numerous famous brands trusted by consumers. We have won their trust by providing high-quality, nutritious products for our consumers. We insist on innovating, improving service quality and actively meeting the different dietary needs of different consumers.



Achieved food safety and quality target, with **zero product-recall**



In China, we have **40 plants** that have passed the **ISO 9001** Certification and **30 subsidiaries** that have passed the ISO 22000/HACCP Certification



52 plants in the United States, Poland and Romania meet GFSI standards



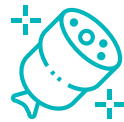
Through strengthening innovation, the sales of new products of Shuanghui **increased by 24%** compared with 2018



We added **10 new choices of healthy products** for U.S. consumers, that include no artificial ingredients, added nitrites, preservatives, monosodium glutamate (MSG) or added hormones, among others



Launched **plant-based protein** portfolio under Pure Farmland™ brand



Food Safety and Quality

We are committed to providing reliable and excellent food products to our consumers. For our operations in China, the United States and Europe, we fully comply with our comprehensive quality control management systems at all production stages, ranging from animal feed production, hog production and food processing, to transportation and delivery processes. Our vertical integration of different production stages, like hog production, fresh pork and packaged meats, has shown a competitive edge in quality control.

The Group strictly abides by food quality and safety laws and regulations in its operating countries, including the *Food Safety Law of the People's Republic of China*, the *Federal Food, Drug, and Cosmetic Act*, etc. The Group upholds a food safety management principle, which places emphasis on prevention, risk management, thorough controls and employee participation at all levels. Guided by this principle, we incorporate our well-established scientific food safety measures into different stages of our operations. After identifying the company's goals on quality, we frequently evaluate the coverage, appropriateness and effectiveness of the company's quality management processes. During the year, we achieved our food safety and quality target of zero product recall.





Management System

We have established a Food Safety Committee at the board level, which is responsible for formulating principles and visions of food safety and risk management and overseeing ongoing review processes. We have set up a quality management team comprising more than 1,000 employees, whose duties are to monitor our food safety and quality performance under stringent standards and to make continuous improvements. Additionally, we encourage our facilities to participate in advanced international certification schemes.

In China, we have 40 plants that have passed ISO 9001 Quality Management System Certification and 30 subsidiaries that have passed ISO 22000 Food Safety Management System Certification/Hazard Analysis Critical Control Point (HACCP) System Certification. In 2019, Luohe Shuanghui Industry Group Co., Ltd., one of our subsidiaries, passed the British Retail Consortium (BRC) Certification and Marine Stewardship Council and Aquaculture Stewardship Council (MSC/ASC) Certification.

When it comes to food safety policies, procedures and performance, our operations in the United States stand out among our global peers. These measures help us monitor and mitigate risks relating to food safety. By adopting the Global Food Safety Initiative (GFSI), we are able to achieve outstanding industry performance. All our applicable facilities in the United States, Poland and Romania — 52 in total — are certified to GFSI standards through audits conducted by Safe Quality Food (SQF), BRCGS, International Food Standards (IFS) and ISO 22000. We are also subject to audits commissioned by our customers and other third-party regulatory authorities. In addition, inspectors from the United States Department of Agriculture (USDA) and our internal teams, audit the safety and quality procedures at our processing facilities on a daily basis.

Meanwhile, we are prepared to respond to the new requirements or internal management procedures at any time by focusing on any updates to the laws and regulations

of food safety and quality by the regulators. We align our internal food safety and quality management policies with external circumstances to support the food safety management system. In China, we created several internal management policies in 2019, including the newly formulated *the Notice on Strengthening the Management of Personnel in Key Posts in the Production Process of Meat Products* for the purpose of clarifying the name of key posts in the production process of meat products and the standard of personnel allocation, the newly formulated *the Notice on the Self-inspection and Self-correction for the Production Process Specification of Meat Products* for defining the provisions of self-inspection and self-correction inspection, the content of inspection, the manner of inspection and the rating of the inspection, and the optimized *the Operating Instruction of Sampling and the Sampling Method for Drug Residues of Poultry Raw Materials* to ensure the sample is chosen based on equal probability and can be a fair representation of the population.

The daily safety and quality practices of our operations in the United States are guided by 40 internal policy documents. All of our facility programs are built upon the HACCP management framework. Our quality assurance plan utilizes the HACCP model as a baseline to manage key quality control points. We regularly update the plan to include the industry's best practices and the latest innovation.

Training and Awareness Enhancement

WH Group provides employees with systematic food safety and quality training aimed at strengthening their awareness of food safety risks in all aspects of the production process. In China, we invited internal and external teachers to train our employees at all levels on cleaning, disinfecting, microbiological analysis and control, pest control and the laws and regulations of food safety in 2019 through video and on-site training, with 3,686 person-time participating. A total of 2,451 training sessions for factory staff were conducted by various quality control departments, with 70,235 person-time participating. In the

FOCUSING ON HIGH-QUALITY PRODUCTS

United States, every individual worker is required to complete training before joining our operations. Our training program is uniquely designed in the industry and it covers a great variety of topics, including food safety and food science. During the year, our facilities in the United States, Romania and Poland devoted thousands of hours for training employees in safety procedures, HACCP requirements, and food science.

Speech on Food Safety

On March 12, 2019, we held a speech competition on the subject of "Performing Enterprise Responsibilities and Guaranteeing Food Safety" in China, which was aimed at strengthening the awareness of employees on food safety and helping each employee become a manufacturer of high quality products and a protector of the food safety of enterprises consciously by obtaining experiences, spreading knowledge and improving literacy in the competition.

Ensuring Safety and Quality of Our Products

At Smithfield, our staff on the production line receive an invitation to perform "auditing" duties over their products. The process provides our employees with a chance to examine the essence of safety and quality standards and take active ownership over their production. Additionally, we have authorized our employees the right to halt our production in case they discover any food safety or quality-related issues during their daily work.

Ensuring food safety involves a complicated process, that requires our farms and facilities to stay vigilant at all times. To ensure that our customers receive products that are of high quality and safety standards, we strive to improve our supply chain management, production controls, product assurance as well as our emergency response mechanism.

Suppliers' Food Safety and Quality Management

High-quality and reliable products originate from safe raw materials. The Group strives to protect the quality and safety standards of our products by strictly monitoring the quality of our hog and raw material procurement and continuously improving our supply chain management practices.

In China, besides self-owned farms and ranches, we also purchase hogs from our cooperative farms and ranches to satisfy our manufacturing demands. In the process of purchasing, we strictly control the quality of hogs, and provide our purchasing standards and policies to hog suppliers. The hogs must be delivered accompanied with complete ear tags and certificates by the suppliers, for which the items must be consistent, true and valid. And then, as required, they must be photographed for the plate number of vehicles for transportation, Animal Quarantine Certificate of hogs and the state of loading and unloading before shipment and carry out an inspection at any time in the process of transportation. The hogs can be accepted by the plants only if being first verified by the animal quarantine agencies and passing the quarantine inspection. In 2019, as a result of the ASF, the plants in China strictly implemented the epidemic prevention and control policy and conducted source control to prevent the epidemic from spreading to downstream industries by strengthening the training of employees, adjusting purchasing areas, improving the purchasing standard and raising the purchasing threshold for the purpose of providing safe and assured products for our consumers.

We also consistently optimize the management system in material purchasing, review the qualifications of the suppliers related to food safety strictly and implement evaluation and site assessment according to the quality of materials supplied and achievements. Besides, the *Supplier Management System* is formulated to systematically regulate the mechanism of admittance, assessment, audit and elimination for material suppliers who are required to sign the *Product Safety and Quality Commitment*. In 2019, we established the quality feedback mechanism of suppliers. If there is any problem found in the process of the acceptance, testing and use of products, a notice on issues in quality will be issued immediately as part of the feedback mechanism, which will be delivered to the suppliers so they can rectify the issue and improve product quality afterwards.



FOCUSING ON HIGH-QUALITY PRODUCTS

Suppliers' Evaluation and Audit

In China, material suppliers are classified into four levels (A/B/C/D) to effectively control the risk relevant to suppliers. Moreover, we also continuously reinforce the site assessment of suppliers. In 2019, we improved and detailed the auditing requirement and assessment criteria for suppliers to refine the general audit standards into a special audit standard for raw materials, ingredients and packaging materials in combination with the actual situations of each industry. In 2020, we will implement the above-mentioned site auditing standard for suppliers, the passing mark of which will be increased from ≥ 75 to ≥ 80 .

In the United States, we rely on our suppliers to provide high-quality ingredients that meet or exceed our customer and consumer expectations and that comply with GFSI and HACCP requirements. Our *Supplier Approval Policy* applies to vendors that supply raw meat materials, non-meat ingredients or any product packaging or casing. Suppliers must undergo annual GFSI certification or an appropriate third-party food safety and quality audit as well as a third-party animal handling audit, including a transportation audit.

Meanwhile, we have established a set of guidelines including Suppliers' Code of Conduct (<https://www.smithfieldfoods.com/our-policies-and-disclosures/supplier-conduct>), which specify the requirements on suppliers' operational compliance, product quality and safety, animal caring, environmental performances, business ethics, employees' expectations as well as human rights. We require our top 40 suppliers to complete questionnaires from us on ESG issues to evaluate their ESG performances. Through the provision of sustainable products and services, our suppliers are required to fulfill these goals. During the year, we provide suppliers with assistance through multiple measures, including advocating for more financial aids for suppliers. These measures can ensure better stability in our supply chain.

Production Process Controls

The Group has adopted scientific and efficient management methods for ensuring the quality and safety of our products. We have implemented risk evaluation and hazard analysis at different production stages and set up relevant risk control measures. Moreover, we use information systems as a way to monitor critical control points over food safety to ensure full implementation of our practices.

In China, we pay great attention to the management and control of production processes on the basis of the effective operation of our food safety management system. Professional quality control staff is appointed to conduct patrol inspections at the production site to ensure that each production and processing link in the chain complies with food quality and safety requirements, and to control the key operation steps that have high risks. In 2019, we organized 6 related departments to conduct self-inspection and self-correction for the production process specifications of 8 subsidiaries, with 477 issues rectified.

In the United States, we rely on in-house auditors, governmental organizations and third-party agencies to audit the safety and quality of our facilities. Any nonconformities found during the audit are handled in each facility. We conduct a follow-up audit after the primary audit to ensure that all corrective actions have been completed and share our findings with other facilities. We conduct routine environmental pathogen tests in processing facilities to prevent microorganisms that may affect our food safety and quality.

Product Testing

Product testing is an important guarantee for us to provide safe products to consumers. In China, we test our products through the quality inspection department of our headquarters and 44 companies across the country. There are more than 2,900 sets of testing equipment in our lab, covering more than 600 indicators such as nutrients, microorganisms, pesticide residue, veterinary drugs residue, microelements, heavy metals, food additives, prohibited additives and others. We test all outgoing products by batch strictly according to our internal standards, which are stricter than the national standard. Outgoing products are controlled through the Enterprise Resource Planning (ERP) System to ensure each batch of products is delivered only if passing the required tests. In 2019, in addition to continuously implementing the testing procedure of "ractopamine" for each pig which has been applied since 2011 in China, we also test for epidemic diseases amongst processed pigs one by one in accordance with national regulations. If any hog or product is infected, it will be reported to the regulators and disposed of safely according to national regulations.

In the United States, we have installed an in-house safety research laboratory in nearly all our processing facilities to ensure the quality and safety of our food products. Five of our laboratories have obtained the American Association for Laboratory Accreditation (A2LA), which proves their technical competence to conduct sampling of pathogen products and perform environmental monitoring of listeria species in the processing facilities.

Emergency Response Mechanism

To mitigate risks arising from food safety, the Group has been improving its emergency response mechanism continuously. We implemented drills on product recall procedures to examine the effectiveness of our management in recalling products and ability of tracking back the production origins. Throughout the drills, we continue to test our emergency measures and calibrate our ability to navigate emergency. During the reporting year, there were no product recalls.

