



# China Modern Dairy Holdings Ltd.

中國現代牧業控股有限公司

(Incorporated in the Cayman Islands with limited liability)  
Stock Code: 1117

## 2023

## ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT



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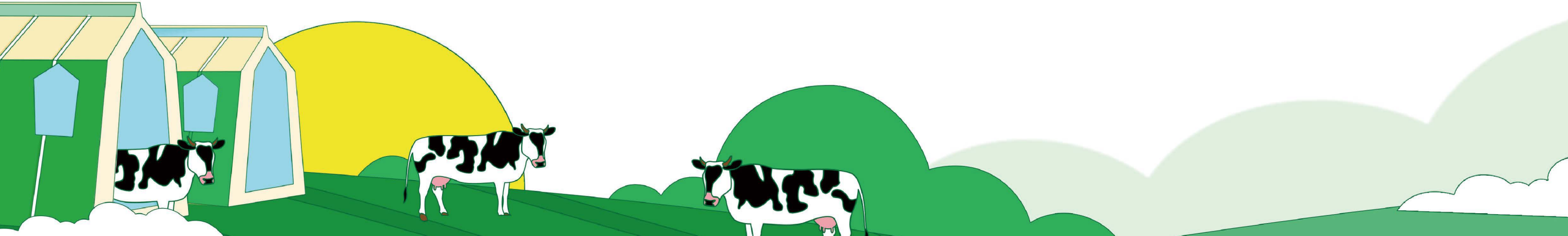
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# CEO's Statement

As one of the pillar industries that underpin the health, happiness and quality life of people, the dairy industry plays an important role in the national economy and people's livelihood, and also provides momentum for rural revitalization. In 2023, China's dairy industry moved forward firmly amid difficulties and challenges. Modern Dairy also advanced bravely in the storm, change and challenge. We worked hard and long to make great achievements.

As a leader in the animal husbandry, Modern Dairy always shoulders its social responsibility. We inspire industry-wide innovation with digitalization, promote the advancement of raw milk quality with high standards, deposit the green and low-carbon as the gene of sustainable development, and promote the construction of industrial growth poles with win-win economic, ecological and social benefits.

Breakthrough never ends, and innovation wins the future. In 2023, Modern Dairy outperformed the industry in nine dimensions, including performance, production, cost, technology, industrial chain, safety and quality, social responsibility, sustainable development, and brand. We took a solid leading position with multiple advantages. Under the correct leadership and scientific decision-making of the Board of Directors, we firmly implemented the strategy of cost reduction and efficiency enhancement, expanded the scale of the main industry, and realised the synergy of the whole industry chain. We also debuted the industry's first FRESH Sustainable Development Strategy, and carried out the practical actions centred on the five pillars of "Future, Responsibility, Environment, Society, and Health", so as to paint a harmonious and beautiful picture of the dairy industry's ecology.

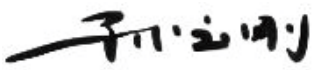
**Empower development with digital intelligence and innovation to be a "Pioneering Cow".** Adhering to the vision of "being a global leader in digital and intelligent farms", we take SAP as the core in technology, integrate ERP, OA, SRM and other peripheral systems of the whole business chain, sort out and optimise the whole process industry chain, promote the visualisation and flow of data, and strengthen the all-around guarantee system for the safety and quality of the products, so as to open up a new era of "Digital Cattle Breeding".

**Pursue green and low-carbon development to be an "Eco-friendly Cow".** We emphasize the principle of "Ecological Priority". For example, we rely on a green circular industrial chain of "Forage Planting – Cow Breeding – Manure Treatment – Soil Fertilization with Organic Waste (power generation with biogas) – Forage Planting" to build brand new environmentally friendly farms, and help the dairy farming industry tackle climate change. We also continue to advance low-carbon transformation, and pioneer in setting industry-leading dual-carbon targets, promoting low-carbon sustainable development across the industry.

**Inspire talent for common development and prosperity to be an "Enterprising Cow".** We conduct comprehensive talent training, establish and improve a performance system that accurately matches the performance of our employees. We care about employee welfare and launch a one-stop health and welfare platform to push for a virtuous development mechanism that inspires employees and the Company to "pursue development and share prosperity together". By doing so, we ensure a decent and happy life for our employees.

**Stay true to our mission and responsibilities to be a "Responsible Cow".** We always adhere to the core value of "be honest and credible", and proactively undertake social responsibility with concrete actions. For instance, we have established the first public welfare brand of animal husbandry industry, "Husbandry for Society", to support all kinds of public welfare undertakings and help revitalize the countryside. In this way, we put people's interests first, and enhance people's sense of well-being.

Those who recognize the trend are wise and those who ride the trend will win. In the face of the increasingly complex and volatile external environment, we will continue to act on the principle of seeking progress while maintaining stability, promoting stability through progress, and establishing the new before abolishing the old. With the enterprise spirit of "born to be strong and go beyond ourselves", we will respond to the challenges from all sides, and work together with upstream and downstream industrial chain partners to accelerate the formation of "new quality productive forces in the dairy industry". We will push China's dairy industry towards a higher quality, more resilient and more sustainable future.



CEO of Modern Dairy  
Sun Yugang  
25 March 2024



# About This Report

## Reporting Scope

This Report aims to present the view, significant progress and achievements of China Modern Dairy Holdings Limited ("Modern Dairy", the "Company" or "we") and its subsidiaries objectively and fairly in respect of annual Environmental, Social and Governance (ESG) work. We will focus on each of the relevant aspects in this Report, in particular, those ESG issues that may have a material impact on the Company's sustainability and that arouse concern of various stakeholders. Based on the revenue composition of the Company for the fiscal year 2023, we determine that this Report focuses on the Company and its subsidiaries, and covers the Company's major revenue businesses of raw milk business, offline feed business and digital intelligence platform business according to the principle of materiality, covering Modern Dairy's farms. The reporting period of this Report is from January 1, 2023 to December 31, 2023. This report may include matters beyond the period to maintain the continuity of information.

## Reporting Principle

In preparing this Report, we defined the contents of this Report and how the information is presented in line with the principles of "Materiality", "Quantification", "Balance" and "Consistency".

**Materiality:** In preparing this Report, the Company identified key stakeholders and key ESG issues of their concern, and made targeted disclosure according to the materiality of these issues. Details of the materiality assessment process are set out in the "Stakeholder Engagement" and "Identification of Material Issues" sections below.

**Quantification:** In this Report, the key performance indicators (KPIs) concerning environment and society are shown in the form of quantitative data, and the measurement standards, methods, hypothesis and/or calculation tools, and source of conversion coefficient for the KPIs are explained in their respective places.

**Balance:** In this Report, the Group's positive and negative ESG information and performance are reported in a transparent and objective manner, covering five areas: Future, Responsibility, Environment, Society and Health.

**Consistency:** In this Report, the data is disclosed based on the same statistical methodology as in previous years, with certain changes are clarified to ensure consistency.

## Preparation Basis

This report is prepared in compliance with the requirements of Appendix C2 Environmental, Social and Governance Reporting Guide("ESG Reporting Guide") to the Main Board Listing Rules ("Listing Rules") of Hong Kong Exchanges and Clearing Limited ("HKEX"), and with reference to the GRI Sustainability Reporting Standards issued by the Global Sustainability Standards Board (GSSB).

## Access to This Report

An electronic version of this report is accessible via the Group's official website ([www.moderndairyir.com](http://www.moderndairyir.com)) and the HKEX official website ([www.hkex.com.hk](http://www.hkex.com.hk)).

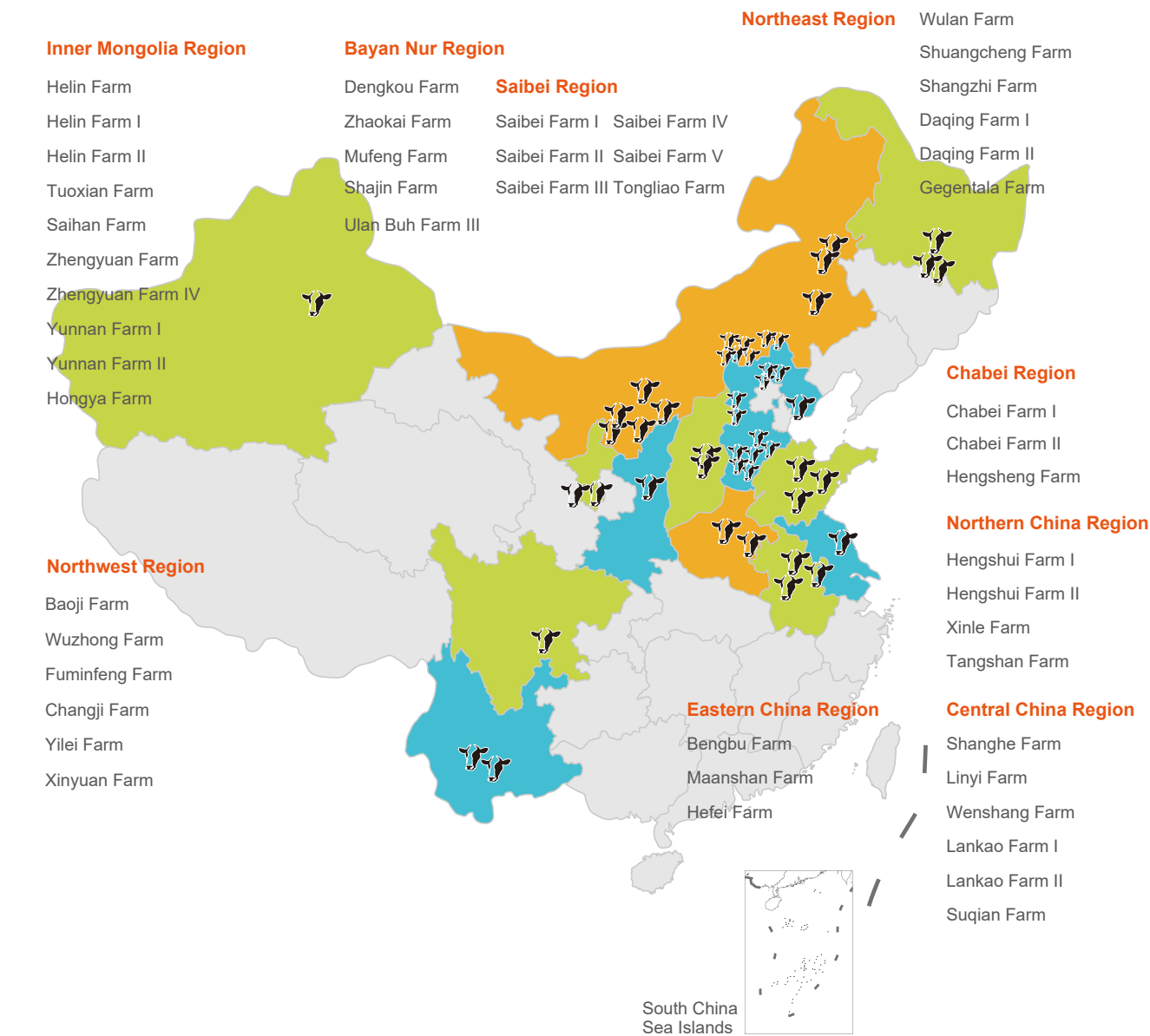
## Source of Data

The information, data and cases set out in this Report are adopted from the Group's official documents, statistical reports, financial reports or public documents, as well as information on ESG practices summarized by the Group's various functional departments. The Board of Directors is responsible for the authenticity, accuracy and completeness of the contents of the report. This Report is published in both Chinese and English. In case of any inconsistency between the two, the Chinese version shall prevail.

# About Modern Dairy

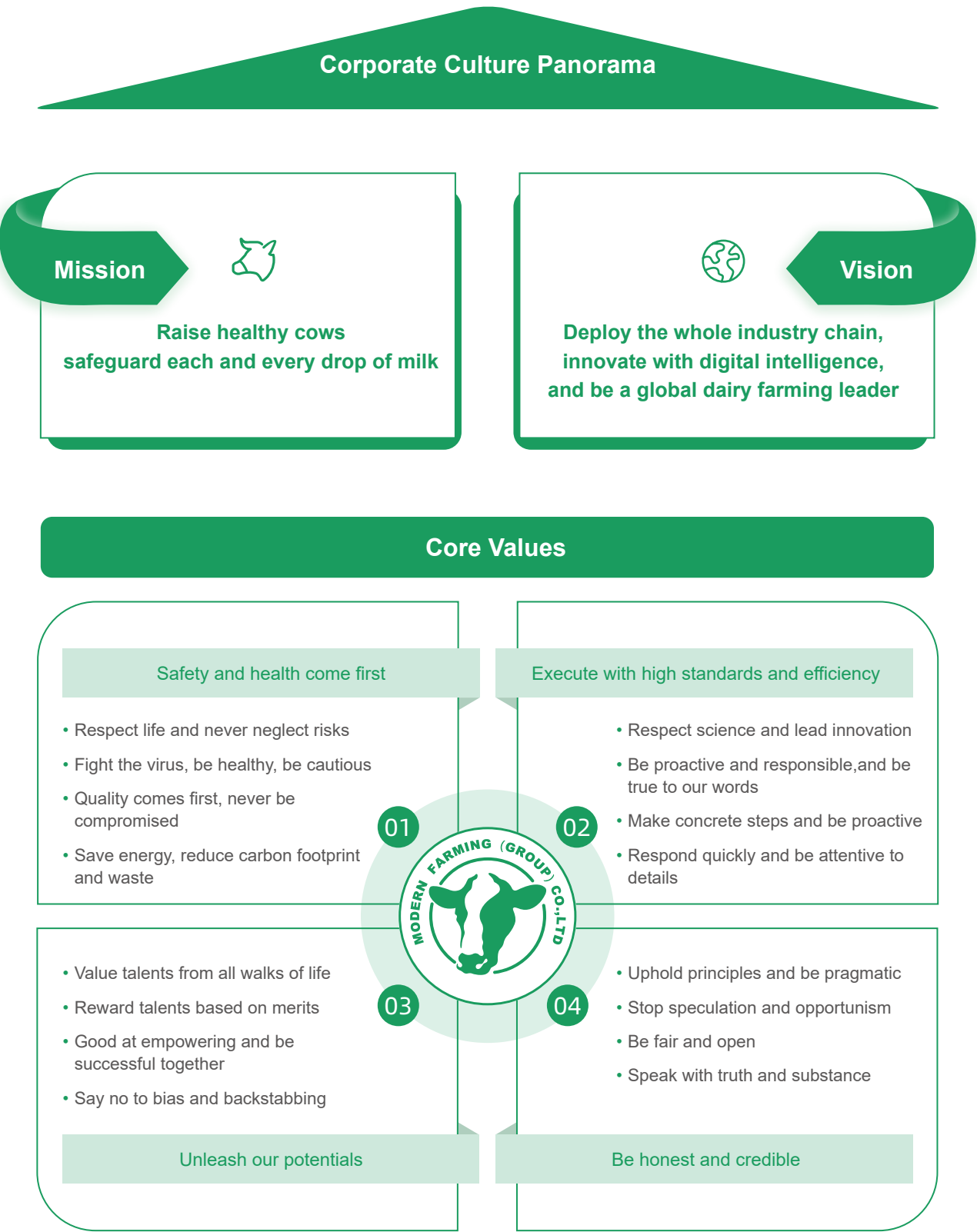
Modern Dairy (Group) Co., Ltd. was established in 2005 in Ma'anshan City, Anhui Province, and listed on the Hong Kong Stock Exchange in 2010. As a leading enterprise in China's dairy farming industry, Modern Dairy relies on digital intelligence innovation to build a whole industry chain "from a blade of grass to a glass of good milk". Based on strengthening and improving the raw milk business, Modern Dairy innovates its business model to form a whole industry chain ecosystem integrating dairy farming, forage, digital intelligence platform, breeding and deep processing, and builds an industry benchmark with high quality and high standard. We will combine with our strategic shareholder Mengniu to achieve synergy and win-win situation.

Insisting on the "attention, professionalism, concentration" philosophy, the Company is committed to the development of China's dairy industry under the guidance of the operation and development strategy of "building the world's most advanced farms and producing the world's best milk". Relying on the overall development strategy and plan of the Company, as of the end of the reporting period, Modern Dairy had 42 dairy farming companies in 13 provinces and autonomous regions across the country with over 450,000 cows in total, with annual production volume reaching 2.59 million tons.



