



新希望六和
NEW HOPE LIUHE

THE POWER OF BEING TRUSTWORTHY

Corporate Social
Responsibility Report
2022

CONTENTS

- 01 Message from the Chairwoman
- 02 About New Hope Liuhe
- 07 Responsibility Management
- 09 Responsibility Focus
- 09 Food Saving Special Action: Comprehensive Protection of Food Security
- 12 Five-Five Project: Continual Support for Rural Revitalization

15 Corporate Governance

Striving to Uphold Long-Termism

- 17 Building a Resilient Foundation through Party Leadership
- 19 Strengthening Risk Management
- 20 Adherence to Business Ethics
- 21 Growing Together with Partners

23 Enterprise for People's Well-being

Safeguarding Life with Life

- 25 Strengthening Food Safety
- 29 Enhancing Nutritional Value
- 32 Improving Service Quality

35 Exploring the Development of Smart Urban and Rural Areas through Technological Innovation

- 37 Driving Development through Technology
- 41 Upgrading Smart Farms
- 43 Creating A Digital Enterprise

45 Green Industry

Sustaining Nature through Circular Agriculture

- 47 Improving Environmental Management
- 49 Developing Eco-Friendly Animal Husbandry
- 51 Responding to Climate Change
- 55 Water Resource Management
- 56 Reduction of Waste Disposal
- 57 Ecological Environment Protection

59 Employees Achieving Success and Pursuing Excellence through their growth

- 61 Protecting Employees' Rights and Interests
- 63 Building a Platform for Career Development
- 65 Enhancing Employee Care
- 67 Occupational Health and Safety

69 Repaying Society in Nurturing Happiness with Hope

- 71 Striving to Stabilize Production and Guarantee the Supply
- 72 Devoted to Charity
- 75 Promoting Regional Development

- 76 About this report
- 77 Indicator Index Table

Message from the Chairwoman

Embarking Anew, Journeying on the Ridges of Hope

2022 is a year imbued with unique significance - a year both fraught with challenges and filled with hope. The successful convening of the 20th CPC National Congress outlined a grand blueprint for the comprehensive construction of a modern socialist country, sounding the trumpet for our new journey of progress.

This year also marks the 40th anniversary of New Hope Liuhe. Looking back on our 40-year journey, New Hope Liuhe has not only reaped the benefits of reform and opening up but has also actively participated in and contributed to its construction. From "if you hope to get rich by raising pigs, New Hope will help you" to "profiting the farmers, benefiting the consumers", from launching a "glorious cause" to participating in rural revitalization, from implementing combined farming and breeding to planning for dual-carbon goals, from flat organizational structure to digital transformation, we identify and address societal needs and challenges. By continuously changing, transforming, and improving ourselves, we better solve problems and create value for our users, industry, and society. This remains the driving force behind New Hope Liuhe's sustained growth.

Standing at a new starting point, we have a clearer vision of our path forward. Today's New Hope Liuhe is a comprehensive agricultural service provider. We are committed to resolving issues throughout the development of the entire industry and society, extending from feed production to breeding, farming, meat slaughtering and processing, and finally connecting to consumers through our restaurants and end users. We aim to serve a greater variety of consumer needs and create value for our customers by harnessing the full power of the supply chain. This report represents the shift from traditional CSR reporting to an internationally recognized, nationally encouraged ESG governance system, which signifies our proactive approach to meet future challenges and drive our journey towards high-quality and sustainable growth.

Looking back at 2022, as a people-oriented enterprise, we actively responded to national policies such as rural revitalization, common prosperity, agricultural strength, and food security. Guided by these national strategies, we integrate them with our following "five new" management philosophies, ready for a renewed departure:

Implementing "New Responsibilities": We continue to implement food conservation measures, focusing on multiple aspects such as food storage, transportation, livestock and poultry breeding, feed formulation, feed production, and scientific feeding. We are dedicated to offering consumers healthier, safer, and superior-quality food products, and are striving to enhance a fully traceable and controlled food safety management system from farm to table. We persist in supporting programs aimed at rejuvenating talents such as the "Five-Five Project" for rural revitalization and modern apprenticeship, cumulatively conducting training for a total of 79,900 people offline and 13.61 million online.

As an agricultural and livestock enterprise, the green development concept has been integrated into our business operations. Through implementing a cycle of combined farming and breeding within the livestock industry, we have accomplished comprehensive utilization of 100,000 tons of manure and 16 million tons of wastewater. This has contributed to soil enhancement and bio-carbon sequestration. Furthermore, we have initiated actions like clean energy transformation, potential energy-saving exploration, feed formula optimization, and bio-carbon sequestration for low-carbon production.

Our public welfare charity activities have become regularized, serialized, and branded. We constantly carry out the "Hope and Wish Plan" and "Warm Winter Action", promptly responding to unforeseen disasters such as the Luding earthquake, the typhoon Chaba, and the Chongqing wildfire, making contributions to disaster relief and post-disaster reconstruction efforts.

Embracing "New Technologies": We embrace the digital era with open minds and propose a comprehensive digital transformation strategy termed as "three fulls and four transformations" under the "integration of industry and digital management". This strategy aims to establish a close tie between our business and digital technology across six major areas, including research and development, farming, production, supply chain, sales, and customer service. We steadfastly view technology as the principal driving force and have constructed a "4+1" tech innovation system with a concentrated focus on practical technology innovation, thereby empowering the industry.

Promoting "New Mechanisms" and Cultivating "New Youth": Our diligent employees are our most precious treasure. In 2022, we initiated the largest scale employee stock incentive plan in the Company's history, and set up a digital training platform "New Hope Academy" to provide ongoing training and education opportunities for our staff. We also created the talent enhancement "3U" model to inspire the hard-working to excel, motivate the high-performers, and facilitate the rise of those taking responsibilities.

This is an era filled with uncertainties. Yet, the experience and wisdom handed down from our predecessors remind us that it is from these uncertainties that we can find opportunities, staying resolute in our goals and moving forward with determination. I will adhere to our original aspirations, consolidate our focus and energy, work on the front lines, and continue walking alongside our domestic and foreign business partners on the ridges of hope, to create an even more beautiful and sustainable "New Hope" for all.

Chairwoman of New Hope Liuhe Co., Ltd.

About New Hope Liuhe

New Hope Liuhe Co., Ltd. (stock code: 000876) was founded in 1998 and listed on the Shenzhen Stock Exchange on March 11, 1998. Based on the agriculture and animal husbandry industry, the company pays attention to the steady development, the business involves the feed, the breeding, the meat product and the financial investment, the trade and so on, the company business spreads all over the country and Vietnam, Philippines, Bangladesh, Indonesia, Cambodia, Sri Lanka, Singapore, Egypt and nearly 20 countries.

In September 2011, the company's agricultural and animal husbandry assets reorganization was approved by China Securities Regulatory Commission. In 2018, the company achieved sales revenue of RMB 69.1 billion, holding more than 500 subsidiaries and 62,000 employees. New Hope Liuhe, ranked 126th among the Fortune 500 Chinese companies in 2018, is co-vice chairman unit of the China Council of the Global Food Safety Initiative (GFSI). Liu Chang, chairman of New Hope Liuhe Co., Ltd., is a member of the board of directors of the Global Food Safety Initiative.

The Company has won the honorary titles of National Key Leading Enterprise of Agricultural Industrialization, National Food Safety Enterprise, Ten Times Enterprises of China Animal Feed Industry, Ten Leading Feed Enterprises of China, Main Credit Grade AAA, Demonstration Project Enterprise of China Meat Food Safety Credit System Construction, 2017 Forbes Global 2000, etc.,

is the 2018 Shanghai Cooperation Organization Qingdao Summit designated supplier of poultry meat.

The enterprise technology center has been awarded the title of "National Certification Enterprise Technology Center", and the two testing centers have passed CNAS accreditation of national laboratories. More than 60 technological achievements have been awarded at or above the provincial level, of which 6 innovative technologies have won the second prize of the State Science and Technology Progress Award. At present, some of its companies have won the "ISO 9001 Quality Management System Certification" and "ISO 22000 Food Safety Management System Certification", "GAP Good Agricultural Practice Certification", "HACCP Food Safety Management System Certification" and so on.

The company will take "the world agri-food industry leader" as the vision, "profiting the farmers, benefiting the consumers" as the mission, "customer first, challenge oneself, striver-oriented" as the core values, focus on giving full play to the radiation-driven effect of key leading enterprises in agricultural industrialization, integrating global resources, building a safe and healthy food industry chain, and making greater contributions to helping farmers increase their incomes and become rich, to meeting the needs of consumers for safe meat products, and to promoting social civilization and progress.

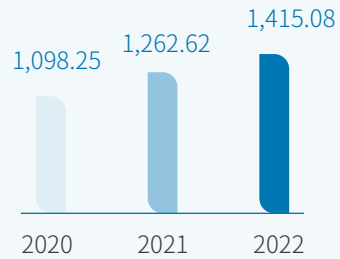


Our 2022

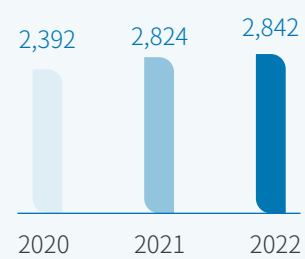
Business Performance



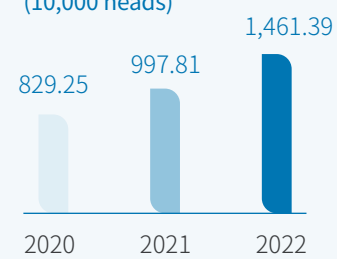
Sales revenue (RMB 100 million)



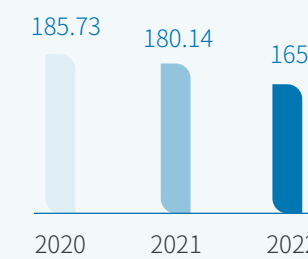
Feed sales (10,000 tons)



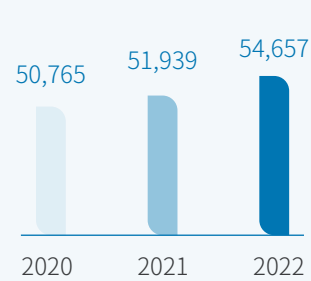
Pig production volume (10,000 heads)



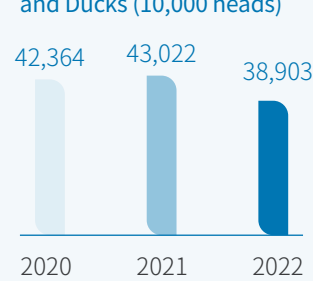
Poultry meat sales (10,000 tons)



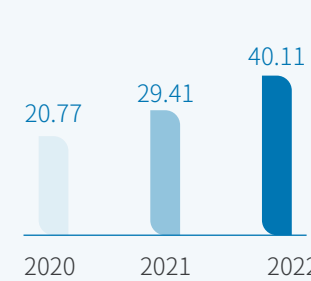
Poultry chicks sales (10,000 chicks)



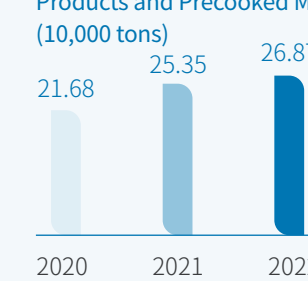
Sales Volume of Commercial Chickens and Ducks (10,000 heads)



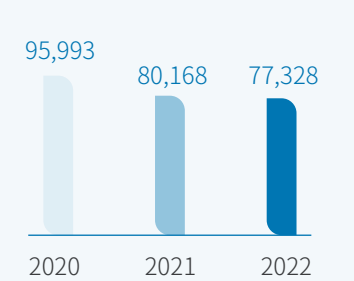
Pork sales (10,000 tons)



Sales Volume of Processed Meat Products and Precooked Meals (10,000 tons)



Number of employees (person)



Honors and Awards



Industry Leading Category



- Forbes Global 2000 (Ranked 1271st)
- Fortune China 500 (Ranked 108th)
- China's Top 500 Private Enterprises (Ranked 22nd)
- No. 1 on the list of Global Top Feed Companies
- Global Top 50 Broiler Companies (Ranked 23rd)
- No. 6 on the list of 2022 Global Top Pig Enterprises
- 2022 China Meat Industry Advanced Team Award
- Hurun China Food Industry Top 100 List (Ranked 26th)
- 2022 Top 10 Service Group in China's Catering Industry
- Annual Leading Company in the Precooked Food Industry

Social Responsibility Category



- Best Practice Case of ESG in Listed Companies
- Excellent Practice Case of Rural Revitalization in Listed Companies
- Southern Weekly China Corporate Social Responsibility List
- Most Socially Responsible Listed Company on the Listed Companies' Public Reputation List
- 2022 China's Top 500 Companies in Charitable Public Welfare

Technology Innovation Category



- First Prize of Shennong China Agriculture Science and Technology Award
- First Prize of Sichuan Provincial Science and Technology Progress Award
- Second Prize of Shennong China Agriculture Science and Technology Award
- Second Prize of Shandong Provincial Science and Technology Progress Award
- Third Prize of Shandong Provincial Science and Technology Progress Award
- First Prize of China Light Industry Federation Science and Technology Progress Award
- Third Prize of China Food Science and Technology Society Technology Innovation Award
- Third Prize of China Medical Science and Technology Award
- National Seed Industry Key Enterprise
- National Waterfowl Core Breeding Center
- National Waterfowl Fine Breed Propagation Promotion Base
- Excellence Award in the First Digital Rural Innovation Design Competition

Corporate Governance

Corporate Governance Improvement

The Company strictly adheres to the *Company Law of the People's Republic of China*, the *Securities Law of the People's Republic of China*, the *Code of Corporate Governance for Listed Companies in China*, the *Stock Listing Rules of the Shenzhen Stock Exchange*, the *Measures for the Administration of Information Disclosure by Listed Companies*, and the *Shenzhen Stock Exchange Guideline No. 1 on Self-regulation of Listed Companies - Standard Operations of Main Board Listed Companies*, along with other relevant laws and regulations. We have established a standardized corporate governance framework and scientifically effective rules of procedure, while consistently updating and refining our internal control system at all levels. In 2022, 11 company policies were revised and updated according to new regulations.


We consistently improve our corporate governance structure to enhance its effectiveness by refining the rights, responsibilities, and operational standards of shareholders' meetings, the board of directors, the board of supervisors, and the management. Through establishing and standardizing the governance structure of three meetings governance, we clarify the roles and authorities in decision-making, execution, and supervision, thus creating an effective division of responsibilities and

balances mechanism. The Company maintains independence from controlling shareholders and actual controllers in aspects such as assets, personnel, finances, institutions, and business operations. Moreover, the Company strictly convenes shareholders' meetings in accordance with the *Rules for Shareholders' General Meetings of Listed Companies* released by the China Securities Regulatory Commission and the *Company's Rules of Procedure for Shareholders' Meetings*, and convenes board meetings and board of supervisors' meetings adhering to the *Rules of Procedure for the Board of Directors* and the *Rules of Procedure for the Board of Supervisors*. The Company diligently abides by relevant voting provisions and procedures to protect the legal rights and interests of the Company and its shareholders. In order to ensure the board's independence and minimize risks associated with related party transactions, the Company has established the *Internal Control System for Related Party Transactions*, which ensures that such transactions comply with the principles of fairness, transparency, and equity. The system also provides detailed guidelines on the identification of related parties, pricing of transactions, and approval authority, thus contributing to a more refined corporate governance structure.

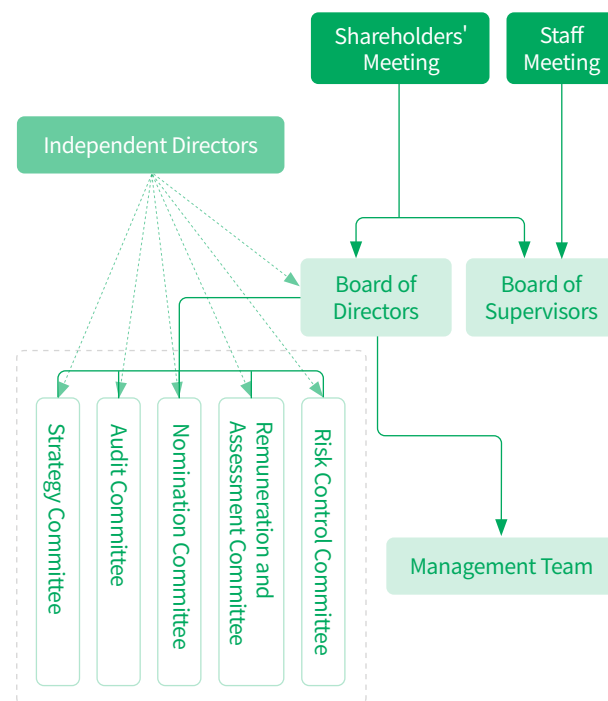
The Company attaches importance to board diversity, taking into account various cultural backgrounds, education levels, work experiences, genders, and ages when nominating directors. This approach enhances the scientific and effective decision-making process of the board. By the end of the reporting period, the board consists of 8 directors, including 3 female directors, 3 independent directors, 2 with doctoral degrees, 4 with master's degrees, and 2 with bachelor's degrees or below, with diverse professional backgrounds such as risk control, financial management, corporate management, agriculture, and animal husbandry. As the Company's primary decision-making body, the board of directors comprises five specialized committees: the audit, remuneration and assessment, strategic development, nomination, and risk control committees. Independent directors make up more than half of the membership in the audit, remuneration and assessment, nomination, and risk control committees and serve as conveners. The audit committee includes senior financial experts, and all its members are non-executive directors. Before presenting major professional matters to the board of directors for consideration, they must undergo review and approval by the respective specialized committees, thereby actively utilizing the expertise of independent directors. The remuneration committee is solely composed of directors and does not include any senior management personnel. When the board reviews draft equity incentive plans and the Company Performance Management Measures proposed by the remuneration committee, related directors abstain from voting to ensure the committee's independence. For detailed information on the board's composition and performance, the responsibilities of the board and management team, as well as the structure and operation of specialized committees, please refer to the New Hope Liuhe Co., Ltd. 2022 Annual Report.

Female directors represent **37.5%** of the board

- In 2022, **3** shareholders' meetings were held, passing **44** resolutions;
- **15** board meetings were held, passing, **84** resolutions;
- **11** board of supervisors' meetings were held, passing **35** resolutions;
- Additionally, **6** audit committee meetings, **2** remuneration and assessment committee meetings, **2** risk control committee meetings, and **4** nomination committee meetings were held throughout the year.



Corporate Governance Structure



Investor Rights Protection

New Hope Liuhe adheres to regulatory requirements, including the *Rules for Shareholders' General Meetings of Listed Companies* released by the China Securities Regulatory Commission, the *Company's Articles of Association*, and *Investor Relations Management Regulations*, ensuring transparent and orderly shareholders' meetings and guaranteeing investors' rights to be informed and involved in crucial decisions. The Company is dedicated to fostering strong investor relations and treating each investor with openness, fairness, and impartiality. By deepening investors' understanding of the Company's operations, business, growth strategies, and investment value, it effectively safeguards the interests of all investors, especially the legitimate rights and interests of minority shareholders. The Company treats all shareholders equally, minority shareholders able to attend and vote at shareholders' meetings in person or online. For major matters that may affect the interests of minority investors, the Company counts their votes separately and discloses the results. Shareholders' meetings also include a Q&A session for minority investors to address their concerns and suggestions, ensuring their rights are protected.

The Company continually improves its information disclosure management, with 117 announcements and 273 documents disclosed throughout the year, including 8 investor communication records and 12 live pig sales briefings. We explore multiple channels and approaches to maintain investor engagement, utilizing various platforms like phone calls, emails, and the Hudongyi platform of the Shenzhen Stock Exchange to address questions and concerns. We also prioritize communication with overseas investors, and in 2022, we released English versions of our annual report, semi-annual report, and social responsibility report assist foreign investors in timely understanding the Company's strategic development and business operations.