FOCUSING ON HIGH-QUALITY PRODUCTS

In China, we built an information platform that integrates purchasing, production, distribution, sale and after-sale service of products. Thus, a product tracing and management system covering harvesting and packaged meats segments has been established, which can effectively trace the source of hogs and the whereabouts of products. We have also developed the *Product Recall Control Operational Manual*, which clearly stipulates items including the risk assessment of food safety, the preparation of a recall plan, the implementation of recall activities, the disposal of recall products, corrective measures, management evaluation and summary. At the same time, we strengthen the awareness of our employees on food safety risks and the operating procedure of product recall through recall drills. In the United States, our vertically integrated business enables traceability from the conception of the livestock to the shipment of the products to our customers. Every employee along that path plays a role in ensuring that our processes are followed, including our senior executives and CEO.



Innovation and Nutrition

WH Group deeply understands that innovation is not only the driver of reform in products, processes and companies, but also the key to new market exploration and future success. Meanwhile, we also understand that there is a growing customer demand for healthy lifestyles, hence we strive to provide healthier food options for our consumers through research and development (R&D).

Product Innovation

In China, we insist on channel innovation, taste innovation and concept innovation. In 2019, we developed several new products with an annual sales volume of up to 5,000 tons, such as Russian-style garlic sausage, King of Kings starch-free sausage, and sausage with mushroom. The sales volume of our new products increased by 24% compared to 2018.

We have been refining our brands to provide consumers with more choices such as reduced sodium, fewer preservatives, and no monosodium glutamate. In 2019, Smithfield expanded our product portfolio to meet a broad range of existing consumer needs and attract new consumers to the plant-based meat case. With the development from product conception to market taking place in a speedy six months, our Pure Farmland™ plant-based protein portfolio provided consumers with an alternative source of protein for every meal. We continued to evolve the brand with the release of our products made with non-GMO soy, lower sodium and lower saturated fat protein alternatives in the spring of 2020. Through gathering insights from consumer preferences and market research, we stay ahead of the market in embracing innovative product trends and the latest packaging solutions.

Nutrition and Health

Growing popularity in pursuing personal wellness has driven greater customers' interests in health food products, including clean eating and plant-based protein food. As people have become increasingly conscious of the nutrition content of the food in their plates, we continue to provide a great variety of food options through our product portfolio, including foods that are low in sodium, GMO-free, monosodium glutamate free, as well as foods containing fewer preservatives, so that our consumers can achieve a healthy lifestyle.

Shuanghui launched a variety of innovative products to meet the needs of consumers wanting a healthier lifestyle. At the same time, in accordance with the *Standard on Nutrition Labeling of Prepackaged Foods (GB28050-2011)*, we indicate the related nutrition information and characteristics on all our prepackaged food labels, including nutrition ingredients, nutrition claims and nutritional ingredient and function claims, for the consumers' reference. In addition, in cooperation with the China Meat Association, we jointly drafted the Outline of the Development for the Industry of Nutrition and Healthy Meat and relevant group standards. After the standards have been finalized, they will be launched to the market as soon as possible, driving our partners in the industry to provide consumers with healthy and nutritious high-quality protein products.

Dedicated to ensuring the market timeliness of our product portfolio, our innovation team in the United States comprises chefs, food scientists and nutritionists. We also offer consumers a growing selection of healthy product options, including 80 different options in our Smithfield All Natural brand. In 2019, we added 10 new choices across our brands for U.S. consumers, with health and wellness attributes that include no artificial ingredients, added nitrites or nitrates, preservatives, monosodium glutamate or added hormones, among others. Our international operations offer a wide assortment of food products that meet all EU nutrition and labeling standards. In Poland, several recent offerings are free from preservatives, monosodium glutamate and phosphates. We evaluate the sodium level of our products consistently, and our sodium policy (<https://www.smithfieldfoods.com/our-policies-and-disclosures/sodium>) guides our commitment to producing wholesome food products for our customers so as to cater to the varying dietary needs and lifestyles of our consumers.



Launched New Brand “Goobi” to Make the Dietary Patterns of Children More Scientific, More Comprehensive and Healthier

Our new product “Goobi” Cod Sausage launched in China is dually certified by MSC and BRC. It uses Alaska deep sea cod which has been called “the nutritionist on the dining table” as the core ingredient and with multi-nutrients such as cheese and carrots and without preservatives and colorants. It makes the dietary patterns of children more scientific, more comprehensive and healthier.

In addition, the product's packaging is recyclable and uses environmentally friendly small cartons, small carton boxes, and small sausage-shaped material with easy-to-tear openings.



FOCUSING ON HIGH-QUALITY PRODUCTS

Launching Plant-based Protein Products under the Pure Farmland™ brand – A Way to Satisfy Consumer Needs with “Flexitarian” Eating Style

In 2019, we launched a new plant-based protein portfolio in the United States under the company's Pure Farmland™ brand to satisfy consumer needs under the “flexitarian” eating style. Our new soy-based line features a variety of flavorful breakfast patties, meatballs, burger patties, and pre-seasoned protein starters to help consumers add plant-based protein options at every meal. Making good use of our 80 years of experience in agricultural, protein studies, flavor development and product innovation, we have been launching a broad variety of plant-based protein products. In this new product line, we adopt sustainable packaging, and our trays are made from more than 50% recycled material.

Replacing Antimicrobial Preservatives with Natural Substances

In our continuous effort to develop products that are simple while maintaining the utmost food safety and quality standards, we are constantly incorporating new and proven technologies in the areas of food ingredients and processes. In our efforts to make familiar products while using common ingredients, we are developing foods that remove conventional ingredients such as lactates, nitrites and erythorbates, and replacing them with ingredients produced from vinegar, celery juice and cherry powder.



Consumption Experience Improvement

WH Group complies with relevant laws and regulations on the protection of consumer rights and interests where we operate. To improve the consumer experience and satisfaction, it has established a comprehensive consumer service system to protect the legal rights and interests and privacy of consumers, regulate the advertising and promotional activities and guide consumers to consume reasonably, enhance consumers' experience and satisfaction.

Effective Communication

In China, the dealers from alliance programs and distributors are our main customers and are an integral part of our value chain.

We have formulated management systems such as *Customer Complaint Handling Standards* and *Product Quality Information Feedback Work Process*. Through our sales offices in China and 400 service hotlines, we strive to handle customer complaints in a timely manner. The feedback will be dealt based on the classification and grading process. In accordance with the laws and regulations of the operation site, combined with the actual survey, we efficiently and professionally respond to customer feedback and follow-up and deal with issues quickly with a sincere and responsible attitude and actively protect customer rights. During the reporting period, we conducted two surveys on the satisfaction of distributors and consumers in China, with a total of more than 9,000 distributors and consumers involved in the survey. Based on the results of the survey, we followed up and improved product packaging design, product carton quality, product taste and flavor so as to continuously meet consumers' demands.

Through phone conversations, emails, social media and mailing services, our subsidiary Smithfield manages to maintain excellent communication with its customers. We regularly measure and track the performance of our major brands through several key purchase metrics, including customers' awareness of the brand, considerations of purchase, previous purchase history, as well as future purchase and affinity. During the year, we conducted customer satisfaction surveys for brands including Smithfield, Farmer John and Eckrich to evaluate and refine consumer messaging and promotion strategies. We use these studies to ensure the company is growing among target consumers and geographies. Survey findings also help us understand competitive activity and impact on the Company's brands.

Clean Label and More Transparency Production Information

As we develop our product choices, we are also making it easier for consumers to identify options available to them. Clean labels provide simpler, shorter, easier-to-understand lists of ingredients. Our online Glossary of Ingredients (<https://www.smithfieldfoods.com/trusted-brands/ingredients-glossary>) provides definitions of more than 100 ingredients found in our products.

WH Group deeply understands that online marketing is significant to the future development of the Company, so we have reached out to customers through several e-commerce platforms. Our subsidiary Smithfield has developed an online strategy that focuses on consumer pick-up & delivery through our retail partners. Up to now, our subsidiary Smithfield has become the second-largest protein food producer in the United States e-commerce segment¹ (annual net sales reached 35 million), and also the fastest growing producer (increased by 112% year-on-year). In China, we conduct online and offline integrated marketing and expand the marketing channels of our products through online e-commerce, live broadcast or social media. We sold more than 35,000 tons of products through e-commerce channels in 2019.

Upgrading Smart Consumption

The online sales strategy of our subsidiary Smithfield requires three main forces to work together to achieve maximum growth in digital distribution. New service policies and improvement measures have been developed for online customer service to enhance consumer experience:

- We launched an online artificial intelligence agent, a chatbot that can converse with customers.
- The chatbot is designed to have a predefined suggestion conversation area, which is capable of analyzing questions in real time and actively answering questions.
- Up to now, the chatbot of our Pure Farmland™ brand has successfully processed 90% of customer queries on all topics, which eliminates many steps in the process of resolving common problems and reduces our customer service workload, so that we can focus on providing high-quality services to deal with escalating problems.

Customer Privacy Protection

In the era of big data, consumption patterns of customers have undergone transformative changes and online shopping is becoming an integral part of our daily lives. Despite benefiting from a fast and convenient shopping experience, consumers now face enormous challenges in protecting their personal information. To protect the legal rights of customers in their purchase and use of our products and services, we abide by *the Protection of Consumer Rights and Interests Law of the People’s Republic of China, E-Commerce Law of the People’s Republic of China* and *the California Consumer Protection Act*.

In China, we also receive consumer information when receiving complaints, in the case of which, the consumer information would be restricted to only being accessed through specific permission in order to properly protect customer privacy. In addition, we provide customer privacy protection training for employees every year to raise employee awareness of the protection of consumer privacy.

Our subsidiary Smithfield limits the types of consumer information we collect to the information that is necessarily needed to accomplish the given purpose. At the moment, we are not collecting any social security numbers from consumers. As we expand our targeted marketing efforts, we are continuing to put security measures in place to ensure that there are no data security concerns from a technical and operational perspective for all the information we collect from our consumers.

Responsible Advertising

For product labeling and advertising, we strictly abide by the laws and regulations of the global business operations site. We constantly improve internal procedures and regularly organize relevant training to guide consumers to consume reasonably. In China, we comply with *the Advertising Law of the People’s Republic of China, the Protection of Consumer Rights and Interests Law of the People’s Republic of China, General Standard for the Labeling of Prepackaged Foods (GB 7718)* and other laws and regulations. In the United States, unless our products have met the USDA’s definition of minimum processing without artificial ingredients or received USDA’s approval of our label statement, we do not brand any product as “natural”. For our European business, we also provide dozens of fresh meat and packaged foods to meet the needs and tastes of various consumers, and all of them have met nutrition and labeling standards of the European Union. Smithfield has also formulated the *Code of Business Conduct and Ethics* and is deeply committed to honest and fair dealings with all of our customers. We commit not to engage in misleading or deceptive advertising or marketing practices.

1 Categories for the US e-commerce ranking include breakfast meats, franks and dinner sausage.

SUPPLY CHAIN MANAGEMENT

We are committed to becoming the most trusted, respected and moral leader in food industry. To achieve this vision, sustainable products and services from suppliers are indispensable.



Purchased grain directly from approximately **400,179** acres of land where efficient fertilizer and soil health practices were implemented as of the end of 2019



Adopted the international animal welfare best practices and conducted **third party animal welfare audits** for Smithfield



The ASF cases detected on farms operated by our EU business represent **less than 0.003%**



We are the **only US** hog producer to publicly report information related to the use of antibiotics



Helped farmers work with agricultural consultants with more than **4,000 acres** of farmland registered; helped **125** grain growers to purchase high quality seeds at preferential prices



Sustainable Agriculture

Supporting Responsible Crop Production

In the United States, the purchase of crops for animal feeding accounts for 20% of our greenhouse gas emissions. To minimize the carbon footprint of our upstream supply chain, we collaborate with EDF to optimize fertilizer use and improve soil quality. In addition, we provide agronomic advice and tools to help them use less fertilizer while producing the same amount of grain. In China, we developed a manure resource utilization project to collect chicken and pig manure, which were used to fertilize the farmland after treatment to increase soil fertility.