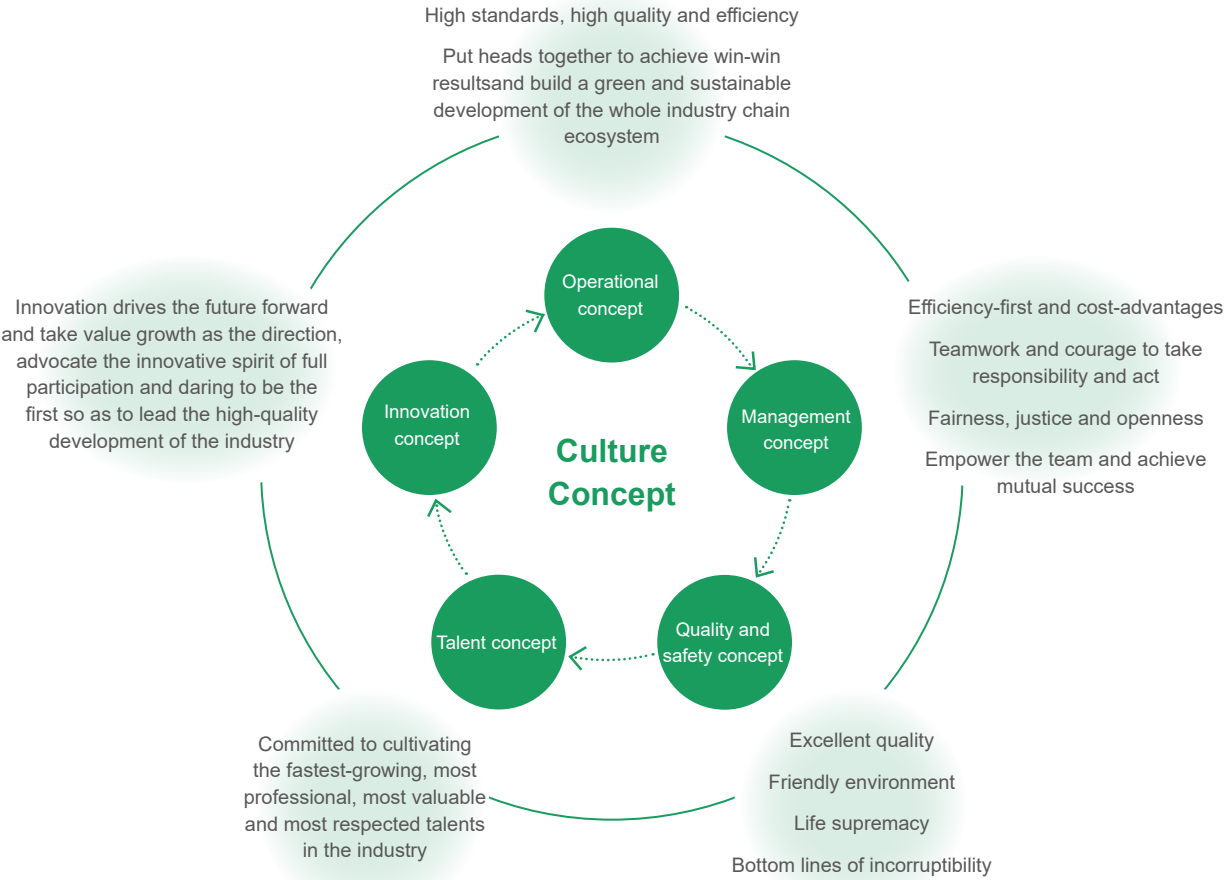


► Corporate Culture Panorama



Enterprise Spirit

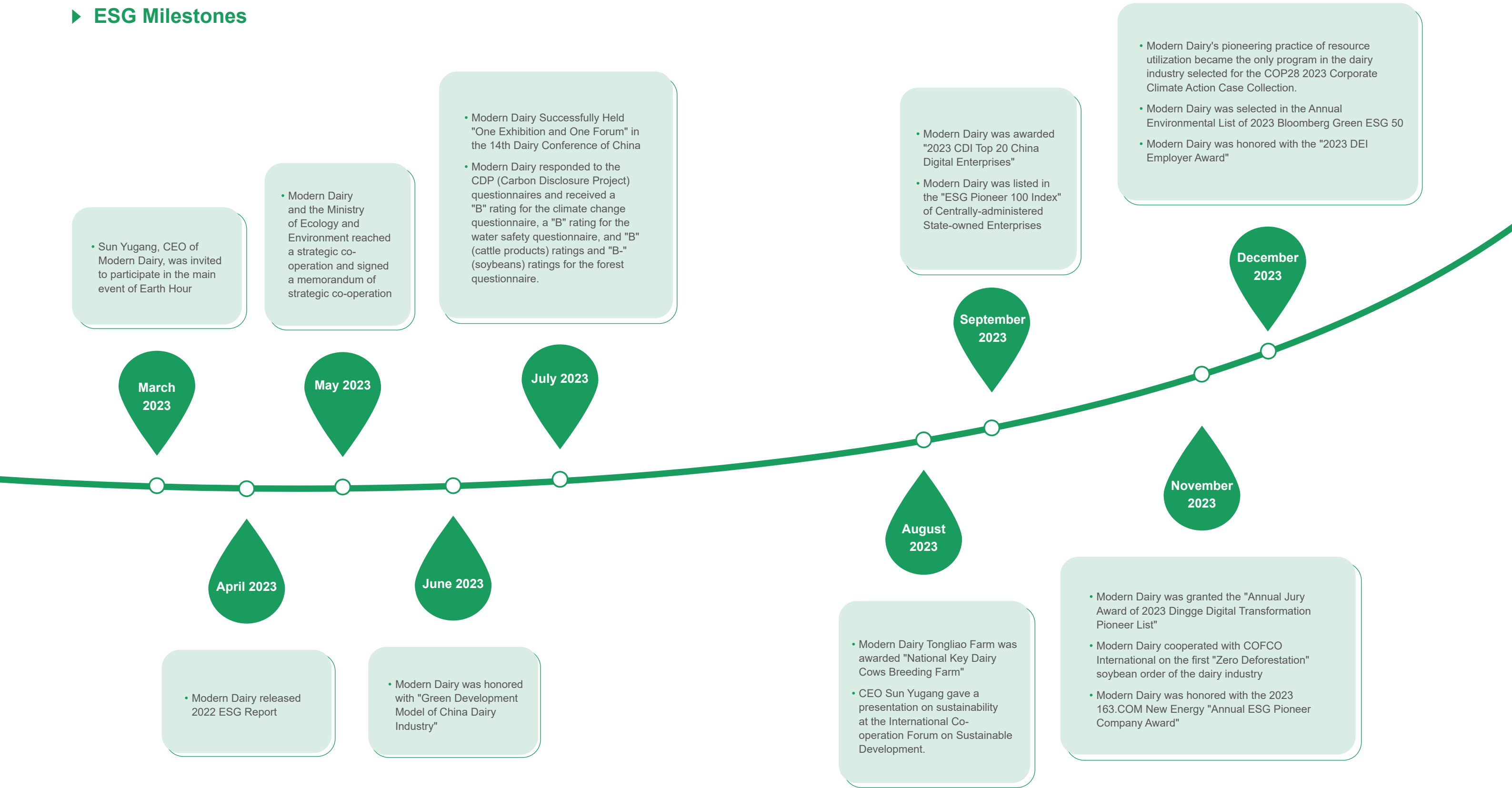
Born to be strong and go beyond ourselves







► ESG Milestones



# 01 Future

To embrace the future and strive for innovation, Modern Dairy continues to explore and promote circular agriculture and animal husbandry technologies and models, and accelerate the informatization and digitization process. Moreover, we actively respond to the challenges of climate change, implement dual-carbon actions and achieve the strategy of high-quality green development.





"Dual-carbon" Project

Modern Dairy adheres to the core concept of green and sustainable development and responds to the national "dual-carbon" strategy. We strictly abide by relevant laws and regulations such as the *Environmental Protection Law of the People's Republic of China*, the *Energy Conservation Law of the People's Republic of China*, the *Safety Production Law of the People's Republic of China*, and the *Regulations on the Administrative Regulations on the Work Safety of Construction Projects*. In addition, we fully leverage our resource, industrial and technological advantages to align corporate development with national policies and promote the green operation of the Company. The Company is actively carrying out emission reduction initiatives and gradually advancing its green transformation and development. We are committed to building a zero-carbon industry and continue to carry out "dual-carbon" initiatives.

The Company has set greenhouse gas (GHG) emission reduction targets and energy conservation and consumption reduction targets, and monitors the progress of these targets regularly.

Existed Emission Reduction Targets	Existed Target Progress	Adjusted Targets for 2024 <sup>2</sup>
<div><div><div><div></div><div>GHG emission reduction targets</div></div></div><div><div>Unit carbon emissions in 2021 (base year): <b>0.91</b> Kg CO<sub>2</sub>e/ Kg FPCM<sup>1</sup></div><div><div>• Unit carbon emissions: <b>0.85</b> Kg CO<sub>2</sub>e/ Kg FPCM</div><div>By 2025, taking 2021 as the base year, the Group's unit carbon emissions will be reduced by <b>7%</b> in 2025;</div><div>• Unit carbon emissions: <b>0.77</b> Kg CO<sub>2</sub>e/ Kg FPCM</div><div>By 2030, taking 2021 as the base year, the Group's unit carbon emissions will be reduced by <b>15%</b> in 2030;</div><div>• Unit carbon emissions: <b>0.73</b> Kg CO<sub>2</sub>e/ Kg FPCM</div><div>By 2035, taking 2021 as the base year, the Group's unit carbon emissions will be reduced by <b>20%</b> in 2035.</div></div></div></div> <div><div>In Progress:</div><div>This year, the Company's carbon emissions per unit of corrected milk (0.89 Kg CO<sub>2</sub>e/ Kg FPCM) decreased by <b>2.2%</b> compared to 2021</div></div> <div><div>Carbon emission per kilogram of FPCM in 2021 (base year): <b>0.91</b> Kg CO<sub>2</sub>e/ Kg FPCM</div><div><div>• Taking 2021 as the base year, by the end of 2025, the Group's carbon emission per kilogram of FPCM will be reduced by <b>7%</b>, <b>0.85</b> Kg CO<sub>2</sub>e/ Kg FPCM;</div><div>• Taking 2021 as the base year, by the end of 2030, the Group's carbon emission per kilogram of FPCM will be reduced by <b>15%</b>, <b>0.77</b> Kg CO<sub>2</sub>e/ Kg FPCM;</div><div>• Taking 2021 as the base year, by the end of 2035, the Group's carbon emission per kilogram of FPCM will be reduced by <b>20%</b>, <b>0.73</b> Kg CO<sub>2</sub>e/ Kg FPCM.</div></div><div>Among them, by the end of 2025,</div><div><div>• Achieve a <b>3%</b> reduction in carbon emissions per kilogram of FPCM by enhancing digestion rates to intestinal fermentation and manure management;</div><div>• Achieve a <b>1%</b> reduction in carbon emissions per kilogram of FPCM by optimizing the cattle herd structure, reducing calving intervals, and increasing the proportion of milkable cows;</div><div>• Achieve a <b>1.5%</b> reduction in carbon emissions per kilogram of FPCM by upgrading energy facilities, implementing energy-saving measures, enhancing energy utilization efficiency, optimizing energy structure, and increasing the proportion of green energy sources;</div><div>• Achieve a <b>1.5%</b> reduction in carbon emissions per kilogram of FPCM by optimizing manure management practices.</div></div></div>		

<sup>1</sup> FPCM stands for "fat-and-protein-corrected milk", an index used to compare milk production between dairy cows with different contents of milk fat and protein.  
<sup>2</sup> This year, the Company further sorted out and clarified the caliber of GHG emission reduction targets in light of the actual carbon reduction work practice, and newly set up corresponding targets in accordance with the Company's carbon reduction work path.

Existed Energy Saving Targets	Existed Target Progress	New Targets for 2024
<div><div><div><div></div><div>Energy conservation and consumption reduction target</div></div></div><div>Taking 2020 as the base year, we will reduce the consumption of electricity, gas and steam per tonne of product year over year by 2030, with specific targets set.</div></div>	<div>In Progress</div>	<div>Energy conservation and consumption reduction target<sup>3</sup></div> <div><ul style="list-style-type: none"><li>• By 2024, the Group's existing steam equipment in its own farms will be renovated or updated, with a <b>2%</b> reduction in energy consumption compared to 2023;</li><li>• By 2025, the Group's existing steam equipment in its own farms will be renovated or updated, with a <b>2%</b> reduction in energy consumption compared to 2024.</li></ul></div>

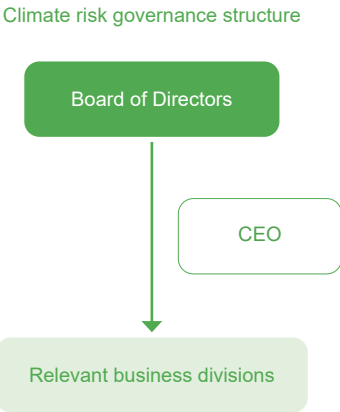
► Addressing Climate Change

Addressing climate change is a common mission of mankind and a social responsibility for enterprises. As global warming aggravates, the responsibility of enterprises will bear greater responsibilities for coping with climate change. As a leading national dairy cow husbandry operator and raw milk producer, Modern Dairy actively undertakes social responsibility by actively addressing climate change and continuously exploring our methods of sustainable operation and development.

Improvement to Management System

To improve the corporate climate management and the ability to cope with climate change risks, Modern Dairy has incorporated climate risks as a key indicator into the Company's overall risk management. We have established a climate risk governance structure with the Board of Directors as the top leadership, and clarified the climate risk-related responsibilities of all managers from top to bottom.

The board of Modern Dairy are responsible for coordinating and supervising the Company's sustainable development issues, and regularly receiving the management's report on climate change and dual-carbon issues and providing recommendations accordingly. In this way, we ensure the effective operation of the Company's climate risk management and internal defense system. As an essential bridge connecting the Board of Directors and the executive team, the CEO of Modern Dairy is responsible for the overall planning and promotion of the Company's dual-carbon efforts. For example, the CEO coordinates the formulation of policies and strategies including climate change related issues, and clarifies the authority, responsibility and objectives of the climate change departments of each division. With these efforts, the CEO monitors ESG performance and related progress, and directs the execution team to manage the delivery of sustainable development strategies. The relevant business divisions of Modern Dairy enforce the Group's strategies and execute the Group's dual-carbon actions. All relevant departments formulate the dual-carbon strategy plan and related management documents based on their departmental responsibilities. For example, each department breaks down major strategic objectives into specific initiatives such as carbon reduction, emissions reduction and climate risk defense, quantifies the effect of emission reduction, and reports to the Board of Directors on the effectiveness of the carbon reduction efforts and the progress of related projects.



<sup>3</sup> At present, the national requirements for the environment of cattle barns and electricity equipment are gradually increasing. In order to ensure the sustainability of our business development, we have adjusted this target according to the actual operation status, and further clarified the annual energy saving and consumption reduction requirements.