117 announcements disclosed

1,600 investor calls handled

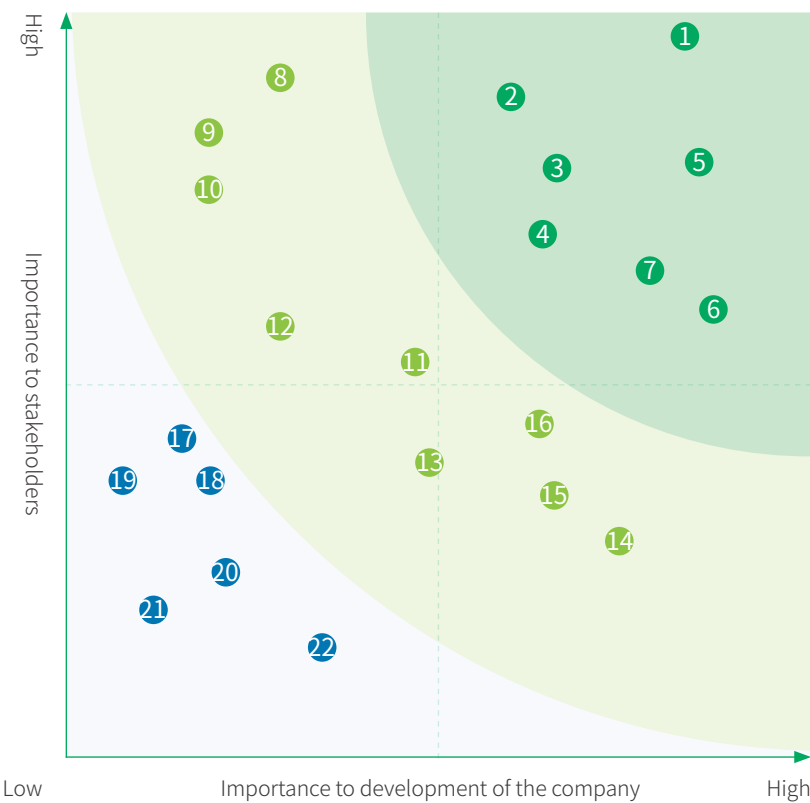
Responding to nearly **200** investors on the Hudongyi

platform, addressing **539** questions

Responsibility Management

ESG Issue Management

In order to gain a deeper and more accurate understanding of the expectations and demands of our stakeholders, and to enhance the relevance and substance of our reports, we conduct a careful evaluation of environmental, social, and governance (hereafter referred to as "ESG") issues. This evaluation takes into account aspects such as peer attention, regulatory requirements, and the importance of these issues to our business operations. We then classify these issues into high, medium, and general categories of importance, subsequently forming an ESG Materiality Matrix, which is then reported to our Board of Directors and management for further discussion. Through this process, we aim to continually improve our ESG management, ensuring that our development strategy aligns with substantive issues and is balanced with the demands of our stakeholders.



- 1 Ensuring Food Safety
- 2 Addressing Climate Change
- 3 Reducing Waste Emissions
- 4 Sustainable Supply Chain
- 5 Digital Transformation
- 6 Participating in Rural Revitalization
- 7 Employee Training and Development
- 8 Protection of Basic Employee Rights
- 9 Occupational Health and Safety
- 10 Ensuring Animal Welfare
- 11 Water Resource Management
- 12 Biodiversity Conservation
- 13 Business Ethics and Anti-corruption
- 14 Quality Customer Service
- 15 Community Co-building
- 16 Strengthening Party-building Work
- 17 Public Welfare and Charity
- 18 Responsible Marketing
- 19 Information Security and Privacy Protection
- 20 Ensuring Operational Safety
- 21 Intellectual Property Protection
- 22 Open Cooperation

Stakeholder Communication

The Company consistently maintains effective communication with our stakeholders, adopting an active and open approach, listens attentively to the expectations and demands of our stakeholders, and proactively responds to them.

Stakeholders	Expectations and Demands	Our Response
<p>Government & regulatory authorities</p>	<ul style="list-style-type: none"> Operating in compliance with laws and regulations Paying taxes in accordance with the law Supporting local development 	<ul style="list-style-type: none"> Enhancing corporate governance Implementing policies and paying taxes in accordance with the law Accepting regulatory audits Economic stimulus and job growth
<p>Shareholders & investors</p>	<ul style="list-style-type: none"> Consistent and stable returns Transparent and open information 	<ul style="list-style-type: none"> Stable operations Protecting shareholders' rights Improving operational transparency
<p>Consumers & customers</p>	<ul style="list-style-type: none"> Product quality and safety Optimized customer service Reliable privacy protection 	<ul style="list-style-type: none"> Providing high-quality and safe food Ensuring product supply Digital intelligence transformation Responding to customer requests Information security and privacy protection
<p>Partners</p>	<ul style="list-style-type: none"> Adherence to business ethics Honest cooperation Win-win development 	<ul style="list-style-type: none"> Sustainable supply chain Open cooperation Communication and interaction
<p>Employees</p>	<ul style="list-style-type: none"> Protection of basic rights Training and development Health and safety Employee care 	<ul style="list-style-type: none"> Stable salary incentives Providing learning and growth opportunities Creating a good work environment Ensuring health and safety
<p>Environment</p>	<ul style="list-style-type: none"> Scientific and efficient use of resources Reducing impact on the environment Driving the industry to improve green development capabilities 	<ul style="list-style-type: none"> Developing ecological farming Advancing green operations Creating a green supply chain
<p>Communities</p>	<ul style="list-style-type: none"> Promoting regional development Public welfare and charity Community co-building 	<ul style="list-style-type: none"> Charity donations and volunteer activities Promoting the development of operating area activities Participating in rural revitalization

Food Saving Special Action: Comprehensive Protection of Food Security

In the report from the 20th CPC National Congress, the national strategic requirement of "solidifying the foundation of food security in all aspects, and firmly safeguarding the red line of 1.8 billion mu of cultivated land" was proposed. New Hope Liuhe, as one of the largest grain consumers in China, is actively participating in efforts to secure food safety. We are advancing and implementing strategies for reducing food waste and loss, and have launched the 'New Hope Food Saving Special Action'. By employing measures such as reducing grain consumption, improving breeding techniques, optimizing feed formulas, and employing digital farming practices, we encourage and call on domestic livestock businesses and feed companies to join us in this special food saving initiative.

Implementing Comprehensive Food Saving Across the Supply Chain and Strengthening Closed-loop Management

The Company extends its special food-saving specific actions to all aspects of the supply chain, enhancing closed-loop management across the entire chain. We focus on details at key points, coordinating efforts to achieve high-quality food-saving objectives.

Objectives of New Hope Liuhe's Food Special Action

- Improve the overall efficiency of feed usage by **1%** every year, which equates to saving **1%** of grain every year or around **700,000** mu of cultivated land.
- Persist for five consecutive years, resulting in a total savings of about **1.5** million tons of grain, corresponding to a saving of over **3** million mu of farmland.

Food Saving in Breeding

- Development and application of new food-saving breeds
- Developing digital breeding software for efficient identification of pigs with optimal feed conversion rates
- Improving the PSY of sows by employing critical techniques such as increasing the ratios of superior boar usage
- Enhancing the feed conversion efficiency of meat ducks through new duck breeding selection

Food Saving in Grain Storage

- Through the Minnong Cloud Warehouse, we apply intelligent supervision to grain storage, collecting data on parameters such as grain temperature, humidity, gas concentration, pests, and moisture content. This approach allows us to prevent grain damage and loss due to pest infestation, heat generation, and mold.

Food Saving in Transportation

- Transitioning from bulk dispatch to containerized dispatch, shifting from predominantly highway transportation to a combination of land, railway, and maritime container transport, thereby reducing losses during the logistics process

Food Saving in Feed Formulation

- Replacing original grains with valuable ingredients and by-products
- Promoting the application of multiple fermentation raw material technologies

Food Saving in Feed Production

- Technical modification of the grinder to adapt to local grain characteristics, reducing losses
- Controlling moisture loss

Food Saving in Farming

- Renovating self-feeding fertilizer troughs, reducing feed waste, and decreasing feed consumption per pig by 5%
- Implementing precise nutrition and accurate feeding measures
- Timely identification and removal of worthless pigs
- Improving production management techniques, increasing survival rates
- Installing powder screens, reducing powder waste

Food Saving at the Source, Optimizing Feed Formulas

The Company adopts measures for formula food saving which are based on "efficiency enhancement, resource diversification, and structural adjustment". These measures enhance the usage efficiency of existing feed, increase the variety of usable raw materials, and optimize and adjust feed structure, achieving a comprehensive way to food saving in our feed formulation process.

Efficiency Enhancement to Reduce Raw Material Loss

- We implement precision feeding, strictly feeding pigs according to the precise nutritional needs of their various growth stages. We also manage feed ordering, mixing, usage, and data entry with precision, reducing feed waste.

Structural Adjustment for Feed Formulation Optimization

- We advocate for low-protein diets to reduce the usage of high-priced, imported protein raw materials like soybean meal. By improving formulas, we ensure a balanced ratio of amino acids.

Resource Diversification to Increase Raw Material Variety

- We focus on research into raw material pretreatment techniques to increase the choice of raw materials in our feed formulas.
- We have built our own raw material database and developed the "Hongtong System", amassing a nutritional value database of over 200 non-grain raw materials. This promotes diversification of raw materials and enables precision feeding.
- Moreover, we have enhanced the recycling and utilization of local oil cakes, which has increased the efficiency of utilizing various protein resources and reduced dependence on soybean meal.

In 2022, we optimized feed formulas and reduced soybean meal usage by

300,000 tons.



Intelligent Food Saving: Advancing Digital Agriculture

In the livestock production process, we utilize scientifically effective management methods, giving importance to the digital and intelligent upgrading of livestock breeding, pig breeding, and farm management. By fostering and leveraging digital technologies, we promote feed and grain conservation.

Through our self-developed "Xiu Jie system," we have established genome breeding value algorithms, relationship algorithms, and breed purity algorithms. This enhances pig breed optimization, raises breeding efficiency, diminishes pig intra-group variances, enables precise feeding of pig herds, refines feed-meat ratios, and decreases feed consumption.

Pig Breeding Project



Strengthening Intelligent Farming

We are constantly committed to achieving unmanned or minimally manned pig farm management, leveraging intelligent and digital technologies to facilitate modern farming practices.

Building a Digital Feed Factory

We have completed a pilot project for a digital feed factory, creating a digital logistics coordination platform within the factory. This enables automation and unmanned processes like vehicle entry and weighing, avoiding waste and loss of raw materials and feed due to human operations.

Rallying Industrial Strength for Collaborative Food Saving

When everybody adds fuel the flames rise high, New Hope Liuhe strengthens industrial interconnections, encouraging and calling upon upstream and downstream enterprises, research institutions, and social groups to participate in the special food saving action. This collaborative effort harnesses the wisdom and power of all stakeholders, collectively contributing to food security.

Establishing the "Innovation Consortium"



We convened the "New Hope Feed Saving Technology Innovation Joint Action and the 6th HOPE Science and Technology Consortium", and took the lead in establishing the "Feed Saving Technological Innovation Consortium" (simply "Innovation Coalition"), uniting multiple research institutions, 8-10 academicians and renowned experts, 11 upstream and downstream enterprises throughout the industrial chain, a seasoned technological investment fund, an international think tank, and three national-level associations, among other stakeholders. The Innovation Consortium, with feed saving as its focal point, hones in on three critical segments: breeding, feed, and farming. It strives for technological and managerial innovation, embarking on 30 key technological development and upgrade initiatives, and setting up 10 key technological challenges to collectively promote grain conservation.

Participating in Standard Setting



The Company actively participates in the key national project "Advanced Technologies and New Products Creation in Protein Feed Bioengineering" under the "14th Five-Year Plan". We also assist in crafting national and industry-wide standards, promoting standardized and regulated breeding management.

Five-Five Project: Continual Support for Rural Revitalization

In active response to the significant rural revitalization strategy, New Hope Liuhe has proposed the "Five-Five Initiative"—undertaking five critical tasks in five years to facilitate rural revitalization. These include the Rural Green Collar Training Program, the Rural Model Demonstration Project, the Small and Micro Support Project in rural areas, the Rural Employment Resolution Program, and the Rural Industrial Revitalization Project.



Our "Digital Smart Breeding Solution" case participated in the "First Digital Rural Innovation Design Competition" and won an Excellence Award.

Modern Agriculture for Industrial Revitalization

Prosperous industry is crucial to attract resources and retain talent, and only economic prosperity can enrich farmers and spur rural development. New Hope Liuhe prioritizes industrial development as a catalyst for agriculture, sharing insights for pig industry progression, and thereby facilitating industrial upgrade.

Advocating for Industrialized Pig Farming

With a philosophy of high investment, high efficiency, high returns, and low costs, the Company introduce all-in-all-out, standardized production, and balanced nutrition throughout the year in the design of industrial pig farming processes. This guides regional progression in pig farming industry upgrades.

Upgrading Digital Technology

We actively promote the integration of digital technologies such as cloud computing, IoT, big data, and artificial intelligence with industries. By fully implementing air filtration systems, smart environmental control systems, automatic feeding systems, automatic drinking systems, and automatic manure removal systems, we boost industry quality improvement and efficiency enhancement.

Case Study

Launch the Hope Farm Model

While establishing our own pig farms, New Hope Liuhe collaborated with local farmers to promote the Hope Farm model based on the principle of "Six Unifications by the Company, Three Non-Concerns for the Farmer". This model fosters a smart development approach linking enterprises and family farms, allowing modern breeding technology to benefit more farmers. The Company ensures a unified supply chain for farmers engaged in livestock production, encompassing the provision of standardized weaned piglets, consistent feed throughout the entire process, standardized medication and vaccines, uniform management and technical support, adherence to standardized farm construction standards, and the establishment of a unified recovery system. Farmers only provide standard fattening pig houses and pig farming labor, not bearing the risk of market volatility and capital issues. As of the end of 2022, the Company engages in a cooperative arrangement with 2,211 households of free-range farmers for the feeding and retention of fattening pigs, a year-on-year increase of 19%. Among these, 90% of farmers had a scale of over 1,000 pigs, with an average farm size increased by 40% compared to the previous year.

Cultivating in Depth: Revitalizing Talents

New Hope Liuhe has launched the "100,000 Green Collar New Farmer Training Plan" as part of its rural revitalization initiative. This plan aims to train 100,000 new-type professional farmers within five years. By leveraging its core competencies in areas such as technological innovation, financial assistance, technical training, and market connection, the Company strives to foster a new generation of professionals who "love agriculture, understand technology, and excel at management", contributing to the revitalization of rural talent. The project has established a "5+N" Special Training System, encompassing one standard process, two sets of professional textbooks, three types of quality courses, four supporting institutions, five sources of teaching staff, and a multitude of distinctive demonstration training bases. By the end of 2022, the offline training sessions of this project had reached 23 provinces, 128 cities, and 332 counties/districts, hosting a total of 2,032 sessions and training 79,900 individuals. Online training has reached 13.61 million participants.

Furthermore, catering to the needs of farmers and different stages of agricultural development, we have created specialized courses through various online and offline teaching settings. With farmers' demands at the core, we aim to build high-quality training programs.

"Village Head Course" for Rural Revitalization

Established for village party secretaries and village heads, this program encompasses interpretation of "rural revitalization" policies and regulations, sharing of industry revitalization practices, and on-site research and analysis of suburban village cases in Beijing. Under the guidance of professional mentors, "village lead students" analyze and study the governance issues of their respective villages and explore new paths for rural development.

As of 2022, a total of **174** people have been trained in this program.

"5+N" Special Training System

One Standard Process

We've distilled our training practices into a standardized operation manuals appropriate for the organization, execution, project acceptance, and procedural management of the new farmer training projects.

Two Sets of Professional Textbooks

Offline, we offer illustratively rich and easily comprehensible textbooks, including already printed editions on pig and poultry rearing.

Online, we have developed over 140 video courses that allow for bite-sized learning through short, easy-to-understand, and highly practical videos. Additionally, we have provided 92 public-benefit live-streamed courses that cover a wide range of agricultural topics.

Three Types of Quality Courses

- Technical Skill Courses, designed according to different industrial farming techniques.
- Technical Management Courses, targeted at key farm managers' technical and management courses.
- Industrial Business Courses, necessary for young farm owners and leaders, covering business management and industry knowledge.

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Four Supporting Institutions

- The "Green Collar New Farmer Training" project team
- New Hope Green Collar Academy
- Sichuan Yonghao Public Welfare Charity Foundation
- Rural Revitalization Industry Integrated Development Alliance

Five Sources of Teaching Staff

- Full-time coaches from New Hope Liuhe Industry Academy
- Research experts from New Hope Liuhe's five industry research institutes
- New Hope Liuhe's senior management team and agricultural professional managers
- Experts and scholars from Chinese Academy of Agricultural Sciences, China Central Agricultural Broadcasting and Television School, and other collaborating academic institutions
- Quality instructors from superior domestic and international corporations

A Multitude of Distinctive Demonstration Training Bases

In partnership with institutions such as the Chinese Academy of Agricultural Sciences, Sichuan Provincial Tourism Development Committee, Jiangsu Vocational College of Agriculture and Forestry, and Shandong Vocational Animal Science and Veterinary College, we have successfully established nine specialized training bases. These bases concentrate on areas of training including young farmer development, rural e-commerce, rural tourism, agricultural innovation, livestock farming, and crop cultivation. By collaborating with local governments, higher education institutions, research entities, and other societal forces, we've accomplished synergy and resource-sharing across these bases.

Industrial Training

Focusing on both technological and managerial aspects, we have designed a systematic training curriculum. We organize industry specialists to offer on-site guidance at farmers' livestock farms, utilizing our industrial edge to provide farmers with systematic breeding technology training and on-site advisory services.

Modern Apprenticeship System

Since 2018, we've partnered with Shandong Vocational Animal Science and Veterinary College to establish the New Hope Liuhe Agricultural and Pastoral College. We've embarked on joint enrollment and talent cultivation endeavors with the institution, following the model of the modern apprenticeship system. By integrating theory with practice, we train talents, guiding apprentices to learn theoretical knowledge at school and practical skills at New Hope Liuhe's large-scale pig farms. As of the end of 2022, a total of 430 people have been trained in this program.

The Company has successively partnered with four universities to conduct school-enterprise collaborations through the modern apprenticeship system and targeted training, delivering or reserving 886 "green collar" talents for the agricultural and pastoral industries. The New Hope Liuhe "green collar" talent training project has been selected for the first batch of vocational education school-enterprise in-depth cooperation projects.

Delivering Education to the Countryside - Rural Public Welfare Classes

In collaboration with the China Charity Federation, we have launched rural public welfare classes. These classes provide lectures and specialized tutoring for grassroots officials, farmers, herdsmen, and scenic spot and homestay operators in four provinces, including the Xinjiang Uyghur Autonomous Region and Henan. In 2022, we developed 16 courses, including "Prevention and Control Measures for Common Infectious Diseases in Beef Cattle" along with other courses on breeding technology, disease prevention and control, and pen construction.

Supporting and Financing Small and Micro Enterprises for Agricultural Development

New Hope Liuhe capitalizes on its strengths in agricultural immersion, rural servicing, and farmer proximity, deploying entities such as companies of its agri-food industry chain and industry research institute to offer supply chain financial services and agriculture-related technical services. This aids in the growth of smallholder farmers and micro, small, and medium enterprises, and supports farmers in developing modern agriculture and increasing income. The company has innovatively established a multifaceted financial guarantee operation model, incorporating "government + enterprise + banks + guarantee companies + insurance companies + farmers". With this model, the funds can be allocated to the respective poultry and feed factories, and banks formulate products aligning with the farming cycle, ensuring rapid capital turnover and strong liquidity.

Financial Guarantee

Building a Service Platform

To solve the financing difficulties of agricultural industry chain clients, New Hope Liuhe's subsidiary, Puhui Agriculture and Animal Husbandry Financing Guarantee Co., Ltd., has set up a 2.0 agricultural industry chain financial service platform. It has developed an inclusive "agri-industry chain finance" model that consists of "data tier + risk control tier + product tier + scenario tier". By the end of 2022, Puhui Agriculture and Animal Husbandry Financing Guarantee has carried out business in 31 subsidiary regional companies across the country, launching nearly thirty characteristic industry guarantee loan financial service solutions, such as "Aquatic Feed Loan", "Contract Pig Deposit Loan", and "Beef Cattle Breeding Loan". It has cumulatively served 176,100 agricultural operators, with RMB 58.5 billion in financing successfully implemented, effectively benefiting and assisting farmers.

Strengthening Cooperation between Upstream and Downstream Clients

The Company actively expands cooperation externally to extend its reach to upstream and downstream industrial clients. We achieve scenario-based mass customer acquisition by leveraging data from "within the industrial chain + partners". In collaboration with leading businesses across key agricultural sectors including agriculture, forestry, animal husbandry, fisheries, agriculture-related wholesale, and food processing, the Company unifies its internal resources to serve agricultural supply chain clients, delivering tailored financial solutions based on specific agricultural supply chain scenarios.

Farmer Mobile Application Skills Trainings

The Farmer Mobile Application Skills Training Project is organized by the Department of Market and Informatization of the Ministry of Agricultural and Rural Affairs. The project aims to enhance agricultural production efficiency by training farmers to utilize mobile tools. New Hope Liuhe, being the sole listed agro-pastoral enterprise appointed by the Ministry of Agriculture and Rural Affairs, has been invited for the past six consecutive years since 2016 to organize dedicated corporate events, reaching a total of 12,000 participants in-person and over 300,000 participants online.

Data Tier: The agricultural industry chain financial services platform serves as the foundation for the data layer, tackling the challenge of information collection from farmers and other industry chain clients.

Risk Control Tier: Digitally-driven precise agricultural risk management forms the backbone of our risk control layer, reinforcing the overall risk management process.

Product Tier: The product layer consists of a range of business loan products for agricultural supply chain clients, ensuring precise and efficient personal supply chain financial services for key rural revitalization scenarios.

Product Tier: The product layer consists of a range of business loan products for agricultural supply chain clients, ensuring precise and efficient personal supply chain financial services for key rural revitalization scenarios.

Scenario Tier: The scenario layer is underpinned by both online and offline transactional scenarios provided by industry partners and collaborators, allowing for scalable customer acquisition and targeted services.

Supply Chain Financing

New Hope Liuhe's industrial financing platform, powered by its own capabilities in risk management, data accumulation, and platform construction, offers digital services for upstream and downstream enterprises and customers in the supply chain to obtain bank financing, employing direct bank-enterprise financing service models.