Expanding Assistance to Grain Producers

In 2019, we expanded our assistance to local grain producers through a partnership with the North Carolina Agricultural Consultants Association, a network of licensed, independent agricultural crop consultants who are committed to agricultural stewardship and grower profitability. In exchange for independent consulting, farmers agree to market 125 bushels of corn per acre to Smithfield. At the end of 2019, over 4,000 acres were enrolled in this program.

We also partnered with Augusta Seed to provide quality seed at a preferred price. Augusta is an independent, family-owned business based out of central Virginia. Farmers in our supply chain can purchase seed from Smithfield at discounted prices. In exchange, farmers agree to contract 120 bushels per acre to Smithfield. In 2019, more than 125 grain growers participated in this program, providing us with a source of 2.1 million bushels of corn.

At the end of 2019, the grain we purchased directly from farmers came from approximately 400,179 acres of land where efficient fertilizer and soil health practices were implemented.

Farmland Protection

Our Pure Farmland™ brand partnered with American Farmland Trust to preserve American farmland through a pledge to protect one square foot of farmland for every item purchased, up to \$140,000. In 2019, we donated approximately \$40,000 to the Trust.



Caring for Animals

In order to maintain the leading position in animal care within the breeding industry, WH Group consistently practices and innovates on animal care by assuring the respect and ethical treatment of animals.

We believe that animal's dignity, health conditions, safety and comfort should be taken into consideration during the breeding and harvesting process. It serves not just as a response to the stakeholder but also as a promise of better animal physical conditions that improve resistance to diseases, accelerate their growth, and give birth to a stronger generation. Animal welfare is a core factor in our operations, and we take the practice as our duty to society and consumers.



The Group uses the animal welfare standards of the Office International Des Epizooties (OIE), National Pork Board Pork Quality Assurance Plus (PQA Plus) of the US Pork Committee, the Transport Quality Assurance of the US National Pork Committee, the European Union Based on the internationally sound animal welfare system such as the Animal Welfare Quality Assessment System. We organize and implement relevant work that meets animal welfare requirements, and invite third parties to conduct annual audits on Smithfield based on the guidelines of the North American Meat Institute (NAMI).

We have established relevant policies and procedures in our key production stages like breeding, transshipment and harvesting, to ensure that animals are treated appropriately and humanely. WH Group is trying to set the best practice of animal welfare in the industry.

Turning Animal Care into Standardized Practices

Animal care is central to the activities of all employees who work on our farms. As an animal care technical trainer, Samantha Raynor's job is to instill ethics in each of the procedures of hog production. In 2019, Samantha led a team across our operations to combine seven regional documents into a single manual of standard operating procedures (SOPs) and training practices.

The standardized volume, which is being implemented in 2020, embraces best practices in SOPs and training from across the United States, infusing greater consistency into the production system as well as in the day-to-day humane care of our animals. In 2020, we are creating learning videos of all SOPs. As a good deal of work on farms is hands-on, observing procedures can be a very effective training tool.

Animal Feeding

During the process of animal feeding, we protect animal welfare in different aspects, including nutrition, diet, growing environment, and hygiene. The Group's hog breeding is mainly concentrated in the United States, and all the farms meet the requirements of National Pork Board PQA Plus. Moreover, to ensure animal welfare, all operations related to the production or processing of live animals follow the comprehensive written action plan on animal care. At the same time, we also put forward animal welfare requirements to suppliers in all regions to fulfill our commitments to the cause.

Our animal care experts are constantly researching ways to improve the efficiency of animal feed use and developing a precise formula for producing corn, soybean meal, wheat, minerals and vitamins. Furthermore, we only feed our animals at a suitable time with the right amount of animal feeds to ensure the leanness and nutrition.

Since having a comfortable environment is essential for animal breeding, we create suitable spaces for animals, taking full considerations of an animal's need for movement. We comply with all applicable laws and regulatory requirements. We also provide animals a physical environment that meets their needs and increases their survival rates. The Group requires high standards of hygiene for the living environment of animals, including but not limited to air quality and cleanliness requirements.

SUPPLY CHAIN MANAGEMENT



Safe Animal Feed

In the United States, our animals consume more than 13 billion pounds of feed each year, and ensuring the quality, consistency and safety of our feed supply is critically important. With the recent implementation of the U.S. Food and Drug Administration (FDA) Food Safety Modernization Act (FSMA), animal feed is now considered as high of a safety priority as human food. We have enhanced how and what we use for feed ingredients as well as the manner in which we produce, store and deliver the feed to the hogs.

In 2019, we rolled out our newly created FSMA-based safety plan and training, customized for each feed mill and bakery meal operation, to provide the foundation for our company-wide feed and food safety programs. We also developed our Safe Feed/Safe Food program, creating a framework of accountability over how we manufacture and deliver safe and nutritious animal feed. Our Safe Food program will be implemented at all of our feed mills and bakery meal operations through 2020.

Growth Environment and Sanitation for Animals

In China, we pay close attention to the health and safety of the growth environment of animals and formulated related policies. In respect to the breeding of hogs, we focus on the active area of hogs and the sanitation of their environment and improve the living environment of hogs by expanding the area of plants and retiling the cement troughs in the piggens used for mating and gestation.

In the process of poultry breeding, we improve the quality of drinking water for chickens and adjust the feeds' nutritional value in a timely and accurate manner to ensure the health and growth needs of chickens. We also use light to regulate the mood of chickens and equip the area with a massage board to put chickens in a more comfortable state throughout the whole process.

Animal Transportation

Animal transportation from farm to processing plant is an important part of our animal care plan. In order to give animals sufficient care and dignity, our subsidiary Smithfield has formulated strict transshipment specifications involving delivery time, driving methods, vehicle equipment, speed requirements, etc.. Smithfield has also signed a detailed carrier contract with the carrier to ensure animal care.

Every year globally, Smithfield transports more than 140,000 truckloads of company-owned hogs from farms to processing facilities. The care and comfort of our animals while on route is an important element of our animal care program. Our Animal Handling and Welfare Quality Management Plan helps us ensure that every aspect of every trip is safe and uneventful. All of our drivers in the United States must be trained and certified under the National Pork Board (NPB) Transport Quality Assurance® (TQA®) program which provides education and guidelines for transporters, producers and animal handlers on all aspects of hog handling and transportation.

We made several enhancements to our transportation-related animal handling procedures in 2019. We engaged our facility and transport teams with the goal of reaching 100% compliance with our guidelines in off-loading wait times. Wait times are an important aspect in humane animal care as longer waits between a truck's arrival at a facility and unloading can increase the number of fatigued or non-ambulatory animals being received. We also completed installation of forward-facing cameras in more than 500 trucks to increase drivers' attentiveness, which can lead to reductions in accidents.

Animal Welfare Research

The Group realizes that minimizing pain and stress can improve animal health and product quality. We constantly strive to strengthen animal health practices to reduce or eliminate stress on the animals. We use biometric measurements to determine the degree of pain in piglets and evaluate the effectiveness of existing or new pain therapies to alleviate animal suffering.

On some of our farms in the United States, we use a FDA-approved veterinary prescription product as an alternative to physical castration. Like a vaccine, this product uses the male hog's immune system to stop the production of testosterone that causes off-odors and off-flavors in the pork. We are encouraged by the benefits experienced so far and will continue to evaluate this option.

In China, Shuanghui replaced the original blood sampling method with the cotton thread and saliva sampling method to ease the pain and stress on hogs.

Epidemic Controls

ASF is a highly contagious viral disease that is nearly always fatal to pigs and for which there is currently no treatment or vaccine. The ASF virus spreads in multiple ways, including contact with infected animals, some insects, as well as contaminated food products or animal feed. The virus can be transferred by people, vehicles, equipment or unaffected animals that travel between farms. When ASF infects a farm, affected animals must be quickly euthanized to help stop the spread of the disease. ASF cannot be transmitted to humans, therefore it is not a public health threat or food safety concern.

ASF has been present in certain global regions for decades but, in 2014, it spread significantly, including to Romania and Poland. This prompted heightened biosecurity measures and training on all company-owned and contract farms in those countries to prevent the spread of infectious disease. In 2019, on two contract farms in Poland, the virus was detected. In early 2020, the virus was detected on one company-owned farm and one contract farm. These cases represent less than 0.003% of all of our farms internationally. The virus has never been reported on our company-owned farms in North America and it has not been detected on any of our company-owned farms in Romania. The U.S. Department of Agriculture, Smithfield and all U.S. hog producers have procedures in place to help prevent ASF from entering the U.S. swine herd.

In 2018, ASF broke out in China. In order to prevent and control ASF, we established the ASF Prevention and Control Leading Group in China. It was responsible for the research, planning and overseeing of the overall ASF epidemic prevention and control, and the establishment of a prevention and control system. Measures such as increasing off-site inspection and disinfection of plants, facilities and vehicles have been taken for epidemic control.

Genetically Modified Organisms

In the United States, all GMO crops we use to feed animals have undergone evaluations by a host of regulatory agencies, including the U.S. FDA and the U.S. Environmental Protection Agency (EPA), as well as many scientific organizations. There is no evidence that animals are affected by eating grain from plants with genetically modified characteristics.

Our food production does not involve any gene editing of animals. Rather, we develop our products through careful selective breeding. Our subsidiary Smithfield employs genetic research to calculate thousands of genetic data points to accurately predict characteristics for the next generations of hogs. We do not add or manipulate genes.



Genetic Research

In the United States, we operate genetic research centers in North Carolina and Texas. Our technicians, genetics researchers and veterinarians use genetics research to identify traits that favor animal health, growth and other characteristics. We also look for traits related to meat quality, such as those that will result in the perfect amount of fat and marbling to meet consumer preferences.

While other American meat companies use third parties to develop their breeding programs, the research of our expert inhouse research teams lets us trace the genetic lines across the pork chain, from breeding to farms to the final product.



Managing the Use of Antibiotics

Antibiotics serve an important role in animal health, including fighting infectious diseases and ensuring food safety. We need to be cautious about its usage to ensure a safe food product supply. Any overdose of antibiotics will lead to antimicrobial resistance. To strengthen our management over the use of antibiotics, we have established an antibiotics policy, which sets treatment, control and disease prevention as the means to secure animals' welfare.

In the United States, our *Antibiotic Use Policy* requires the responsible, controlled and judicious use of antibiotics on our farms to promote the highest level of animal care and food safety. We understand that antibiotic resistance is a public health concern. That is one of the reasons why we led the U.S. industry by voluntarily aligning our antibiotics policy with the U.S. Food and Drug Administration (FDA) guidelines in 2015—about 18 months before the federal requirement to cease using medically important antibiotics for growth promotion took effect.

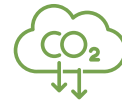
We also collaborated with other major food companies, retailers, livestock producers, and trade and professional associations to develop the 2018 Framework for Antibiotic Stewardship in Food Animal Production to ensure that antibiotics are used judiciously to protect animal and public health. Our research teams are continually working to understand how we can better use antibiotics when we do need to employ them to treat, control or prevent disease.

We track antibiotic use on all our farms and, after more than a decade, continue to be the only U.S. hog producer to publicly report this information. The amount of antibiotics we use varies from year to year based on a variety of factors, including weather conditions, inventory decisions, types of antibiotic used (dispensed in feed or water, or injected), the prevalence of diseases, and active ingredient concentration. Our veterinarians and dedicated team of animal care experts also partner with university researchers to study opportunities for continual improvement.

In China, we are conducting antibiotic substitutive experiments in feed formulas, with the intent of replacing antibiotics by using acidifiers, Chinese herbal medicines and other materials. Experiments include reducing the particle size of corn and soybean meal in the formulas, adding high-quality protein raw materials and increasing the content of amino acids, vitamins and trace elements.

FOCUSING ON ENVIRONMENT

As global environmental issues become increasingly severe, we have clearly acknowledged our responsibility for environmental protection. We place a high priority on managing our carbon footprint, proactively controlling our carbon emissions, gradually optimizing our resources and improving our management of pollutions and emissions. We also continue to implement different innovative and environmentally-friendly projects, providing plant-based products to our customers, while working hard to minimize the negative impacts of our value chain on the environment.