Identification of Climate Risks and Opportunities

During the reporting period, Modern Dairy carried out identification and assessment analysis of various types of risks and opportunities related to climate change to gain a more comprehensive understanding of the potential risks and opportunities for the Company. The Company identified two significant transition risks and two physical risks in total, and the following table sets out the detailed results of the identification and assessment:

Risk Category	Risk Event	Potential Impact on the Company and Response
Transition Risk		
Policies and laws	Increasingly stringent regulatory requirements	<ul style="list-style-type: none"><li>As regulatory requirements become increasingly stringent, this results in potentially higher compliance costs for companies. The Company should vigorously promote the low-carbon transformation of its production business and optimize its production and product mix in response to regulatory requirements, which may require more investment in technological innovation</li></ul>
	Pricing on GHG emissions	<ul style="list-style-type: none"><li>As the scale of the carbon trading market continues to expand, corporate operating costs may further increase in the future. The Company will actively explore carbon capture, carbon utilization and carbon sequestration (CCUS) and other technologies to reduce greenhouse gas emissions, thereby avoiding or reducing the purchase of carbon emission shares and lowering the cost of corporate carbon emissions</li></ul>
	Open and transparent disclosure environment	<ul style="list-style-type: none"><li>As the public and transparent information disclosure mechanism continues to improve, the requirements of regulators on the authenticity and compliance of climate change related information disclosure are likely to continue to increase. The Company will carry out carbon inventory and third-party certification to improve the accuracy and recognition of carbon data</li></ul>
Market	Fluctuation in the price of feed and other raw materials	<ul style="list-style-type: none"><li>Influenced by global catastrophic weather and other special factors, the Company's feeding procurement costs may rise. The Company will consider building a diversified feed supply system, including but not limited to scientifically improving feed feeding efficiency without affecting the nutritional balance of feeding; actively developing strategic cooperation with large suppliers; and actively researching into new types of feed ingredients to break the traditional feed supply pattern, etc., so as to mitigate to some extent the impact of fluctuating feed purchase prices on operating costs</li></ul>
	Increase in veterinary and pharmaceutical costs	<ul style="list-style-type: none"><li>As the incident rates of dairy cows' diseases increase due to global warming, the demand for medicines continues to rise. The Company needs to conduct regular tests and comparative analyses of similar medicines, optimize alternative medicines, and establish long-term procurement partnership with medicine suppliers to mitigate the impact of medicine price fluctuations; The Company will research and develop intelligent technology and equipment for early disease diagnosis to monitor the health of dairy cows in a timely manner and enable rapid and accurate treatment. This will reduce the common diseases throughout the breeding process</li></ul>

Risk Category	Risk Event	Potential Impact on the Company and Response
Physical risk		
Acute risk	Extreme weather such as floods and typhoons	<ul style="list-style-type: none"><li>The supply and distribution of materials required for production operations may be interrupted due to extreme weather, which may in turn affect the delivery of the Company's raw milk orders. The Company will rationalize the supply and storage of materials, fully allocate all types of emergency supplies, and formulate an emergency response mechanism for natural disasters to ensure the supply and delivery of raw milk</li></ul>
Chronic risk	Increasing hot and cold weather	<ul style="list-style-type: none"><li>The increase in hot weather days may lead to more frequent heat stress<sup>4</sup> in cattle, which in turn affects feed intake, reproduction levels, and increases the risk of disease and mortality. The Company adjusts the orientation of calf islands, considers adding sunshades, sprinklers and fans to improve the living environment of cattle; actively researches nutritional solutions, uses yeast solutions to lower the body temperature of cattle, and increases the amount of drinking water to slow down the heat stress reaction, effectively protecting the animal welfare of cattle</li><li>The increase in cold weather days may lead to more frequent cold stress<sup>4</sup> in cattle, requiring cows for more energy to maintain body temperature, and increasing the risk of frostbite in the udder, decreased health, and decreased milk production. The Company takes insulation measures in the cowshed, such as increasing the insulation of cotton curtains, providing heated warm water, etc. At the same time, we will increase the feed energy concentration to effectively increase energy intake and protect animal welfare</li><li>Fresh dairy products are susceptible to external temperature. The Company will strengthen product quality monitoring and testing, rationalize transportation, and shorten the transportation time as much as possible to mitigate the problem of raw milk deterioration due to external temperature</li></ul>

Meanwhile, the Company identifies the following opportunities from the perspectives of resource efficiency, energy sources, product services and model innovation:

Opportunity category	Description of key opportunities
Resource efficiency	Improve the operation and production methods of each farm, promote the comprehensive intelligent renovation of farms, and take other measures to increase resource efficiency and reduce GHG and pollutants emissions, increase the productivity of our farms, reduce energy waste, and lower our medium- and long-term operating costs
Energy source	Optimize the structure of energy use, promote the use of renewable energy, and increase investment in comprehensive energy construction to achieve self-use of green electricity in the course of production and operation. By doing so, we enhance the Company's ability to cope with the risk in energy supply fluctuations, thereby gaining an advantage in the carbon market and producing environmental benefits
Product service	Gradually improve the construction of the "Yunyangniu" Digital Intelligence Cloud Platform of the farms, and join hands with the Company's business partners to create a digitalized business model for the whole value chain
Model innovation	Actively innovate green technologies and develop green and low-carbon production models. This will enhance the Company's risk adaptability and business resilience under different circumstances, and form a new source of revenue growth

<sup>4</sup> "Heat stress" refers to the state under which an animal is subjected to physiological stress due to high ambient temperature. In this state, it is difficult for animals to effectively dissipate heat through normal mechanisms, resulting in an increase in body temperature and a series of physiological and behavioral adaptive responses. "Cold stress" refers to a stress response in animals exposed to cold conditions that affects milk production, growth rate, reproductive performance and herd health.



► Green and Low-carbon Development

Green and low-carbon development is the only way ahead of us. Modern Dairy prioritizes the "dual-carbon" goal, and actively explores and practices development models like low-carbon production, new energy substitution, and circular economy. We also continue to optimize and adjust our industrial structure to establish a sound economic system of green, low-carbon and circular development. In this way, we are actively engaged in green and low-carbon transformation. The Company has set targets for GHG emission reduction and launched a series of emission reduction initiatives to promote the timely or early completion of related milestones.

Modern Dairy actively balances the dual requirements of livestock production and low-carbon development, and proactively practices the "dual-carbon" goal for sustainable development. The Company vigorously reduces its GHG emissions and strives to minimize its negative impact on the environment.

In terms of operations, the Company has strengthened the building of a sustainable operation management system to enhance environmental protection and operation management. During the year, the Company continued to push for environmental management system certification. We promoted the certification in accordance with relevant regulations and procedures, the requirements of central inspection on eco-environmental protection, and the features of the dairy industry and its significant risks. In addition, we utilized third-party expertise to fully diagnose the challenges in our business and enhance effective improvement. As of the end of the reporting period, a total of 31 dairy farming companies had obtained ISO14001 Environmental Management System Certification. There were no serious non-conformities during the audit process, and 100% of the general non-conformities were rectified and passed the review.

The Company also actively promoted the verification of GHG emissions. As of the end of the reporting period, Modern Dairy had passed the GHG Emission Verification by China Classification Society Quality Assurance Co., Ltd., and obtained the certification of ISO14064-1:2018 standard for the industry.

The Company adheres to green development for production. We reduce GHG emissions from production and operation through diversified measures, such as setting up multiple paths for emission reduction, and expanding the building of high-quality milk source bases.



Modern Farming (Group) Co., Ltd.  
ISO14001 Environmental Management  
System Certification



Modern Farming (Group) Co., Ltd.  
Greenhouse Gas Emission Verification  
Certification by China Classification  
Society Quality Assurance Co., Ltd.



Modern Dairy improves the digestibility and utilization efficiency of feed by means of refinement of feeding and improvement of feed quality, thus reducing carbon emissions from intestinal digestion of cattle.



Scientific formulas to improve feed digestibility

According to factors like stage of growth, breed, gender, productivity and environmental conditions of cattle, the Company regularly adjusts the feed formula scientifically and optimizes the nutritional ratio of the feed. This ensures that the energy and nutrients provided satisfy the cattle's needs and reduces waste and excretion.



Change fatty acid content to affect rumen microbes

The Company appropriately adjusts the type and contents of feed's fatty acids to improve and maintain the structure of the rumen microbial community in cattle and increase their rumen fermentation efficiency.

This year, the Company reduced enteric fermentation emissions by approximately **2%** and manure management linkage emissions by approximately **4.3%** compared to 2022, by improving digestibility, which in turn reduced CO<sub>2</sub> emissions from the herd by approximately **40,000 tons**.

At the same time, Modern Dairy actively carries out carbon sink reserves. Adhering to the concept of planting and rearing integration, we gradually expand the space of carbon sink reserve with improving grassland and expanding artificial forage planting to minimize greenhouse gas emissions and strive to achieve carbon neutrality in the farming and animal husbandry system. The artificial alfalfa land in the area belonging to the Company's Helin Farm is established perennial artificial grassland, which possesses the characteristics of species with more biomass underground and above ground and a relatively long life cycle, which largely increases the amount of carbon sequestered in the soil.

Based on the actual situation of carbon emissions, Modern Dairy will formulate the whole-farm action plan of "Low-carbon Dairy Cow Breeding". The Company will determine the non-CO<sub>2</sub> GHG emission factors under intensive dairy farming conditions through the measured data. We will also develop a Scope III carbon emission accounting system and dynamically assess the carbon emissions of domestic large-scale farms. Modern Dairy will continue to conduct strategic cooperation with the industry's leading technical institutions, and promote the process of low-carbon development of the entire industry based on its distinctive breeding model.

GHG Emissions KPIs of Modern Dairy

Indicator	Unit	2023	2022	2021
Total GHG emissions <sup>5</sup>	tCO <sub>2</sub> e	2,309,311.62	2,064,837.92	1,325,668.02
Emissions of greenhouse gas (scope I)	tCO <sub>2</sub> e	1,946,733.20	1,654,588.91	1,116,991.70
Emissions of greenhouse gas (scope II)	tCO <sub>2</sub> e	362,578.42	410,249.01	208,676.32
Emissions of greenhouse gas per RMB million revenue	tCO <sub>2</sub> e/RMB million	171.59	167.94	201.24
Carbon emission intensity per kilogram FPCM	CO <sub>2</sub> e/FPCM	0.89	0.90	0.91

<sup>5</sup> The Company's GHG inventory includes carbon dioxide, methane and nitrous oxide. The GHG accounting is presented on a carbon dioxide equivalent basis and is based on the 2021 Baseline Emission Factors for Regional Power Grids in China published by the Ministry of Ecology and Environment of the People's Republic of China and the 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories published by IPCC (Intergovernmental Panel on Climate Change).

► Improving Energy Efficiency

Humanity's demand for energy continues to increase with social and economic development, which in turn causes frequent environmental problems. Modern Dairy adopts a series of innovative measures to continuously improve the efficiency of energy use. We are committed to minimizing the waste of resources and optimizing the use of limited resources. The Company has formulated *Energy System Management System*, *Fuel Management System*, *Photovoltaic Project Development Process* and other internal systems in compliance with relevant laws and regulations. We will take the transformation of energy-saving technology as a long-term way to save energy and reduce consumption, promote energy-saving equipment, and transform energy-consuming process equipment to improve the level of energy-using technology.

Energy Saving Practice

In order to improve the efficiency of energy use and achieve the goal of reducing consumption, the Company continuously explores more effective energy-saving methods and technologies, and actively practices energy conservation measures at all operating locations.

Energy Conservation Pathways	Energy-saving Measures
Upgrading hardware	<b>Use of permanent magnet motors:</b> We conducted technical renovation for cowshed in each farm with permanent magnet motors. We replaced the original three-phase asynchronous motors used in the cowshed fan with KM-90S-1500 type 1.1KW rare earth permanent magnet energy-saving motors. At the same speed, the permanent magnet energy-saving motors can save 37% of power consumption. We renovated smaller power fans and pump motors of all farms with permanent magnet motors, which can save 20% of the electricity used by conventional motors at the same speed.
	<b>Use of energy-saving lighting equipment:</b> To reduce resource wastes, we intelligently transform the constant lights in the office areas and each farm, and install infrared and photosensitive switches.
	<b>Use of induction fans:</b> Farms are renovating with energy-saving equipment like induction fans, which can save 60%-80% of electricity in spring and fall after the renovation.
	<b>Use of automatic switches:</b> Various control methods such as liquid level float switch, remote control and time control switch are installed in each farm to avoid excessive power consumption caused by idling pumps.
	<b>Using intelligent control system:</b> Negative pressure fans equipped with intelligent control system are installed in the cowsheds of each farm to collect data on temperature, air quality, humidity, etc., within the cowshed for automatic analysis. The analysis results are promptly fed back to the intelligent control module. The system then automatically regulates the proportion of fans activated to continuously maintain the temperature-humidity index (THI) standards.
	<b>Utilizing electric sterilizer<sup>6</sup>:</b> Calf's original milk pasteurizer have been converted to electric pasteurizers, and heating method is replaced by electricity instead of coal-burning at each farm, so that zero coal is used in the milk sterilization process.
	<b>Implementing precise spraying technology and equipment:</b> Precise heat spraying equipment is installed at each farm to ensure that the spray nozzles are activated only when cows are detected in the spray area, thereby reducing energy waste.

<sup>6</sup> The pasteurizer is an equipment specially designed to sterilize milk. This type of sterilizing equipment uses lower temperatures to kill germs in the milk, preserving as much of the nutrients and flavor in the milk as possible while keeping it sterile.

Energy Conservation Pathways

Optimizing energy structure

Adjusting production processes

Standardizing energy use

Alternative energy Using

Energy-saving Measures

- Heating with air energy:** Using air energy instead of biomass boilers for heating reduces greenhouse gas emissions while conserving fuel use.
- Construction of solar energy conversion facilities:** The ranches plan to assemble no less than 1,000 sets of solar streetlights to replace the original traditional lighting fixtures in 2024, which is expected to save about 370MWh of electricity annually and effectively reduce the carbon emissions generated by the consumption of traditional energy in the plant.
- Increase the proportion of new energy transportation vehicles:** Promote the use of new energy transportation vehicles (e.g., fresh milk trucks, in-plant forklifts, etc.), gradually replacing the original fuel oil vehicles, and reducing the greenhouse gas emissions generated by the transportation environment.
- Adjusting production processes:** By adjusting the storage position of raw materials and the order of the feeds at each farm, the driving distance of the vehicle at the mixing station and the frequency of material spreading in the cowshed can be reduced to effectively save fuel consumption.
- Regularly calibrating equipment:** Regularly check the fuel injector and fuel pump of vehicles within the farm area and adjust them to the standard fuel injection volume.
- Promoting green office:** Stipulate the electricity standards for all employees in the office and assign special personnel to check the closing of office equipment after getting off work.
- Dynamic energy consumption monitoring:** Heat the living areas according to the air temperature at each farm, automatically adjust the reclaimed water temperature of the heating exchange unit through the intelligent final control system and set the temperature for the cowshed at 18-23°C , so as to reduce energy waste.
- Improving biogas fermentation efficiency:** All existing farms are equipped with automated manure collection and closed manure anaerobic fermentation systems. The biogas produced from fermentation is used for electricity and heat production, reducing greenhouse gas emissions from energy outsourcing and the transportation process of manure treatment. Additionally, as production technology improves, the amount of water entering the manure management system decreases, reducing the intensity of its use and saving about 15% in electricity consumption for fermentation treatment.
- Adopting cogeneration:** By fully utilizing the energy of fuels, the overall energy efficiency is improved.



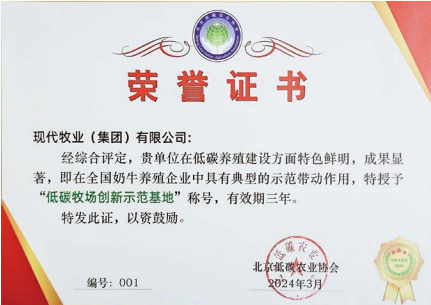
Utilization of Clean Energy

Modern Dairy continues to actively promote the replacement of traditional energy sources with clean energy, striving to reduce its reliance on traditional energy in production and operations. This aims to lessen the adverse impact on the environment and promote the sustainable development of the Company and society.

Solar Power Generation

Adhering to the principle of "complementary advantages, mutual benefit and win-win, long-term cooperation and common development", Modern Dairy continues to cooperate with professional organizations to actively expand the development plan of "Farms and Photovoltaic Complementary". The Company actively promotes "self-generation and self-consumption" photovoltaic power generation substitution work by laying photovoltaic materials on the roofs of cattle barns in closed farms to replace the original roof materials of cattle barns. At the same time, the Company extends the time of natural lighting and reduces the consumption of electricity for lighting. We are also carrying out the construction of supporting solar lighting facilities in the pasture areas to gradually replace the original traditional lighting sources. We are striving to increase the proportion of clean energy use, and continue to add "light" and "green" to animal husbandry in China.

In addition, Modern Farming (Group) Co.,Ltd has been honored as the first nationwide "Low Carbon Farming Innovation Demonstration Base" by the Beijing Low Carbon Agriculture Association. We utilize new energy technologies such as photovoltaics and biogas power generation to promote the efficient utilization of clean energy, achieving a win-win situation of reducing cost inputs and self-use of green electricity. This exploration has paved the way for the industry to develop a green and sustainable "carbon-neutral" path.



Certificate of honor for "Low Carbon Farming Innovation Demonstration Base"

Case

Photovoltaic Power Generation Cooperation Projects

Hefei Farm, owned by Modern Dairy, cooperated with third parties to establish a 6MW distributed photovoltaic power station. By utilizing the resource and terrain advantages of the farm to carry out clean energy substitution.