Currently, the platform has introduced a variety of supply chain financing products, such as Haoyangdai, Haoqinbao, and Yongjindai. These offerings cater to five key financing scenarios—upstream feed financing, downstream feed financing, pig breeding financing, poultry breeding financing, and food terminal financing—providing solutions for a range of clients, including raw material suppliers, feed customers, breeders, food terminal distributors, and storefronts.

By utilizing client transaction records and performance data within New Hope Liuhe, the industrial financing platform forges a connection between banks and the Company's industry chain clients, facilitating banks in client credit granting. It offers digital, customized, one-stop services for client financing, empowering banks to select high-quality clients and promoting efficient financing channels for outstanding partners within New Hope Liuhe's industrial ecosystem. This facilitates a triple-win for New Hope Liuhe, capital providers, and industry clients, further strengthening the long-term strategic collaboration between New Hope Liuhe and its supply chain partners, and enhancing the overall competitiveness of the industry ecosystem. In 2022, the industrial financing platform served over 7,400 clients, helping them secure financing of RMB 5.3 billion.

Bank-Enterprise Direct Linkage Model

Cooperation Mode: The Bank-Enterprise Direct Linkage Model operates as a pure credit business, in which our industrial financing platform does not assume any guaranteed repayment responsibilities. Service scenarios include upstream and downstream feed financing, pig breeding deposit loans, and others.

Service scenario: feed upstream, feed downstream, Pig industry deposit loan, etc.

Collaborative Banks: China Construction Bank, Bank of Communications, Postal Savings Bank of China, Agricultural Bank of China, China Resource Bank, and MyBank, among others.

In 2022, the Bank-Enterprise Direct Linkage Model served more than **1,400** clients, with loan disbursements reaching RMB **3** billion.

Corporate Governance

Striving to Uphold Long-Termism

New Hope Liuhe consistently adheres to the guiding principles of party construction, continuously fortifying the groundwork for our corporate development. We strengthen stringent risk management, maintain adherence to regulatory compliance, and uphold integrity in our operations, firmly establishing a boundary against corruption. By advancing clean governance and collaborating with business partners for mutual growth, we continually enhance our ability to manage our operations prudently, contributing to the vibrant and enduring prosperity of the Company.

Contributing to the United Nations Sustainable Development Goals



Building a Resilient Foundation through Party Leadership

The year 2022 not only marked the successful convening of the 20th CPC National Congress, but also celebrated the 40th founding anniversary of New Hope Liuhe, marking a period of significant intensification in our party construction efforts. The Company thoroughly embraced the spirit of the 20th CPC National Congress and innovated our party construction strategies. We enhanced the "Hope Red" party construction brand building, and proposed the party construction ideology of "party construction shapes culture, culture fuels unity." This dedication to high-quality party construction became the driving force behind our pursuit of high-quality corporate development.



Strengthening Party Organization Construction

The Company has focused intensively on party organization development, diligently implementing the party's directives, policies, and various work tasks. We promoted the "dual-entry, cross-positioning" model for party cadres within New Hope Liuhe, solidifying their roles. We have re-elected members of the New Hope Liuhe Party Committee, as well as the Executive Deputy Secretary of the Party Committee, and have concluded organizational adjustments and leadership elections for five directly affiliated party branches, including the Beijing Party Branch, Chengdu First Party Branch, Chengdu Second Party Branch, Chengdu Third Party Branch, and the Feed Party Branch. These initiatives have enhanced our organizational coherence and optimized our structural arrangements.



New Hope Liuhe's Chengdu Third Party Branch held its election congress



Party Construction Leading Corporate Culture

In 2022, the Company put forward the concept of "party construction shapes culture, culture fuels unity," institutionally ensuring the integration of party construction and cultural development, which provided a continuous flow of spiritual energy for the Company's growth and development. We established a system of rewards and penalties, issued *the Basic Principles of Rewards and Penalties of New Hope Liuhe*, and held the "Strive with Dedication, Shine with Hope" culture-driven special event. During this event, we honored 108 outstanding teams and 81 exceptional individuals, fostering a culture of resolute determination and relentless perseverance.



"Strive with Dedication, Shine with Hope" culture-driven special event



Featured Party Construction Activities

The Company has actively initiated a series of party activities themed "Promoting Efficiency and Cost Reduction for Business Growth, with Party Members as Pioneering Role Models", in celebration of the 101st anniversary of the founding of the Communist Party of China. An initiative titled "Unify Minds, Win through Actions" was launched to encourage party members to take the lead and contribute their ideas for enhancing efficiency and reducing costs. Additionally, we hosted a joint party-building event themed "Party Construction Facilitating Development, Bank-Business Collaboration Upholding Original Intentions." This event included exchanges with Xinjin Intelligent Pig Farm and a collaborative party-building effort with the Bank of China Sichuan Branch, together seeking out best governance practices for high-quality development.



New Hope Liuhe and the Bank of China Sichuan Branch are collaboratively engaging in party-building activities



Disseminating the Spirit of the 20th CPC National Congress

New Hope Liuhe issued a Notice on *Diligently Studying and Understanding the Spirit of the 20th CPC National Congress*, organizing 86 grassroots party units and more than 5,000 party members to participate in over 100 specialized theoretical study sessions. This endeavor has showcased the leadership role of party members and actively disseminated the spirit of the 20th CPC National Congress.



A professor from the Sichuan Provincial Party School is expounding on the spirit of the 20th CPC National Congress

Strengthening Risk Management

New Hope Liuhe has formulated a set of governing guidelines strictly following the *Company Law of the People's Republic of China*, *Securities Law of the People's Republic of China*, *Basic Norms for the Internal Control of Enterprises*, and *Application Guidelines for the Internal Control of Enterprises*, along with other laws and regulations. These guidelines include the *New Hope Liuhe Co., Ltd. Internal Control Management System*, *New Hope Liuhe Co., Ltd. Six Red Lines*, *New Hope Liuhe Co., Ltd. Application Guidelines for Internal Control*, and *New Hope Liuhe Co., Ltd. Guiding Opinions on Legal Dispute Management*. These guidelines, tailored to the unique characteristics of the industry, establish robust, targeted risk management protocols for areas such as environmental protection, safety in production, product quality, and digital technology. The Company actively pursues a work model that prioritizes risk management and emphasizes compliance management supervision, striving to create a cohesive, efficient system of internal control, risk control, and compliance management.

Risk Management Objectives

The Company is committed to enhancing its overall risk control framework in alignment with regulatory requirements and internal imperatives, with a focus on bottom-line thinking and a heightened awareness of risk thresholds. To ensure the effectiveness of its risk management efforts, it seeks to improve the standardization, systematization, precision, and digitalization of its risk management processes, and expand the depth of its risk management measures.

Risk Management System

New Hope Liuhe has established a comprehensive risk management system, accurately identifying, prudently assessing, and dynamically supervising various sources of risk, including financial, market, operational, and legal risks. We have improved our risk management organizational structure, clarified responsibilities, and developed a top-down risk management framework with a four-tier organizational structure, establishing a triple-barrier risk defense system for proactive, reactive, and retroactive management.

First defense line: Operating units including business units/vertical teams, strategic regions/integrated units/settlements, and subsidiaries, form the first risk management defense line as operational management entities, charged with the establishment and execution of internal control measures.

Second defense line: business units/vertical teams/internal control and risk control lines, all functional departments at the company headquarters, the middle offices of the Pig Raising Strategic Command, and the Internal Control Center of the Audit and Supervision Department form the second defense line in the Company's risk management, responsible for the design and supervision of internal control implementation.

Third defense line: The Audit Center and the Supervision Center within the Audit and Supervision Department are the third line of defense, responsible for auditing, internal accountability, and, in cases of criminal offenses, referring the matter to judicial authorities.

The Board of directors assumes the ultimate responsibility for risk management, and is responsible for decision-making and supervision of significant matters related to the Company's comprehensive risk management.

Identifying Significant Risks

The Company has strengthened its risk identification, prevention, and management capabilities. We continue to enhance our capacity to respond to risks such as environmental protection, safety production, and human resource risks, developing scientifically sound risk response strategies, and effectively managing and mitigating potential risks.

Specialized Training Programs

The Company has launched specialized training programs for employees across different departments to strengthen their expertise and awareness in risk management. In 2022, we organized risk management training specifically targeting key risk sources, such as food safety, safe production, and environmental protection, aiming to constantly enhance employees' risk management awareness and capabilities.

3,411 risk management training programs have been held with a total of **1,002,000** participants

Intelligent Risk Management Measures

Establishing a full-chain collaborative risk management framework for the pig industry

Tailored to the specific characteristics of the business, we have established an intelligent backend system that provides consultation and advice on value chain design, business capabilities, and strategic operations. We have also set up capability and business platforms to promote the rectification of audit issues and facilitate anti-fraud investigations.

Creating industry risk maps

We have created risk maps for each industry by identifying potential risk factors, enabling a systematic approach to risk management. Sensitive positions are evaluated based on job functions, role design, and personnel profiles. To tackle significant risk factors, the Company enhances internal control systems and implements training and awareness initiatives for proactive prevention, establishing an early warning mechanism that seamlessly merges risk management with integrity and compliance.

Employee Anti-Corruption Training Coverage

70%

Number of Employee Attendances in Anti-Corruption Training

68,000 attendances

Total Duration of Anti-Corruption Training

34,000 hours

Note: * The data does not include frontline operators and overseas foreign staff.

Adherence to Business Ethics

The Company has established a robust compliance and business ethics management system in accordance with laws and regulations such as the *Company Law of the People's Republic of China*, *Anti-Unfair Competition Law of the People's Republic of China*, *Anti-Monopoly Law of the People's Republic of China*, and industry norms. This system incorporates anti-fraud, anti-money laundering, and anti-bribery measures, ensuring these principles are understood and followed by all employees and partners. Through a variety of measures, we strive to elevate the standard of our corporate compliance operations. We steadfastly adhere to the principles of "Dare not to corrupt, can't corrupt, don't want to corrupt", and have put in place several regulatory documents such as the *Employee Sunshine Commitment*, *Management Behavior Guidelines*, *New Hope Liuhe Employee Conflict of Interest Declaration Management Measures*, and the *New Hope Liuhe Six Red Lines of Non-Permissible Actions*. We continually refine our integrity and compliance system, upholding stringent integrity standards in our hiring practices. We also improve our supervisory systems, and promote the continuous implementation of an ever-evolving integrity and compliance system. With such an approach, a culture of integrity is fostered, an orderly management environment is maintained, and solid assurances of high-quality development are provided for the Company. In 2022, the Company successfully investigated and resolved 36 corruption cases, with an effective reporting processing rate of 100%.

Strengthening Audit Supervision

New Hope Liuhe has established a robust anti-corruption organizational system, consisting of internal control, audit, and supervision units. These teams conduct audits on the integrity compliance systems of suppliers and employees, and other routine production and operation matters, with a full audit of all businesses every three years. In 2022, the Company conducted 36 audits related to business ethics and anti-corruption, achieving a 100% rectification completion rate and holding 512 individuals accountable*.

Providing Clear Channels for Reportin

The Company has established comprehensive management measures such as the *Accountability Management System of New Hope Liuhe Co., Ltd.* and the *Reporting Investigation Management Method of New Hope Liuhe Co., Ltd.* We have set up channels for letters, visits, phone calls, online submissions, and offline submissions to accept supervision and reports from internal and external stakeholders about the Company and its employees. Upon receiving a report, we promptly follow up and complete the investigation within 5-10 business days. For cases where preliminary conclusions cannot be drawn, the investigation is suspended or terminated. If disciplinary violations are found, accountability measures are taken according to internal management procedures. If criminal offenses are suspected, the case is handed over to the judicial authorities for processing. Meanwhile, the Company places high importance on the protection of the rights and interests of whistleblowers. Confidentiality is required throughout all stages of the complaint handling process, and strict protection is provided for the personal information of whistleblowers, maintaining their rights.

Enhancing Training and Dissemination

The Company has initiated the "Sunshine Action", which involves a wide range of integrity promotional activities. These include requiring new employees to sign a Sunshine Commitment, posting anti-fraud posters in both domestic and overseas subsidiaries, and issuing reminders about maintaining integrity during holidays. We have held integrity-specific training sessions, inviting external experts for lectures and conducting several anti-corruption training sessions within the Company, to enhance employees' awareness of integrity and guide them to follow the codes of professional ethics and employee behavior. We are fully committed to the implementation of our integrity and compliance system.

Developing a Transparent Supply Chain

One of New Hope Liuhe's main concerns is mitigating business ethics risks in the procurement process. The Company adheres to transparent procurement, upholding the principles of openness, fairness, impartiality, and honest credit. We identify key risk issues in our interactions with suppliers and sign a "Sunshine Cooperation Agreement" with each supplier, ensuring business relationships are founded on honesty and trust. During the negotiations with suppliers, we consistently highlight our business ethics policy, identify potential integrity risks, and work together to establish an efficient and clean supply chain. In 2022, 100% of our suppliers signed the Sunshine Cooperation Agreement.



Follow Sunshine
New Hope Liuhe
People, watch the
Comic of Sunshine

Growing Together with Partners

Improving Supply Chain Management

New Hope Liuhe strictly adheres to national laws and regulations such as the *Bidding Law of the People's Republic of China* and the *Regulation on the Implementation of the Bidding Law of the People's Republic of China*. The Company has established norms such as the *Management Methods for Raw Material Suppliers and Supply Channels* and the *Management Methods for Raw Material Suppliers* to standardize the access, comprehensive evaluation, and exit management process for suppliers. We have improved long-term communication mechanisms with suppliers and built a high-quality supply chain management system, ensuring mutual long-term growth.

Full Lifecycle Management

Procurement and Admission

The Company establishes admission criteria for suppliers, standardizes the supplier admission process, and strictly verifies suppliers' qualifications. On-site evaluations of suppliers are conducted to focus on key aspects such as quality management, supply capabilities, and the production environment. For feed additive suppliers, a cross-departmental inspection team is formed to evaluate their technical processes and quality control measures.

Comprehensive Evaluation

The Company conducts quarterly and semi-annual evaluations of raw material suppliers. An annual review panel from the technical, quality control, auditing, and financial departments examines suppliers based on factors including regulatory compliance, supply punctuality, quality rates, price advantages, and contract performance. Suppliers are classified into A, B, C, and D categories, with differentiated management mechanisms applied accordingly.

Exit Mechanism

During regular or periodic evaluations, suppliers who violate laws and regulations or fail to meet contractual requirements are classified as D-category suppliers and removed from the Qualified Supplier Directory, and will be blacklisted and disqualified. An appeal channel is provided before suppliers are blacklisted, ensuring the scientific and objective nature of the exit mechanism.

Total suppliers

9,415

Mainland China suppliers

5,303

Suppliers from Hong Kong,
Macau, and Taiwan

1

Overseas suppliers

4,111



Preventing Supply Chain Risks

Securing raw material supply security and mitigating supply chain risks are crucial tasks for the livestock industry. New Hope Liuhe has developed a comprehensive risk analysis model and assessment mechanism, enabling thorough evaluation of risk identification, potential risk-related losses, and specific risk mitigation measures across different supplier types. This strategy fosters a resilient supply chain, guaranteeing the quality and safety of raw material supplies while effectively preventing potential risks in the supply chain. In 2022, the Company's raw material supply remained stable, with no production impacts due to shortages.

• Strengthening Supplier Collaboration

The Company has forged strategic relationships with 99 leading enterprises in the industry, strategically incorporating multiple supplier channels to secure a stable supply of feed raw materials.

• Monitoring Market Trends

The Company has established an industry research center to proactively assess and forecast market trends, guiding various units to increase or decrease raw material reserves based on market conditions.

• Establishing Green Channels

In cases of resource limitations and macro-environmental influences, the Company collaborates with suppliers to open green channels, ensuring a smooth supply of goods.

• Utilizing Financial Tools

The Company employs flexible use of financial tools, leveraging futures hedging and other methods to manage price fluctuation risks.

• Enhancing Transportation and Supply Efficiency

By utilizing suppliers' offsite warehouses or having suppliers transfer goods to company warehouses in advance, the Company ensures delivery needs in certain regions, transforming long-haul transportation cycles into shorter ones and improving delivery efficiency.

• Implementing Dual Procurement

The Company has strengthened the reserve for special raw materials and those susceptible to supply disruptions.

Annually reviewed suppliers

3,854

Suppliers terminated due
to environmental and social
issues

0

Suppliers passing quality
assessments

100%

Supporting Supplier Growth

Enhancing supplier capabilities is an effective way to promote the progress and development of the industry chain. New Hope Liuhe, together with its suppliers, strives for mutual growth and jointly elevates industry safety and quality standards. The Company actively engages in collaboration and communication with suppliers by organizing forums and meetings to gain insights into their needs, offer assistance and support, and encourage quality management exchanges. This creates a communication platform for suppliers to better understand the Company's quality management requirements. The Company's subsidiaries have established strong partnerships with various suppliers, conducting regular research and learning activities to enhance mutual understanding and trust. In 2022, the Company initiated strategic cooperation discussions and signed agreements for 2023 annual cooperation objectives with leading industry enterprises, such as COFCO Group, Yihai Kerry, and Xiamen C&D. This collaboration has increased raw material credit sales, strengthened complementary advantages in logistics and warehousing resources, and facilitated information sharing on industry research, collectively contributing to the high-quality development of the industry.

Enterprise for People's Well-being

Safeguarding Life with Life

We uphold quality as our foundation and pledge to provide consumers with premium products and services. Driven by our corporate mission of "profiting the farmers, benefiting the consumers", we continuously enhance our food safety management system, implement scientifically precise feeding practices, and promote the research and development of nutritious and healthy meat products, in the hope of offering consumers more nutritious, healthier, and safer high-quality food. Leveraging our brand and scale advantages, we continuously optimize our feeding services, safeguarding the basic rights of our customers and achieving mutual-beneficial growth together.

Contributing to the United Nations Sustainable Development Goals



Strengthening Food Safety

New Hope Liuhe steadfastly upholds the food safety management concept of "there are no small matters in product quality control, and the responsibility for food safety is greater than anything else." We strictly abide by the "Three Concessions, Three No-Tolerance" principles, and have set up a comprehensive, traceable quality and safety management system that spans from the farm to the dining table. Proactively conducting quality and food safety trainings and audits, we are committed to producing safe, high-standard meat products, ensuring that people have access to trustworthy meat.