Carbon Footprint Mitigation

We are aware of the importance of mitigating our carbon footprint at the whole value chain and work earnestly to minimize it. Through upgrading the technological application, optimizing our energy management and structure, as well as streamlining our logistics transportation, we were able to reduce our greenhouse gas emissions and take a step forward toward low-carbon development. Our subsidiary Smithfield has set a GHG emission reduction target, which aims to reduce 25% of the absolute GHG emissions by 2025².



Our major business locations employ the ISO 14001 Environmental Management System Certification



In 2019, the discard intensity of non-hazardous waste was **reduced by 18.3%** compared with that of 2018



In 2019, the total quantity of recycled non-hazardous waste **increased by 3.5%** compared with that of 2018



In China, renewable energy is used for power generation, which **reduced approximately 4,000 metric tons of carbon dioxide emissions** compared with fossil energy in 2019



In 2019, solid waste to landfill by our U.S. operations was reduced by **57%** compared to 2010 baseline, down by **31%** year-on-year



In 2019, an additional **30 new acres** of monarch butterfly habitat was reconstructed through our donation in the United States

Energy Management

Since energy-efficient management is a major solution to reducing our carbon footprint, we have been searching for alternative ways to reduce our energy consumption and improve our energy efficiency. We strictly abide by local regulations and laws, including the *Energy Conservation Law of the People's Republic of China* and the *Energy Policy and Conservation Act of 1975*. Through optimizing energy structure, management and technology, we reduce energy consumption and increase energy efficiency.

In China, we actively implement internal management systems such as *Energy Technology Standards*, *Energy Management Standards* and *Energy Assessment Programs*, strengthen target management, formulate annual energy consumption targets, and actively adopt policy promotion, assessment guidance, process control to enhance energy management.

We formulated energy consumption targets for our operations in the United States and Europe, which aim to achieve a 5% reduction in energy consumption by 2020 globally at our farms and facilities compared to 2014, through equipment upgrades, management improvement and energy structure optimization. Three of our facilities, located in Iowa, Wisconsin and New Jersey, have participated in the U.S. Department of Energy's "Better Buildings, Better Plants" program³. In the past ten years, through the continuous upgrade of facility mechanics, the three facilities have reduced energy intensity by 25% compared to the level in 2010. With a number of GHG reduction projects underway, we are engaged with the University of Minnesota to establish 2020 baselines for Smithfield's Scope 1, 2 and 3 emissions against which we will measure and report our annual progress as well as help to access the upstream and downstream carbon impact through Life Cycle Assessment (LCA)⁴.

2 The base year of Smithfield's emissions reduction target is 2010, covering the Scope 1, Scope 2 and Scope 3 greenhouse gas emissions generated by Smithfield itself and the value chain.

3 The plan aims to provide technical support for companies to improve energy efficiency.

4 For more information, please refer to <https://www.smithfieldfoods.com/sustainability/report/2018/environment/smithfield-renewables#carbon-impact>.

FOCUSING ON ENVIRONMENT

Key Control and Energy-saving Measures in 2019

Management improvement to improve energy efficiency and innovation ability

- We strengthened energy consumption monitoring at our plants in China to track the operation of coal-fired and gas-fired boilers every month and improve the energy efficiency of boilers by standardizing the use of deaerators, installing low-nitrogen burners, and regularly monitoring the oxygen content of boilers;

- At our plants in China, we strengthened policy advocacy, review and training, established the equipment innovation group to mobilize all employees to participate in energy-saving innovation, and we incentivize employees to propose more energy-saving and emissions-reduction projects.

Upgrading facilities to save electrical power

- At our plants in China, air suspension blowers were introduced to replace the traditional Roots blower, reducing the energy consumption by approximately 35% comparatively.

- We upgraded the aging air compressor system at our plant in Denison, Iowa, reducing its annual electricity use by 1.7 million kWh.

- At our plants in the United States, we continued the replacement of worn-out metal halide lamps with LEDs. With more than half of the 11,000 lamps now replaced, we are on target to complete the transition by 2025.

Improving technology to save electrical power and reduce steam consumption

- At our plants in China, we recycled the heat energy of sterilization water to further reduce the energy consumed by heating sterilization water in the plants.

- At our plants in China, the membrane filtration project was implemented in the plants to improve the concentration of bone soup by membrane filtration technology, which reduced the steam consumption by approximately 40% comparatively.

During the reporting period, the energy consumption data is showed as follows:

Energy consumption	2017	2018	2019	Unit
Direct energy ⁵ consumption	5,432	5,851	5,878	Million kWh
Direct energy consumption intensity	606	579	617	kWh/metric ton of products produced
Indirect energy ⁶ consumption	3,587	3,808	3,686	Million kWh
Indirect energy consumption intensity	400	377	387	kWh/metric ton of products produced
Total energy consumption	9,019	9,659	9,564	Million kWh
Total energy consumption intensity	<u>1,006</u>	<u>956</u>	<u>1,004</u>	kWh/metric ton of products produced

GHG emissions	2017	2018	2019	Unit
GHG emissions ⁷	2,440,202	2,632,607	2,616,317	Metric tons of carbon dioxide equivalent
GHG emissions intensity	<u>0.27</u>	<u>0.26</u>	<u>0.27</u>	Metric tons of carbon dioxide equivalent/metric tons of products produced

Use of Renewable Energy

We continue to expand the use of renewable energy. By using renewable energy more extensively and at a higher ratio, we hope to speed up our quest for low-carbon development. In the regions we have operations, we take local situations into considerations and develop projects that make use of biomass energy, wind energy and solar energy to reduce GHG emissions. In China, we built solar energy power plants and biogas power plants to generate 827,047 kWh and 7,615,160 kWh of electricity respectively in 2019, which reduced approximately 4,000 metric tons of greenhouse gas emissions compared with the emissions when generating power by fossil fuel⁸. Our United States operations expanded the partnership with energy companies and invested in biogas and wind energy. By doing so, we plan to achieve our 2025 greenhouse gas emission reduction target.

5 Direct energy mainly includes coal, gasoline, diesel, natural gas, propane, biogas used in our operations.

6 Indirect energy mainly includes purchased electricity and purchased steam.

7 GHG emissions includes scope 1 and scope 2 GHG emissions but exclude GHG emissions from hog production of Smithfield, the calculation method of GHG is follow the GHG Protocol.

8 Using the average CO₂ emission factor of China's regional power grid (Central China) for the estimation, the reduction is equal to the amount of renewable energy generation times the average CO₂ emission factor of the regional grid.

FOCUSING ON ENVIRONMENT



Key Renewable Energy Initiative in 2019

Biomass and biogas energy project

- We are launching trial biomass projects in order to replace projects using natural gas boilers. It is expected that these projects will be implemented at our facilities in China in July 2020. Once an effectiveness evaluation is completed, we will gradually promote the use of biomass boilers.
- Our joint venture with Dominion Energy⁹, Align Renewable Natural Gas (Align RNG)¹⁰, will expand our reach to pursue new biogas projects across the country. When fully implemented, the expanded partnership will prevent more than 2.5 million metric tons of GHG emissions from entering the atmosphere each year, the equivalent of planting more than 40 million new trees.
- We are also making tremendous strides with our joint venture with Roeslein Alternative Energy (RAE)¹¹, Monarch Bioenergy¹². In 2019, we increased the amount of RNG produced in Missouri from our farms. With our additional \$45 million investment in early 2020, we aim to produce biogas at 100% of our company-owned finishing farms in Missouri, an initiative that will remove the equivalent of 130,000 gasoline vehicles off the road.

Wind energy project

- We partnered with United Wind¹³ to develop wind energy infrastructure on dozens of our farms in Colorado. The partnership will provide Smithfield with long-term, low-cost renewable energy for our agricultural operations.
- We agreed to purchase 75 megawatts of wind energy for a period of 12 years from Allete Clean Energy¹⁴'s 300-megawatt Diamond Spring site, so as to increase the percentage of wind energy in our energy portfolio.

Solar energy project

- We introduced solar energy heating systems for 32 chicken plants in China.

⁹ Dominion Energy is an electricity and natural gas company in the United States.

¹⁰ Align RNG is the joint venture of Dominion Energy and Smithfield, which works on collecting the biogas from hog farms and converting it into RNG to generate power for families and businesses. Please visit alignrng.com for more information.

¹¹ Roeslein Alternative Energy, RAE, is a renewable energy company, which aims to convert agricultural and industrial wastes and renewable raw materials into renewable natural gas and associated by-products.

¹² Monarch Bioenergy is a joint venture between Roeslein Alternative Energy and Smithfield, which works on collecting biogas from hog farms of Smithfield in Missouri and converting it into RNG.

¹³ United Wind is a wind power company in the United States. Please visit eocycle.com for more information.

¹⁴ Allete Clean Energy is an American power producer and supplier that provides sustainable energy solutions for North America.

FOCUSING ON ENVIRONMENT

Latest Results of Our Biogas Project

Align RNG's first project in Milford, Utah, has achieved positive results. In 2019, we successfully utilized digesters to begin producing biogas. We also completed the construction of a biogas transmission line, which in 2020 will clean and transform the biogas into RNG. When RNG production commences, ultimately this project will produce enough RNG to power 3,000 local homes and businesses by 2021.



Logistics Transportation Optimization

We have a vast logistics transportation system, and improving and optimizing logistics transportation is one of the key factors in reducing greenhouse gas emissions. In 2019, we eliminated 132 old vehicles with China III emissions standard to reduce the unnecessary fuel consumption in China. In the United States, a major part of our logistics optimization initiative is reducing the number of our regional distribution centers and rerouting transportation routes to be more efficient. We continuously promote optimization programs at regional distribution centers to support our greenhouse gas emissions and reduction targets. In 2019, the regional distribution center, with more advanced technology, was brought into use in the northeast of Maryland where the transportation routes were re-planned to improve transportation efficiency. We estimate the new facility will reduce transportation mileage by 11.20 million miles and diesel consumption by 1.6 million gallons per year, which equates to 13,000 metric tons of greenhouse gas emissions or 2,800 vehicles on the road.

Meanwhile, we require our third-party haulers to shift to lighter, more fuel-efficient trucks. In 2019, these efforts reduced fuel use by approximately 103,000 gallons, and cut GHG emissions by 3,834 metric tons of CO₂ in the United States.

Biodiversity Protection

We highly value the balance of our ecosystem and have been investing in biodiversity protection. A significant factor that has contributed to the dramatic decline of the monarch population over the last three decades is the loss of habitat. Our subsidiary Smithfield has partnered with EDF and Roeslein Alternative Energy to launch a monarch butterfly protection initiative, a program aims to restore 1.5 million acres of high-quality breeding habitat along the butterfly's migration route. In 2018, we contributed \$300,000 into funding the planting of monarch-friendly native milkweed and wildflower species on land near farms that we own in northern Missouri. With an additional 30 new acres of prairie reconstructed through our donation in 2019 and 62 acres for 2020, we will have reconstructed a total of 770 acres of prairie among five of our northern Missouri farms.



Resource Management

Water Resource Management

Water resources are precious to both our business and the community, which means that the management of water resources has become one of our top priorities for resource management, with highly-efficient water resource management being one of our core sustainability practices. We strictly abide by laws and regulations in the regions where we operate including the *Water Law of the People's Republic of China* and the *Clean Water Act*. We step up our efforts in assessing and migrating water risks by monitoring the use of water, and continuously reduce water consumption and improve water-use efficiency by adopting innovative and effective measures according to local situations.

In China, under the guidance of water conservation principles, we strengthened target management including formulated annual water consumption targets, and actively strengthened water resource management through policy advocacy,



assessment guidance and process control. In 2019, we surpassed water consumption targets per unit in the high-temperature meat products and low-temperature meat products industries. We assessed water resource risks in the early stages of factory construction. Faced with higher risks of water resources and emergencies that may cause insufficient water supply at the plants located in water-deficient areas, we built tap water storage tanks that were equipped with dual-circuit water supply and automatic water supply pump rooms monitored 24-hours a day. In the meantime, we also formulated relevant emergency plans and established an emergency leadership group led by a project manager to deal with emergencies in a timely manner.