Modern Dairy's Hefei Farm Photovoltaic Power Station

Power Generation with Biomass

Modern Dairy also continuously promotes the resource-based utilization of manure, and accelerates the research and development of technologies and equipment for the resource-based utilization of livestock manure to increase biogas power generation. The Company adopts economical and efficient manure resource utilization technology models such as full collection of livestock manure and full mechanized application. As of the end of the reporting period, all farms have realized the harmless and resource-based utilization of manure. In the future, the Company will continue to raise the amount of recycled livestock manure, and increase the usage proportion of biomass power generation.

Air Energy

Modern Dairy promotes the use of air energy instead of biomass boilers for heating. It is based on air source heat pump technology and provides heating energy by absorbing heat from the air. Compared with biomass boiler combustion heating, air energy heating is relatively simple to operate, the combustion equipment occupies little space, and avoids the disposal of biomass fuels, and does not emit greenhouse gases. Saihan Farm, a subsidiary of Modern Dairy, has reduced its operating costs by **54%** compared with biomass boilers by switching to using air energy for heating.



Modern Dairy Saihan Farm air heating equipment

New Energy Electric Transportation

Modern Dairy encourages downstream raw milk transportation enterprise partners to use new energy transport vehicles. In the future, the Company plans to vigorously develop energy-saving and clean farms, gradually replacing the original fuel vehicles with new energy vehicles to reduce greenhouse gas emissions from transportation. In 2024, the Company expects to replace 11% of diesel forklifts.



Green and low-carbon new energy fresh milk transportation truck of Hualin Farm, Modern Dairy

Energy Use KPIs of Modern Dairy

Indicator(s)	Unit	2023	2022	2021
Total energy consumption <sup>7</sup>	Tonne of standard coal	198,388.92	159,645.20	138,900
Total energy consumption per RMB million revenue	Tonne of standard coal/RMB million	14.74	12.98	21.08
Fuel coal consumption <sup>8</sup>	Tonne	0	141	1,500
Natural gas consumption	Ten thousand m <sup>3</sup>	64.48	68.08	40.88
Diesel consumption	Ten thousand liters	1,224.71	1,089.14	613.78
Gasoline consumption	Liter	16,459.21	14,574.90	17,010 <sup>9</sup>
Biogas consumption	Ten thousand m <sup>3</sup>	17,521.45	12,035.26	12,867.13
Total amount of purchased electricity consumption	Ten thousand kWh	44,738.69	40,313.47	30,491.84
Total amount of purchased steam consumption	Tonne	21,440.43	/	/

<sup>7</sup> The total energy consumption is calculated based on the total amount of purchased electricity and the conversion factors in the General Rules for Calculation of the Comprehensive Energy Consumption (GB/T 2589-2020) of the People's Republic of China.

<sup>8</sup> From this year, the company eliminates the use of coal, so fuel coal consumption is zero.

<sup>9</sup> This year, the Company corrected the data on gasoline consumption in 2021.



# Circular Agriculture and Animal Husbandry

Adhering to the principles of "reduction, reuse, and resource utilization", Modern Dairy innovatively adopts a circular production model in its operations to achieve efficient and circular use of resources, creating sustainable circular agriculture and animal husbandry.

Our farms adopt the "energy ecological" treatment and utilization process for manure treatment, which achieves efficient resource utilization through effective waste transformation. All farms are equipped with manure anaerobic fermentation treatment facilities, which mainly involve fermentation systems, biogas purification systems, biogas utilization systems, and post-treatment systems. After the manure has been harmlessly treated, it will be mainly ecologically digested and end-use reuse will be promoted. As of the end of the reporting period, our Company has achieved **100%** full utilization of self-produced manure.

Case

Manure Utilization Scheme of Modern Dairy

Modern Dairy has built a green circular industry chain of "Forage Planting – Cow Breeding – Manure Treatment – Soil Fertilization with Organic Waste (power generation with biogas) – Forage Planting". Focusing on comprehensive treatment process innovation and terminal development and utilization, Modern Dairy promotes the effective use of manure in farms and scientifically treats the manure generated in the breeding process, and therefore realizes waste recycling.

The farms of the Company systematically establish a manure fermentation system consisting of septic tanks, pre-treatment tanks, fermentation tanks and equipment pipelines, so as to expand the scale of manure recovery and maximize the conversion of biogas. After the fermentation remaining products (biogas slurry) are treated in the method of solid- liquid separation, and it is recycled and temporarily stored.

Biogas residues utilization

The biogas residues produced after anaerobic fermentation treatment and screw extrusion is recycled as bedding materials for cattle, with the characteristics of dryness, odorlessness, harmlessness, looseness and softness, and suitable humidity. While meeting health and safety standards, it can improve the comfort of dairy cows in beds and reduce limb and foot diseases, thereby increasing the nutritional efficiency and milk production of dairy cows.

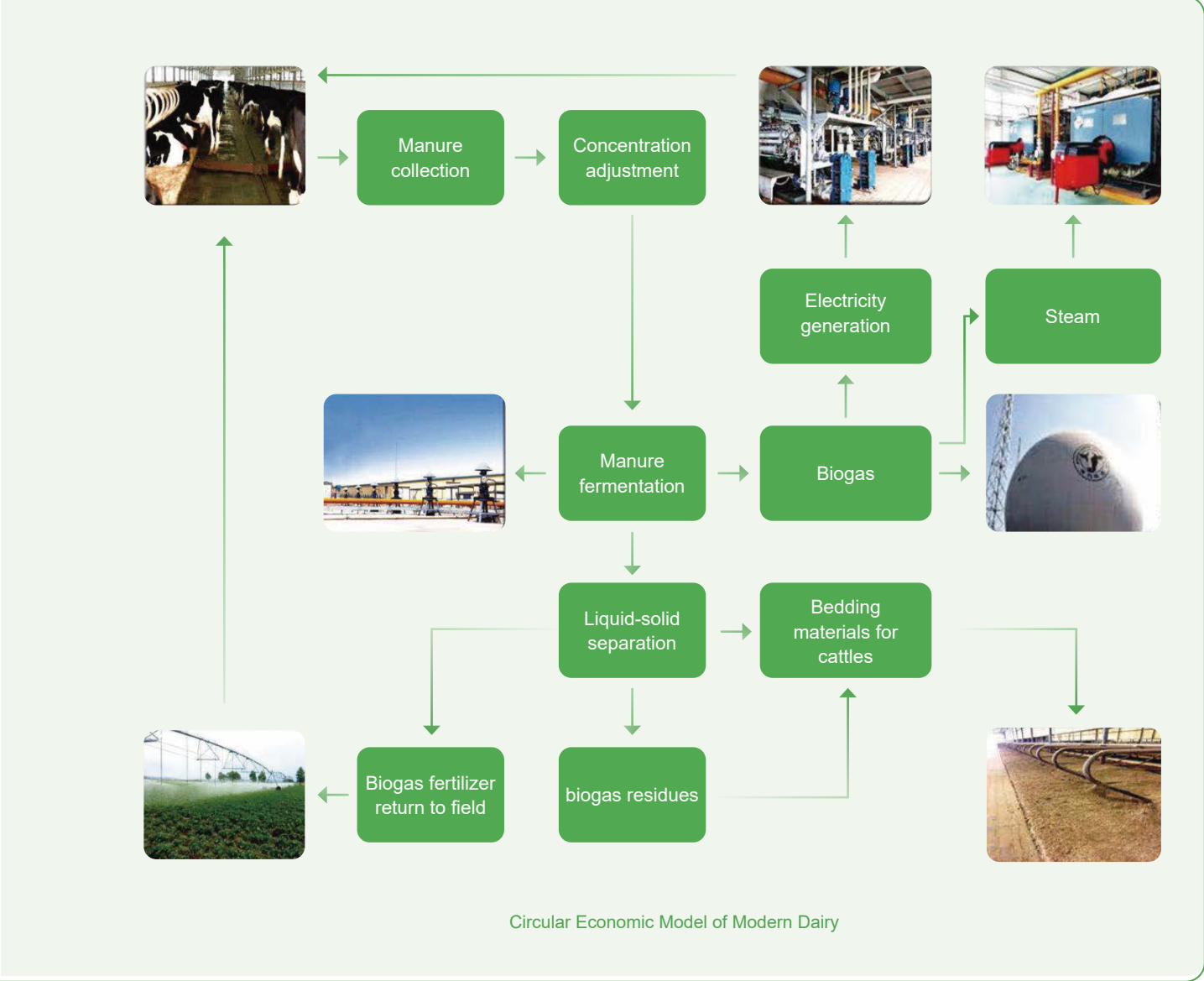
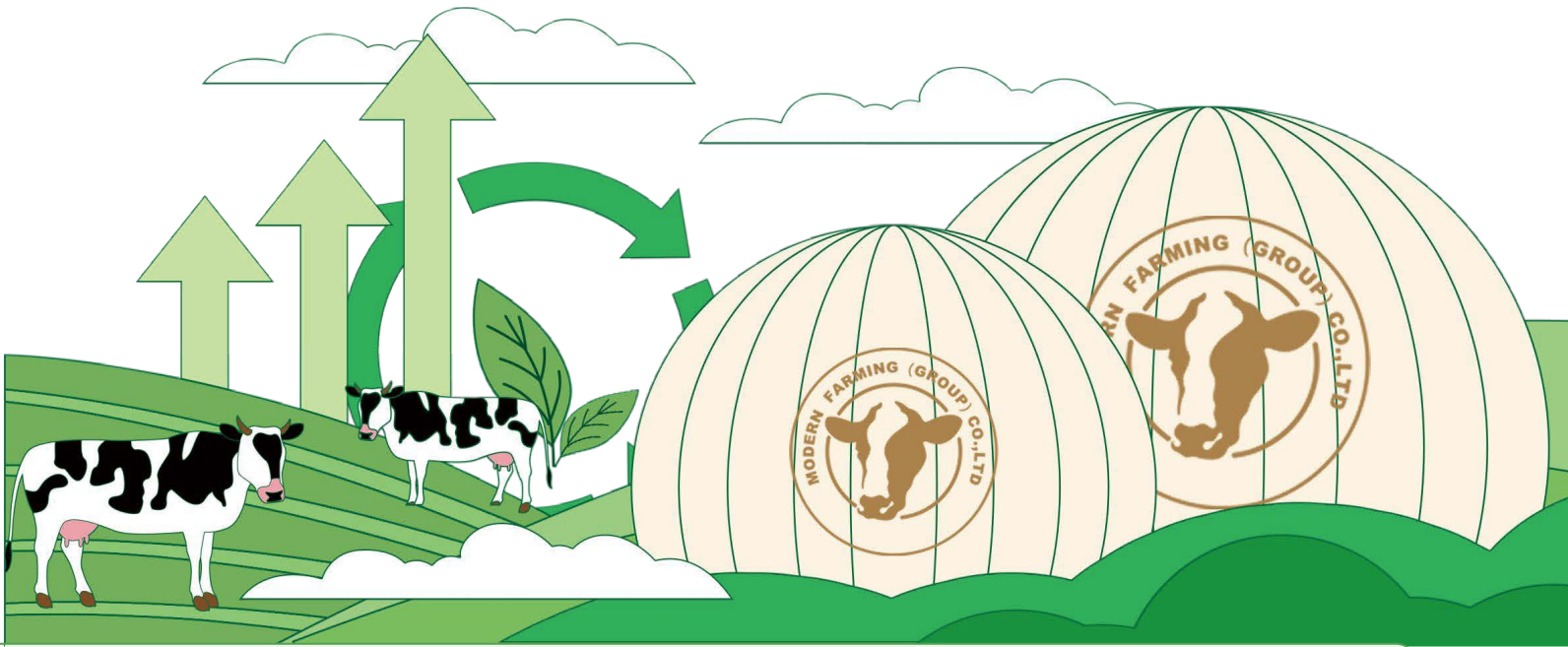
Biogas slurry utilization

The biogas slurry produced by manure treatment, as high-quality organic fertilizer, will be transported to the planting bases around the farm for returning to the field for fertilization, which can improve the organic matter of the soil, reduce the use of chemical fertilizers and pesticides, and enhance the disease resistance of crops. At the same time, with advanced technologies and equipment such as flow meters and GPS positioning, the system forms the closed-loop management from fertilization links such as output, transportation, positioning and online management, so as to achieve on-demand and precise fertilization when returning the biogas slurry to the field.

Power generation with biogas

The purified biogas is used to generate electricity to provide heat for its own circulation system and other gas consumption points.

The manure treatment model of Modern Dairy has played an industry benchmark role in building a green industry ecological chain for China's animal husbandry, and it becomes **the only enterprise in China's livestock industry selected for the COP28 2023 Corporate Climate Action Case Collection**.



Modern Dairy also actively explores systematic solutions, which aims at building a circular economy farm system. On the basis of constructing a small cycle within the site, a medium cycle of the combination of planting and breeding and a large cycle of regional ecology, we always take the combination of planting and breeding as the core, prioritizing the resource-based utilization of manure and choosing the best solution based on local conditions. The Company continues to focus on the large-scale treatment and resource-based utilization of manure on the farms. We are committed to setting up a dairy farming system with balanced farming, interactive farming and ecological cycle. The Company strives to promote the sustainable development of the animal husbandry industry through sustainable development practices.

Energy Use KPIs of Modern Dairy

Indicator(s)	Unit	2023	2022	2021
Biogas generation from manure treatment system	Ten thousand cubic meter	18,900	16,800	16,500
Electricity generation from Biogas generated from manure treatment system	MWh	115,130	107,550	68,180
Biogas steam from manure treatment systems	Ten thousand Tonne	49	46	39

Case

Tailored Strategies for Developing Various Circular Economy Models

➤ Bengbu Farm: "Cow-Biogas-Grass"

The Bengbu Farm under Modern Dairy is the largest dairy farm in China, with over 40,000 dairy cows and 100,000 mu of silage planting bases around the farm. The organic fertilizer fermented by cow dung is returned to the field through pipelines to cultivate soil fertility. The use of manure can reduce the amount of chemical fertilizer per mu by 20-25kg. The Company's use of manure can increase the production of silage per mu by 0.2 tonnes. At the same time, the quality of silage corn is improved to meet the high-quality green fodder for dairy cows. This model features rational and scientific allocation of feeding of cows, scientific treatment of manure, scientific planting of land silage corn, multi-level utilization and development of natural resources, so as to realize resource-based utilization of waste in the industry chain.



Modern Dairy Bengbu Farm Manure Resource Utilization System

➤ Hongya Farm: "Cow-Biogas-Tea"

Hongya Farm under Modern Dairy is the largest single modern dairy farm in Inner Mongolia Region, with more than 7,000 cows in stock. Since 2011, Hongya Farm has been vigorously building the biogas slurry pipeline network, which can efficiently transport biogas slurry organic fertilizers. Hongya Farm has formed an organic complex of "mutual promotion and circulation of planting and breeding" through the development of the "Trinity" planting and breeding cycle model, which benefits local farmers, improves the local soil and repairs the ecological environment.