2022 Food Safety Technology Innovation Award
— The 6th China Animal Health and Food Safety Conference

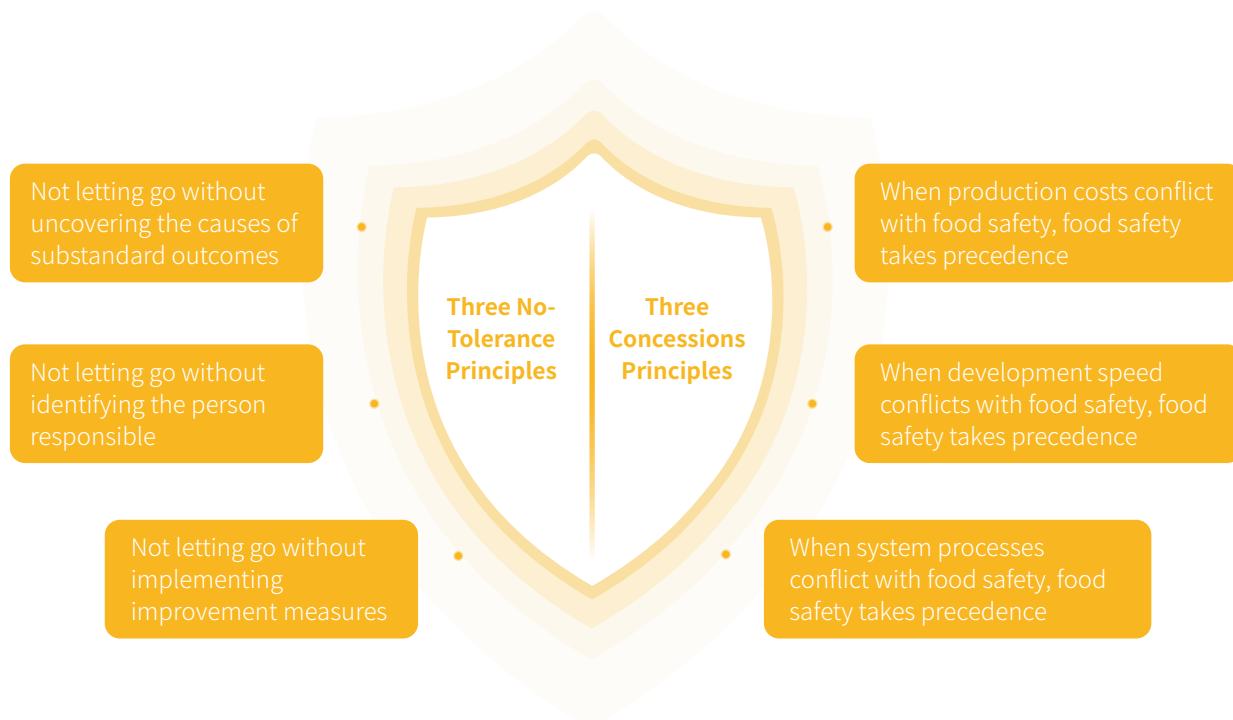
2021-2022 Food Safety Integrity Organization
— The 20th China Food Safety Conference

Full Lifecycle Management

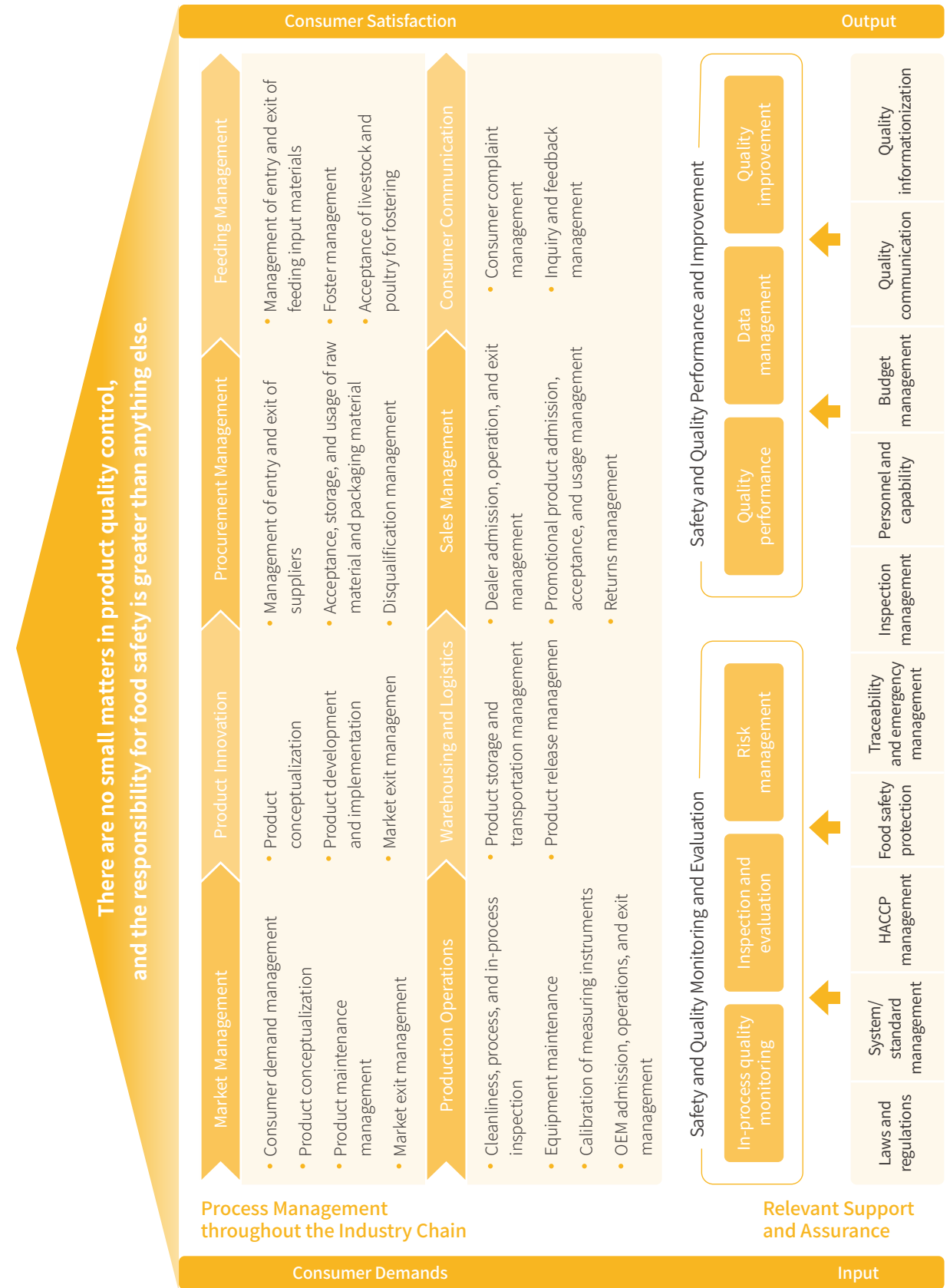
Based on strict compliance with relevant laws, regulations, and industry standards, the Company has developed guidelines for special food safety management and measures for quality and safety inspection management tailored to the characteristics of different industries, including the poultry industry, pig farming industry, and food industry. To ensure food safety throughout the entire supply chain, it has established a comprehensive system of management regulations, including the *Management Rules for Food Safety Red Line*, *Management Measures for Food Safety Supervision and Sampling Inspection 2.0*, *Management Measures for Food Crisis*, and *Implementation Rules for Food Sector Inspection 2022 Ed.*

To further enhance the management level of food quality and safety, we have implemented a three-tier system consisting of the Food Safety and Quality Management Department at headquarters, the Food Safety Management in the business line, and the Safety and Quality Department of subsidiary companies. This system aims to promote the implementation and achievement of the management goals of food safety and quality.

"Three Concessions, Three No-Tolerance" Principles for Food Safety



Food Quality and Safety Management System throughout the Industry Chain



Promoting the Certification of Quality and Safety Management Systems

We carry out certifications for global food safety management systems and standardized quality management systems, for the purpose of enhancing the international competitiveness of the Company in the food industry. As of the end of 2022, we have obtained plenty of certifications, including 67 China HACCP Food Safety Management System Certifications, 11 FSSC 22000 Food Safety System Certifications, 3 BRC Global Food Safety Standard Certifications for the UK retail industry, 2 ISO 22000 Food Safety Management System Certifications, and 13 ISO 9001 Quality Management System Certifications.

Strengthening Supervision and Management of Quality and Safety

In accordance with the characteristics of each industry, we have designed corresponding quality and safety inspection methods. Regular quality and safety inspections are conducted to make evaluations in each factory. Non-compliant practices are required to be rectified within a specified period. Additionally, we analyze the typical problems and excellent practices identified during the inspection process and conduct training and exchanges to promote mutual improvement. In 2022, a total of 179 inspections were conducted in the subsidiaries (including laboratories) of the food and feeding industries.

Improving Technical Capabilities in Quality and Safety

To address the technical challenges in quality and safety during production and operations, we have established a mechanism for food safety technology research, development, and innovation that covers the entire industry chain, aiming to provide solutions. In 2022, we collaborated with China Agricultural University (CAU) to develop a pre-slaughter drug residue detection technology for live pigs. With a groin sampler for muscle tissue sampling and testing, issues related to the withdrawal period of drug in the feeding stage and the safety verification at the time of slaughter were addressed. This ensures the safety of drug residues in pigs before they reach the slaughterhouse, filling the previous technological gap.

Cultivating a Culture of Quality and Safety

- Conducting "Food Safety Month" activities to disseminate the concept and goals of the Company's food safety to employees, customers, and suppliers, promoting shared responsibility and shared benefits.
- Providing specialized training for personnel in different positions and conducting assessments for all participants. In 2022, we conducted 60 training sessions at the corporate level, reaching 6,094 individuals; 74 sessions at the industry level, reaching 3,111 individuals; and 840 at the subsidiary level, reaching 31,000 individuals.



Conducting **1,026** training sessions and training a total of **45,432** individuals.

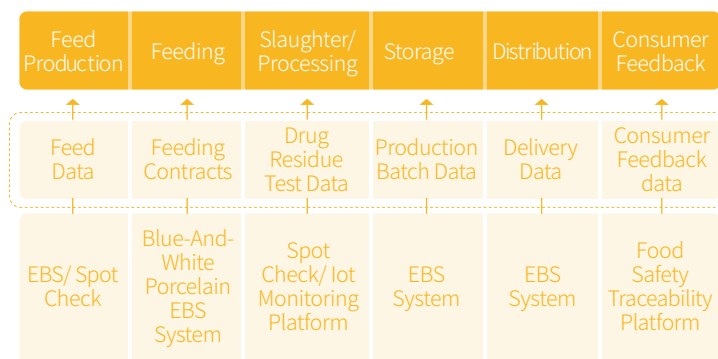
Case Study Safety Guardians: Safeguarding Food Safety

Since 2019, we have been continuously refining the "Safety Guardians" training program, focusing on enhancing food safety awareness and capabilities. With a specific focus on four key positions, we have developed customized professional courses, trained experienced instructors, and established a comprehensive training model for food safety. In 2022, a total of 7 courses were developed and 18 instructors were trained as part of this program.

Product Traceability Management

We attach great importance to food safety traceability management. By establishing the EBS electronic system, we integrate information technology into every stage of the industry. We also employ a food monitoring system to promote information traceability across the entire industry chain, from feeding and feed production to slaughter, processing, and end-point sales, creating a solid firewall for food safety. In addition, each subsidiary company is required to conduct at least one traceability drill annually to ensure the effectiveness of this mechanism.

Information Traceability System



Pig Farming Industry

During the feeding stage, each pig is equipped with a unique identification ear tag to ensure full traceability. In the product processing stage, each product is equipped with an anti-counterfeit QR code that allows for verification of the "Antibiotics-Free" certification mark.



Poultry Industry

We have instituted the *Broiler Chicken Traceability System and Standardized Process*, designed to standardize the markings and procedures that allow for the traceability of our product processing steps.



Food Industry

We have established the *Food Industry Product Traceability Management System*. This system delineates the responsibilities and authorities during the product traceability management process, outlining requirements for the traceability system, traceability drills, traceability verification, and other associated management activities.

Enhancing Nutritional Value

We prioritize the nutritional value of our food, utilizing scientific methods in livestock and poultry farming to improve animal functions and meat quality. Guided by the principle of "good feed, authentic flavor, safe meat", we hope to provide customers with meat products that are safe, nourishing, healthy, and delicious. Our continuous efforts in enhancing the accessibility of nutrition are aimed at improving consumers' health levels.

Precise and Healthy Breeding

We uphold advanced breeding and rearing principles and technologies. Healthy growth of pigs is ensured by insisting on selective breeding, promoting the development and application of feed nutrition technology, regulating the management of veterinary drug usage, and strengthening disease prevention and treatment.

Advancing Selective Breeding

We build a sustainable breeding system that spans the entire industry chain, cultivating specialized breeds with a focus on high-quality meat varieties and accompanying strains. In addition, we conduct carcass slaughter measurements on pigs and, in conjunction with developing live body measurement technologies, enhancing the biological functions and meat quality of our pigs. In 2022, the average intramuscular fat content in our core herd has reached 2.2%.

Optimizing Nutritional Formulations

By utilizing our self-developed "Hongtong" digital nutrition system, we strengthen our formulation techniques, promote precise nutrition, and make tailored nutrition plans for pigs based on their breed, region, season, growth stage, and health status.

Ensuring Strict Use of Veterinary Drugs

We strictly comply with national regulations on the use of veterinary drugs, forbidding any pig farm or breeder from purchasing, storing, or using prohibited drugs. For commonly used antibiotics, we follow a rigorous procurement process to acquire legal products. We strictly manage the in-field drug usage process to ensure the rational and precise use of medications through measures such as reasonable applications, veterinary approvals, warehouse



supervision, and usage registration. We establish drug usage files, record every usage and conduct regular inspections. Consequently, there have been no incidents of drug residues in our pig farming operations throughout the year.

Strengthening Disease Prevention

We have developed a Bio-safety Management Manual and set up a Bio-safety Management Team under the direct leadership of the general manager, with the technical director taking charge of its implementation. This team conducts bio-safety risk assessments for pig farms, promptly formulates preventive measures, and continuously improves the bio-safety plans.

In collaboration with several domestic research institutions, we persistently conduct research on disease control and pathogens, continually optimize disease control and purification methods, and assist in developing customized programs for controlling major diseases.

All our pig houses are enclosed structures fitted with a three-tier air filtration system, mitigating airborne transmission of viruses. We enforce stringent entry management for personnel, materials, and vehicles, ensuring bio-safety measures are effectively upheld, thus securing the health of our pigs.

Safeguarding Animal Welfare

We treat animals with scientific farming methods, providing them with a comfortable environment, ample nutrition, and meticulous care. We prioritize immunization, disease prevention, and treatment, aiming to minimize animal suffering and stress responses while improving their overall quality of life and health.

Ample nutrition

- Through scientific feed formulation, we ensure precise nutrition to fulfill the dietary requirements of animals throughout their entire growth cycle.
- We employ an automated feeding system, which allows the animals to freely eat and drink, thus ensuring a plentiful supply of both feed and water.

Meticulous Care

- Comprehensive testing for antibodies, microorganisms, drug sensitivity, mycotoxins, and Escherichia coli is carried out on seedlings, feed, veterinary medicines, drinking water, and the environment to ascertain the safety of breeding inputs.
- We regularly flush water lines using high-pressure cleaning equipment to prevent the accumulation of biofilms in water pipes, thus maintaining the animals' intestinal health.
- We implement real-time monitoring of animal health to enable early detection and treatment of any illnesses. We have established a dedicated disease management team in the pig farming sector to refine our disease monitoring and early warning mechanisms, thereby ensuring the healthy growth of our pig populations.

Stress Reduction

- By employing intelligent device management and information-driven online monitoring, we minimize the interaction between personnel and animals, thereby reducing stress responses during the breeding process.
- Prior to transportation, livestock and poultry are put through a period of fasting and rest. We adopt gentle transportation methods to minimize stress responses during lengthy journeys.
- We utilize humane methods such as gas stunning to minimize animal suffering during the slaughtering process, thereby enhancing the quality of meat post-slaughter.

Comfortable Environment

- The breeding farm adopts high-standard human-grade structures and insulation measures to ensure a warm environment during winter and a cool one during summer. Furthermore, stringent measures are taken to ensure that all equipment and materials used pose no harm to the animals.
- We provide appropriate living spaces tailored to the different breeds and growth stages of the animals. Effective measures are implemented to manage stocking density, preventing overcrowding and excessive humidity.
- Our intelligent environmental control system enables real-time monitoring of on-site environmental indicators, including temperature, humidity, PM_{2.5}, and others. The system also issues alerts as needed, facilitating precise management of the breeding environment.

Creating Healthy Foods

As a company deeply engaged in meat products, we advocate the trend of healthy and nutritious diets and actively develop nutritious, healthy and rich meat products to meet the health needs of consumers, with the public's nutritional needs as our guide.

The SwineSavor Series Products with "Antibiotics-Free" Certification

We have developed the SwineSavor series, which is the first deep-processed pork product certified as antibiotic-free. The pork comes from antibiotic-free farms. Its production strictly follows relevant standards, and the products undergo testing by authoritative organizations to ensure they are free from antibiotics or synthetic antibacterial drugs. Additionally, products of this series have a 25% reduction in salt and contain no added monosodium glutamate(MSG) for healthier intake.



PURE Meat Sausage Series of Simplified Recipe

We actively pursue technological innovation to minimize the use of artificial additives in our products. Our PURE meat sausage series is free from artificial flavors, MSG, soy protein, starch etc., providing a burden-free diet. Additionally, it provides 55% more protein (PURE Original Flavor) than the industry standard.



Controlled-Calorie Chicken Breast/Sausage

We pay attention to the fat content of our products and have developed a healthy option of high-protein and low-fat. By using xylitol instead of refined sugar, we not only reduce calorie intake but also make it possible for individuals with high blood sugar and diabetes to enjoy our delicious food.



Calorie content: one pack of controlled-calorie chicken breast (approximately 127 kcal) < one avocado (approximately 171 kcal)

Calcium-Enriched Ham Sausage

While ensuring the inherent nutrition of our products, we strive to develop nutrient-fortified foods. Our Calcium-Enriched Ham Sausage is formulated to contain a higher calcium content (120mg/100g) with more nutrition.



Improving Service Quality

We place great emphasis on improving customer satisfaction by continuously optimizing our service model. We strive to enhance our customer service system and standards, providing channels for listening, communication, and feedback. We are committed to safeguarding the basic rights of our customers and making effort to create better service.

Optimizing Farming Services

We have always adhered to the "Company + Farmers" farming model. On the one hand, the Company provides technical support, high-quality piglets, good feed, vaccines and medications, as well as order collection. On the other hand, farmers provide standard farming facilities and labor for farming. This mutual-beneficial approach allows the Company to make profits while helping farmers increase their income.

Throughout the farming process, we deploy on-site managers to investigate the farming conditions and track various indicators. They provide feeding advice and technical training to farmers, assisting them in improving efficiency. In cases involving health and disease issues, the managers collaborate with veterinarians and feed formulation experts to provide technical support for treatment and feeding. In 2022, the poultry industry launched the "Farming Elite" training program, in which a series of training sessions for outstanding farm managers and technicians were held. The training covered various topics, including standardized farming shed placement technology, disease prevention and control management technology, and feeding management technology.

Poultry Farming Service

- Shed Upgrades
- Water Quality Testing
- Water Tank Cleaning
- Technical Training
- Poultry Hatchling Growth Inspection
- Antibody detection

Pig Breeding Service

- Technical Support
- High-Quality Feed
- High-Quality Piglets
- Vaccines and Medications
- Order Collection

Case Study: Cooperative Farming Model Enhances Farming Efficiency

In order to help farmers improve pig breeding productivity and reduce production costs, we have launched a cooperative farming model in scale pig farms nationwide. The objective is to integrate industry advantages and resources, centering on nine key service areas. Our aim is to bring the most systematic pig farming technology to pig farms, and develop suitable technical service programs according to the specific conditions of each farm.

- Piglet Procurement**: Assisting pig farms in sourcing high-quality piglets from local suppliers or the New Hope.
- Financing Support**: Addressing the challenges of difficult, slow, and costly financing through the New Hope financial platform and inclusive guarantee.
- Pig Insurance**: Assisting pig farms in purchasing insurance to provide security throughout the whole process.
- Farming SOP**: Providing technical guidance, on-site support, process control, and standardized farming SOP.
- JianZhuBang**: A data management software for scale pig farms, enabling customers to access real-time farm data.
- Nutrition Program**: Providing precise and tailored product packages for scale pig farms to meet the nutritional requirements of pigs at each stage.
- Bio-safety**: Strictly adhering to the four levels of bio-safety classification to ensure the safety of the environment and products.
- Animal Welfare Services**: Offering New Hope Fenglan animal welfare products, along with 200+ animal welfare testing services.
- Sales Services**: Professionally assessing market trends, connecting with multiple channels, and facilitating capital flow.

JianZhuBang: Data Management Software for Pig Farms

- Pig Inventory Display
- Sow Data Analysis
- Nursery and Fattening Analysis
- Boar Data Analysis
- Online Diagnosis for Sick Pigs
- Animal Protection Product Procurement
- Pig Farm Collaboration Model
- Feed Package Data

Focus on Customer Experience

We adhere to the service philosophy of customer-centricity and continuously strive to enhance the quality of our customer service. We persistently improve our mechanisms for customer feedback and complaint resolution, providing heartfelt services to make customers more satisfied.

Customer Feedback Channels

We value the feedback of each and every customer. They can interact with us through multiple platforms and channels, including the 400- customer service hotline, WeChat official account, and our online official mall. The feedback, handled by our professional customer service staff, is considered a valuable guide for our improvement, by which we can enhance product quality and service levels, and strengthen customer loyalty.

Customer Complaint Resolution Mechanism

The Company follows internal procedures and guidelines to handle all complaints received from customers, suppliers, and partners. Corresponding measures are taken to actively investigate and address the complaints, ensuring timely and effective resolution of consumer complaints. In 2022, the Company's complaint-handling rate reached 100%.

Enhancing Customer Satisfaction

We attach great importance to optimizing customer service. In 2022, we established a customer evaluation system from a pilot project in the pig feed business. Satisfaction surveys targeting key customers were conducted, with direct suppliers and dealers as our focus. We also identified gaps between customer experience and expectations, and followed up on improving issues across various industries. Our continuous efforts aim to refine and enhance service quality.



The feed after-sales team visited aquaculture farmers, providing meticulous and satisfactory services.

Product and service complaint handling rate

100%

Case Study

A Full Lifecycle Customer Management System Improves Service Efficiency and Experience

In order to better identify and respond to customer needs, we conducted a systematic and comprehensive review of the entire customer lifecycle in 2022. We established standardized service processes and requirements, and piloted a full lifecycle customer management system (CRM system) in the feed business. This system visualizes the various stages of the customer lifecycle, enabling us to track the service process from the customer's perspective and improve our service. We also continuously monitor customer satisfaction evaluations and feedback, optimize internal management efficiency, and improve resource allocation.

Safeguarding Customer Rights

We strictly adhere to laws, regulations, and regulatory requirements, earnestly protect customer privacy, insist on responsible marketing, and make every effort to safeguard the basic rights and interests of our customers.

Information Security and Customer Privacy Protection



We respect and protect customer privacy, and strictly follow laws and regulations including the *Cybersecurity Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China*, and the *Personal Information Protection Law of the People's Republic of China*. Accordingly, we have established regulations and guidelines including the *Information Security Management Measures*, *Terminal Security Management Measures*, *Data Security Management Measures*, and *Emergency Response Plan* to identify critical areas where information leakage may occur in our business processes and formulate clear response procedures. In accordance with the *Personal Information Protection Law of the People's Republic of China*, the Company has implemented corresponding measures to protect the personal basic information, identity information, biometric information, education and employment information, health and physiological information, property information, and other sensitive information of employees and customers. We follow the principle of least privilege, strictly limiting internal access to employee and customer private information. The application development and deployment process are rigorously controlled, and sensitive personal information is desensitized and encrypted during network storage and transmission.