Our operations in the United States and Europe gave a high priority to water conservation. We have established a water policy (<http://www.smithfieldfoods.com/our-policies-and-disclosures/water-policy>) to provide guidance about our management of water resources and how we monitor all water-consuming equipment. Meanwhile, we are working to reduce our water use by 10% by 2020 compared to a 2014 baseline.

Water Conservation Measures Implemented in 2019

- Management improvement**

 - We strengthened the monitoring, tracking and evaluation of water-using equipment to ensure the normal operation of water-using equipment.
 - We strengthened policy promotion, assessment and training to encourage all employees to adopt water-saving measures and cultivate their awareness on saving water.
- Equipment upgrades**

 - We carried out the water-saving transformation of sterilization equipment to further reduce the amount of water needed for sterilization.
- Technology optimization**

 - We continued to increase the reuse of reclaimed water, and implement measures such as water reuse from steam condensation and non-productive water reclamation so that we can reduce tap water usage.
- Water source protection**

 - We actively protect watersheds where we operate. One of our American facilities partnered with the local water authority to build a new, surface-water plant in order to reduce the impact on groundwater use in eastern North Carolina.
 - Our grain supply chain innovations help protect water from eutrophication.

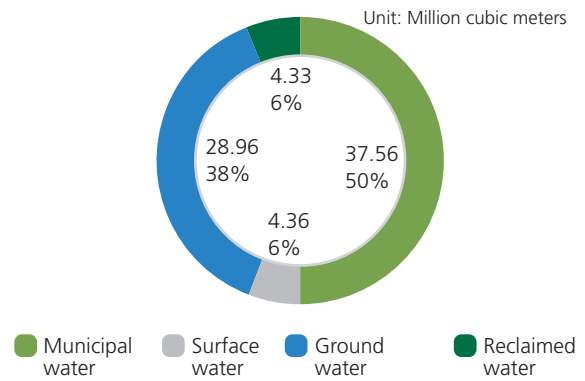
Achieving Excellent Performance in Water-saving Initiatives

Our Wilson, North Carolina facility cut its water use by half over two years through adjustments to equipment, modifications in daily procedures and the implementation of a wastewater reuse program. Through continuous improvement measures such as these, the facility surpassed Smithfield’s 2020 water reduction goal by 19%, two years ahead of schedule. It has also helped us to achieve annual savings of more than \$225,000, earning the Wilson team the 2019 President’s Sustainability Excellence Award.

The water resource consumption data of the reporting period is as follows:

Water consumption	2017	2018	2019	Unit
Total volume of freshwater	66.54	73.06	70.87	Million cubic meters
Water consumption intensity	7.42	7.23	7.44	Cubic meters/metric tons of products produced

Source of Water Consumption



Packaging Materials Management

Our products require packaging materials, therefore packaging materials play an important role in improving product quality control and ensuring product safety. We also recognize the impact of the use of packaging materials on the environment and have always made it our priority to control and reduce the impact of packaging materials. Our work is mainly carried out in three aspects: packaging reduction, lightening and using environment-friendly materials. We also increase the recycling rate of packaging materials for transportation or storage purposes.

FOCUSING ON ENVIRONMENT

Key Initiatives in 2019

- Reducing packaging**
 - At our facilities in China, we conducted an experiment to replace corrugated watermarked cartons with honeycomb watermarked cartons, which is estimated to save 3,200 metric tons of paper every year in the future.
 - Our Omaha, Nebraska facility switched from applied paper labels to printed film. This switch reduced waste disposal by 4.5 tons per year, saving over \$109,000 annually.
- Lightweight packaging**
 - At our facilities in China, we created innovative packaging by using lightweight cartons whilst also ensuring the quality of cartons. It is estimated that 114 metric tons of raw paper was saved in 2019.
- Environment friendly packaging**
 - With the launch of our Pure Farmland™ brand in 2019, we introduced a product tray made with 50% recycled materials.
 - We actively respond to the initiatives launched by our customers, such as Walmart's Project Gigaton¹⁵, to advance our sustainable packaging initiatives.

The packaging material consumption data¹⁶ of the reporting period is showed as follows:

Packaging material consumption	2018	2019	Unit
China	229,619	233,187	Metric ton
USA	185,281	228,787	Metric ton
Europe	136,135	135,563	Metric ton
Gross	551,035	597,537	Metric ton
Packaging material consumption intensity	0.06	0.06	Metric ton/metric ton of products produced



Emissions Management

Management System

In China, we will continue to improve and reinforce our environmental protection responsibility system, while implementing an environmental management structure which is overseen by the Center of Safety and Environmental Protection at our headquarters. All subsidiaries are responsible for the implementation under the system. We have also established various systems and policies to strengthen the prevention and emergency response of environmental risks, including a dual prevention system, a three-level risk source inspection system, a risk evaluation system for environmental incidents, and comprehensive emergency plans for environmental emergencies. In the United States and Europe, we have appointed Directors of Environmental Affairs to manage regional environmental affairs and each plant has full-time employees in charge of handling daily environmental affairs. We have also set a target of achieving zero notices of violations.

We work actively to obtain environmental management system certifications. As of December 31, 2019, all of the Group's major business facilities had been certified with the ISO 14001 environmental management systems, including 2 new subsidiaries in China.

Wastewater Discharges

We strictly abide by the laws and regulations related to wastewater discharge in the areas where we operate, such as the *Water Pollution Prevention and Control Law of the People's Republic of China* and the *Clean Water Act* to ensure compliant wastewater pollutant emission whilst also striving to lower relevant pollutant emission.

In China, the primary goal of wastewater treatment is to ensure wastewater discharge meet local standards throughout the whole year. We have installed automatic online monitoring devices at all wastewater discharge outlets of the plants to monitor real-time of ammonia and nitrogen pollution as well as the Chemical Oxygen Demand ("COD") so that abnormal conditions can be detected and handled promptly to ensure annual compliant emissions. We regularly engage a qualified third-party to conduct monitoring and issue monitoring reports. In the United States and Europe, we continue to optimize and improve treatment processes and wastewater discharge management.

In 2019, we discharged a total of 56.90 million cubic meters of wastewater¹⁷. In China, we discharged 596.99 metric tons of COD, with 0.2 kilograms per metric ton of products produced.

¹⁵ The plan aims to reduce 1 billion metric tons of greenhouse gas emissions in the global value chain by 2030.

¹⁶ In recent years, our European business started adopting SAP to collect packaging materials data. In order to present packaging materials consumption data in a more completed and accurate manner, we revisited and adjusted the packaging materials data for 2018, which was disclosed in the 2018 WH Group Sustainability Report.

¹⁷ Wastewater is defined as wastewater discharged to the water body or municipal sewer system from the plants and farms after being collected or treated by an in-plant wastewater treatment plant. Wastewater in the US and Europe also includes the wastewater for internal and external irrigation after being treated.



Air Emissions

We strictly abide by the laws and regulations related to air emissions where we operate, such as the *Air Pollution Prevention and Control Law of the People’s Republic of China* and the *Clean Air Act* to ensure compliant air pollutant emissions whilst also striving to lower relevant pollutant emissions.

In China, we have installed online monitoring devices at all air emission outlets to monitor air emissions including particulate matter, sulfur dioxide (SO₂), and nitrogen oxides (NO_x) so that abnormal conditions can be detected and handled as soon as possible while ensuring annual compliant emissions. We regularly engage a qualified third party to conduct monitoring and issue monitoring reports.

In the United States and Europe, continuous improvements have also helped us reduce air emissions across our operations. We obtain operating permits for our facilities from government agencies as required and use state-of-the-art control technologies to capture and treat emissions. We continue to improve energy efficiency and actively use clean energy such as natural gas. Our U.S. facilities also report nitrogen oxides (NO_x) and sulfur oxides (SO_x) emissions to the U.S. Environmental Protection Agency and state regulatory agencies.

Air pollutant emissions data during the reporting period were as follows:

Air pollutants	2017	2018	2019	Unit
Total sulfur oxides (China)	134.23	59.26	48.91	Metric ton
Total nitrogen oxides(China)	236.36	175.23	161.68	Metric ton

Solid Waste

Reducing solid waste generation and proper waste disposal plays an important role in protecting the environment. We strictly abide by the laws and regulations related to solid waste management in regions where we operate, such as the *Law of the People’s Republic of China on Prevention and Control of Environmental Pollution by Solid Waste* and the *Solid Waste Disposal Act*. In meeting the solid waste disposal’s standard, we strive to minimize waste generation and landfills.

In China, our solid waste management goal is to reduce waste and strengthen our ability to dispose waste properly. We actively implement requirements of internal systems, such as the *Code for the Management of Solid Waste* and strictly manage non-hazardous and hazardous waste. In disposing of non-hazardous waste, we work hard to reduce its generation while actively increasing the recycling rate. Additionally, we continue to promote the use of manure. Chicken and hog manure can be collected and processed to fertilize fields. These can help us minimize the impact of manure on the environment and improve soil fertility. For the disposal of hazardous waste, it is crucial to handle it in a compliant manner and properly. While striving to reduce the hazardous waste generation, we exercise strict caution by storing hazardous waste separately. We regularly engage qualified third-parties to transfer and dispose hazardous waste, which ensures that the whole process, from its generation, collection, storage to transfer, has no negative impact on the environment and society.

FOCUSING ON ENVIRONMENT

In the United States and Europe, we also put considerable effort into the management of solid waste in our facilities. We have committed to reducing our solid waste to landfill by 75% and to achieving zero-waste-to-landfill certification at 75% of our U.S. facilities by 2025. Three facilities were certified zero-waste-to-landfill in 2019 for a total of 15 of our 49 facilities and distribution centers, or 30%. Our new target is helping us emphasize a zero-waste-to-landfill mindset company-wide to focus on the initiatives that will help us meet our rigorous certification criteria. In 2019, our U.S. operations sent nearly 57% less material to landfill compared to our 2010 production weighted baseline. Year-on-year, we cut our waste to landfill by 31%.

Key Monitoring and Emission Reduction Measures in 2019

- Sludge reduction** • We have enhanced source control in our China factories. Changes of influent concentration helps us to properly adjust wastewater treatment stations processes so that we can reduce sludge production. Also, solid-liquid separators for sludge as well as high-performance filter presses have been used to reduce the moisture content in sludge, which enables us to achieve sludge reduction and hazard-free treatment at the end side.
- Integrated uses of manure waste** • Through our strategic partnership with Anuvia™ Plant Nutrients, organic matter in hog manure collected at our North Carolina farms is being used to create a commercial grade fertilizer (SymTRX™) that achieves similar yield results to fertilizing with ammonium sulphate fertilizer. We currently offer a discount program to farmers who use SymTRX through our partnership with Anuvia.
- At our operations in Poland, we follow federal regulations to strictly manage our manure slurry waste, including the requirement to use 70% of the manure as fertilizer on our farms.

Solid waste data of the reporting period is as follows:

Recycled non-hazardous waste				
	2017	2018	2019	Unit
Gross	263,192	293,608	303,846	Metric ton
Scrap metal	8,262	9,370	12,201	Metric ton
Waste plastic	5,625	3,652	4,425	Metric ton
Waste paper	36,090	39,823	40,706	Metric ton
Coal cinder	10,929	6,633	6,344	Metric ton
Hog manure, sludge and other organic matter ¹⁸				
	202,286	234,130	240,170	Metric ton
Discarded non-hazardous waste				
	2017	2018	2019	Unit
Gross	73,693	78,987	60,768	Metric ton
Non-hazardous waste disposal intensity				
	8.2	7.8	6.4	Kg/metric ton of products produced
Hazardous waste ¹⁹				
	2017	2018	2019	Unit
Gross	236	3,444	3,265	Metric ton
Hazardous waste generation intensity ²⁰				
	0.026	0.341	0.343	Kg/metric ton of products

18 Treatment methods include composting and turning waste into energy.

19 Hazardous waste in China refers to wastes listed in the National Hazardous Wastes List; the Hazardous waste and Universal waste defined by the National Environmental Protection Agency in the United States; the dangerous waste defined by National Waste Management Plan Waste in Poland in 2010; hazardous waste listed in the Consolidated European Waste Catalogue in Romania.