Modern Dairy Hongya Farm Manure Resource Utilization System

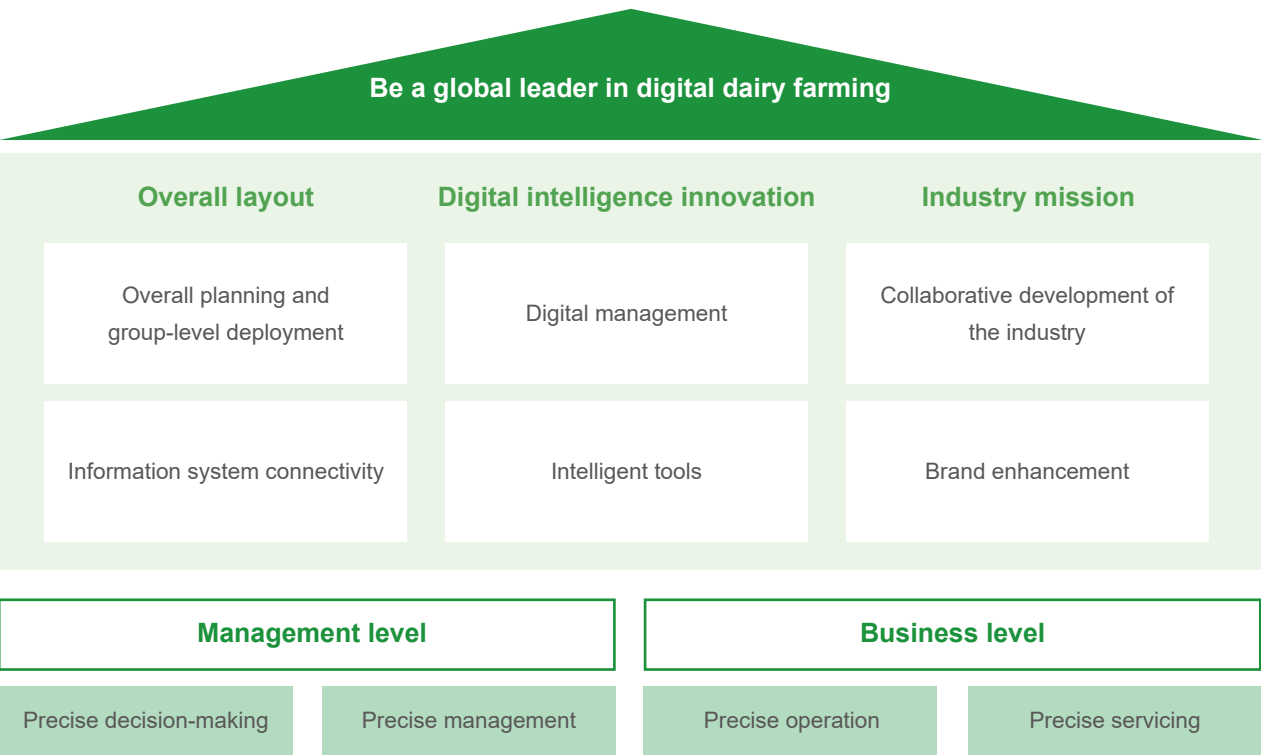


# Digital Intelligence Innovation

Modern Dairy continues to implement a digital intelligence strategy, progressing through stages of informatization, digitization, and intelligentization in an orderly manner. In 2023, Modern Dairy continued to optimize digital dairy farm management. By integrating separate application systems and opening up various business systems, we strived to accelerate the digital construction of Modern Dairy's smart farms.

## ► Information Strategy House

With the vision of "becoming a global leader in digital intelligence farming", Modern Dairy has formulated six action goals from perspectives of overall layout, digital innovation, and industry mission. The Company has established four targeted improvement strategies from both management and operational perspectives, in a bid to efficiently and qualitatively advance the digital transformation and upgrading of Modern Dairy, and construct globally leading digital intelligence farms.



Modern Dairy Information Strategy House

Our digital management model has been recognized by external authorities. This year, Modern Dairy was awarded the "2023 CDI China Digital Enterprise Top 20" honorary title by virtue of its refined management of the whole industry chain and its digital cattle raising model, which stood out from more than 100 preliminarily selected enterprises; The Company was also awarded the "2023 Dingge Award - Digital Transformation Pioneer List Annual Jury Prize" for its "Digital Innovation, Full Business Chain Digital Upgrading Project", which was selected from more than 240 enterprises, making us the only pastoral enterprise to receive such an award this year.



Modern Dairy was awarded "2023 CDI China Digital Enterprise Top 20" honorary title



Modern Dairy was awarded the "2023 Dingge Award - Digital Transformation Pioneer List Annual Jury Prize" honorary title

## ► Farm Information Management

Modern Dairy utilizes cutting-edge technologies like big data, cloud computing, and digital AI to facilitate integrated, data-driven, and transparent management of farm operations and sales. With the continuous integration of various data resources of the farm, we have created a smart management platform and built a shared industry chain platform.



<sup>10</sup> "S2B2C (Supplier to business to customer)" represents a new e-commerce marketing model that integrates supplier empowerment with channel businesses to serve customers together.

## 02 Responsibility

Adhering to the core value of being honesty and credible, Modern Dairy follows the sustainable development governance structure to formulate and implement the FRESH Sustainable Development Strategy and ESG goals. To develop ESG management measures, Modern Dairy opens stakeholder engagement channels and identifies material ESG issues. Additionally, the Company established comprehensive risk management system to identify and address significant ESG management risks, and implement business ethics across the value chain to establish a network for ethical business practices.



# ESG Governance

In order to enhance sustainable development governance capabilities, and improve ESG issue management and responsibility performance, Modern Dairy strictly complies with the *Company Law of the People's Republic of China*, the *Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited* and other relevant laws, and regulations and developed a comprehensive ESG governance structure for standardized and effective governance. The Company established an ESG governance structure composed of the governance, management and executives to lead and monitor the sustainable development of the Company. Meanwhile, a regular and multi-channel communication mechanism is in place to proactively respond to the concerns of stakeholders. Based on issues that significantly impact the Company's sustainable development and those of the utmost concern to stakeholders, a materiality matrix has been formed to help the Company identify and manage issues related to ESG risks and opportunities.

## ► Sustainable Development Governance Structure

### Oversight of ESG Issues

Governance

Management

Execution

The Board of Directors of Modern Dairy serves as the ultimate responsible body and decision-making institution for ESG issues. It is responsible for formulating the "FRESH Sustainable Development Strategy", ESG policies and the corresponding action plans. Additionally, it continuously identifies and monitors environmental, social and governance risks and opportunities while regularly reviewing ESG-related work. Under the Board of Directors, the Sustainability Committee is established, which is accountable to the Board. It assists the Board in making decisions and reviewing ESG issues, regularly listened to reports on ESG work and oversees the implementation. The Sustainability Committee attended 1 ESG work report meeting, listened to and understood the latest ESG news, the achievements of ESG management and disclosure in the previous year, the ESG work plan for the next year and other important matters, and made suggestions for the Company's ESG management.

Modern Dairy established an Environmental, Social and Governance Working Group ("ESG Working Group"), which covers subsidiaries and various ESG-related functional departments. It is responsible for coordinating the regular ESG work of each department, advancing Modern Dairy's "FRESH Sustainable Development Strategy", ESG policies and action plans. In addition, it supervises the progress and regularly reports ESG matters to the Sustainability Committee.

Each ESG-related functional department, following the arrangements of the ESG Working Group, is responsible for implementing ESG-related strategic plans, policies, and projects. Relevant departments regularly report the progress of ESG-related matters to the ESG Working Group and accept the supervision and guidance of the ESG Working Group.



### ESG Management Policy and Strategy

Modern Dairy assesses the materiality of ESG issues on a regular basis. The assessment process and results are detailed in the "Stakeholder Engagement" and "Identification of Material Issues" sections of this report, and are reviewed by the Sustainability Committee. The Board of Directors of Modern Dairy comprehensively identified significant ESG risks associated with the Company, concerning risks to product quality, energy conservation and carbon reduction, sustainable sourcing, biodiversity, etc. We also require the relevant ESG functional departments to implement related measures in operation and management.

### Sustainable performance is linked to compensation

The Company links ESG-related performance to the compensation of the CEO, Executive Director, Vice President, departmental management, establishing quantitative and qualitative environmental, social or governance performance targets, with a weighting of no less than 5% of remuneration performance, which mainly include carbon emission reduction management, water use efficiency management, biodiversity protection, safety and health management, community relations management and impact assessment, community economic development assistance, human rights protection management, supplier ESG risk assessment and management, and business ethics management. The Company annually rates the achievement of the above objectives by the management personnel, and the results of the rating will affect their remuneration performance. In the event of a significant ESG risk emergency, the compensation performance score of the person responsible for the risk will be deducted according to the level of the event.

### Review of ESG Goals

Every year, the Board of Directors of Modern Dairy reviews and assesses the completion of environmental and social goals for the year, and reviews and discusses to set goals for the next year. The Board of Directors received a special report from the management on the achievement of environmental and social targets for the year. The progress in achieving the milestones in energy conservation, water conservation and waste reduction met expectations. In addition, in accordance with the status of the Company's ESG management, the Board of Directors listened to and reviewed the formulation of these targets for 2024.

This Report also discloses the aforementioned environmental, social and governance matters in detail, which were reviewed and approved by the Board of Directors on March 25, 2024.

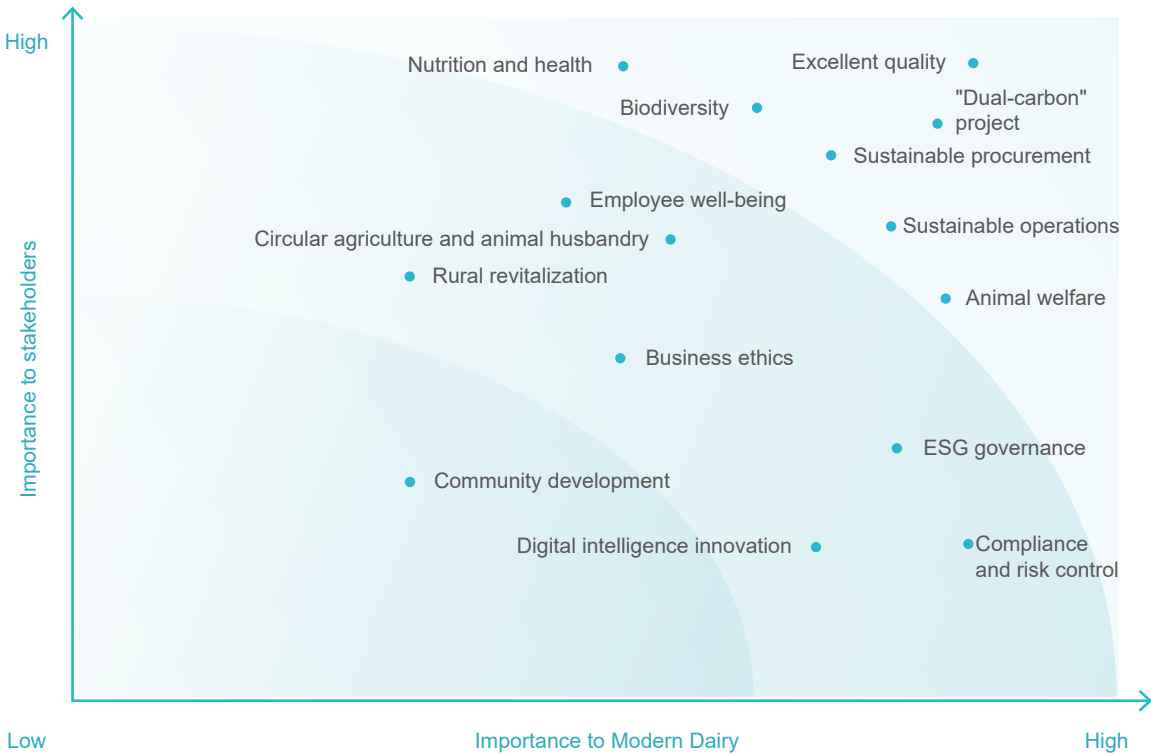


► Stakeholder Engagement

Stakeholders	Expectations and Demands	Communication Mode	Our Responses
 Shareholders/ Investors	<ul style="list-style-type: none"><li>• Safeguard the rights and interests of shareholders</li><li>• Outstanding performance</li><li>• Sustained and steady increase of return on investment</li><li>• Honest and transparent operation</li></ul>	<ul style="list-style-type: none"><li>• General meeting</li><li>• Regular information disclosure</li><li>• Websites of the Stock Exchange/ Company</li><li>• Investor conference and roadshow</li></ul>	<ul style="list-style-type: none"><li>• Transparent and open information disclosure</li><li>• Enhance investment management</li><li>• Strengthen enterprise risk management</li><li>• Continuously improve the ability to create value</li></ul>
 Government/ Regulatory agency	<ul style="list-style-type: none"><li>• Compliance</li><li>• Strict internal control and risk management</li><li>• Promote economic development</li><li>• Extraordinary contribution to the society</li><li>• Safe operation</li></ul>	<ul style="list-style-type: none"><li>• Information submission</li><li>• Compliance report</li><li>• Attending meeting/ seminar</li><li>• Special inquiry/ inspection</li><li>• Submission of documents</li></ul>	<ul style="list-style-type: none"><li>• Strengthen compliance operation</li><li>• Strengthen safety management</li><li>• Pay taxes according to law</li></ul>
 Clients	<ul style="list-style-type: none"><li>• Product quality and safety</li><li>• Superior service experience</li><li>• Nutritious, healthy and diversified product choices</li></ul>	<ul style="list-style-type: none"><li>• Official website of the Company</li><li>• Customer service hotline</li><li>• Customer satisfaction survey</li></ul>	<ul style="list-style-type: none"><li>• Safeguard consumers' rights</li><li>• Product quality guarantee</li><li>• Open and transparent production</li></ul>
 Employees	<ul style="list-style-type: none"><li>• Safeguard the rights and interests of employees</li><li>• Occupational health and safety</li><li>• Improve employee benefits</li><li>• Equal employment opportunities and diversified developments</li></ul>	<ul style="list-style-type: none"><li>• Employment contract</li><li>• Information platform</li><li>• Hotline and email</li><li>• Monthly internal newsletter</li><li>• Online Complaint Platform</li><li>• Offline Training Exchange</li></ul>	<ul style="list-style-type: none"><li>• Insist on equal recruitment</li><li>• Carry out training for employees</li><li>• Optimize career development channel</li><li>• Carry out employee activities</li><li>• Fully listen to all opinions of the employees</li></ul>
 Suppliers/partners	<ul style="list-style-type: none"><li>• Establish a long-term business relationship</li><li>• Fair procurement and honest performance</li><li>• Product quality assurance</li></ul>	<ul style="list-style-type: none"><li>• Evaluation of suppliers</li><li>• On-site visit</li><li>• Regular supplier meeting</li></ul>	<ul style="list-style-type: none"><li>• Strict supply chain management</li><li>• Insist on fair and open procurement</li></ul>
 Environment	<ul style="list-style-type: none"><li>• Insist on the green operation</li><li>• Minimize environmental impact</li><li>• Address climate change</li><li>• Protecting biodiversity</li></ul>	<ul style="list-style-type: none"><li>• Environment inspection</li><li>• Environment information disclosure</li><li>• Advocate the idea of environmental protection</li><li>• Insist on sustainable development</li></ul>	<ul style="list-style-type: none"><li>• Strengthen environmental and ecological protection</li><li>• Insist on the path of sustainable development</li><li>• Create circular and smart farms</li><li>• Innovate the agricultural recycling model</li></ul>
 Community	<ul style="list-style-type: none"><li>• Carry out public benefit activities</li><li>• Promote community development</li></ul>	<ul style="list-style-type: none"><li>• Understand community needs</li><li>• Formulate community service plan</li></ul>	<ul style="list-style-type: none"><li>• Carry out public benefit activities</li><li>• Carry out community service</li><li>• Promote local employment</li></ul>

► Identification of Material Issues

Based on the expectations of internal and external stakeholders as well as the business characteristics, Modern Dairy identified, evaluated and sorted out material issues, and disseminate them to stakeholders for questionnaire survey. Based on the questionnaire results, we analyzed and verified ESG issues that were relevant and significant to our business. After filtering, we created a materiality matrix, which serves as the basis for the Company's focus and disclosure on ESG.



# Compliance and Risk Control

Adhering to lawful and compliant operation, Modern Dairy effectively monitors, evaluates and responds to all kinds of potential risks of the Company. We protect internal and external data and privacy rights, pay attention to the protection of our own intellectual property rights and avoid infringing the intellectual property rights of others.

## ► Building a Comprehensive Risk Management System

Modern Dairy formulated internal systems such as the *Comprehensive Risk Management System* and *Internal Audit Management System*, followed *COSO (Committee of Sponsoring Organisations of the Treadway Commission): Enterprise Risk Management Framework*, established and improved risk management and internal supervision system led by the Board of Directors. The Company established a "three lines of defence" comprehensive risk management model based on the business operation units and line management departments, the Risk Management Department and the Internal Audit Department, which are respectively responsible for risk management, risk management analysis and supervision, and risk management effectiveness checking and control, so as to realise the synergistic management of risks.

## ► Identifying and Responding to Major Company Risks

Modern Dairy precisely defines, measures, evaluates, and actively manages various substantial risks encountered in daily operations. We develop targeted management and response measures for different types of risks, including ESG risks such as quality, safety, environmental protection and occupational health of employees. The Company adopts a three-tier risk assessment model to identify significant corporate-level risks. Each business unit and functional department, the Risk Management Department, and the Risk Management Committee are responsible for identifying and assessing risks related to their operations. They manage significant risks in a layered and graded manner, and work on risk integration and judgment in conjunction with the internal and external environment, annual risk control performance and results of internal and external audits of the Company.