In 2022, we set up the Data Security Management Committee and the Confidentiality Committee to coordinate the data management of New Hope Liuhe from three aspects: state secrets, corporate secrets, and personal privacy information. We have also designated confidentiality coordinators in each department to form an information security management system that penetrates all departments, and further enhance the Company's information security management capabilities and level.

In order to strengthen our employees' awareness of security, we have established a WeChat official account of information security that regularly disseminates rules, regulations, and cautionary examples related to information security. In addition, we have carried out eight specialized training sessions on information security, which encompass topics such as information security management requirements and techniques for defense against both internal and external threats. These measures are designed to enhance our capacity to protect information security and prevent any leakage of customer information.

Zero major incidents of information leakage throughout the year.

Responsible Marketing



We actively comply with the *Advertising Law of the People's Republic of China* and other laws and regulations, strictly carry out compliant promotion, and resolutely prevent the dissemination of false information. All advertisements and promotional materials must undergo thorough review before they are placed on the market. This is to avoid false associations or interpretations of advertising slogans, product packaging, and service names by consumers, achieving responsible marketing.

Revised marketing policies for the pig farming industry in 2022:

- Evaluation and Management Measures for Marketing Personnel
- Regulations for Customer Management in Pig Sales
- Notice on Standardizing Sales Process Management
- Notice on Implementing Standardization of Sales Documents in the Pig Farming Industry



Official Accounts of New Hope Liuhe Information Security

Exploring the Development of Smart Urban and Rural Areas through Technological Innovation

New Hope Liuhe insists on taking science and technology as the primary productivity, focuses on the R&D of core technologies in the industry, and promotes the innovation of key industrial technologies with major scientific research projects. The Company continues to invest in various fields including intelligent farming, genetic breeding, and bio-safety to release its potential and vitality through innovative development. With the dual engines of technological progress and digital transformation, the Company is reaching new heights with high-quality development.

Contributing to the United Nations Sustainable Development Goals

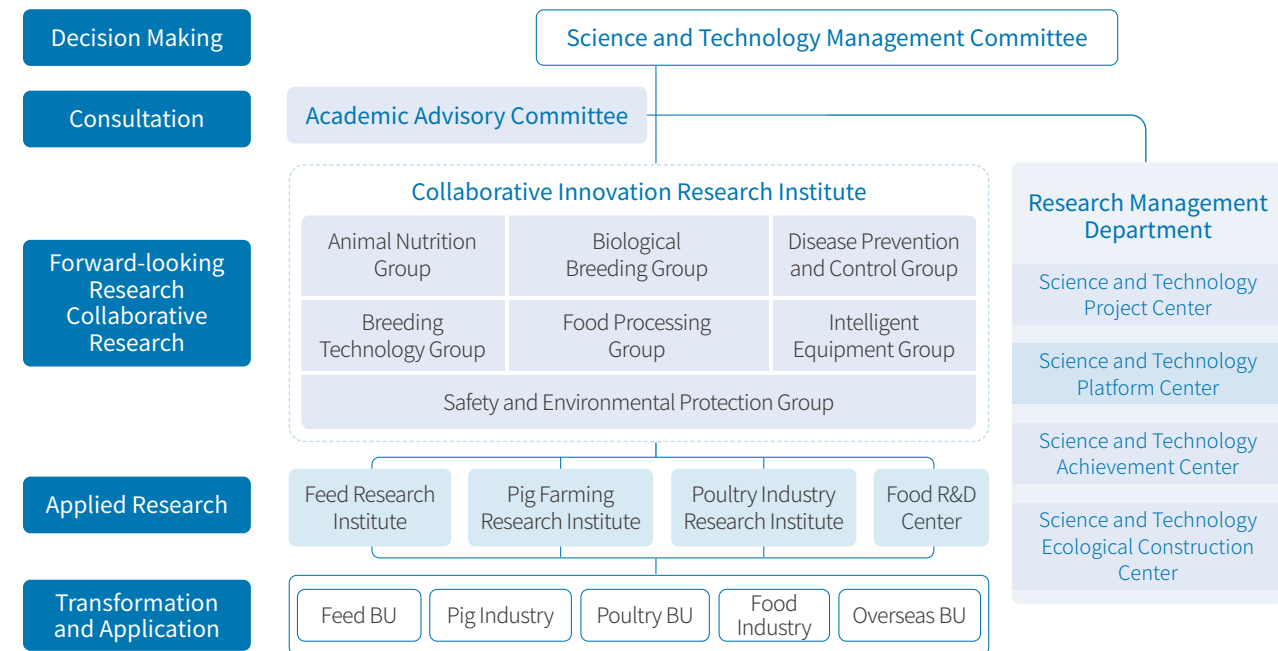


Driving Development through Technology

New Hope Liuhe continually amplifies its commitment to technological research and innovation through constructing a technological innovation ecosystem anchored by four research institutes alongside a Collaborative Innovation Research Institute, promoting the conversion and application of scientific achievements, fostering an open, inclusive environment for innovation, and attracting an influx of top-tier research talent to bolster our inherent innovative capacity. Moreover, by reinforcing collaboration and exchange with industry partners, the Company collectively stimulate high-quality advancement in the industry, sparking the impetus for industrial upgrading.

Technology Innovation System

New Hope Liuhe has constructed a "4+1" science and technology innovation system. The four major industry research institutes: Feed Research Institute, Pig Farming Research Institute, Poultry Industry Research Institute, and the Food R&D Center, conduct applied research and development. The Collaborative Innovation Research Institute focuses on forward-looking and collaborative research. The system essentially achieves scientific and technological empowerment that covers the entire agricultural, livestock, and food industry chain, aiding the company in achieving sustainable and high-quality development in diverse areas such as feed, swine industry, poultry industry, food processing and safety, and animal welfare.



On March 9, 2022, at New Hope Liuhe's Digital Transformation and Lighthouse Project Launch Meeting, Minggui Zhang, the Executive Chairman and President of the Company, proposed the transformation goal of "Three Full Scopes, Four Transformations".

R&D investment: RMB **302.13** million,
a year-on-year increase of **3.51** %

The number of R&D personnel: **1,094**

Granted **13** provincial and municipal talent
program projects cumulatively.

Introduced **1** academician.

and efficient, as well as cost-leading solutions to lead the scientific upgrading of product farming. On the consumer side, we strive to develop excellent products that offer consumers a healthy, delicious, and delightful experience.

The four industry research institutes and the Collaborative Innovation Research Institute focus on applied technological innovation activities, empowering industries and undertaking national key R&D programs.

A total of **71** science and technology
innovation platforms, including **11** at the
national level and **18** at the provincial level.

A total of **39** first-tier R&D bases and
26 pilot bases.

Collaborative Innovation Research Institute			
Feed Research Institute	Pig Farming Research Institute	Poultry Industry Research Institute	Food R&D Center
<ul style="list-style-type: none"> • Antibiotic-free feed • Bio-environmental protection • Feed substitution • Formulation iteration and upgrade 	<ul style="list-style-type: none"> • Optimizing pig breeds through breeding engineering • Bio-safety prevention and control • Upgrading management technologies • R&D of intelligent equipment 	<ul style="list-style-type: none"> • Livestock and poultry breeding • Establishing feeding standards • Scientific upgrading of commodity livestock farming 	<ul style="list-style-type: none"> • Food R&D • Food storage and preservation • Transportation and preservation • Upgrading health and nutrition

Building Innovative Platforms

New Hope Liuhe is actively setting up national-level scientific and technological platforms in the areas of feed and breeding to expedite the transformation of R&D infrastructure and enhance testing conditions. By optimizing collaborative mechanisms and incentive measures, the Company aim to foster a symbiotic relationship between our R&D platforms and scientific talents, which will promote a healthy cycle of technological innovation and enhance our innovation capabilities.

On the farming side, we commit to providing farmers with biotechnology products that are cost-effective, environmentally friendly,

Enhancing Innovation Capability

We have established and improved the assessment, incentive, and promotion mechanisms for research personnel. We have formulated incentive policies such as *New Hope Liuhe Co., Ltd. Reward Measures for Encouraging and Promoting Technological Innovation* and *New Hope Liuhe Co., Ltd. Rewards Measures for Intellectual Labor Achievement (Trial)* and other incentive policies to motivate employees to make innovations based on their respective positions and responsibilities.

Intellectual Property Protection

New Hope Liuhe value intellectual property protection heavily and strictly abides by relevant national laws and regulations. We have formulated the *New Hope Liuhe Co., Ltd. Intellectual Property Management Measures* to comprehensively strengthen the creation, utilization, protection, and management of intellectual property, hoping to promote the localization of germplasm resources as well as breeding technologies and ultimately enhance the Company's core competitiveness.

Tackling "Pig Chips"

We are committed to building "pig chips" with independent intellectual property rights, breaking the long-standing reliance on imported breeding pigs, and overcoming the bottleneck of breeding technology. Through the cultivation of specialized breeds and supporting lines, as well as the integration of production, academia, research, and breeding, we strive to establish a commercial system of "China's lean breed pigs", and make every effort to tackle the problem of "pig chips" germplasm resources.

Self-developed Feed Formulation System

We have developed the Hongtong·NHF formulation system, a feed formulation system with independent intellectual property rights. This system has been fully launched and is implemented in 148 feed factories, covering four types of feed, and involving 137 nutritionists. It has accumulated a nutritional value database for over 200 kinds of non-grain raw materials. When there are changes in the availability and cost of grains and various alternative raw materials, the system enables rapid iteration to generate optimal formulations.

Independent R&D of Pig Breeding Software

We have independently developed the HUGE-HOPE, a software for pig management and genetic evaluation with independent intellectual property. It supports multi-trait, genomic, and SSGBLUP calculations, enabling the joint computation of breeding values across the entire population and generating optimal breeding plans. By using intelligent new mating technologies, excellent breeding pigs can be maximally utilized. By incorporating RFID technology for comprehensive traceability, the software enables whole-genome breeding on the basis of the five-stage selection process, which enhances the accuracy of breeding value estimation and reduces breeding costs.

By the end of 2022
we submitted a total of
2,763 patent applications,
with
1,837 patents granted.

The first
agro-livestock enterprise in China with a self-developed formulation system implemented across all factories.




Strengthening Cooperation and Exchange

We progress with social advancement, and we develop with industry growth. New Hope Liuhe actively embraces cooperation, continuously strengthens collaborations with governments, enterprises, and research institutions, etc. We also participate in the formulation of industry standards, contribute our strength and wisdom to the industry's development, and join hands with our partners for a better future.

Cooperation and Exchange



We have signed a strategic cooperation agreement with Chengdu Xingcheng Investment Group Co., Ltd. (CXIG). Both parties will collaborate in the fields of agriculture, animal husbandry, food, urban-rural environmental governance, urban development, and healthcare. We have also upgraded our comprehensive strategic cooperation with Xiamen C&D Inc. to strengthen our existing grain trade and innovate logistics cooperation for grain storage and transportation from northern to southern regions.



Industry Exchange



Members of our research institutes and laboratories have participated in domestic and foreign industry seminars and exchange forums to share development experiences and provide professional advice and technical guidance for growth of the industry.

Standards Formulation



We actively participate in the formulation of national and industry standards, including *Quality Grading of Livestock and Poultry - Chicken GB/T 19676-2022*, *Specifications for the Use of Depilatory Agents for Livestock and Poultry GB/T 41550-2022*, *Quality Grading of Lean Pork GB/T 42069-2022*, and *General Guidelines for Bacon Quality GB/T 23492-2022*. These standards cover various aspects such as feed, food slaughter, and testing to promote industry development.

We have taken the lead or participated in the formulation

of **19** national standards, **16** local standards, and **30** group standards that have been published.



Upgrading Smart Farms

Pig farms serve as the convergence and application end of intelligent breeding technologies. New Hope Liuhe will build an intelligent, digital, modern and cluster-based breeding base that integrates scientific research, production, training, visitation, environmental protection, and safety. Advanced technologies such as intelligent environmental control and intelligent feeding are applied to simultaneously improve economic and ecological benefits.

Modernized and Intelligent Farming

New Hope Liuhe is fully promoting modernized farming. Intelligent pig farms are being built in Pinggu, Beijing, and Xinjin, Sichuan. The Company continues to optimize the spatial layout of pig farms, improve equipment and facilities, and enhance the level of bio-safety management for the purpose of achieving unmanned or minimally manned farm management, and drive the gradual upgrading of pig farms towards scale, standardization, and intelligence.

Case Study Intelligent Pig Farm in Xinjin: Advancing towards Intelligent Farming

New Hope Liuhe's intelligent pig farm in Xinjin, Sichuan, China, showcases the progression towards intelligent farming in the country. Housing nearly 2,000 sows, this facility features a five-story building, an automatic ventilation system, and a comprehensive set of automated feeding equipment, providing a comfortable environment for living and breeding. The project, with an estimated total investment of approximately RMB 170 million, constructs a multi-story smart pig farm covering functions such as offices and living areas, feed workshops, breeding workshops, slaughter workshops, and organic waste treatment areas. It anticipates a sow inventory of 1,500, expecting to yield around 13,000 high-quality breeding pigs annually, in addition to 27,000 by-products of breeding pigs.



agricultural production water standards, which is then supplied to the land for consumption to complete the breeding cycle. Through this process, wastewater is nicely treated while soil quality is well improved.

More Land-saving



The complex consists of 5 floors and only occupies 30 acres of land, adopting the high-rise pig farming model. This is significantly more land-saving compared to traditional farming methods that would require 70 acres for a pig farm of ten thousand heads.

More Environmentally Friendly



Based on the principle of "3R" (Reduce, Reuse, Recycle), we have established the ecological agriculture model combining "breeding - organic fertilizer - planting", with the symbiosis of multiple species and multi-level utilization of quality and energy. In terms of manure management, USAB+two-stage A/O and fermentation tank technology are adopted. Solid manure and sludge are processed in the fermentation tank to make organic fertilizer. Wastewater is degraded to meet

Smarter and Safer



Each floor of the pig house is designed with air filtration rooms, pig driving alleys, deodorization rooms, and production units. Supporting facilities include a 60-scale boar station, 40 sets of electronic feeding and measurement stations, disinfection rooms and so on. Automated technology is used to regulate temperature, feeding, and control lighting. With the one-click intelligent operation of environmental control, it ensures that the temperature, humidity, and air quality on each floor are maintained at the optimal level for the healthy growth of pigs.

In every pig house within the farm, there is an air filtration system. Following the bio-safety grading management concept of "Great Wall - Pass - Guard", different levels are divided, boundaries are set, checkpoints are established, and carriers are blocked. As a result, breeding risks are reduced and safety is enhanced.

Pig Farming in Multilevel Building

New Hope Liuhe innovatively puts forward the "5S" building pig farming model, which addresses the challenges of traditional building farming, such as difficulties in disinfection and disease prevention in pens, hidden biological safety risks, and insufficient measures for preventing and controlling pig diseases. This model combines technology, engineering and equipment in an organic manner, effectively saving land resources, reducing operating costs in the long run, improving production management efficiency, and achieving a win-win situation in terms of social, economic, and environmental benefits.

By the end of 2022,

15 projects have implemented the multi-level building pig farming model.

Advantages of New Hope 5S Building Pig Farming Model

science

- Each floor of the building is an independent intensive pig farm, avoiding frequent transfers between floors and improving efficiency.
- Considering the climatic conditions in different project areas, the environmental control system is optimized while ensuring proper ventilation and cooling inside the facility.
- The design of the manure cleaning process is optimized, with the pipelines arranged in each floor's deodorization room to prevent cross-contamination of manure between upper and lower levels and ensure bio-safety.

settlement

- Production units are clustered, with sows and fattening pigs housed in the same area, reducing labor consumption, disinfection costs, and bio-safety risks caused by frequent pig transfers.
- Production management is carried out by gathering professionals in veterinary medicine, nutrition, breeding, and other fields.
- Industry links are consolidated, including on-site feed formulation workshops and slaughterhouses within the farm, forming a closed industrial cluster.

safe

- A closed-loop bio-safety system is established to cut off the sources and pathways of transmission.
- A comfortable housing environment for pigs is established to enhance their health level.

save

- The building structure is optimized to save construction costs.
- Energy-efficient materials are used to reduce the cost of temperature control and maintenance in pig houses in the later stage.
- Combining the terrain and topography, skylights are installed to utilize natural resources to enhance the resilience of pigs.

smart

- Through biometric recognition, intelligent environmental control, and precision feeding, remote monitoring is implemented in pig farms to save labor costs.
- Data analysis is conducted through the system, allowing for informed decision making and necessary adjustments to production.
- The system is interconnected with feed factories, equipment suppliers, and technical centers, enabling services such as direct supervision by feed factories, remote equipment operation monitoring by suppliers, and comprehensive guidance by research institutes or group technical teams. These measures aim to enhance production efficiency and product quality.

Creating A Digital Enterprise

By targeting to the "three fulls and four transformations" digital transformation strategy under the framework of "integration of industry and digital management", New Hope Liuhe is driving a close coupling of business operations with digital technologies. This convergence actualizes intelligent key equipment, full-scene business data integration, full-data online functionalities, and proactive full-process management, achieving comprehensive online operations. Digital technologies are deployed across four major industries covers poultry, food, pig, and feed, and six critical areas, including R&D, farming, production, supply chain, sales, and customer service, bolstering the Company's operational efficiency and core competitiveness.

Key Digitalization Efforts in the Four Major Industries

Pig Industry

- On the breeding side, we have developed and promoted big data matching models to identify and match "excellent" breeding pigs. Business is driven through the pyramid supply-demand calculation model to achieve the balance between the supply and demand of "excellent" breeding pigs.
- On the production side, we have extensively promoted the operation of breeding pigs, and established a systematic framework for planning, procurement, warehousing, and consumption traceability in the field of the supply chain.
- On the sales side, we have achieved visualization of the sales process through standardized and intelligent management at the sales site. We also ensure the supply of the live pig market by diversifying transaction modes to match the characteristics of different regions and markets.
- In the realm of IoT breeding technology, we have reached phased goals in areas like temperature monitoring, networked weighing scales, and feed tower weighing, all of which are being gradually promoted. Simultaneously, the Lighthouse Pig Farm project is undergoing testing.

Poultry Industry

- From the onset of breeding, we have established a standard selection process for Zhongxin duck breeding. By leveraging Internet of Things (IoT) devices application, we have enhanced breeding efficiency in key stages such as selection, egg collection, and incubation.
- At the farming stage, detailed management is implemented for feed tower equipment, feed dispensing, loading, and procurement processes, enabling automatic collection of feed consumption data, real-time monitoring of anomalies, and the execution of precision feeding.
- On the sales front, we have established a marketing platform to oversee channel sales management and enable end-to-end order management. This allows for full process visibility and closed-loop management, covering every step from customer order placement, order delivery, and logistics weighbridge monitoring, to after-sales service.

Feed Industry

- We have achieved a significant shift in our core formulation system, moving from dependency to self-developed alternatives, and then further evolving to outperform the initial models. Through optimizing our formulations and focusing on precise nutrition, we have been able to reduce costs and conserve resources.
- We have deepened our digital procurement practices. By providing operational support across the entire procurement lifecycle, we effectively control supply chain risks. This ensures that we can maintain steady production, even in the face of multiple external adversities.
- We have completed the digital construction of logistics primarily based on bulk raw materials, which contributes to the secure supply of societal livelihoods.

Food Industry

- The digital capabilities for terminal visits and refined management of marketing expenses are enhanced by utilizing the self-developed visit and sales management system and marketing management system.
- Through the combination of Xinkedao and Zhangshang Xinxian, digital capabilities of the entire process from customer self-service ordering to order fulfillment are improved. Additionally, the use of Qingbaotong and PLM facilitates scientific decision-making for new product proposals.



Digital Product Matrix in Six Major Domains

Domains	R&D	Breeding	Production	Supply Chain	Sales	Customer Service
	Hongtong	Poultry - digital breeding platform	Production implementation management system	Xinsu	Liaonifu Mall	Xinkedao
	HUGE-HOPE	Cloud-based free-range farming	Pig slaughtering MES system	Xinyun	Fengxingbao	
Products	PLM new product submission	Huiyangzhu	LIMS system	Yunge	Jingzhunying	
		Zhuxiaokang / Zhizhuxia	Near Infrared Detection (NIR)	Jingwei	Poultry breeding marketing system	
		Pig farming operation planning system	Central kitchen SMOM system		Jubaozhu	
		Zhongxin Duck - breeding				

Xinsu

Xinsu provides a comprehensive digital solution for raw material procurement, covering the entire lifecycle management of suppliers and procurement.

Lighthouse Pig Farm

Lighthouse Pig Farm integrates various technologies in terms of intelligentization, including precision feeding, weighing systems, manure scraping technology, environmental control feed line technology, intelligent water and electric meters, and centralized control technologies. This enables intelligent networking of key equipment, allowing for online, detailed data gathering for core production stages such as environmental control, feeding, and sales. Furthermore, it establishes a proactive control process for remote operations and process management.