20 The reason for the larger growth of 2018 and 2019 data compared with 2017 data is that we enhanced accounting practices in 2018 that has helped the data be more accurate.

CARING FOR EMPLOYEES

WH Group values employee engagement as they create value together with the Company. We are committed to being a people-oriented company, striving to create a safer, more reliable and comfortable working environment. WH Group is also happy to provide growth support to employees. Diverse growth plans have been provided to help employees reach their full potential and grow with us. We are also committed to improving human rights, which helps our company create a diverse and inclusive working environment.



The Group has a total of approximately **101,000 employees**, of which female employees account for **42.4%**



The number of work-related injuries per 200,000 working hours is **1.57**



In the United States, We have provided employees with a **\$120 million** Responsibility Bonus amid the COVID-19 pandemic in 2020



In China, employees attended training **590,000 times** and the average training hours per person was **90 hours**



In the United States, we have provided approximately **\$800,000** as tuition funding for **510 employees** returning to school to continue their education



Value-Based Employment

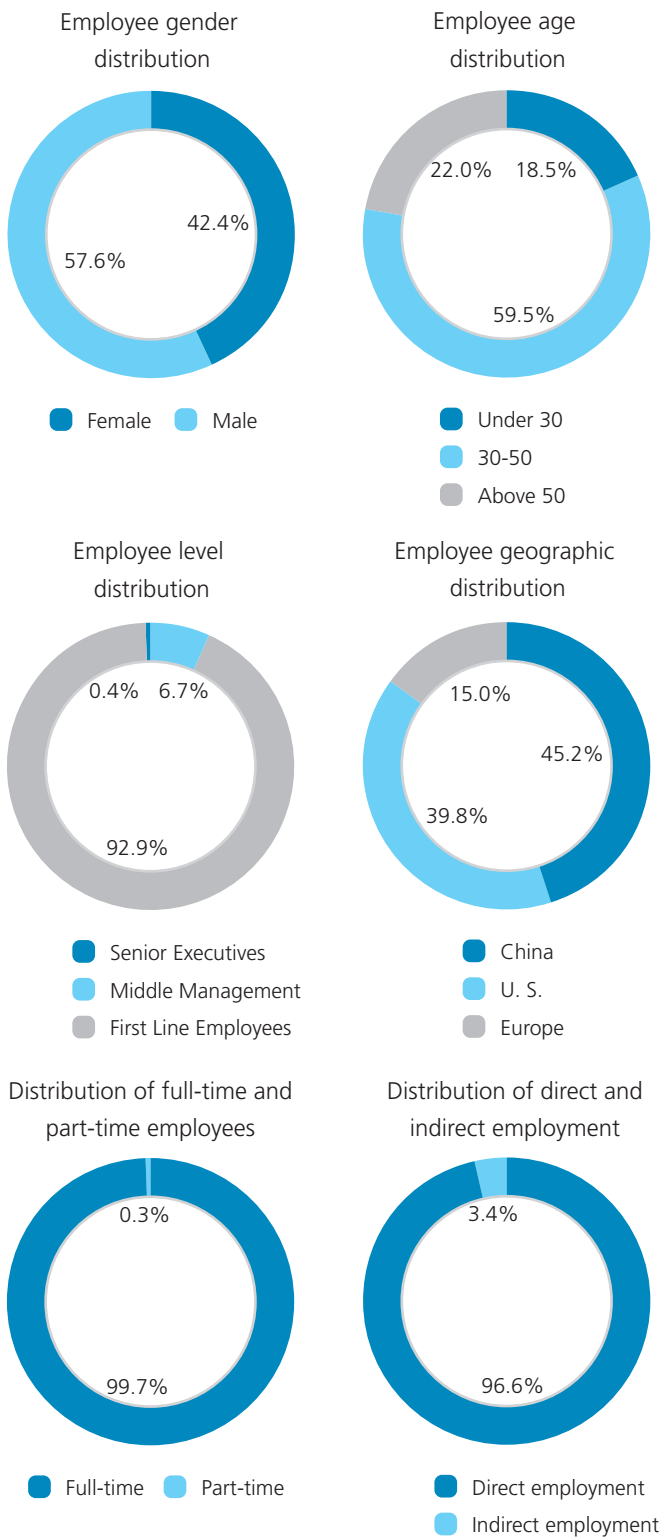
WH Group believes that the key to fully respecting and developing employee value is to meet employees' needs for health, safety, happiness, development and balanced life. Maximizing the value and potential of employees is the criterion for value-based employment. Adhering to the pursuit of realizing employee value, the Group has continuously standardized and promoted its employment system starting from the process of recruitment and hiring, based on the laws and regulations of each operation site, as well as providing employees with an equal, diversified, and compliant working environment to ensure employees' rights and interests. Pursuant to applicable laws such as the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China* and the *Fair Labor Standards Act*, we treat each employee with respect and fairness.

Employee Diversity

Promoting diversity in the workplace is a high priority for WH Group. Our employees will never be treated differently because of their gender, age, race, ethnicity, illness, marital status, family status, or religious beliefs. The responsibilities of supervisors are made clear, which specifies that violations of fair policies will be investigated, and proper actions will be taken based on facts. With a model of integrated centralized management, we provide our employees with a more globalized, cohesive working environment. We hire people based on talents. Different positions and projects require different skills and backgrounds. Taking that into account, we strive to achieve a reasonable match in our talent pool and ensure a fair recruitment process. During the reporting period, all of our operating branches around the world had cooperated closely with local universities and regularly recruited interns to work at WH Group so that they can experience our corporate culture before entering the workforce. As of the end of 2019, the Group had approximately 101,000 employees. Nearly 11% of senior management roles are held by women and the turnover rate was 29% during the year. No large-scale redundancies or significant job cuts occurred. The specific employee distribution is as follows:



CARING FOR EMPLOYEES



Diversity and inclusion does not stop at hiring and recruitment. We work every day to make WH Group a place where all our employees feel welcomed and supported. A diverse workforce allows us to benefit from a variety of perspectives and strengthens our global competitiveness. We are committed to attracting, training and maintaining a diverse range of employees and leaders who reflect the marketplaces we serve. We continuously support the development of Employee Business Resource Groups (EBRGs), which help employees fully leverage their diverse backgrounds to achieve personal and professional goals.

In the United States, we have been constantly looking for skilled workers with a technical background, and there are many qualified veterans who are seeking long-term employment who fit this profile. Through Operation 4000! we aim to employ 4,000 veterans by the end of 2020. We hired approximately 700 veterans in 2019. In January 2019, we also launched our new Military Supervisor in Training program for newly-joined veteran workers.

Labor Rights

We strive to promote labor rights and ethical employment practices in the global protein industry. We have a strong track record on labor rights, including equal opportunities, health, environment, safety, harassment and violence. Employees in China can learn about our prospects in the *Employee Handbook*. In the United States, employees can use our *Human Rights Policy* to understand their labor rights. We encourage employees to call the toll-free whistle-blowing hotline to report any violation.



Respect for labor and human rights needs to cover our entire supply chain and its stakeholders. As a result, we require all major suppliers to follow our human rights policy. During the reporting year, we improved the management of human rights in our operations and those of our suppliers to prevent, minimize, and trace all negative impacts of our operations on human rights. Referring to *the United Nations (UN) Guiding Principles on Business and Human Rights* and *the Universal Declaration of Human Rights (UDHR)*, we have integrated human rights into our Enterprise Risk Management (ERM) system.

WH Group prohibits the use of child labor or forced labor of any kind and has a zero-tolerance policy against any forms of child labor or forced labor.

In China, we promise not to use forced labor of any kind. All employees have signed the *Employment Contract* in accordance with laws, and recruitment has been conducted on a voluntary basis with two-way selection and merit-based appointments. Our employees are free to quit their jobs whenever they wish. Shuanghui has formulated an annual rest plan that providing employees with long rest periods or rotation breaks. We strictly abide by the provisions of the State Council's *Regulations on Prohibition of the Use of Child Labor* and clearly stipulate that the recruitment of employees under the age of 16 is strictly prohibited in the *Regulations on the Administration of Employee Recruitment and Mobility*. Moreover, we will verify the identity of new employees within 3 months of their start date. Any employee can give feedback and report on forced labor or employment of child labor in violation of the laws and regulations through the audit center and inspection center hotline, manufacturing employee symposium, or human resources hotline.

Remuneration Management

At WH Group, the Remuneration Committee under the Board of Directors is responsible for making decisions on the remuneration policy of senior management. We adhere to the principle of salary distribution according to work performance and Pay Equity. We continuously optimize the salary and wellbeing structure of our employees. Salary and benefits vary by region, plant type, and job title. We have also established employee incentives aligned with the situational needs of each region. We have established "growth awards" in China and the United States, which are cash rewards to senior and middle-level managers and other outstanding individuals. These awards help our employees benefit from the overall growth of the Group. Good salary and wellbeing management not only boosts the morale of our employees but also help them gain a sense of belonging and share in our business achievements.

In China, we have formulated *the Regulations for Employee Salary Management*, *the Regulations for Employee Performance Management* and other regulations to help improve the efficiency of employees so that they can earn better pay. The year-end wage increase is a result of an increase in the employees' effectiveness. This ensures our standard of remuneration is fair within the Company and competitive in the industry.

For our operations in the United States and Europe, we offer comprehensive health insurance and benefits packages to employees. This includes a variety of benefits depending on the country of residence, including life insurance, medical, vision and dental care, and 401(k) plans (a plan provides eligible employees a tool in creating a more financially secure retirement.), and we reward excellent employees based on their engagement, performance and innovation.



Health and Safety

As a food manufacturing company, most of the Group's employees work at facilities or on production lines. Since they have frequent contact with animals and machinery, there are certain safety risks within our operations. In response, the Group abides by *the Safety Production Law of the People's Republic of China*, *the Regulations on Industrial Injury Insurance of the People's Republic of China*, *the Law of the People's Republic of China on the Prevention and Control of Occupational Diseases* and the relevant provisions outlined in *the Occupational Safety & Health Act of the United States*. We promote occupational safety and health best practices and actively address the concerns of our stakeholders. In China, we have set goals around managing major production safety accidents, which includes an annual minor injury accident rate less than or equal to 1.5%, an annual severe injury accident rate less than or equal to 0.15%, and no deaths, no occupational disease, no fire, no ammonia leakage or other major production safety accidents. Smithfield reports its key safety management performance indicators to the Occupational Safety and Health Administration (OSHA).

We strictly comply with the relevant laws and regulations regarding occupational health and safety in regions where we operate, and we protect the occupational health and safety of our employees in three ways:



CARING FOR EMPLOYEES

Establishment of a management system

In China, we have established a safety management system under the central management, which composes a Safety Management Committee, a Safety and Environment Protection Centre and various project companies. It formulates relevant policies and guidelines for safety production management. We have also built systems regarding occupational hazards related warning and notification, project declaration, disease prevention and publicity.

In the United States and Europe, we have implemented the Smithfield Injury Prevention System (SIPS), combined with the relevant requirements of the ISO45001 occupational health and safety management system standard, which enhances our ability to prevent accidents and injuries.

The goal of safety and health and its advancement

In China, we have formulated the goals around annual production safety accident management, which are updated them every year, and have formed a closed-loop management system. We provide comprehensive training covering risk assessment, hidden dangers classification, fire safety, accident case studies, occupational health, hazardous chemicals management and emergency management activities.

In the United States, we have set annual health and safety goals, and we ensure the safety of our fleet through innovative vehicle technology. We promote continuous inspections and internal audits of each facility, as well as independent third-party external audits of specific work locations. In 2019, we undertook audits at over 100 global facilities, assuring that our SIPS' implementation in 2018 was successfully executed and operating effectively.