## ► Maintaining Information Security

Modern Dairy places a high value on the security and confidentiality of customer information. We continually strengthen confidentiality systems and preventive measures to strictly guard against the leakage of customer privacy information. The Company strictly adheres to the *Cyber Security Law of the People's Republic of China*, the *Data Security Law of the People's Republic of China*, the *Personal Information Protection Law of the People's Republic of China*, and other relevant national standards. We formulated the *Information Security Management System* covering aspects such as security red lines, office security, foundational security, and security management. Basic rules are clarified for all employees in information security management, and all the IT equipment used are managed according to the principle of "whoever uses it is responsible for it".

The Company's vice president for information security management is responsible for decision-making and supervision of major matters related to the Company's information security. The Information Technology Department, as the main responsible department, carries out information security supervision and information system maintenance in daily operation. This year, we actively pushed forward with cybersecurity management work. We regularly carried out comprehensive audits on the information security management of Modern Dairy, and continuously monitored the effectiveness of the management system.

The Company achieves multi-faceted monitoring of information leakage risks through means such as account login permission restrictions, terminal data control and centralized management of corporate information systems. Additionally, we improved the emergency response mechanism for cybersecurity and information security incidents of the Company and established the emergency plan for cybersecurity and information security incidents to standardize the workflow of cybersecurity and information security incidents. Based on the incident classification management system, a full-chain security control process and reporting mechanism covering monitoring and early warning, emergency response, investigation and evaluation was established.

### Monitoring and early warning

We classify cyber and information security incidents into four levels: red (particularly significant), orange (significant), yellow (major) and blue (general). The Information Technology Department organizes the monitoring of the cybersecurity threats of the whole group, and monitors cybersecurity threat information such as vulnerabilities, viruses, and network attacks through various channels. We monitor the security of our networks and information systems, and promptly dispose of any threats that have been identified. The Information Technology Department conducts analysis on the monitoring information, and takes further early warning and response measures.

### Emergency response

In response to the occurrence of network security emergencies, we take various technical measures and controls to control the spread of the incident based on the response level of the network security incident and in conjunction with the special contingency plan.

### Investigation and evaluation

We organise investigations, handling and summary assessments, and regularly report the results of investigations and assessments of cyber security incidents to the Company's Management.

The Company attaches high importance to cultivating employees' awareness of information security and requests the employees at the key posts to sign the Confidentiality Agreement. For any behavior that violates the information security management system, the Company will impose penalties in accordance with the *Employee Reward and Punishment System* depending on the severity of the circumstances. In addition, the Company regularly conducts information security knowledge training in the form of online conferences to cultivate awareness of information security protection for all employees.

## ► Protecting Intellectual Property Rights

Modern Dairy strictly abides by the *Patent Law of the People's Republic of China*, the *Trademark Law of the People's Republic of China* and the *Detailed Rules for the Implementation of Patents of the People's Republic of China*. We formulated the *Intellectual Property Management System* to improve the internal intellectual property rights management system, standardize the management of intellectual property rights, to prevent the occurrence of infringements.

We develop and constantly improve the application process of intellectual property rights, so as to protect products, technologies and other intellectual property innovation achievements timely. When signing contracts with suppliers, we stipulate that they are not allowed to use any unauthorized intellectual property works. We actively carry out intellectual property training to popularise the knowledge of patents and trademarks among our employees, strengthen the awareness of infringement in each department, to effectively avoid the reputation risk and economic loss caused by infringement. This year, two issues of educational contents regarding intellectual property rights were published to all employees.

Modern Dairy has applied 30 patents, gained 18 valid patents and 34 trademarks in total.



Modern Dairy has applied  
**30** patents



gained  
**18** valid patents



**34** trademarks in total

Business Ethics

Modern Dairy establishes and follows the code of business ethics, and set up clear policies and procedures of business ethics to avoid business ethics risks. We collaborate with relevant parties to implement the code of ethics and provide training courses for employees, directors, suppliers and contractors, so as to convey the code and awareness of business ethics, and promote the sustainable development of the Company.

The Company strictly abides by international initiatives and laws and regulations such as the *United Nations Convention against Corruption*, the *Criminal Law of the People's Republic of China* and the *Company Law of the People's Republic of China*. We have formulated the [Code of Ethics](#), the [Anti-Bribery and Anti-Corruption Policy](#), and the [Whistleblower Protection Policy](#). The Anti-Bribery and Anti-Corruption Policy covers all employees (including part-time employees and security personnel), contract security providers (if any), contractors, directors, senior management and third parties acting on behalf of the company. Modern Dairy actively builds a system of "don't dare to corrupt, cannot corrupt, and do not want to corrupt", regularly carries out business ethics compliance and audit supervision, unblocks the reporting channels, and strictly investigates illegal activities.

The Company established a three-level business ethics management system composed of the Sustainability Committee, Discipline Inspection Committee Office, and business departments and functional departments. The Sustainability Committee is the highest ethical management body which supervises corruption cases, monitors the implementation of business ethics, and reports the management condition to the Board of Directors every year. The Discipline Inspection Committee Office is responsible for the management of business ethics, formulating and improving relevant systems, accepting and disposing of whistleblowing clues, and coordinating, supervising and guiding the implementation of the company's business ethics work. It also works together with business departments and functional departments in the management of business ethics.

Strictly Investigating Violations of Disciplines and Regulations

The Disciplinary Inspection Office conducts verification of the clues received for violations of disciplines and regulations. If the situation is true after verification, we strictly follow the rules and regulations to seriously deal with the relevant personnel and transfer to the judicial authorities if necessary, and report the relevant violations of laws and disciplines within the Company as a warning. During the reporting period, there were 0 corruption lawsuits filed against the Company or our employees. Through internal investigation, economic losses of RMB 3.3 million were recovered.

Carrying out Special Supervision and Audit

We formulated the [Anti-Bribery and Anti-Corruption Policy](#), which requires Discipline Inspection Office and Risk Control and Audit Department to carry out business ethics monitoring, auditing and accountability for the business ethics management system within the scope of the Company as well as for all business segments in accordance with disciplinary rules and regulations, and to conduct business ethics audits on all its operations and all its subsidiaries once every three years. The audit covers aspects such as anti-corruption, ethics, integrity, and anti-bribery behavior. In 2023, the Company organised internal control audits, special management audits, economic responsibility audits and other related audits. We carried out audits on product quality, production safety, environmental protection, employee rights and interests, supplier cooperation and business ethics through the formulation of an annual audit plan, audit preparation, implementation of specific audits, the issuance of an audit report and corrective actions based on the audit report. A total of 10 audit projects were completed, including audits of business ethics of management personnel and special audits of management in important business areas. By 31 December 2023, the Company had carried out rectification work in response to the problems identified in the audits, with a completion rate of 90%, and had recovered economic losses of RMB 195,900, involving financial penalties of RMB 230,000.

This year, we engaged a third-party certification body to carry out business ethics management system certification and auditing, and obtained the ISO 37301:2021 Compliance Management System Certification and ISO 37001 Anti-bribery Management System Certification, covering all of the Company's business and operational locations. The business ethics audit reviewed both the planning and operational phases of the business ethics system, focusing on business ethics policy, risk assessment, internal control, training, auditing and supervision. By doing this, we verified the effectiveness of the control of our business ethics management system and reduced business ethics risks.



Smoothing the Reporting Handling Process

<p><b>Offering various reporting channels</b></p> <p>We set up special complaint and reporting channels, publicly displaying internal and external reporting channels such as reporting hotlines, mailboxes, the address of letters and visits, and WeChat QR code, etc. on the company's website and the key areas of farms. Meanwhile, we specify complaints handling channels of suppliers in the supplier's <i>Sunshine Agreement</i>.</p>	<p><b>Improving reports and complaints handling mechanism</b></p> <p>The Company formulated the <i>Management Regulations on the Disposal of Letters and Visits and Clues, Regulations on the Clarification of Letters and Visits and Reports</i> and other whistle-blowing policies and systems to regulate the handling of letters, visits and reports. To improved the report processing mechanism, the Disciplinary Inspection Office conducts an overall management over reporting clues form all channels by analyzing and classifying clues, verifying through investigation, issuing reports, determining the results and reporting punishments.</p>	<p><b>Improving whistleblower protection mechanism</b></p> <p>The Company formulated <a href="#">Whistleblower Protection Policy</a> and established a whistle-blower protection mechanism, allowing internal and external personnel to report anonymously, keeping the whistleblower's information strictly confidential, and resolutely putting an end to retaliation. For retaliation, the Company will deal with it seriously in accordance with the system. If constituting a crime, the relevant case will be transferred to the judicial organ for handling.</p>
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► Building Integrity Supply Chain

The Company established a transparent, fair and honest supply chain system, ensuring legal and compliant business transactions. We also formulated the [Supplier Code of Conduct](#) to manage suppliers in the full life cycle, mainly including the following measures:

Supplier development and certification stage

The Company clarifies supply and procurement requirements, standardises and integrates procurement product lists, opens up our own procurement platform system, builds an integrated platform for the supply chain, and realises data sharing between the procurement department and suppliers, so as to prevent irregularities in accounting and duplicated procurement from occurring.

Supplier access and review stage

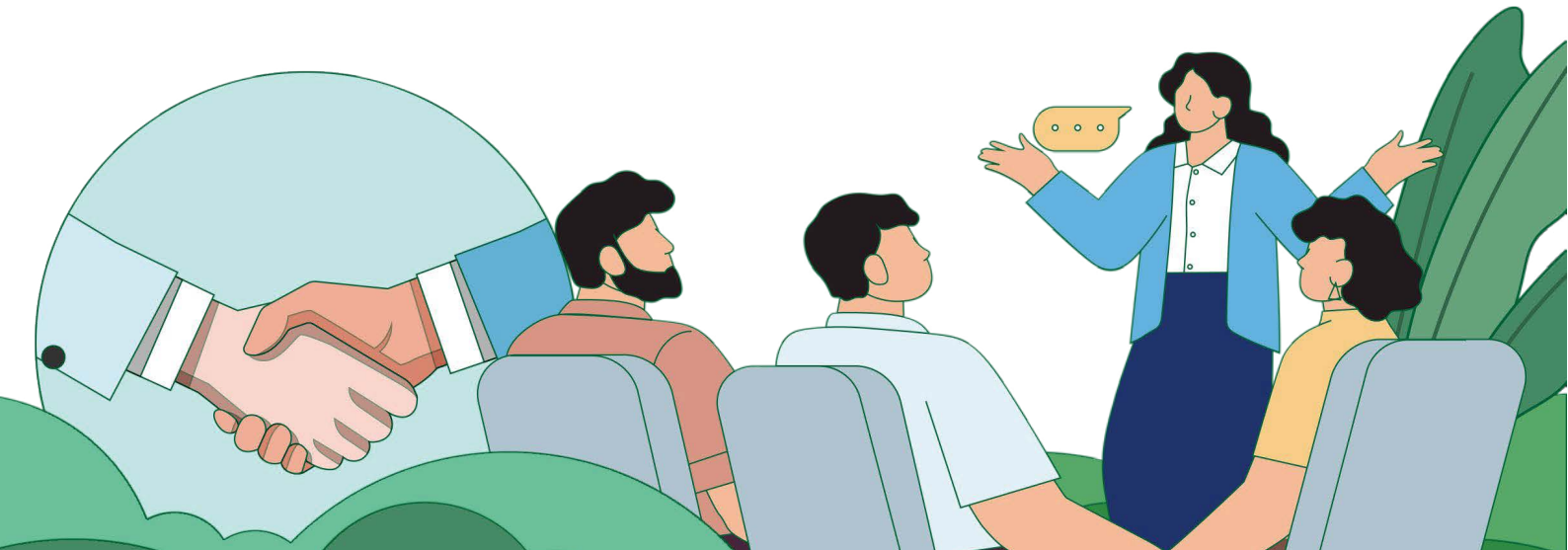
The Company takes the suppliers' business ethics management performance as one of the important assessment criteria in this stage, and requests all the candidates to sign the [Commitment Letter for Sustainable Procurement Management Guidelines](#), clearly defining the codes of conduct regarding integrity and honesty that suppliers should adhere to.

Supplier engagement and cooperation stage

The Company selects suitable candidates for co-operation among the suppliers in the pool and signs the [Sustainable Procurement Management Agreement](#) and the [Sunshine Agreement](#) with all suppliers in cooperation, which stipulates that all suppliers shall not engage in any form of bribery, corruption, fraud, or unfair competition in bidding, price comparison, negotiation and cooperation.

Supplier review stage

We carry out regular or irregular audits on business ethics management of our Tier 1, Tier 2 and Tier 3 suppliers, by means of document audits, on-site inspection, unannounced inspection and questionnaire. In addition, we regularly assess business ethical performance of suppliers in cooperation in the [Supplier Comprehensive Evaluation Form](#).




► Providing Comprehensive Business Ethics Training

Modern Dairy conducts comprehensive business ethics training for different groups, helping them identify and avoid unethical behaviors and building a fair and sustainable business environment.

>>> Business Ethics Training for All Employees

All employees of Modern Dairy are regular employees, and we did not hire outsourcing personnel, dispatched workers and part-time employees during the reporting period. The Company provides business ethics training to all employees in a variety of ways. The training courses cover laws and company policies regarding conflicts of interest, corruption, honesty and transparency, and respect of diverse values, in a bid to cultivate employees' awareness of business ethics and sense of responsibility. This year, we held **1** Party Anti-corruption Conference, **19** integrity training courses, **3** warning education sessions, **3** group integrity talks, covering **100%** of Modern Dairy employees. The business ethics training totaled **5,500** hours.

Covering



100%

of Modern Dairy employees



Party Anti-corruption Conference of Modern Dairy

Case

Modern Dairy's "Integrity Month" Activities for All Employees

This year, we organized "Safeguard the Company by Honest Practice and Build Our Bottom Line of Integrity" themed "Integrity Month" activities. By doing so, we created an upright, clean and positive working environment and guided all employees to fully understand and practice our core value "be honest and credible".

Farms and all departments of the Company organized **30** warning education sessions. A total of **2,180** people at all levels of management and key positions in silage purchase were organised to sign the *Integrity Commitment Letter*. Under the theme of "Creating Family Tradition of Integrity and Building the Most Beautiful Family", we organized family members of personnel in farm management and those of personnel at the key posts of silage purchase to watch **50** warning education videos, and required them to signed the written proposal of "Clean Family", covering over **980** employees, so as to raise the awareness of integrity among the family members of employees.



Modern Dairy's "Integrity Month" Business Ethics Training

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Business Ethics Training for Directors

Every year, the Company, by the means of providing special training for directors, reporting to the Board of Directors, and delivering materials of board honesty and integrity education, enhances the directors' awareness of business ethics and fosters an atmosphere of clean corporate governance. This year, all directors attended the business ethics training and the number of participants was **9**.

Case

Special Business Ethics Training for Directors

This year, Modern Dairy carried out a training on the Sustainable Responsibilities of Listed Companies in Hong Kong and Directors to clarify the relevant guidelines for directors to comply with in respect of business ethics such as trading in the company's securities and insider trading. The participation rate of directors reached **100%**.



The participation rate of directors reached

100%

>>>


Business Ethics Training for All Suppliers and Contractors

For all suppliers and contractors, the Company carries out integrity awareness education by requiring them to sign the *Sunshine Agreement* and the *Sustainable Procurement Management Agreement*, to improve the level of business ethics and integrity of suppliers and contractors. This year, we organised suppliers to participate in business ethics training such as briefing of typical anti-corruption cases sessions and supplier conferences, covering all suppliers for Modern Dairy, with **over 500** hours of participation.

Case

Briefing of Typical Anti-corruption Cases for Management Personnel and Staff in the Silage Field

The Company held a training session on the integrity of silage purchase and a briefing session on typical cases in the silage field to strengthen anti-corruption education in areas prone to corruption cases. The participants included department heads, general managers of ranches and silage collectors and other key positions in the silage field, totaling **800** participants.



Modern Dairy's Briefing of Typical Anti-corruption Cases in the Silage Field



# 03 Environment

Modern Dairy is actively involved in environmental management and follows the principle of sustainable operations and procurement. We adopt best practices and standards to protect and improve the natural environment and ecological system. Furthermore, we are committed to diversifying our initiatives to minimize the impact of our operations on the environment and natural resources.