Liaonifu

Liaonifu has transitioned traditional feed sales from offline to online, enabling customers to self-order and facilitating online coordination of the entire process, from order placement, payment, processing, and logistics tracking, to financial reconciliation. In 2022, the Company traded millions of tons of feed online, ensuring a steady supply for numerous farmers.

Zhongxin Duck - Breeding

The self-developed Zhongxin Duck breeding management system utilizes big data analysis to achieve automated breeding selection. It combines IoT devices to enable automatic grouping, automatic recording of egg production, and traceability throughout the entire incubation process. It ensures precise, automated, and intelligent breeding and selection.

Xinkedao

Xinkedao, an independent development by New Hope Liuhe, is designed to offer superior and efficient customer lifecycle management and customer service capabilities. It digitalizes customer order services to enhance service quality and cooperation efficiency, empowering partners through various business stages including market expansion and order fulfillment. It also bolsters the coordination capabilities in order tracking and logistics delivery, offering customers high-quality supply chain assurance.



Green Industry

Sustaining Nature through Circular Agriculture

The report of the 20th CPC National Congress stated that "Chinese-style modernization is a modernization where humans and nature coexist harmoniously", which clearly outlines the new historical tasks and significant implications of ecological civilization construction from a strategic perspective. As an agricultural and livestock enterprise, New Hope Liuhe is devoted to preserving the health of our planet. We protect nature through a circular agriculture model, continuously enhance our environmental management system, promote a transition towards efficient energy use and resource utilization, reduce waste emissions at the source, and strengthen ecosystem protection. All these efforts contribute to the construction of a beautiful China.

Contributing to the United Nations Sustainable Development Goals



Improving Environmental Management

New Hope Liuhe actively responds to the national requirements for green and low-carbon development, and strictly adheres to environmental protection laws and regulations such as the *Environmental Protection Law of the People's Republic of China*, *Energy Conservation Law of the People's Republic of China*, and *Environmental Impact Assessment Law of the People's Republic of China*. We incorporate the concept of green, low-carbon and sustainable development into our organizational structure, set scientifically sound environmental management objectives, continuously improve our environmental management system, provide environmental protection education and training, and manage emergency environmental incidents. We strive to achieve coordinated progress in corporate development and environmental protection.

Environmental Management System

Environmental management, viewed as a strategic issue, has been included in the management domain of our board-level committees. We've established energy-saving and environmental protection policies such as the *Environmental Protection Management Regulations*, *Environmental Risk Early Warning and Response Mechanisms*, and *Environmental Performance Assessment and Reward Management Methods*. Our environmental management system continues to improve in areas such as comprehensive management, organizational structure, responsibility implementation, green innovation mechanisms, emergency management, and supervision and assessment. Moreover, we optimize environmental management regulations according to the unique requirements of different industries, such as improving the collaborative management between pollution control at the front end and environmental protection processing at the back end of the pig industry. In addition, we include environmental management indicators in the performance rewards for management, enhancing our holistic capacity for green development.

Optimizing the Organizational Structure of the Environmental Management

The Company has established an Environmental Protection Management Committee to lead its environmental management work. We have set up a five-tier environmental management organizational structure from the headquarters to industry operation units/ command headquarters, divisions/vertical teams, settlements, and subsidiary companies, ensuring that environmental protection work is effectively coordinated at all levels.

In 2022, in line with business development, we further optimized the environmental management organizational structure. We established a Safety and Environmental Protection Department at the Pig Industry Command Headquarters, and incorporated the Environmental Protection Institute of the Pig Research Institute into the headquarters' Safety and Environmental Protection Department, combining the two business sections under one team. Moving forward, we will persist in our organizational optimization efforts, seamlessly integrating R&D, management, and on-the-ground implementation in environmental protection, thus ensuring environmental management covers the last mile.



Ensuring Environmentally-Focused Talent

In 2022, we established a standard model for the construction of an environmental protection talent system, accurately mapping out the profiles of personnel in the crop cultivation sector and environmental protection stations, thereby optimizing the allocation of safety and environmental-focused cultivation staff. Furthermore, we conducted tiered, targeted environmental protection training through online and offline methods, covering topics such as equipment operation, equipment maintenance, process operation, and environmental laws and regulations. We also provided timely feedback on training outcomes through an examination system, enhancing employees' awareness of environmental protection compliance and their abilities in environmental protection.

Environmental Protection Inspection and Supervision

To ensure the effective implementation of environmental management tasks, we have established inspection mechanisms such as on-site inspections and fly-by inspections. We conduct regular inspections based on a 100-item inspection checklist, ensuring that at least 15 projects are inspected each month and all projects are inspected quarterly. The issues identified during the project inspections are recorded and used to form monthly project rankings and quarterly industry-wide rankings, thereby continuously improving our environmental protection standards.

Expenditure on environmental protection:

RMB **151.18** million

Emergency environmental incident drills conducted:

582 times, with **5,820** participants

Environmental protection training for employees:

110 sessions, with **25,950** participants

Developing Eco-Friendly Animal Husbandry

Advancing the resource utilization of livestock waste is a core guiding suggestion of the 14th Five-Year National Agriculture Green Development Plan. New Hope Liuhe has always adhered to the principle of "promoting husbandry through cultivation and leading cultivation through husbandry." We actively explore and implement the circular agriculture model of "Pig - Biogas - Fertilizer - Fruit/Vegetable/Grain", which not only achieves comprehensive utilization of manure resources and zero pollutant emissions, but also promotes soil improvement through the return of organic fertilizer to the field. It allows nature to return to its original state, realizing the concept of "regenerate for use to sustain nature."

Wastewater Recycling

We employ the "UASB Anaerobic + Two-stage A/O" and "CSTR" processes to treat production wastewater. The water treated by the "UASB Anaerobic + Two-stage A/O" process meets the requirements of *Discharge Standard of Pollutants for Livestock and Poultry Breeding (GB 18596-2001)* and *the Standard for Irrigation Water Quality (GB 5084-2021)*, and is used for field irrigation. The biogas slurry produced by the "CSTR" and "black film biogas" is returned to the fields, while biogas residues are used to make organic fertilizers.

Manure Resource Utilization

We adopt high-temperature aerobic fermentation technology, using active microorganisms to carry out high-temperature aerobic fermentation of livestock and poultry manure. Following the biological decomposition and maturation of organic matter in pig manure, we produce safe and high-quality organic fertilizer, which is applied to nearby fields to improve soil structure, enhance soil fertility, and improve crop quality.

Precision in Field Return

We are steadily exploring and establishing standard models for returning waste to the fields of different crops, aiming for precise utilization of this process. In 2022, we conducted detailed examinations on winter wheat and fruit trees before, during, and after returning waste to the fields. By establishing a crop database, we have enhanced the precision of managing and returning livestock and poultry waste to the fields.



	Pre-Return	We measure the content of soil nutrients such as nitrogen, phosphorus, potassium, and organic matter, as well as indicators like COD, nitrogen, and phosphorus in treated water and biogas slurry. By combining these parameters with crop growth needs, we determine the amount to be returned to the field, ensuring a reasonable irrigation volume.
	During Return	Throughout the crop growth period, we monitor physiological indicators such as plant height, stem thickness, and leaf area, while continuously supervising soil physical and chemical properties.
	Post-Return	We measure crop quality indicators such as the gluten strength, starch, and crude protein content of wheat, and the vitamin C, reducing sugar, and acidity levels of fruits, to ensure the quality of the yield.

Case Study: Manure Returns to Fields Enhancing Soil Fertility: A Bountiful Harvest at Tingliang Project

The Ningming Xinhao Agricultural and Livestock Co., Ltd. farm is located in Tingliang Town, Ningming, in the southwestern part of Chongzuo City, Guangxi Zhuang Autonomous Region. The region is predominantly mountainous and hilly with the prevalent soil types being latosols, red earth, and yellow earth. However, the soils are severely deficient in phosphorus and potassium, resulting in poor fertility retention. Adhering to our philosophy of "promoting husbandry through cultivation and leading cultivation through husbandry", we convert breeding waste into organic fertilizer and reintroduce it to the fields. This not only provides nutrients to the vegetables but also improves the soil quality. Despite its modest size of twenty acres, this vegetable plot can yield thousands of kilograms of vegetables each month, contributing to the majority of vegetable supplies for the daily meals of our over 400 company employees. This ensures everyone has access to safe and reliable vegetables.

Responding to Climate Change

Climate change represents a shared challenge for all of humanity, and addressing this issue is pivotal to the sustainable development of the Chinese nation and the destiny of mankind as a whole. New Hope Liuhe is actively aligning with the dual carbon targets, striving to achieve these goals through a multitude of strategies including clean energy transformation, unearthing potential energy efficiency, optimizing feed formulas, and promoting biological carbon sequestration. Additionally, we are actively implementing carbon trading operations, thereby making positive contributions to mitigating and adapting to climate change.

Clean Energy Conversion

We actively promote the comprehensive utilization of clean energy such as photovoltaics and biogas, optimize the energy structure, reduce the use of petroleum energy, and assume responsibility for emission reduction.

Accelerating Photovoltaic Construction

In 2022, we prioritized the research on photovoltaic construction models, site selection criteria, and the risks to be avoided during the construction process. Based on the specific circumstances of each sector, we developed a "three-step" plan for the construction of photovoltaic projects: pilot projects on a small scale during the preliminary stage to summarize experiences and lessons learned, thorough investigation and strategic tendering for the photovoltaic project reservoir during the intermediate stage, and rapid promotion of photovoltaic project construction across all sectors according to unified standards during the later stage.

By the end of 2022, we have completed nine photovoltaic construction projects such as the Beijing Pinggu 5S Pig Farm,



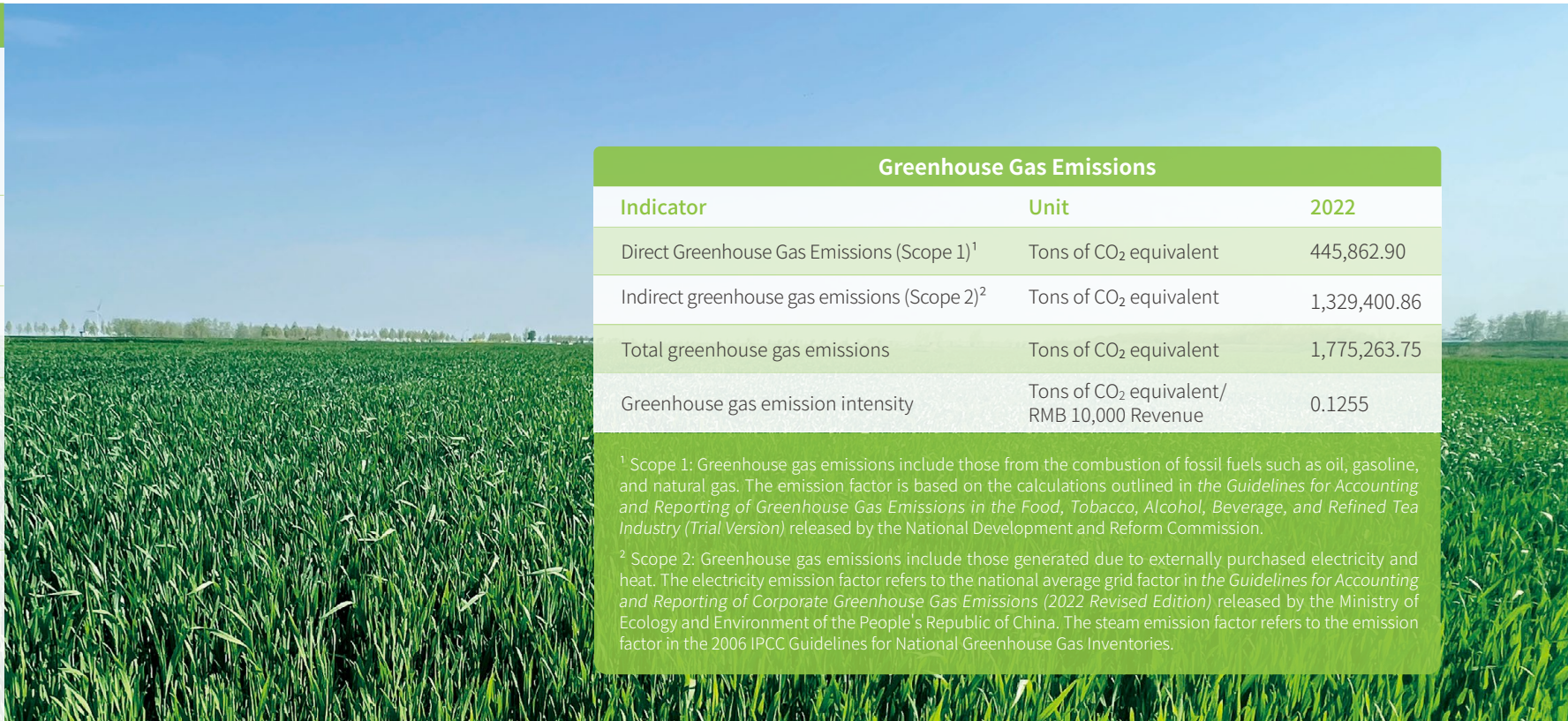
Qingdao Liuhe Wanfu Food Photovoltaic Project



Weifang HeshengYuan Food Photovoltaic Project

Climate Change Response Plan

- By 2025, we aim to significantly increase the use of green energy across all sectors, and swiftly carry out the construction of comprehensive industry-wide photovoltaic projects through unified standards.
- We are systematically and steadily advancing the reuse of biogas in our animal husbandry sector in phases.
- In each sector, we are deeply exploring potential energy-saving opportunities within the production process.
- In the disposal land supporting the pig industry, we are progressively advancing the cultivation of crops and fruit trees, as well as forest protection. We aim to offset and reduce the Company's carbon emissions by employing biological carbon sequestration methods.
- Our pig farming sector is actively promoting the declaration and certification of carbon offset projects (including GS, VCS), with the aim of obtaining carbon emission reductions to offset the Company's carbon emissions.



Greenhouse Gas Emissions		
Indicator	Unit	2022
Direct Greenhouse Gas Emissions (Scope 1) ¹	Tons of CO ₂ equivalent	445,862.90
Indirect greenhouse gas emissions (Scope 2) ²	Tons of CO ₂ equivalent	1,329,400.86
Total greenhouse gas emissions	Tons of CO ₂ equivalent	1,775,263.75
Greenhouse gas emission intensity	Tons of CO ₂ equivalent/ RMB 10,000 Revenue	0.1255

¹ Scope 1: Greenhouse gas emissions include those from the combustion of fossil fuels such as oil, gasoline, and natural gas. The emission factor is based on the calculations outlined in the *Guidelines for Accounting and Reporting of Greenhouse Gas Emissions in the Food, Tobacco, Alcohol, Beverage, and Refined Tea Industry (Trial Version)* released by the National Development and Reform Commission.

² Scope 2: Greenhouse gas emissions include those generated due to externally purchased electricity and heat. The electricity emission factor refers to the national average grid factor in the *Guidelines for Accounting and Reporting of Corporate Greenhouse Gas Emissions (2022 Revised Edition)* released by the Ministry of Ecology and Environment of the People's Republic of China. The steam emission factor refers to the emission factor in the 2006 IPCC Guidelines for National Greenhouse Gas Inventories.

Shandong Jiayang Slaughterhouse, and Beijing Qianxihe Food Company. These installations generated 10.66 million kWh over the year, equivalent to a reduction in CO₂ emissions of 10,628 tons.

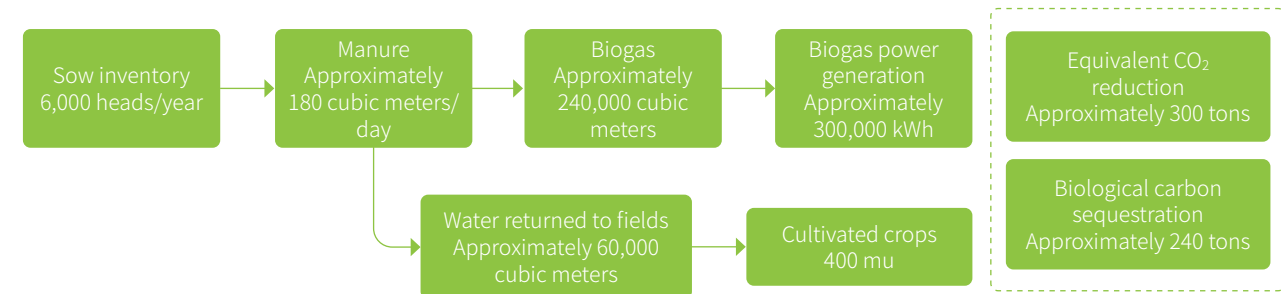
Promoting Biogas Utilization

All our pig farming facilities are equipped with biogas generators or biogas boilers, optimizing the use of biogas produced during the anaerobic fermentation of pig manure. After purification, the biogas is utilized for electricity and heating within the facilities, thus reducing both electricity usage and gas consumption. In 2022, the recycling volume of biogas was 240 million cubic meters.

Case Study Biogas Power Generation at Rugao Xinhao Sow Factory II

The Rugao New Hope Sow Factory II collects manure that, after solid-liquid separation, undergoes a three-stage anaerobic process involving USR, black membrane biogas digester, and UASB, producing biogas. This biogas is stored in a double-membrane gas holder until an adequate amount is accumulated, and then, after purification, it's used to power a biogas generator for the factory's use. Moreover, the treated water is used for irrigation of the winter wheat and rice crops grown on the factory site, which not only conserves irrigation water but also facilitates biological carbon sequestration through the planted crops.

Emission Reduction Performance of Biogas Power Generation



Annual equivalent CO₂ reduction Approximately

540 tons

Tapping into Energy-Saving Potential

We are actively exploring energy-saving technologies and processes. When it comes to new projects, we fully consider process design aimed at carbon reduction. For existing projects, we carry out energy-saving technological upgrades. Through a constant enhancement of our precision energy management capabilities, we aim to minimize energy consumption in all areas of our production and operational activities.

Technical Energy Conservation

Upgrading Intelligent Systems

We've introduced an energy-efficient intelligent management system in our feed industry as a pilot project. Through intelligent management measures, we improve the full-load operation rate of the factory area, reduce the proportion of equipment semi-load and no-load, enhance electricity utilization, and lower invalid power losses.

Energy-Consuming Equipment Obsolescence

We're modernizing our feed production plants by replacing existing machines (like pulverizers, ultra-micro pulverizers, granulators, and dryers) with more energy-efficient ones. This change has resulted in an energy usage reduction and an efficiency boost of over 10%.

Enhancing Waste Heat Recovery

We recover waste heat from boilers and cooling systems, thereby reducing steam usage.

Management Energy Conservation

Data Monitoring

In 2022, we initiated the construction of an environmental data system and have completed the optimization and upgrade of the second version of the data system. We have clarified environmental operation requirements, data statistical caliber, etc., and enhanced environmental data monitoring and management.

Environmental Control Management

We've adopted a farm-specific precision management strategy in our pig farms, which involves controlling the operating hours and settings of devices like lights, heating lamps, water curtain pumps, and direct-fired machines to decrease energy use.

Energy Consumption Efficiency

Indicator	Unit	2022
Gasoline	Liters	1,996,306
Diesel	Liters	16,328,927
Natural Gas	10,000 Cubic Meters	18,420
Purchased Electricity	10,000 kWh	204,055
Purchased Steam	Tons	595,115
Total Energy Consumption ¹	Tons of Standard Coal	533,338.74
Energy Intensity	Tons of Standard Coal/RMB 10,000 Revenue	0.0377

Note: ¹The total energy consumption refers to the General Rules for Calculation of the Comprehensive Energy Consumption (GBT 2589-2020) issued by the State Administration of Market Regulation and the National Standardization Management Committee, and is converted into units of standard coal.

Promoting Biological Carbon Sequestration

Farmland soil and crops play a pivotal role as a major carbon storehouse on Earth, offering vast carbon sequestration potential. New Hope Liuhe's pig industry collectively manages over 145,000 mu of land for waste disposal, of which 60,000 mu is arable land used to grow winter wheat, corn, and other grain crops. The remaining land is used for the cultivation of fruit trees, such as apples and pomelos. With the practice of applying fermented waste to the fields, we achieve carbon sequestration in plants and soil storage, resulting in an estimated annual biological carbon capture of about 170,000 tons CO₂ equivalent.



Responding to Extreme Weather Conditions

As extreme weather events are becoming more frequent and inflicting significant damage across the globe, effective responses to these occurrences have emerged as a shared trend in all sectors. We actively recognize the potential impacts of extreme weather on our business operations, establishing climate report groups and initiating climate risk warnings that reach all the front lines of our subsidiary companies. By real-time tracking of the National Meteorological Administration's website, we timely report meteorological warnings, particularly meteorological disasters like typhoons, heavy rain, and blizzards, directly to the front lines of our subsidiaries. This action ensures that our subsidiaries in the related regions take preemptive measures, mobilize professional personnel and supplies to mitigate harsh weather disasters, and effectively protect our livestock and employees' safety, minimize the impact of climate disasters on our subsidiaries.

Moreover, we conduct top-down climate disaster prevention lectures and post-disaster emergency self-help training to reinforce climate disaster prevention awareness across all levels and departments, enhancing our capability to prevent and handle natural disasters. In regions hit by significant climate disasters, we promptly organize and coordinate various bodies at all levels to form professional working groups for rapid deployment for post-disaster self-rescue and production recovery.