Cultural development

In China, we have attached great importance to safety production through cultural and artistic performances, knowledge contests, speech contests, and employee panel discussions to incorporate best safety practices into our corporate culture.

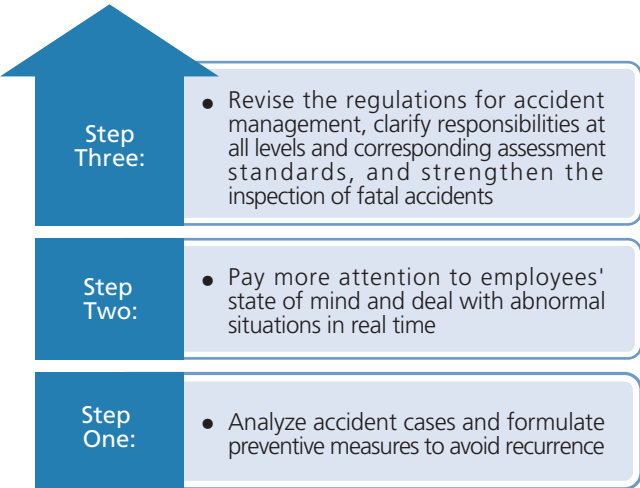
In the United States, we have been finding new ways, such as the Employee Business Resource Group (EBRG), to provide more support for our employees.

During the reporting period, the labor injury rate per 200,000 working hours of WH Group was 1.57, and one work-related fatality (traffic accident of logistics personnel in China) was reported. Following this accident, we further promoted the installation of a safety coordination system on logistics vehicles, which can monitor the working status of the logistics driver at any time and send out timely safety driving reminders.

In China, Shuanghui identified safety risks in 2019. By following the applicable policies such as *the Action Plan for the Construction of a Dual Prevention System for Deepening Potential Hazards in Work Safety in Henan Province*, we built a dual prevention system with the high-temperature meat plants in March as a pilot to establish an information management platform and improve management while eliminating hidden dangers. The project earned the acceptance of the Henan Provincial Emergency Management Department in the second half of 2019. In December 2019, it became a demonstration project for the promotion of the dual prevention system in Henan Province.

In recent years, we have added innovative technologies to our fleet of trucks in the United States to increase worker safety. With more lease agreements expiring, we gradually replace our existing fleet of trucks with safer models every few years in our Direct Store Delivery (DSD) service. In 2018, we rolled out about 240 new trucks with a collision mitigation/lane departure warning system, called OnGuard™, that alerts the driver if the vehicle veers out of a traffic lane or is about to crash into slowed or stopped vehicles.

In 2019, WH Group improved its management of work-related injuries and deaths. In China, we have strengthened operations management through training, responsibility agreements, safety measures, process supervision, and improvement projects. Once a work-related incident causes an injury, we actively take the following measures:



CARING FOR EMPLOYEES

For our operations in Smithfield, all safety leadership completed at least 10 hours of health and safety focused training in 2019.

In 2020, we have seen the sudden outbreak of COVID-19 sweep across the world. As a food product company, we have all taken effective precautions to respond to the novel coronavirus within our business operations in regions like China, the United States and Europe. We provide our employees with adequate health and safety protection while ensuring a stable supply of protein products.

To protect the health and safety of employees, Shuanghui has adopted the strategy of 'strict internal control and external prevention'. We have strictly implemented the inspection and isolation of employees' who show symptoms and require all the personnel entering our plants to wear masks. Each vehicle entering plants is disinfected and all the drivers are requested to present an entry certificate. Our factories' canteens offer food in a centralized location, but workers are required to dine in separate locations and time slots. Prevention guidelines during dining time have also been given to employees for better protection. We have strengthened disease control in dormitories by requiring that employees wear masks when they return to their dormitories. There are also people responsible for cleaning dormitories every day and regularly disinfecting the environment and facilities.



Smithfield has implemented proactive measures to protect our employees against COVID-19 in the workplace. A series of stringent and detailed protocols have been developed, which includes implementing mass thermal scanning system to identify employees who had increased body temperature, strengthening the matching of personal protective equipment (PPE) including masks and face masks, and installing plexiglass and other physical barriers in the production floors and restrooms, as well as adding more handwashing stations and strengthening cleaning and disinfection. We have also offered a paid leave benefit for all employees at high risk for serious complications from COVID-19. All these actions are compliments of the enhanced cleaning safety measures being taken at all business locations.

CARING FOR EMPLOYEES

Providing employees with a \$120 million Responsibility Bonus

At the critical moment when all of us are fighting against the epidemic, the U.S. food practitioners including 40,000 Smithfield team members shoulder the responsibility to protect the U.S. food supply. On April 14, 2020, Smithfield announced that will provide a \$100 million Responsibility Bonus to all its hourly production and distribution center team members, which is on top of a previous \$20 million commitment by the company. Employees who miss work due to COVID-19 exposure or diagnosis will also receive the Responsibility Bonus.



Talent Development

WH Group achieved the goal of promoting talent development and training them through a diverse development channel and a vertical promotion system as well as offering employees with training opportunities. We maintain the principle of developing operational excellence. We hope to provide equal and clear development guidelines for all employees. In the annual evaluation for all employees, employees will be treated fairly under our objective evaluation system. We will also conduct a 360-degree evaluation for all employees to comprehensively evaluate their competency level, relative to their position.

We have taken situations in different regions into account so that we can be more targeted in offering promotion channels to our employees. Doing so allows us to guide our employees' development and encourage them to identify their development needs to accumulate experience and skills for the target positions earlier on.

In China, we help our employees to make a detailed career plan. We have offered two promotion routes, that are, the route of a production manager and the route of an administrative manager. On the first route, frontline employees are eligible to be promoted to be a middle-level manager after working on the frontline for one to five years. And then they are able to be promoted to be a senior manager after having managed projects and obtained enough experience. After that, they can follow the second promotion route to be a senior manager in the business department.

WH Group is committed to offering employee training tailored for different locations and people and strives to be a high-performance organization. Our employee training programs, combined with the Company's core values and operational concepts, translate the results of the training into higher performance in business operations.

In China, Shuanghui has carried out multi-level and comprehensive employee training to help its employees meet the needs of their jobs. Enhancing employees' professional qualifications has been the main direction of training. Combined with important areas including laws, regulations, quality and safety, a three-tier training system has been formed involving all frontline employees, middle-level and senior leaders. In 2019, employees attended the training 590,000 times and the total training time reached 4.09 million hours. The average training hours per person was 90 hours. Among them, the average training time per senior manager was 34 hours, 142 hours per middle manager, and 88 hours per frontline employee.

In the United States, Smithfield is strengthening its employee learning and training programs through a series of training resources. It helps our employees excel and advance in their work. Some of our achievements in 2019 included:

- Nearly 3,000 employees have taken 300 instructor-led leadership courses engaging over 16,000 hours. More than 40,000 online courses completed by approximately 7,000 employees.
- In addition, we have drawn up the Tuition Assistance Policy to support employees who want to further their formal education by obtaining a GED (General Educational Development Tests) or pursue an academic degree at an accredited college or university. The education program must be related to areas of study applicable to Smithfield, and each employee has a different amount of subsidy according to the different education applied for. We have provided approximately \$800,000 as tuition funding for 510 employees returning to school to continue their education which awards up to \$7,500 per employee.



Employee Care

In addition to providing employees with superior remuneration packages, comprehensive safety guarantees, clear promotion paths and training plans, WH Group also pays close attention to creating a balanced life for its employees and caring for them. All these efforts enable employees to work with a positive attitude.



In the United States, we offer incentives for employee health assessments. In 2019, 18 of our U.S. locations hosted health fairs where community health and wellness representatives and employee benefits providers were on-hand to offer information and advice. Mobile mammogram buses, chair massages and flu shots are also typically offered at these events. Mammograms and flu shots are covered by our health plan. Moreover, we will continue to promote traditional health and wellness programs to our employees, including hiring full-time personal coaches, providing professional health consultation services, and medical checkups on blood pressure & cholesterol level.

WH Group attaches great importance to the confidentiality of employees' privacy information. In the United States, we are committed to keeping confidential any medical information that we obtain in connection with employees' request for a reasonable accommodation.

The Group encourages the participation of employees through activities and awards which demonstrates our recognition of our employees' value and caring for their healthy life. The employees who stand out in the contest will receive tangible or cash rewards provided by the Group. We encourage our employees to have a flexible working method and fully utilize their time outside of work. Additionally, vacations are arranged strictly in accordance with statutory holidays.

Our Employee Business Resource Groups (EBRGs) are an expanding the area of focus as we seek new ways to create a more supportive and engaging environment. In 2019, The Black Professional Network is helping us achieve our mission and vision by attracting, retaining, developing and promoting Black and African-American leaders. The group helps employees fully leverage their diverse backgrounds to achieve personal and professional goals. The Black Professional Network has become another important employee resource in addition to other EBRGs like Women's Connect, millennial-focused Smithfield NEXT and veteran-focused Smithfield Salutes.

We have paid high attention to caring for female employees. In China, *the Regulations on Labor Protection of Female Workers* and *Exclusively Collective Contract for Female Employees* have been formulated to safeguard the statutory rights and special interests of female employees. In the United States, we have created different Employee Business Resource Groups (EBRGs) as channels for spreading our care to employees. Our first EBRG, Women's Contact, empowers our female employees and helps them develop core competencies by organizing talks, seminars and online engagement forums.

Communication

In China, we insist on "people-oriented management". Our employees have the freedom to transfer jobs, file complaints and resign in accordance with laws. A trade union has been established, through which all employees can express their demands. In order to protect the rights and interests of employees, we have signed a collective negotiation contract with all employees which was discussed and approved by the employee union, taking the labor compensation, working hours and rest leave, labor safety and health, insurance and welfare, special protection for female employees, vocational training and education, and other factors into account. Various channels have been built to help us communicate with our employees, which contributes to building a harmonious labor relationship. Employees' opinions can be accessed by WeChat, message, telephone, email, forum, and manager's mailbox and other channels.

In the United States, we strive to cater to the different needs of our employees in several age groups. Communicating with employees through the safety management committees and other channels, we have taken measures to evaluate the employees' satisfaction. Also, we recognize and respect employees' right to freedom of association or collective bargaining.

CARING FOR COMMUNITY

WH Group has been actively participating in social welfare programs to give back to the industries and communities we serve.



Supporting Education

Supporting education is one of the most effective ways for corporations to give back to the community. We believed that quality education for future generations is the foundation for sustainable community development, which brings profound positive changes to the countries and regions we are operating in. In the future, we will continue to advance our educational support initiatives and provide more educational opportunities for students through the donation of school supplies, scholarship provision, infrastructure funding and engagement with schools and students.

Traditional Education Support

In China, since the formulation and implementation of the *Incentive Regulations for Employee Children's Admission to Universities* in July 2011, we have awarded scholarships to over 5,000 employees' children in the last nine years. During the reporting period, we granted scholarships worth RMB3.07 million to 1,198 employees' children who were admitted to colleges and universities, which reduced those employees' financial burden and supported their children's higher education aspirations.

In the United States, Smithfield has been providing the children of our American employees with educational scholarships since 2002. In 2019, our scholarships and educational grants totalled \$4.5 million in the United States, and more than \$430,000 in Poland and Romania.



The Group's total cash and in-kind donations valued at **\$31.18 million**



Our employees volunteered nearly **10,000 hours**



Provided over **6 million pounds** of protein to neighbors in need across 50 states in the U.S.



During the reporting year, our subsidiary Smithfield offered educational scholarships valued at nearly \$1 million for 162 children and grandchildren of our U.S. employees. Meanwhile, over 430 scholarships were provided to children of employees and local farmers in Poland through our Zygmunt Piwoński Smithfield. Polska Foundation, which has granted more than 2,500 scholarships worth \$1.5 million since 2002. More than 46,000 students have been supported in dozens of Romanian villages through our Back to School program, which has provided backpacks, school supplies and sports equipment to preschool and primary school children and their classrooms.