Sustainable Operations

Modern Dairy always adheres to the concept of "Co-existence and Common Prosperity between Mankind and Nature" during production and operation. By reducing pollutant emissions, improving the resources efficiency and taking environmental protection actions, we integrate the idea of sustainable development with the development of corporate culture, and implement the green operation by practical actions.

In order to continuously monitor the use of resources and further strengthen the level of resources management, the Company sets hazardous waste reduction targets and water reduction target, and regularly monitors the progress towards these targets.

Existed Waste Reduction Targets	Existed Target Progress	
<div><div> Hazardous waste emission reduction targets</div><div>Taking 2020 as the benchmark,  By 2025, reduce the total amount of waste generated by quality control and testing of raw materials and raw milk by <b>10%</b>;  By 2030, reduce the total amount of waste generated by quality control and testing of raw materials and raw milk by <b>25%</b>.</div></div>	In Progress	
Existed Water-saving Targets	Existed Target Progress	Adjusted Targets for 2024
<div><div> Water reduction target</div><div>Taking 2020 as the benchmark, in the next 5 years, the standard of water consumption per cow will be kept within 110kg, and the use of water-saving technical transformation projects will be gradually promoted.</div></div>	In Progress	Water reduction target <sup>11</sup> :  Starting from 2020, in the next 5 years, the standard of daily water consumption per cow will be kept within 110kg, and the use of water-saving technical transformation projects will be gradually promoted.

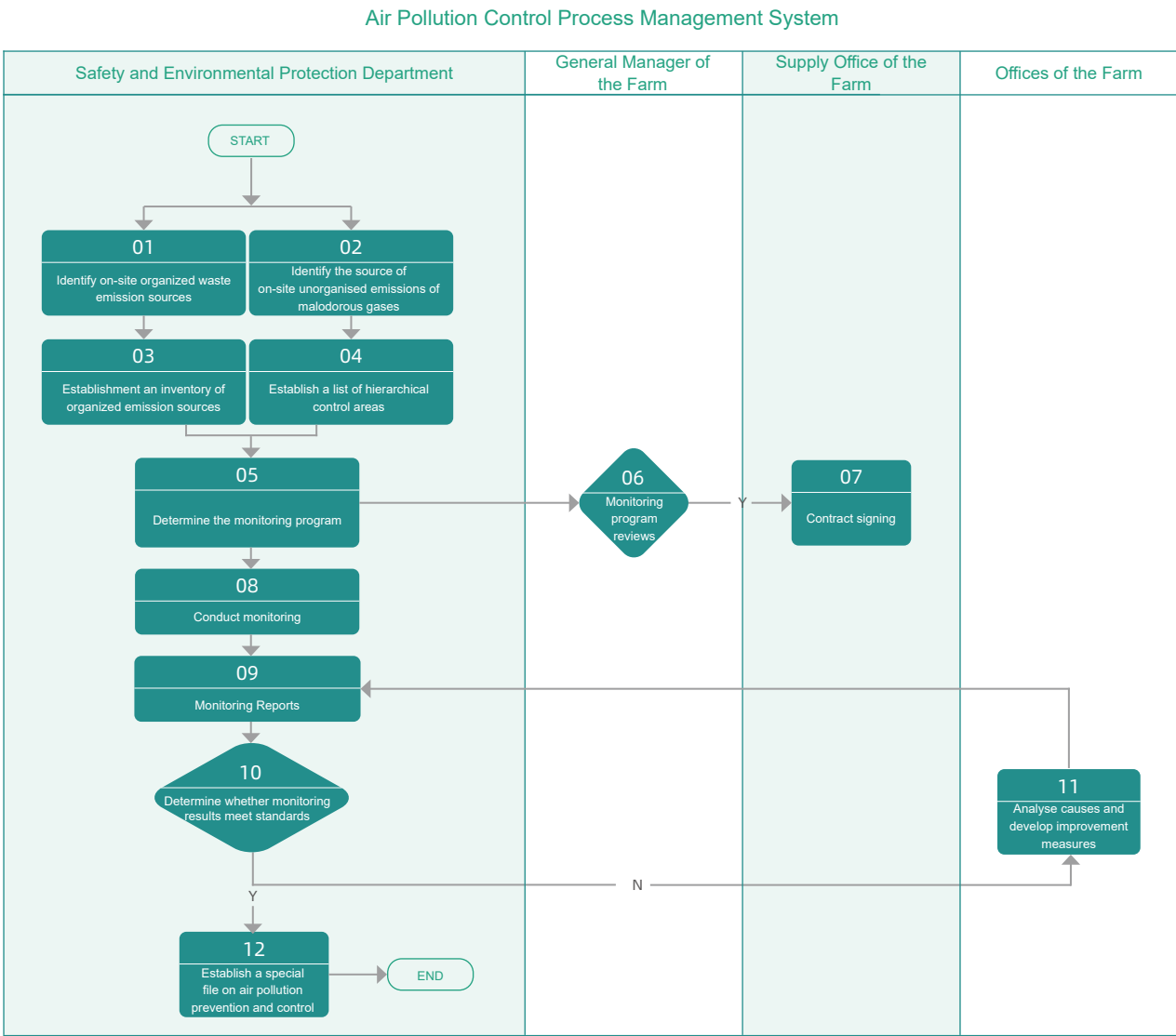
<sup>11</sup> This year, the Company further clarified the quantitative level of this target to ensure higher efficiency and quality standards in water management.

► Reducing Pollutant Emissions

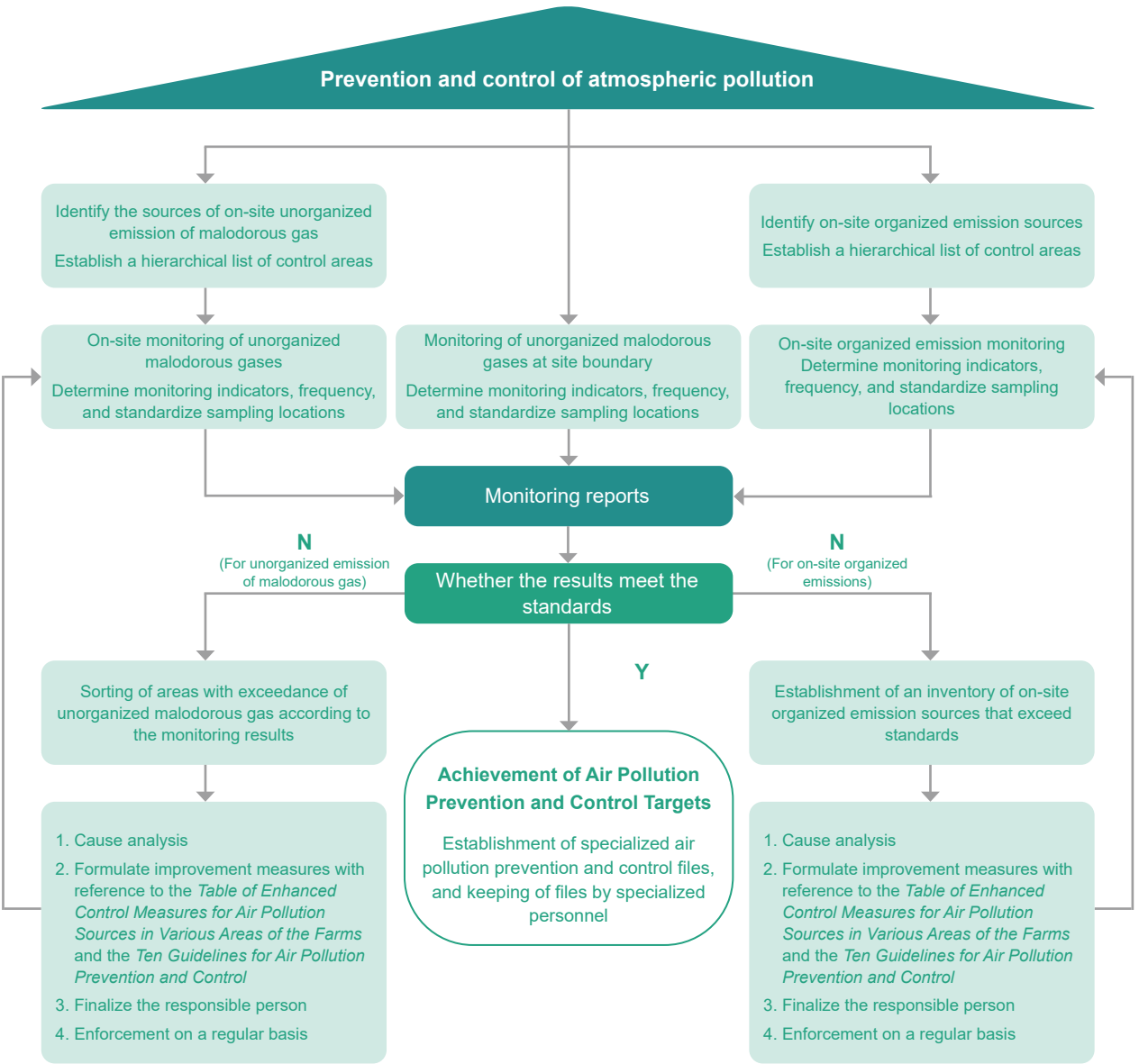
Modern Dairy continues to promote the management of pollutant emissions. The Company observes laws and regulations such as the *Atmospheric Pollution Prevention and Control Law of the People's Republic of China* and the *Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes*. We have formulated the *Environmental Protection Management System*, the *Self-monitoring and Management Procedures*, the *Solid Waste Management System*, and other internal management systems. We also adopt the management strategy of "source prohibition, process emission reduction and terminal treatment", which means controlling pollutants at the source, standardizing the management of pollutants throughout the whole process of production and operation, and conducting harmless treatment and resource utilization of pollutants at terminal, so as to fully facilitate the Company to achieve the sustainable development.

Exhaust Gas Management

According to industry characteristics and national standards, the Company takes effective measures to control all kinds of exhaust gases in each production and operation process, thereby reducing the adverse impact on the atmospheric environment. Meanwhile, the Company has set up the *Special Control Program for Air Pollution Prevention and Control*, which specifies the control measures, requirements for inspection and maintenance of facilities and responsible persons to ensure the effective implementation of waste gas control and that all waste gases are discharged in a compliant manner.



This year, based on the national policies such as the *Action Plan for Air Pollution Prevention and Control*, the Company established the "Air Pollution Prevention and Control Execution Procedure" and took special actions for air pollution prevention and control. The Company established a special file for air pollution prevention and control to comprehensively control organized and unorganized emission sources in the site.



To reduce exhaust gas emissions, the Company has actively improved production technologies, set grid-based and hierarchical management system for exhaust gas sources, and taken differentiating emission reduction measures. This year, the Company improved technologies of desulphurization facilities in major farms. For instance, we replaced the acid desulphurization process used in Baoji Farm by alkaline desulphurization process, increasing the exhaust gas treatment efficiency by 70% and reducing sulfide emission by 17%. In addition, through grid-based and hierarchical management system for exhaust gas, the Company reduced the odor concentration to 58 at the site boundary, down by 12 over 2022.

We also pay close attention to the exhaust emissions of various mechanical equipment and transport vehicles, and minimize the generation of volatile gases such as building paints and coatings.

Waste Management

To minimize the impact of production activities on the environment, Modern Dairy attaches great importance to the management of waste resources generated from the production and operation. A detailed waste management plan is developed to standardize the classification, separation and recycling of all kinds of wastes. For projects with environmental risks, the Company takes necessary pollutant prevention measures to ensure that pollutant emissions meet national standards. We have established a ledger for all kinds of wastes and reported emissions to the environmental protection administration for the record. Wastes are transported to qualified units for centralized treatment.

Hazardous Wastes

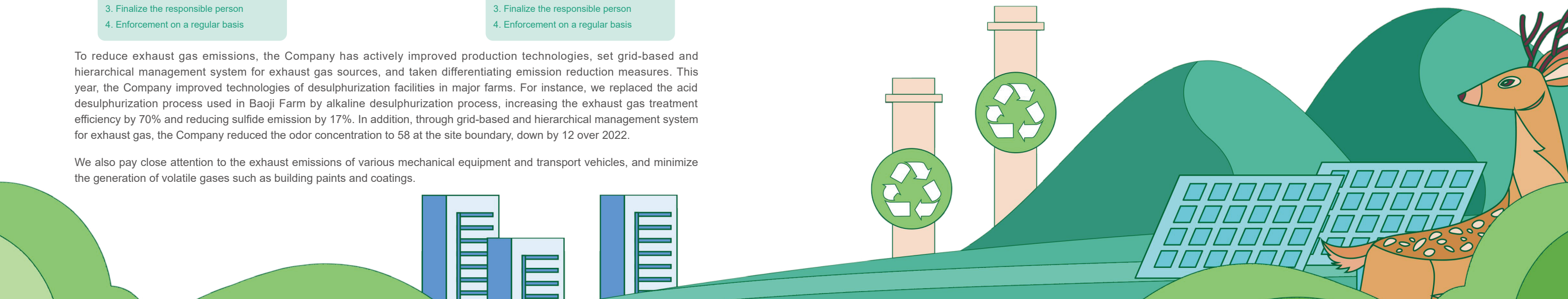
Hazardous wastes of the Company mainly include, medical waste and laboratory waste liquid, and waste machine lubricant. We have developed special work programs for various types of hazardous waste to gradually reduce the negative impact on the environment.



Stringently observing the requirements of laws and regulations including the Technical Specification for Centralized Treatment of Medical Waste (Trial), we stipulate the storage standards for internal medical waste and reagent bottles used in laboratories to avoid the environmental pollution caused by the medical waste. We also optimize the quality of laboratory chemicals, preferring high-purity laboratory chemicals to minimize the amount of laboratory waste liquid generated. This year, the Company reduced the production of chemical waste liquid by 4% compared to 2022. We also reduce the amount of medication used in the herd by improving the health of the herd, which in turn reduces the amount of medical waste produced.



We strictly abide by the requirements of laws and regulations such as *Management Measures for the Transfer of Hazardous Wastes*, formulate and implement internal management systems such as *Waste Oil Recycling Management System and Equipment Management System*, and recycle the waste oil during the production and operation of the ranch, such as for lubrication of gears of the vehicles or equipment and facilities, anticorrosive smearing of the dung scraping system in the barn and smearing of the cattle's tail roots, etc., so as to reduce the pollution of environment in the process of disposal of hazardous wastes. At the same time, we hand over the rest of the output waste oil to companies with recycling qualifications for proper and compliant disposal. Our ranches are required to regularly overhaul their vehicle equipment and ancillary facilities to avoid leakage of waste oil caused by running, emitting, dripping and leaking of equipment pipes and containers.





Non-hazardous Wastes

The non-hazardous wastes of the Company mainly include domestic garbage, which is collected and stored by prescribed categories and sent to sanitation department where we operate for treatment.

The Company has recycled all the biogas residues from the farms. Due to a certain degree of hygroscopicity and heat insulation, biogas residues are backfilled to the bed in the cowshed to improve the bedding condition and comfort of the cowshed. Workers regularly turn the bed and replenish biogas residues to reduces odor and bacterial growth and keep the cowshed clean.

Manure

The Company clarifies the management measures for manure generated from breeding in the *Solid Waste Management System* to reduce the amount of manure at the source to control the discharge of manure, thereby reducing the pressure of manure treatment and utilization. While ensuring animals' production performance, the Company optimizes the feed formula and structure of all farms and selects high-nutrition raw materials that are easy for animals to digest and absorb, so as to reduce the total cow dung in farms.

Diseased and Dead Animals in Farms

We strictly comply with the requirements of laws and regulations such as the *Animal Prevention and Epidemic Law of the People's Republic of China*, the *Measures for Disposal of Diseased and Dead Animals with Unknown Causes of Death (for Trial Implementation)*, and the *Technical Specifications for Harmless Disposal of Diseased and Dead Animals*, etc., and carry out the compliant harmless disposal of diseased, dead and sick cattle in accordance with the standardised process or by commissioning a qualified unit, so as to prevent them from posing any hazards to the environment. We continue to improve the health of our cows and are committed to reducing the number of dead and diseased cows on our farms at source, and to reducing the generation of dead and diseased cattle waste while improving the quality of raw milk. In 2023, the total number of cows that died of disease and were not harmed was 13,767 and the total weight was 5,803.83 tonnes.