Water Resource Management

Because animal husbandry consumes a lot of water and may cause water pollution, water resource management in animal husbandry has increasingly become the focus of attention. We take a long-term view of how water scarcity affects our operations and our impact on the water we share with the communities in which we operate. Formulate production water quotas, consciously reduce water consumption, strengthen water resource recycling and reuse, and improve water use efficiency.



Water Conservation

We have set a water use quota for pig industry production. If this quota is exceeded, a warning is automatically sent to alert us of the excess consumption, enabling us to reduce water resources consumption at the source and alleviate the pressure on wastewater treatment at the back end.

Type of Pig	Unit	Quota for Water Use in Production	Average Daily Water Consumption in 2022
Sow	Liters/Head/Day	23.4	23
Fattening Pig	Liters/Head/Day	9.2	9



Water Management

We have fitted smart water meters, established a water meter account management system, and developed a dedicated online management module. This allows us to focus on analyzing instances when consumption exceeds set standards, prompting improvements in water use.

We have enhanced routine inspections, particularly checking areas in pig farms like water enclosures in sow gestation pens and float valves between wet curtains, which are prone to leaks. We aim to eliminate running, surging, dripping, and leaking issues.



Water Recycling

In the poultry industry, reclaimed water is reused in duck shed pre-rinsing, pre-slaughter spraying, pre-area sanitary cleaning, and irrigation of green belts, saving approximately 1.13 million tons of water annually.

In the food sector, we promote the recycling of sterilization water in high-temperature, low-temperature, canning, and rice processing workshops. Through a process of recovery, cooling, reverse osmosis filtration, softening, and disinfection, we reuse water in the sterilization step, reducing annual water consumption by approximately 20,000 tons.

Total municipal water consumption:

4.68 million tons

Municipal water intensity:

0.3306 Tons /RMB 10,000 Revenue



Reduction of Waste Disposal

We strictly control the generation and discharge of pollutants to minimize the impact on the surrounding environment, in strict accordance with legal and regulatory standards such as the *Solid Waste Pollution Prevention and Control Law of the People's Republic of China*, *Energy Conservation Law of the People's Republic of China*, *Discharge Standard of Pollutants for Livestock and Poultry Breeding*, and *Wastewater Quality Standards for Discharge to Municipal Sewers*.

Waste Category	Waste Source	Disposal Method
Exhaust Gas	Odor	<ul style="list-style-type: none"> Within our pig houses, we employ intelligent systems to control the methods and frequency of manure removal, regulate indoor temperatures, and enhance ventilation systems to minimize odor emissions. Spraying for odor removal in dedicated deodorization rooms. By spraying, odorous gases are trapped in the liquid and odor molecules attached to particulate matter are removed from the air after wet absorption and oxidation. Odorous gases react with the emulsifying agents in the medication and are removed from the solution.
	Biogas	Generated from the fermentation of livestock and poultry manure Used as a source of power and heat within the facility
Wastewater	Breeding Wastewater	Including animal urine, some feces, and rinse water Treated to meet standards through the UASB+ two-stage A/O wastewater treatment process and then used for agricultural irrigation
	Domestic Wastewater	Discharged from the Company's administrative offices and employee cafeteria Regular self-monitoring and third-party water quality testing are conducted to ensure effluent standards are met prior to discharge into municipal sewer systems.
Solid Manure	Hazardous Waste	Including medical waste, pesticide and herbicide waste produced during the production process, and waste reagents, waste acid, waste alkali, etc., generated during the experimental <ul style="list-style-type: none"> We have established a <i>Hazardous Waste Management System</i> to standardize the collection, storage, and processing of hazardous waste. We maintain a designated temporary storage space for hazardous waste and keep corresponding ledger records. Hazardous waste is regularly handed over to qualified third-party institutions for safe disposal.
	Dead Livestock and Poultry	Resulting from the breeding production process We strictly adhere to the <i>Standards for the Treatment of Dead Livestock and Poultry</i> for temporary storage and treatment. We maintain accurate ledger records and strictly prohibit non-compliant methods of disposal, such as illegal storage and unauthorized burial.
	Hazardous Waste	Separated solid manure from manure scraping machines or solid-liquid separators Treated according to the <i>Solid Manure Treatment Standard</i> using aerobic fermentation, to produce organic manure for field fertilization.
Construction and Domestic Waste	Waste generated during construction processes, and domestic waste produced in daily life We have established a <i>Solid Waste Management System</i> . Designated waste collection points are set up within the site with clear signage and segregation of waste, with strict rules against improper disposal methods such as random littering, burying, or burning.	

2022 Wastewater Discharge Indicators

Indicator	Unit	2022
Total wastewater treatment	10,000 Tons	1,600
Chemical oxygen demand (COD) treatment volume	Tons	157,500
Total ammonia nitrogen discharge	Tons	123,237
Wastewater recycling rate	%	100

Ecological Environment Protection

Following stringent compliance with standards such as the *Technical Specifications for Pollution Prevention in Livestock and Poultry Breeding*, we have established targeted management measures in our *Environmental Protection Management System*. These measures provide guidance on environmental protection matters at all essential stages of our projects, including site selection, construction, implementation, and approval, with the overarching goal of mitigating the influence on surrounding lands and biological habitats. In 2022, New Hope Liuhe did not establish operations in government-designated key ecological zones or other areas with significant biodiversity value. Moreover, our project construction did not result in any adverse impacts on protected or rehabilitated habitats.



Site Selection Phase

- We strictly follow national requirements for livestock and poultry breeding facility site layout, arable land red line, and "three zones, one priority zone" ecological zoning and control requirements, avoiding areas of natural conservation, key ecological function zones, scenic spots, prohibited farming regions and drought-stricken areas. We do not disrupt local water sources and ecosystems.
- We implement an environmental impact assessment system, investigating, predicting, and assessing potential negative impacts on the surrounding environment from the site selection, design, and post-construction operation of the project, and propose preventive measures.



Construction Phase

- We strictly implement all environmental protection measures in the environmental impact report and supervise the "three simultaneous" situations of the project.



Project Operation Phase

- We establish an environmental protection facilities list and set up a facilities operation and maintenance system for different types of environmental protection facilities. Regular inspections are carried out to ensure proper maintenance, achieving a 100% completion rate. We also regularly report the operational status of these facilities to the local environmental protection authority.
- We enhance soil productivity and reduce emissions by substituting chemical fertilizers with organic manure and biogas fertilizers.



Engineering Design Phase

- With a focus on source control, our design process proactively employs innovative technologies, procedures, and equipment that produce little to no pollution. We strive to maximize the utilization of resources and energy, reducing the emission of pollutants and ecological impact from the source.



Completion Phase

- According to the ecological environment and local planting characteristics, we introduce suitable plant species and maximize green space wherever possible.
- Before the project's trial production or trial operation, we submit an environmental impact report or environmental impact report form to the relevant environmental protection departments for the acceptance of the project's environmental protection facilities.

Employees Achieving Success and Pursuing Excellence through their growth

Adhering to the people-oriented philosophy of development, New Hope Liuhe earnestly protects the interests of employees, and creates a growth platform for employees to achieve the goals of attracting, cultivating, and retaining the staff. The Company shares the fruits of development with employees, promotes the culture of "running the Company like an army, a school, and a family", keeps the workplace a harmonious place with love, and has established Meihao Mutual Aid Association to ensure the occupational health and security of employees.

Contributing to the United Nations Sustainable Development Goals



On July 15, 2022, the 40th Anniversary of New Hope and the Third Corporate Culture Festival was held, and Yonghao, the Company founder and chairman, led his staff to retrace the road of hope.

Protecting Employees' Rights and Interests

New Hope Liuhe sticks to the strategy of putting talent first, providing fair employment opportunities and a competitive salary and welfare system for employees. It has established open and democratic communication channels, and encourages every staff to actively participate in making decisions, to promote a win-win situation for both company development and employee growth.

Fair Employment

We genuinely respect national laws and regulations, international human rights norms, and regulations and policies of the place where we operate, such as *the Labor Law, the Company Law and the Labor Contract Law*, and have formulated systems such as *the New Employee Handbook and the New Hope Liuhe Employee Professional Conduct Guidelines*. In *the Standards of New Hope Liuhe Business Conduct Guidelines, the New Hope Liuhe Red Line* and other systems, the code of conduct and requirements for employees in all respects are specified. The Company adheres to the principle of "openness, fairness and impartiality", adopts the recruitment methods of two-way choice, equally treats employees, regardless of race, skin color, gender, age and belief, and eliminates illegal employment such as child labor and forced labor and employment in violation of policies and regulations, providing equal employment and development opportunities for each employee. At the same time, the Company aims to build a diverse workforce that respects the religious beliefs of each employee, taking into account factors such as gender, culture, experience and professional background. We provide special care for minority employees on the basis of their demands and accommodate disabled employees depending on their physical conditions by arranging appropriate job positions and designing reasonable working hours and labor intensity, continuously improving workplace inclusivity and the Company's sustainability. Employees have the right to report any violation of *the Employee Professional Conduct Guidelines* to relevant leaders and institutions, and the Company will keep it confidential and actively conduct an investigation.

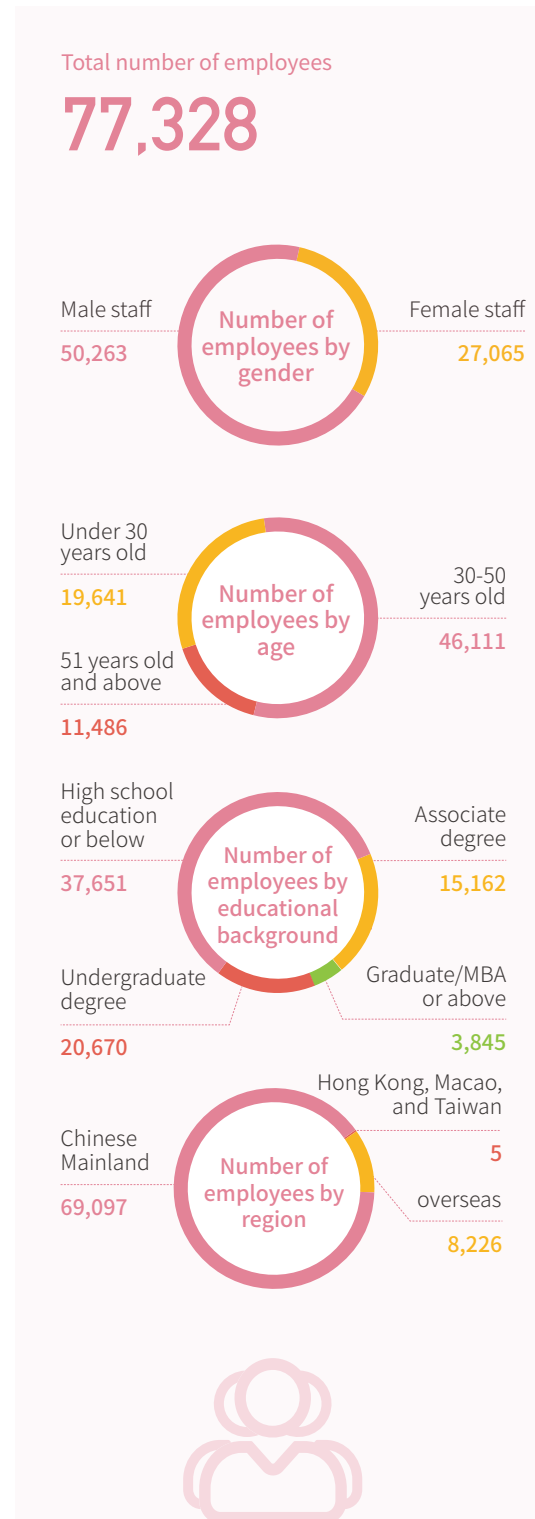
In active response to the call of the government, we have implemented policies to support and benefit the military and continued to promote the recruitment of veterans as a strategic talent project. We provide 1,000 targeted positions for retired soldiers every year and set up a green channel to offer 100 positions for retired model soldiers who have made contributions or outstanding ones without examination. At the same time, the Company pays great attention to the training for retired soldiers, continuously improves the mechanism for their development, and encourages special forces to become a talent output base for production leaders, front-line veterinarians, and biological safety inspection teams. All the efforts are made to help retired soldiers realize their values in New Hope Liuhe. By the end of 2022, there were 1,294 retired soldiers among the Company's employees, including 181 ones in management positions and 557 who have grown into professional and technical talents.

Number of employee discrimination incidents:

0

The proportion of ethnic minority employees:

6.3%



Compensation and Incentives

Following the principles of market orientation, we gradually establish a competitive compensation system in the industry and provide employees with statutory and additional benefits to enhance employees' happiness. We continuously optimize differentiated incentive mechanisms, establish assessment systems that are in line with employees' development stages, and set incentive-based pay for employees and executives. The evaluation index includes financial, excellent operational and risk indicators, covering ESG-related assessment factors such as technological innovation, food safety, safety production, and environmental protection.

Employee Equity Incentive Plan

To improve the long-term incentive mechanism and motivate the management team and core backbone personnel, the Company has formulated *the 2022 Employee Stock Incentive Plan* to launch an equity incentive for the most people in the Company's history, covering 2,399 people from executives to frontline factory managers through a combination of employee stock ownership plan and restricted stock incentive plan.

Bonus Pool Mechanism

Based on market fluctuations, the Company has established a bonus pool mechanism for executives in headquarters to balance the incentive in different years.

Multiple Welfare Benefits

We have established and continued to improve the welfare system. We work to increase its diversity and motivate employees, providing more protection for the staff and enhancing their sense of happiness.

- Statutory benefits: social insurance, housing provident fund, paid leave, parental leave (maternity leave), funeral leave, etc.
- Featured benefits: free accommodation, employee physical examinations, catering subsidies, housing subsidies, etc.

Employee Participation and Communication

The Company adheres to the people-oriented management philosophy and actively promotes democratic management through various measures. We have formulated and continued to improve regulations such as *the Performance Management System and Accountability Management System* to safeguard employees' right to appeal. We use OA system to publicize various regulations, notices and announcements to ensure employees' right to know, participate and supervise. For the purpose of increasing employees' participation in enterprise management and strengthening the construction of corporate governance transparency, communication channels such as email, Feishu, and public phone numbers are kept open to enhance employees' sense of ownership.

Actively Adopting Suggestions	Democratic Supervision	Performance Feedback and Appeal
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Continuous improvement has been made in feedback mechanisms for employees. The HRSEC Hotline was set up on the employee service platform to receive feedback from employees on any opinions, suggestions, or questions about the Company. Problems raised by employees are solved without delay.

Complaint and whistleblowing channels are open to receive complaints or whistleblowing from employees. A complainant protection mechanism has been established to strictly protect the personal information of whistleblowers.

The Accountability Management System and other systems have been created, and smooth channels for employees to give feedback or appeal on performance results have been established. Through such efforts, we can receive employees' opinions on performance evaluation results and help employees appeal against the results.

The labor contract signing rate:

100%

Social insurance coverage rate:

100%

The return-to-work rate after parental leave:

100%

Building a Platform for Career Development

We have always attached great importance to the development of employees, providing them with lifelong learning opportunities, helping them strengthen their professional skills, and supporting and assisting them in realizing their potential. We cultivate and reserve talents for the Company's sustainable development, providing diversified career paths for different types of talents. The 3U model of talent promotion has been created, and a growth platform for employees has been built, to achieve the goals of strugglers to progress, achievers to be motivated, and those who take responsibility to leap forward.

Employee Training

In 2022, New Hope Liuhe launched an activity of talent review covering core business talents across the entire industry to learn its "talent assets". The "self-examination" activity was conducted to strengthen the foundation of the talent system. The Company focuses on core business management positions and back-end business talents, and makes systematic analysis and planning for talents. We have identified structure problems of talent through the inventory template tools, promoted organizational and team diagnosis at all levels, and worked with the business department to develop human resource strategies. In addition, we have built a hierarchical and classified inventory system, evaluated talents based on the two dimensions of "competence + potential" and used Sudoku to classify different talents to allocate the talents in a lean way. In 2022, the Company's training focused on four types of key talents, delivering resources through two major platforms - the co-construction of teacher and course platform & the digital learning platform - to train 16,555 people across ten major projects.

Under the talent supply chain system, great efforts have been made in planning the training system and operating and delivering classified training for the Company's operation and management personnel. The Company devotes itself to the creation of online and offline learning platforms and the construction of internal and external training resources.

Leadership Training System - Talent Plan

• New Talent 365 Plan

Talent is the foundation for enterprises to become strong and the decisive factor in competition. New Hope Liuhe provides a growth platform for newcomers. Over the past 10 years, the New Talent Training Camp has trained more than 20,000 school-recruited graduates to enhance their job skills and enhance their soft power in the workplace.

• Elite Talent Plan

Through the online course of One-Step-Forward Management Ability Training Camp, with the focus of improving five core competencies of role transformation, setting goals, leading the team, improving employee performance, and promoting their development, we have assisted 7-8 level managers in the role transformation and improved managers' management abilities.

In 2022, the Elite Talent Plan has trained **607** people and certified **45** instructors, with a total learning time of **6097** hours. The complete rate of the course was **78 %** with a satisfaction rate of **96 %**. The passing rate of the exam was **85 %**.

• Top Talent Plan

An online training course was set up for middle management personnel of 9-12 levels. It mainly consists of four modules of financial management, market insight and analysis, personnel and team management, and digital thinking for general managers. While improving the general managers' leadership, it also helps them solve practical challenges and problems.

Digital Learning Platform - New Hope Academy

As a digital learning platform that integrates employee learning, training management, and knowledge accumulation, New Hope Academy has realized the closed-loop of training management through functions such as research questionnaires, course training, exam and competition management, community communication and learning maps, to improve the management efficiency of employee training and promote the competency of employees.

Account activation rate of the platform: **100 %**

• Fostering a learning-oriented organization with digital learning thinking:

The platform integrates with the office system, enabling users to log in conveniently and learn at any time and anywhere. By incorporating learning into various aspects of work and combining training with practice, it plays a very influential role in building a learning-oriented organization.

• Establishing a visual and data-driven talent development path with digital tools:

Learning data is effectively transferred back to the human resources system, enabling the automatic generation of personal learning records, which plays a vital role in talent development and review, as well as the Company's digital transformation.

• Achieve organizational knowledge management by digitalization as a carrier:

The platform provides employees a platform to share their wisdom, co-create and co-build and co-share to create a learning and development ecosystem, accumulate core knowledge assets, and enhance organizational performance and core competitive advantages.

The total number of employees who have taken offline training for the year:

586

Total person-time of online learners for the year:

357,794

Active courses:

5,557

Total training hours:

25916

Study hours per employee:

18.86



The opening ceremony of the Executive Master of Business Administration (EMBA) Program for senior managers

Career Development

The Company insists on prioritizing talent management in its operations, providing employees with fair opportunities for promotion, as well as smooth development channels. We encourage employees to strengthen their employability and keep learning and improving. The Industrial Academy encourages employees to obtain job qualification certificates and participate in competency system certification to help blue-collar workers build career development channels.

Based on the structural characteristics of the talent of the industry, we create a hierarchical and classified talent system for different personnel, with full coverage of all talented persons. We combine the Company's needs for talent with the talent's needs for development, promoting the co-growth of the talent and the organization. We provide management and development channels for employees who aspire to become managers, professional development channels for employees who want to become experts, and help industrial workers acquire more skills. We strive to provide a stage for various talented employees to use their talents and achieve growth.

For 20% of management-oriented talents

By creating an internal training system, we aim to enhance the cultivation ability for internal talents, focus on core positions and key employees, and design a "talent artery" to create an advanced organization with a large number of talented staff.

For 80% of production system talents

By implementing management strategies such as skill certification, new employees entering the model, and remuneration based on joint production, we aim to improve employees' abilities to better match their positions, inspire their passions, and build a mature and stable front-line production team.



Top Talent Plan

Enhancing Employee Care

New Hope Liuhe regards employees as family members and actively promotes its culture of "running the Company like an army, a school, and a family". We create an open and inclusive work atmosphere that promotes mutual progress, continuously enhancing employee care, drawing the team closer to each other, and improving employees' sense of belonging, so that each employee can fully feel the warmth of home.

Balancing Work and Life

We encourage employees to balance work and life, actively organize diverse activities, and help them alternate work with rest to strengthen the Company's cohesion.



Employee bookstore by Chengdu platform



Women's Day activities by the Beijing platform office



Birthday party for the Xinliu team's employees in Qiandong settlement of pig industry



Spring Festival activities by Chengdu Hope Food Company of the food industry



Mid-Autumn Festival and National Day entertainment activities by Chongqing New Hope Company of the feed industry



Fun sports meeting by Luxin Food Company of the poultry industry



A donation by Meihao Mutual Aid Association

Providing Assistance

We provide genuine care to employees to make them more comfortable to work and live by implementing a series of actions such as consolation activities, offering assistance to employees who has difficulties, and caring for female employees.