We also partnered with educational initiatives in our communities, such as the National FFA Organization and 4-H in the United States to train the next generation of farmers. In Romania, we helped prepare future specialists in animal husbandry, food processing and veterinary sciences through our internship program, Smithfield Academics. Since 2005, the program has supported nearly 450 students, including 40 interns in 2019.

Vocational Education Support

In China, during the reporting period, we continued the “Shuanghui Business College”, “Shuanghui College”, and “Shuanghui Sales Elite Class” projects jointly established with Luohe Vocational College of Food in Henan and Luohe Vocational Technology College in Henan. In addition, in December 2019, we signed a school-business cooperation agreement with the School of Economics and Management of Northwest A&F University, as part of which our company will provide students with off-campus teaching, internships and employment opportunities. College leaders or expert professors will serve as enterprise development consultants. The research and development of science and technology projects will be conducted at multiple levels through our cooperation.

In the United States, we launched an apprenticeship initiative that gives participants hands-on engineering and mechanic training while they also earn associate degrees. As our employees, apprentices receive free tuition, salary and benefits, and they become full-time employees upon graduation. We welcomed our first cohort at Wayne Community College in Goldsboro, North Carolina in September 2019 and launched our Nebraska program in March 2020 as we continue to expand the initiative across the country, partnering with colleges in communities where we operate.

We also donated \$200,000 to North Carolina State University’s Soldier to Agriculture Program (STAP), which provides in-depth career introductions and hands-on training to help veterans make the transition from military service to agricultural careers, which is North Carolina’s top industry. Our contribution to STAP, a partnership between North Carolina State University and the Fort Bragg military base career center, provides funding to enable upgraded classrooms and facilities to attract veterans and offer expanded agricultural studies. In 2019, 78 veterans participated in the program.

Environmental Education Support

For the past five years, we have sponsored the National Conservation Foundation Envirothon (NCF-Envirothon), North America’s largest environmental education program and international competition. Each year, more than 50,000 high school students team up to demonstrate their knowledge of environmental issues during regional and state competitions. Our employees spend their time and share expertise with local teams, leading training sessions and facilitating coordination of the program curriculum. Our \$120,000 donation in 2019 supported scholarships for the top team members, facilitated local and regional competitions and provided event support for the North Carolina Association of Soil and Water Conservation Districts, which hosted teams from across the United States, Canada and China at the international championship competition in Raleigh, North Carolina.



Poverty and Hunger Alleviation

In China, based on the characteristics of our own industry value chain and wide business distribution, we explore schemes such as “company + farmer households” to allow poor households to increase their income through labor and cultivate and improve their skill sets. Going forward, we will gradually establish and improve a long-term and effective working mechanism to ensure the continuous and effective implementation of poverty alleviation work. According to the poverty alleviation plan, how poverty alleviation funds are distributed are carefully reviewed. In addition, we will continue to come up with poverty alleviation ideas and improve poverty alleviation mechanisms. Through effective use of group resources, we will increase industrial assistance, steadily increase the incomes of poor households, and continue to consolidate our achievements in assistance.



CARING FOR COMMUNITIES

We pay constant attention to hunger and food safety issues in the United States. During the reporting year, Smithfield proudly broadened the reach of our signature Helping Hungry Homes® program, providing 6 million pounds of protein, the equivalent of 24 million servings, to people in need across the United States. These donations contributed to the more than \$30 million we invested in cash and in-kind donations to address the needs of local communities. We expanded our hunger-relief efforts with donations to food banks in states we had not reached before. We have now made donations in all 50 states.

DC Central Kitchen – Capital Food Fight

Smithfield proudly served as presenting sponsor at DC Central Kitchen's 16th annual fundraiser, Capital Food Fight, in November 2019. Capital Food Fight annually attracts some 2,000 guests, 80 tasting restaurants and a slate of battling chefs who compete to create winning dishes using set ingredients, among them, our Pure Farmland brand's Simply Seasoned Plant-Based Protein Starters. The signature fundraising event raised over \$815,000 for the non-profit's culinary training for adults with high barriers to employment and anti-hunger programs.



Disaster Relief

As a corporation that bears its social responsibility, we are prepared to contribute to community building at any time. Even during difficult times, we still do our best to help others.

For the past 11 years, our Helping Hungry Homes® initiative has been at the heart of those efforts. Through it, we aim to help Americans become more food secure by providing nutritious, high quality protein to food banks, school nutrition programs, disaster relief efforts and community outreach programs.

As a world-leading meat supplier, we are committed to providing consumers with safe, nutritious and delicious food. Throughout the coronavirus crisis, we have a responsibility to supply food to thousands of households.

In the United States, the spread of COVID-19 has posed huge challenges to food banks. To prevent community residents suffering from hunger and help them to get through difficulties, Smithfield has actively responded by donating food across the country.



Fighting Pandemic

As food banks across the country struggled to meet increased demand as a result of COVID-19, Smithfield announced the largest donation in the company's history – donating over 10 million pounds of food to food banks nationwide.

Shuanghui donated RMB20 million in cash and materials to the areas severely affected by the pandemic to help them get through the difficulties.

APPENDIX

Major Applicable Laws and Regulations

China

1	Anti-unfair Competition Law of the People's Republic of China
2	Food Safety Law of the People's Republic of China
3	Advertising Law of the People's Republic of China
4	Consumer Protection Law of the People's Republic of China
5	General Rules for Labeling of Prepackaged Foods
6	Water Pollution Control Law of the People's Republic of China
7	Air Pollution Prevention and Control Law of the People's Republic of China
8	Law of the People's Republic of China on the Prevention and Control of Solid Waste Pollution
9	Water Law of the People's Republic of China
10	Energy Conservation Law of the People's Republic of China
11	Environmental Protection Tax Law of the People's Republic of China
12	Labor Law of the People's Republic of China
13	Labor Contract Law of the People's Republic of China
14	Safety Production Law of the People's Republic of China
15	Regulations on Work Injury of the People's Republic of China
16	Prevention and Control of Occupation Diseases Law of the People's Republic of China
17	E-commerce Law of the People's Republic of China

The United States

1	Sherman Antitrust Act
2	The United States Federal Food, Drug, and Cosmetic Act
3	Clean Water Act
4	Clean Air Act
5	Solid Waste Disposal Act
6	Energy Policy and Conservation Act of 1975
7	Fair Labor Standards Act
8	Occupational Safety & Health Act
9	California Consumer Privacy Act

APPENDIX

ESG Reporting Guide Content Index

Aspects, General Disclosures and KPIs	Description	Disclosure Paragraph	Remarks
A. Environment			
Aspect A1: Emissions			
A1	General Disclosure	Caring for Environment–Emissions Management	
A1.1	The types of emissions and respective emissions data.	Caring for Environment–Emissions Management–Wastewater Discharges Caring for Environment–Emissions Management–Air Emissions	The statistical scope (the facilities involved) of data on air pollutant emissions in the United States and Europe vary according to the requirements of local governments each year, which is planned to be disclosed in detail in the future.
A1.2	Greenhouse gas emissions in total (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Caring for Environment–Carbon Footprint Mitigation	
A1.3	Total hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Caring for Environment–Emissions Management–Solid Waste	
A1.4	Total non-hazardous waste produced (in tons) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Caring for Environment–Emissions Management–Solid Waste	
A1.5	Description of measures to mitigate emissions and results achieved.	Caring for Environment–Emissions Management–Wastewater Discharges Caring for Environment–Emissions Management–Air Emissions Caring for Environment–Carbon Footprint Mitigation	
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Caring for Environment–Emissions Management–Solid Waste	

ESG Reporting Guide Content Index

Aspects, General Disclosures and KPIs	Description	Disclosure Paragraph	Remarks
Aspect A2:	Use of Resources		
A2	General Disclosure	Caring for Environment–Resource Management. Caring for Environment–Carbon Footprint Mitigation	
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Caring for Environment–Carbon Footprint Mitigation–Energy Management	
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Caring for Environment–Resource Management–Water Resource Management	
A2.3	Description of energy use efficiency initiatives and results achieved.	Caring for Environment–Carbon Footprint Mitigation–Energy Management Caring for Environment–Carbon Footprint Mitigation–Use of Renewable Energy	
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Caring for Environment–Resource Management–Water Resource Management	
A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	Caring for Environment–Resource Management–Packaging Materials Management	
Aspect A3:	The Environment and Natural Resources		
A3	General Disclosure	Caring for Environment	
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Caring for Environment	
B. Social			
Employment and Labor Practices			
Aspect B1:	Employment		
B1	General Disclosure	Caring for Employees–Value-Based Employment Caring for Employees–Employee Care	
B1.1	Total workforce by gender, employment type, age group and geographical region.	Caring for Employees–Value-Based Employment–Employee Diversity	
B1.2	Employee turnover rate by gender, age group and geographical region.		We plan to disclose relative data in the future

APPENDIX

ESG Reporting Guide Content Index

Aspects, General Disclosures and KPIs	Description	Disclosure Paragraph	Remarks
Aspect B2: Health and Safety			
B2	General Disclosure	Caring for Employees–Health and Safety	
B2.1	Number and rate of work-related fatalities.	Caring for Employees–Health and Safety	
B2.2	Lost days due to work injury.		We use an internationally accepted occupational injury rate as key performance indicator for occupational safety. The data are available in Caring for Employees – Health and Safety
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Caring for Employees–Health and Safety	
Aspect B3: Development and Training			
B3	General Disclosure	Caring for Employees–Talent Development	
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).		We plan to disclose relative data in the future.
B3.2	The average training hours completed per employee by gender and employee category.	Caring for Employees–Talent Development	Only the China business' average training hours per employee is disclosed.
Aspect B4: Labor Standards			
B4	General Disclosure	Caring for Employees-Value-Based Employment–Labor Rights	
B4.1	Description of measures to review employment practices to avoid child and forced labor.	Caring for Employees-Value-Based Employment–Labor Rights	
B4.2	Description of steps taken to eliminate such practices when discovered.	Caring for Employees-Value-Based Employment–Labor Rights	No violations were found this year.

ESG Reporting Guide Content Index

Aspects, General Disclosures and KPIs	Description	Disclosure Paragraph	Remarks
Operating Practices			
Aspect B5: Supply Chain Management			
B5	General Disclosure	Focusing on High-Quality Products Supply Chain Management	
B5.1	Number of suppliers by geographical region.	Focusing on High-Quality Products – Food Safety and Quality	We have about 70,000 hog suppliers in China. The number of raw materials suppliers is 3,530 in China, 4,104 in the United States, 32 in Europe, and 6 in other countries or regions. This data does not include suppliers hired by plants and farms under the name of Smithfield, as well as suppliers employed by Smithfield Europe.
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	Focusing on High-Quality Products – Food Safety and Quality Supply Chain Management	
Aspect B6: Product Responsibility			
B6	General Disclosure	Focusing on High-Quality Products	
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Focusing on High-Quality Products – Food Safety and Quality	
B6.2	Number of products and service related complaints received and how they are dealt with.	Focusing on High-Quality Products – Consumption Experience Improvement	In 2019, Shuanghui received and handled 19,401 complaints about products and services through the 400 hotline. Smithfield Foods received and handled 55,873 complaints about products and services.
B6.3	Description of practices relating to observing and protecting intellectual property rights.		Intellectual property right is not a major ESG issue for the Group.
B6.4	Description of quality assurance process and recall procedures.	Focusing on High-Quality Products – Food Safety and Quality	
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Focusing on High-Quality Products – Consumption Experience Improvement	

APPENDIX

ESG Reporting Guide Content Index

Aspects, General Disclosures and KPIs	Description	Disclosure Paragraph	Remarks
Aspect B7: Anti- corruption			
B7	General Disclosure	Corporate Governance – Anti-Corruption	
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Corporate Governance – Anti-Corruption	
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Corporate Governance – Anti-Corruption	
Community			
Aspect B8: Community Investment			
B8	General Disclosure	Caring for Communities	
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	Caring for Communities	
B8.2	Resources contributed (e.g. money or time) to the focus area.	Caring for Communities	