Case Study Adhere to the concept of goodness to build a mutually supportive family

New Hope Liuhe established the Meihao Mutual Aid Association in 2014 to promote its culture of "running the Company like an army, a school, and a family", and provide better care and assistance to employees. In 2022, the 2022 New Hope Liuhe and Meihao Mutual Aid Association Management Measures were formulated and a work team consisting of company party committee members, party affairs, and union cadres was established. With the concept of mutual assistance, it provides timely assistance and comfort to employees in the association who have difficulties, and gives them strength and power.

- Since the establishment of Meihao Mutual Aid Association in 2014, the total number of families assisted:

1815

Relief expenditure:

RMB 16.2162 million

- Membership amount in 2022: Membership:

RMB 6.788 million 47,936

- Total number of families assisted throughout the year:

431

Relief spending: RMB 4.483 million

Occupational Health and Safety

We attach great importance to the safety and health of our employees and strictly abide by relevant laws and regulations such as *the Prevention and Control of Occupational Diseases* and *the Implementation of the Regulations on Work-Related Injury Insurance*. Adhering to the concept of safety production of "Hope together to keep safety together", we make clear to employees the risks of occupational health and promote the establishment of occupational health and safety management systems in various business sectors, to ensure the physical and mental health and life safety of employees.

Strengthen Production Safety

New Hope Liuhe has established a safety production management system that covers all employees and has formulated and continued to improve rules and regulations. The Company keeps improving its safety production management department, actively applying for safety production management system certification, and implementing safety inspections and audit supervision management, to ensure the effective operation of the safety production management system.

- Investment on safety production:

RMB **89.83** million

- Safety training coverage rate:

100 %

- Production accidents (minor injuries):

16

- Number of deaths due to work:

0

Total person-time of safety training:

879,425 person-time

Total work-related injury rate (minor injuries):

0.015 %



Standardizing Management Systems

The Company has implemented and continued to improve various rules and operating procedures for enterprise safety management, and formulated systems of *the Production Accident Management System of New Hope Liuhe Co., Ltd.*, *the Production Accident Handling Measures of New Hope Liuhe Co., Ltd.*, and *the Accountability Management System of New Hope Liuhe Co., Ltd.* The Company carries out internal control management for safety production through a safety management mechanism that involves the entire process, all aspects, and all employees, to prevent various production accidents and ensure the health and safety of employees. In 2022, we revised management systems for safety production and accident accountability, and newly formulated safety management measures for limited space operations.

Implementing Audit and Supervision

The Company's safety production management measures extend to all business operations, subsidiaries, and encompass every employee. The execution of safety policies is closely interwoven with audit policies. The Company persistently conducts supervision and inspections of safety production, providing guidance and oversight across various sectors to ensure effective implementation of safety policies. Furthermore, key performance indicators undergo rigorous evaluation on a quarterly basis.

Improving Organizational Construction

The Company has set up safety management institutions at all levels and staffed full-time and part-time safety management personnel, to conduct training, education and performance assessment. Executives at all levels take the lead and promote the construction of an occupational health management system in their own management scope.

Actively Applying for Security Certification

The Company guides its branches and subsidiaries to actively apply for standardization certification of safety production. Both Chengdu Meihao and Hongya Meihao have obtained SO 45001 Occupational Health and Safety Management Systems. 178 subsidiary companies have obtained Safety Standard Certificate Level 3. All efforts are made to ensure the scientificity and effectiveness of the safety production management system.

Developing Safety Production Plans

The Company has formulated a safety production plan. In the next reporting year, we intend to further refine our various safety production management systems and progressively establish a four-tier system documentation. As we strive to enhance our safety management system, we are pushing forward with a comprehensive safety responsibility system for all employees.

We are also establishing a dual prevention work mechanism to identify and mitigate risks, building a safety education system to elevate safety consciousness among our entire workforce. We place significant emphasis on long-term planning by setting up digital systems to drive the digital and smart evolution of safety management.

Emergency Management

The Company has formulated *the Emergency Management Plan* and actively organized practical drills to respond to various emergency events that may occur in production, environmental protection, occupational health, and other aspects. We have established a sound information database for social rescue forces, emergency materials and equipment reserve and emergency experts, and constructed a regional rapid rescue and treatment mechanism to enhance emergency management capabilities in an all-around manner. In 2022, the Company totally conducted 2,300 emergency drills.

Ensuring the Health and Safety of Employees

The Company has formulated the Emergency Management Plan and actively organized practical drills to respond to various emergency events that may occur in production, environmental protection, occupational health, and other aspects. We have established a sound information database for social rescue forces, emergency materials and equipment reserve and emergency experts, and constructed a regional rapid rescue and treatment mechanism to enhance emergency management capabilities in an all-around manner. In 2022, the Company totally conducted 2,300 emergency drills.

Conducting Special Training

The Company provides pre-job safety education and training to employees, strengthens their traffic safety awareness, requires them to wear helmets and reflective vests, and conducts activities on safety for grassroots employees during the safety production month.

Protecting Employees' Health Rights and Interests

The Company has established a labor union to protect the legitimate rights and interests of employees, provided standardized compensation for work-related accidents that have occurred, and fully comforted and compensated related employees and their families.

Repaying Society in Nurturing Happiness with Hope

New Hope Liuhe values social benefits and practices corporate responsibilities. The Company spares no effort to stabilize production and guarantee the supply to avoid food supply problems caused by price fluctuation risks. Meanwhile, we are committed to meeting the needs and expectations of the people to create a high-quality public welfare brand, bringing corporate support to the communities and the public, and sharing the development results with the public. In this way, greater social value in the new era is created.

希愿有你，为爱圆梦——中国工商银行四川省分行 新希望六和股份有限公司 共同走进凉山金阳

Contributing to the United Nations Sustainable Development Goals



In May 2022, the "Hope and Wish Plan" was launched in Jinyang County, Liangshan Prefecture, Sichuan Province.

Striving to Stabilize Production and Guarantee the Supply

In 2022, under the influence of external factors such as market price fluctuations and exchange rate risks, some regions were in urgent need of materials and resources. The company stabilized production and ensured food supply for Shanghai, Chengdu, and other areas. At the same time, the relevant industrial sectors actively carried out price management, established and improved the procurement mechanism, and clarified the contract pricing and definition of raw material procurement, to avoid the potential impacts resulting from price fluctuation risks, and ensure price stability from the source.

Ensuring Stable Food Supply

To ensure a stable food supply, collaboration with food supply channels, including community chain supermarket terminals, community group purchase platforms, offline direct supply supermarkets, and channel partners, was further expanded.

Ensuring Stable Food Prices

We pledge not to chase profits or raise prices during critical times and to make every effort to stabilize food prices.

A total of

1,000 tons of guaranteed food,

nearly

220,000 items, have been delivered to

Chengdu's main urban area.



Many groups responded actively and rushed to ensure supply for Shanghai

Case Study Offering Set Menus Benefitting the People

Meihao Food, Kinghey, and other brands have implemented a community group purchase system, providing "affordable set meals" delivered straight to consumers. They've unveiled the "Meihao Companionship - Economical Meal Sets", which features a wide range of products such as Meihao's succulent pork, coriander meatballs, select leg meat, rib chops, and chicken wings, as well as other fresh and cooked pork and chicken food items. This initiative is aimed at providing the wider public with safe, reliable sources of meat.

Case Study Gathering Multiple Forces and Rushing to Ensure Supply for Shanghai

In early April, Shanghai suffered from a food shortage due to external factors. Tianrun Integrated Breeding Service Co., Ltd. (poultry industry), Hebei Kinghey Factory (food industry), and other companies responded quickly to dispatch production and ensure product supply, and transferred core members into Shanghai preposition warehouses, who worked day and night to support sorting, loading and unloading and other food supply work. Chengdu New Hope Group gave full play to its advantages in supermarket logistics, sending 22 trucks of food to Shanghai, delivering more than 290 tons of food, and effectively guaranteeing the supplies for supermarkets to ensure people's livelihood. In April alone, New Hope Liuhe supplied 12,000 tons of poultry, 3,000 tons of pork, and 1,150 tons of deeply processed food to Shanghai, equivalent to one chicken and one duck for every Shanghai family, helping Shanghai residents navigate through the difficult time.

Devoted to Charity

New Hope Liuhe has been actively engaged in charitable activities. It has strived to create special public welfare brands, continued to promote the public welfare projects of "Hope and Wish Plan" and "Warm Winter Action", participated in emergency response and disaster relief work, provided the love and warmth of New Hope Liuhe in poverty alleviation, supporting the elderly and orphans, disaster relief and other aspects, joined hands with social organizations to solve regional difficulties, to continuously play a demonstration role in public welfare.

Total charitable donations:
RMB **9.335** million
RMB **1.764** million for rural revitalization

RMB **5.382** million for public education
RMB **1.179** million for environmental protection

RMB **171,000** for overseas public welfare
RMB **839,000** for other categories of public welfare

Striving to Explore Brand Public Welfare

New Hope Liuhe actively builds a special public welfare platform and develops special public welfare projects to carry out voluntary public welfare activities for children and students in impoverished mountainous areas and people in poverty-stricken areas, to contribute the warmth and care of New Hope Liuhe to special populations.

Hope and Wish Plan

2022 marks the seventh year that New Hope Liuhe has launched the "Hope and Wish Plan". The Company and its subordinate units collected children's wish gifts, such as a school bag, a pair of shoes, a set of Han Chinese clothing, and a ball suit. The Company's employees and socially caring people actively met the wishes of children from those areas, sending the items as Children's Day presents.

Assisting **44** schools in old revolutionary base areas
Fulfilling the June 1 wishes of **2,491** children across the country



Hope and Wish Plan

Warm Winter Action

Since 2014, when 40,000 winter coats were donated to Tibetan villages, New Hope Liuhe's "Warm Winter Action" has been carried out for nine consecutive years and has become a brand public welfare activity of the Company.

In 2022, New Hope Liuhe and Sichuan Yonghao Public-Benefit Charity Foundation jointly launched the ninth season of "Warm Winter Action" with the Party Committee of the Sichuan Branch of the Agricultural Development Bank of China. They visited Luogan Village, Meigu County, Liangshan Prefecture, and passed on the idea of "changing customs and traditions and cultivating new styles of civilization". They sent dining tables and chairs to more than 600 villagers and 6,000 cartons of milk to kindergartens and primary schools, with a total value of material resources of nearly RMB 200,000, bringing warmth to the Yi villagers in the cold winter.



Hope and Wish Plan



Warm Winter Action

Supporting Emergency Response and Disaster Relief

When trouble occurs at one spot, help comes from all quarters. We carried forward the humanitarian spirit, taking an active part in the relief work in floods, earthquakes, and other major social disasters, carrying out disaster relief and disaster area reconstruction, and bringing warmth to the affected people.

Providing Assistance to Earthquake-Stricken Area of Luding County

In September, a 6.8-magnitude earthquake hit Luding County, Ganzi Prefecture, Sichuan Province, causing heavy casualties and property losses. People all over the country were concerned about the victims, and all forces rushed to rescue them. New Hope Liuhe, together with Sichuan Yonghao Public-Benefit Charity Foundation, donated RMB 3.1 million of aid funds and materials to support disaster relief and post-disaster reconstruction of the quake-hit Luding county.

Meanwhile, Meihao Food, a sub-brand of New Hope Liuhe, urgently set up a special team to understand the material needs of Luding, who urgently made products, organized a large number of urgently needed materials for the disaster area, orderly transported them to the destination. In this way, the material needs of relief in Luding were met in a timely manner. The first batch of 1,100 donated food items was worth RMB 230,000, including canned luncheon meat, ham sausage, and energy bars.

Supporting Local Response to Heavy Rainfall by New Hope Liuhe Bengal Division

In June, continuous rains in Sylhte caused flooding, leaving nine million people homeless. During the rainfall, New Hope Liuhe arranged employees to provide feed for poultry farmers and supplied personnel and materials to help farmers transfer live poultry to different regions. After the rainfall, the emergency team was immediately organized to sort out the disaster situation of farmers and donate money and materials.



Providing Disaster Relief Support to the Cianjur Area, West Java Province, Indonesia

In November, an earthquake registering 5.6 on the Richter scale hit Cianjur district, West Java province, Indonesia, causing multiple casualties. New Hope employees in Indonesia paid constant and close attention to the conditions of the disaster area and actively donated money and materials, which were immediately distributed to the victims by workers dispatched by the group. They spared no effort to help the victims to overcome difficulties together.

Putting out the Wildfire in Chongqing Overnight

In the afternoon of August 21, a huge fire broke out in the mountains under the jurisdiction of Jieshi County, Ba'nan District, Chongqing City. To thwart the fire's potential spread to the populous regions downhill, the local government solicited volunteers for support on the 23rd of August. Chongqing New Hope Feed Co., Ltd., based in the Ba'nan district, promptly rallied a group of 10 employees to partake in the voluntary campaign safeguarding the forest break. The volunteers set up firelines along the isolation zone, leveraging fire extinguishers, firefighting shovels, sickles, brooms, and borrowed pumps to mitigate the spreading flames. After a relentless 24-hour struggle by the volunteers, the wildfire was brought under control by the morning of the 24th and was completely extinguished by the following morning.

Following the satisfactory completion of our mission, we received a message of thanks from the management of Chongqing International Bio City, where the company is situated: "The circumstances on the front lines were truly strenuous, involving round-the-clock operations under high temperatures, severe tasks, high difficulty, and a certain degree of risk. New Hope Liuhe is an enterprise of heroes, boasting a team of courageous 'fighters' who are assuredly capable of fighting and emerging victorious. We salute to the New Hope Group!"



Responding to Typhoon Chaba

In June, heavy rains hit many parts of Yingde City, Guangdong Province, causing urban waterlogging and flooding of farmland and resulting in huge losses. Ruyuan Yao Autonomous County Xinhao Agriculture and Animal Husbandry Co., Ltd., a subsidiary of New Hope Liuhe, took the initiative to donate RMB 20,000 to Qiaotou Town, and fully supported the people in the affected towns and villages to overcome difficulties. This company devoted itself to post-disaster reconstruction, contributing to local economic recovery.



Promoting Regional Development

New Hope Liuhe actively responds to the "going out" strategy and promotes the overseas breeding business. Based on the funds and resources, it brings advanced breeding technology to overseas regions, provides teaching, creates jobs, and helps the surrounding regions of overseas divisions achieve sustainable development.

Business Localization

A local talent training strategy is implemented to create multiple jobs and encourage local talents to take up critical positions in the company.

The Egyptian division has directly created nearly 900 jobs in the local area, enabling the local breeding to be 85 million birds per year, and indirectly creating over 30,000 jobs. 35 local officials have been promoted accumulatively, and the proportion of cadres from local areas has increased year by year.

Standardized Operation Manual for the Development of Local New Raw Materials, Development Procedures for Imported New Raw Materials, and other local procurement policies and norms are formulated to drive local development and enhance the competitiveness and influence of the enterprise in surrounding areas.

Community Impact Assessment

Before setting up divisions overseas, the Company evaluates the development of overseas business, understands the policy support, and carries out in-depth market research. Before the construction and operation of the company, New Hope Liuhe carefully considers the location and carries out an environmental impact assessment. All the overseas businesses of the company pass the environmental impact assessment review. At the same time, the potential social impact of the company is understood, and communication with residents in surrounding communities is carried out when necessary to ensure that the impact of the company's operation on surrounding communities is minimized.



Cooperation in Educational Resources

New Hope Liuhe has created cooperation memorandums with six schools in the south and north of Myanmar, launched scholarship and internship programs with Yezing University of Animal Husbandry and Veterinary Medicine, provided scholarships of about RMB 20,000 to 30 students every year, and launched annual internship programs with Moby University of Science and Technology and Dongyu University of Science and Technology.

New Hope Liuhe focuses on the development of local talent and has established long-term talent cooperation with Cairo University, Alexandria University, the University of Sadat City, Beni-Suef University, Suez Canal University, and Kafrelsheikh University. Every year, the Company sets up internship programs, providing many positions in veterinary medicine, animal protection, sales, quality control, laboratory testing, breeding, and administration for local college students.



Carrying out Public Welfare Donations

The Myanmar division donated 10 million Kyat to Huade School, a Chinese primary school in Yangon, for the construction of the campus in 2019, and another 3 million Kyat in 2022 for the construction of a new school building.

Indonesian Agriculture and Animal Husbandry Company donates stationery and eggs for impoverished students of schools near the company.

The Egyptian division participated in the large-scale Ramadan charity event held by the Chinese Embassy and Chamber of Commerce with the theme of "Friendship, Growth and Development". It was larger than any other event ever been held. More than 30 Chinese enterprises in Egypt participated in the activity and raise a total of 1 million Egyptian pounds to help the local poverty-stricken people.



The Egyptian division cooperates with local universities



The Myanmar division provides donations for Chinese primary schools



The Indonesian division provides supplies to needy students



The Egyptian division participates in the Ramadan charity activity

About this Report

The New Hope Liuhe Co., Ltd. 2022 Annual Corporate Social Responsibility Report (hereinafter referred to as "this report") is the 15th Corporate Social Responsibility Report publicly released by New Hope Liuhe Co., Ltd. This report aims to present the Company's practices and performance in operations, environment, and social domains during 2022, reflecting the Company's endeavors in industrial development, industry collaboration, and social responsibility.

Timeframe

This report covers the period from January 1, 2022, to December 31, 2022. Certain descriptions and data may be extended beyond this timeframe as deemed appropriate.

Report Scope

The scope of this report is consistent with the Annual Report. Unless specifically stated otherwise, all currencies referred to in this report are in RMB.

Basis for Preparation

The Sustainability Reporting Standards from the Global Sustainability Standards Board (GRI Standards 2021 Edition)

The ISO 26000: Guidance on Social Responsibility (2010) from the International Organization for Standardization

National Standard Guidance on Social Responsibility Reporting (GB/T 36001-2015)

Guidelines for Corporate Social Responsibility of Shenzhen Stock Exchange Listed Companies

Terminology

For ease of expression and reading, New Hope Liuhe Co., Ltd. is referred to as "New Hope Liuhe," "the Company," or "we" in this report.

Data Clarification

The sources of data used in this report include publicly available government data, internal company statistical reports, and third-party documents and reports. Financial data disclosed in this report, if inconsistent with the Annual Report 2022 of New Hope Liuhe Co., Ltd., will follow the Annual Report as the final reference.

Report Access

Both Chinese and English versions of this report are available in digital and printed formats. The digital version can be accessed and downloaded from the information disclosure website (www.cninfo.com.cn) designated by the Shenzhen Stock Exchange or our company's website (<http://www.newhopeliuhe.com>). If you have any questions or suggestions concerning this report, please feel free to email us at 000876@newhope.cn.

Indicator Index Table

	Reporting framework	Benchmarking with reference to GRI standards
	Message from the Chairwoman	2-22
About New Hope Liuhe	Company profile	2-1/2-6/201-1
	Our 2022	2-28/201-1
	Corporate Governance	2-9/2-10/2-11/2-12/2-27/405-1
Responsibility Management	ESG Strategic Planning	2-22
	ESG Organizational Structure	2-9/2-12/2-13/2-14
	ESG issue management	3-1/3-2
	Stakeholder Communication	2-29
Responsibility Focus	Food Saving Special Action: Comprehensive Protection of Food Security	2-6/3-3/203-2/416-1
	Five-Five Project: Continual Support for Rural Revitalization	3-3/203-1/203-2/413-1
Corporate Governance: Striving to Uphold Long-Termism	Building a Resilient Foundation through Party Leadership	—
	Strengthening Risk Management	205-1
	Adherence to Business Ethics	2-25/2-26/3-3/205-2/205-3/206-1
	Growing Together with Partners	2-6/3-3/308-1/308-2/414-1/414-2
Enterprise for People's Well-being: Safeguarding Life with Life	Strengthening Food Safety	2-23/2-25/3-3/416-1/416-2
	Enhancing Nutritional Value	3-3/416-1
	Improving Service Quality	3-3/417-1/417-2/417-3/418-1
Exploring the Development of Smart Urban and Rural Areas through Technological Innovation	Driving Development through Technology	2-28
	Upgrading Smart Farms	2-6/416-1
	Creating A Digital Enterprise	2-6/416-1
Green Industry: Sustaining Nature through Circular Agriculture	Improving Environmental Management	2-18/307-1
	Developing Eco-Friendly Animal Husbandry	201-2/3-3/
	Responding to Climate Change	201-2/3-3/302-1/302-3/302-4/302-5/305-1/305-2/305-3/305-4/305-5
	Water Resource Management	3-3/303-1/303-2/303-3
	Reduction of Waste Disposal	2-25/3-3/306-1/306-2/306-3/306-4/306-5
Ecological Environment Protection	2-25/3-3/304-1/304-2	
Employees Achieving Success and Pursuing Excellence through their growth	Protecting Employees' Rights and Interests	2-7/2-19/2-23/3-3/401-1/401-2/405-1/406-1/408-1/409-1
	Building a Platform for Career Development	3-3/404-1/404-2
	Enhancing Employee Care	401-2
	Occupational Health and Safety	3-3/403-1/403-2/403-3/403-5/403-6/403-7/403-8/403-9
Repaying Society in Nurturing Happiness with Hope	Striving to Stabilize Production and Guarantee the Supply	413-1
	Devoted to Charity	413-1
	Promoting Regional Development	3-3/203-1/203-2/413-1
About this Report		1/2-2/2-3/2-4
Indicator Index Table		—



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