Wastewater Discharge Management

Modern Dairy continues to pay attention to the treatment of wastewater and pollutants, classifies and treats wastewater according to different production scenarios and water conditions, and gradually improves the efficiency of wastewater treatment on the basis of ensuring the compliant discharge of wastewater, so as to minimize the impacts of production and operation activities on the ecological environment. Wastewater generated in the course of the Company's operations mainly includes raw milk business and feed business, of which the wastewater from raw milk business mainly includes spraying wastewater, milk parlor rinsing wastewater, and methane liquid generated from the treatment of manure in the cowsheds, etc. The wastewater from feed business mainly includes domestic wastewater, which is used in the fertilization and irrigation of farmland after compliant disposal. We carry out regular analysis and testing of the generated water on a regular basis to ensure that the wastewater treatment and reuse process complies with environmental protection and public health requirements.

Dust Management

The Company continues to pay attention to dust management of project reconstruction or newly built farm area, and takes a range of measures to reduce the adverse impact of project construction and operation on the surrounding environment.

To reduce dust pollution, the Company applies enclosed management for all construction sites, with special personnel arranged to splash water and clean the site in a timely manner. The Company also assigns special personnel to manage the construction waste, standardize garbage disposal, and remove the waste in a timely manner. To prevent on-site soil and dust from spreading outside, all vehicles shall wash the tires before leaving the site. All fine-particle discrete materials prone to raising dust of the Company are stored in the warehouse where possible. For outdoor storage, they shall be covered up to prevent scattered soil and dust.

Noise Management

The Company also constantly pays attention to controlling noise in project construction and daily operation. While strictly following the related regulations including the *Environmental Noise Emission Standard for Construction Site Boundary (GB12523-2011)* and the *Noise Limits for Construction Site Boundary (GB12523-90)*, we carefully control the decibels caused by machine operation, vehicle operation, and communication among employees. The Company strictly controls the operational time and ensures standardized construction to minimize noise pollution to the surrounding environment.



Waste Emissions Key Performance Indicators of Modern Dairy

Indicators	Unit	2023	2022	2021
Disposal of major hazardous wastes <sup>12</sup>	Tonne	427.68	267.24	136.10
Disposal of major hazardous wastes per RMB million revenue	Kg/RMB million	31.78	21.74	20.66
Production of non-hazardous wastes	Tonne	576.42	462.15	954.90
Production of non-hazardous wastes per RMB million revenue	Kg/RMB million	42.83	37.59	140
Packaging material use	Tonne	988.15	719.04	559.53
NO <sub>x</sub> emissions in exhaust gas	Tonne	34.59	114.28	151.53
SO <sub>2</sub> emissions in exhaust gas	Tonne	12.39	46.26	68.69
Soot emissions in exhaust gas	Tonne	1.36	0.02	0.21

<sup>12</sup> In the current year, we optimized the data statistics to the disposal volume in order to enhance the granularity and completeness of the data; in addition, the number of ranches increased in 2023 and some of the hazardous wastes generated in 2021 were completed for disposal in 2023, therefore, this data increased year-on-year. The Company's hazardous waste mainly includes medical waste, used engine oil, used engine oil drums, etc.

► Water Resources Management

Adhering to the idea of "harmony between human and water and balanced development", Modern Dairy adopts the management principle of "acting considering the local water conditions" to improve the water resources management structure and constantly promote the all-round water resources management. The Company strictly observes the administrative regulations such as the *Water Pollution Prevention and Control Law of the People's Republic of China*, the *Regulations on Urban Drainage and Sewage Treatment*. We continue to safeguard water security and assess the water stress risks. Efforts are made to promote water-saving practices and raise the proportion of alternative water sources. Moreover, we conduct the compliance management of the sewage discharge and make unremitting endeavor to realize sustainable use of water resources and effectively improve the ecological environment.

Water Resources Management Structure

The Company has set up [Water Management Operational Structure](#) and established the Sustainability Committee composed of executive directors and independent directors. We have clearly defined the Chairman of the Group board as the highest responsible body of water projects who supervises water resources-related topics, including utilization of water resources, water risk management, water quality and protection of water resources. The Board members are responsible for relevant strategy and reporting, including the development of the Company's sustainability strategy, assessment of environmental (including water use, water risk management, water quality and water resource protection), social and governance risks, and periodic review of the Company's ESG performance related to water resource management. As an Executive Director member of the Board, the CEO is responsible for integrating ESG-related issues such as water use management into the strategy, monitoring ESG performance and climate-related progress, and leading the executive team to manage the delivery and execution of the sustainability strategy. The Sustainability Committee has developed the "Water Resource Management Strategy", policies and relevant measures. It is responsible for identifying and monitoring risks and opportunities regarding water resources, monitoring water resources-related work, and reporting on the Company's water resources performance and progress to the Chairman of the Board of Directors. During the reporting period, the Chairman of the Board of Directors approved the "Five-year Strategic Plan" covering water resources development, policies and measures. The Chairman would continue to monitor risks and opportunities of water resources, and regularly adjust the relevant strategies.

The Company has established the *Indicator Comprehensive Evaluation Management System*, which includes the water budget of 16.876 million tonnes and the water consumption per head of cow of 110kg into the departmental performance assessment indicators, thus pushing the development of water-saving enterprise from performance management and process transformation. The Company continues to improve water resources-related work including system assessment, supplier management and employee training. By taking measures to manage water resources including improving processes in daily operation such as animal breeding and feed cultivation and using alternative and circulating water resources, we use water resources in a sustainable and efficient manner.



Assessing Water Stress Risks

Modern Dairy keeps a watchful eye on the water stress risk and changes at all operating sites. Based on regional characteristics, impact of water consumption, local regulatory requirements, water resources characteristics, and the actual conditions, the Company, referring to official documents such as the *2021 China Water Resources Bulletin* and the *2021 China Environmental Status Bulletin*, has applied the WRI water risk map model to assess risks of water resources scarcity and water quality during the productive process, and drawn the water pressure assessment map. The Company tracks water resource risks in the operating areas in a timely manner based on the water pressure map and has developed targeted prevention and control measures to guide the planning and layout of the project.

Region where the farms are located	Water quality analysis	Scarcity of water resources
Saibei Region	Inferior	Relatively scarce
Northeast Region	Inferior	Relatively abundant
Chabei Region	Inferior	Relatively scarce
Northern China Region	Inferior	Relatively scarce
Central China Region	Medium	Relatively abundant
Eastern China Region	Excellent	Relatively abundant
Bayan Nur Region	Inferior	Relatively scarce
Northwest Region	Excellent	Scarce
Inner Mongolia Region	Medium	Relatively abundant



Water-saving Practices

Modern Dairy take multiple water-saving measures for different businesses, including transforming or introducing water-saving technologies and raising the proportion of alternative water sources, so as to improve the water efficiency and reduce water waste.

Reducing Water Consumption

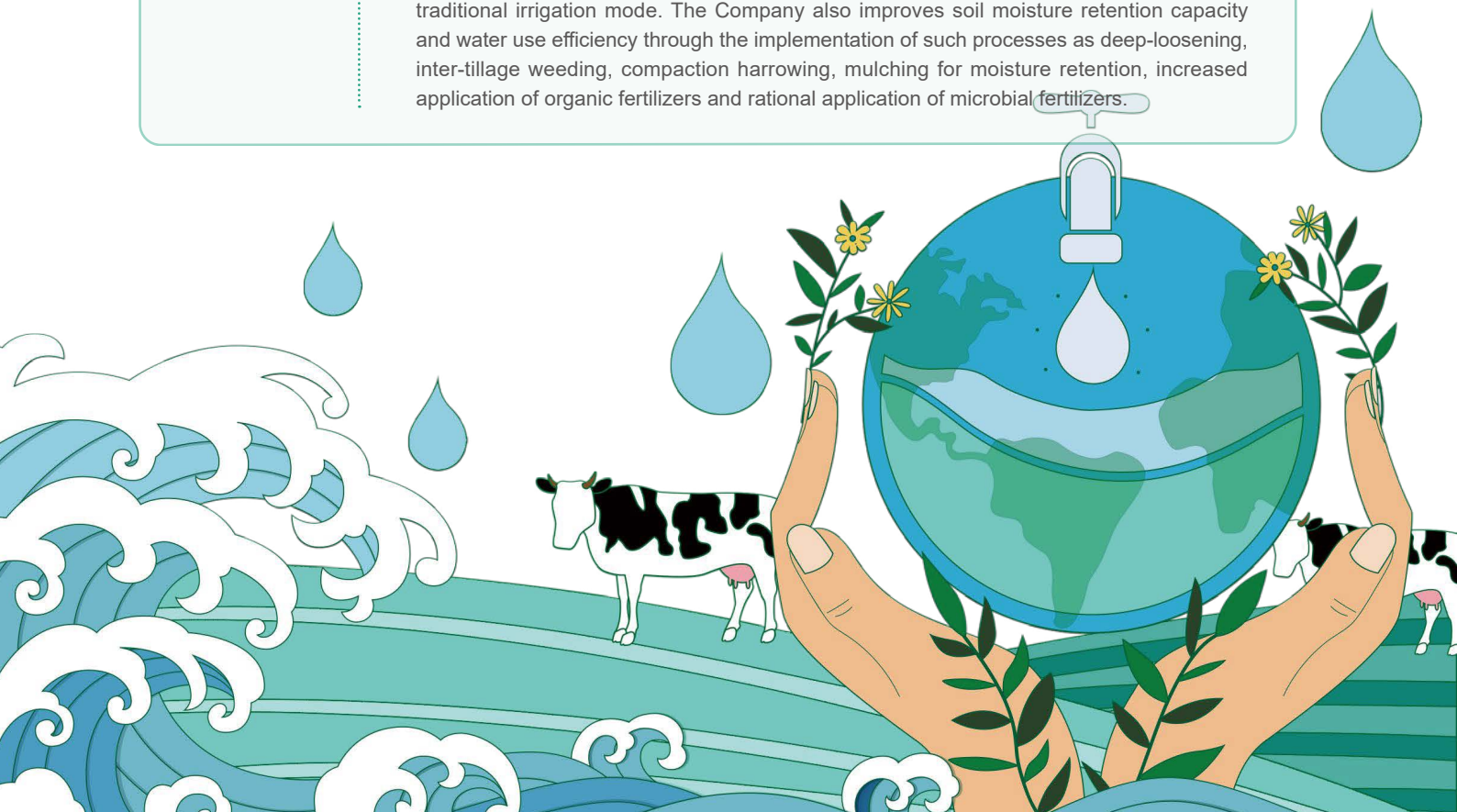
The Company actively improves water using technologies applied in animal breeding, feed cultivation and other main operation and production processes, and cuts down water consumption to increase water efficiency. The fresh water consumption per million revenue was 0.12 million cubic meters per RMB million, down 7.7% from 2022.

Water for animal breeding

We installed precise thermal spray equipment in the farm barn, intelligent monitoring of the temperature, humidity and other environmental parameters in the barn, according to real-time data to automatically adjust the operating status of the thermal spray system, reducing water waste. After the thermal spray equipment is put into use, it saves 39% of water and 10% of electricity on average compared with the pre-installation period. The Company has gradually promoted the use of thermal spray equipment, which has been popularized and applied to four 10,000-head scale farms.

Water for feed cultivation

The Company promotes an innovative irrigation mode and introduces the shallow-buried drip irrigation technology, so that water is directly supplied to plant roots, reducing water and nutrient waste caused by surface transpiration and effectively enhancing the water and fertilizer utilization efficiency. The water-saving efficiency is improved by over 55% compared with the traditional irrigation mode. The Company also uses pointer sprinkler irrigation to simulate natural rainfall, saving approximately 40% of water compared with traditional irrigation mode. The Company also improves soil moisture retention capacity and water use efficiency through the implementation of such processes as deep-loosening, inter-tillage weeding, compaction harrowing, mulching for moisture retention, increased application of organic fertilizers and rational application of microbial fertilizers.



Case

Introducing Efficient Water-saving Irrigation Technology according to Local Conditions

Yellow River irrigation area in the Inner Mongolia used to adopt broad irrigation mode for crops, causing recurring soil alkalization and lower water efficiency due to poor coordination between irrigation and drainage. The Company then invited water conservancy and planting experts to make technical breakthroughs. We implemented slope leveling on the land, adopted ridge seeding and furrow seeding, thus greatly improving the regional water efficiency. At the same time, we have increased the number of irrigation inlets to enhance the irrigated area of land with the same amount of water, and through the use of high-efficiency water-saving irrigation technology, the soil irrigation time has been shortened from 6 h to 1.37 h, with a water saving rate of more than 30%.



Soil levelling

Soil levelling carried out based on terrain



Ridge seeding

Good for crop preservation



Gate distance change

Rapid irrigation



Furrow seeding

Highly-efficient water conversion

Efficient water-saving irrigation technology used in Hetao irrigation area in the Inner Mongolia

Controlling water consumption by water suspension to harden the seedlings

According to the meteorological information and the growth and development characteristics of the forage material, all farms of the Company carry out periodic water suspension to harden the seedlings in a timely manner to reasonably avoid water waste during irrigation.

Improving forage grass varieties

Farms of the Company select and breed excellent forage grass varieties suitable for local climate characteristics, improve planting structure, and promote the standardization of engineering facilities to achieve water saving effects.



Using Alternative Water Sources

To reduce reliance on and consumption of surface water and natural resources, the Company gives priority to alternative water resources in production, such as reclaimed water and rainwater.

Improving refrigeration process

The Company uses an air-cooled chiller and a two-stage plate heat exchanger for refrigeration. Tap water below 18°C passes through the pre-cooling section to cool down the milk before returning to the water pit. Simultaneously, the chilled water from the chiller unit, below 2°C, recirculates back to the chilled water system after exchanging heat with the milk, achieving the recycling of water resources.

Recycling circulating water

The closed-type cowshed water curtain of the Company replaces fresh water with circulating water for cooling to reduce water waste.

Reusing cleaning water

The Company recovers and uses cleaning water of the milking machine in the milking parlor for flushing the dairy cows in the waiting area. Fresh water is replaced by reclaimed water to improve the water efficiency. In addition, farms with wastewater treatment systems are constructed to reuse wastewater after treatment in production operations such as milk hall floors, cow barn manure paths, or on-farm plantation irrigation, with an annual reuse volume of about 160,000 m³.

Biogas and manure water backwash

The farms belonging to the Company utilize manure water or biogas slurry after solid-liquid separation to backwash the manure channel of the cowshed through the pipeline, and the annual manure channel backwash volume is about 8.8 million m³.

Storm sewerage and reuse

The Company strictly implements rainwater and sewage diversion and reuse initiatives, and reasonably designs the drainage system to separate rainwater and sewage to avoid pollutants carried by rainwater from entering the treatment system. There are rainwater collection ditches on both sides of the roads of the farms and rainwater collection ponds in the farms. Some of the collected rainwater is used for irrigation of surrounding land, while some is timely collected and discharged into the surrounding surface water bodies through the drainage ditches, which can avoid the overflow of sewage caused by a large amount of rainwater entering into the sewage tank during heavy rainfall. In addition, rainwater mixed with manure enters the fermentation system and ferments together with the manure. After fermentation, the liquid waste is returned to the field as fertilizer, which reduces the negative impact on the environment while realizing the recycling of resources.



Biogas slurry and manure water used to backwash the cowshed manure channel



Wastewater treated and used for planting irrigation in the plant

Water Resource Management KPIs of Modern Dairy

Indicator	Unit	2023	2022	2021
Fresh water consumption	10,000 cubic metres	1,682.72	1,579.27	977.43
Fresh water consumption per RMB million revenue	10,000 cubic metres/RMB million	0.13	0.13	0.15
Fresh water withdrawal	10,000 cubic metres	1,682.72	1,579.27	977.43
Fresh water withdrawal per RMB million revenue	10,000 cubic metres/RMB million	0.13	0.13	0.15



► Green Awareness

Aiming to enhance the environmental awareness among all employees and advocate a green and healthy work and life style, we actively carry out various environmental protection activities. In 2023, the Company carried out various environmental protection activities on the themes of Environment Day and Earth Hour.

Advocating Green Office

We attach great importance to the daily promotion of green operation. Reminder signs of "water saving" "electricity-saving" and "The Clean Plate Campaign" were posted in the offices and farms, and publicity banners were hung on the site, cultivating our employees' awareness of green operation and resource conservation.



Green banners

"Water saving" environmental tips

Environmental Protection Awareness Campaigns

We are active in conveying the concept of environmental protection. Through a series of publicity activities, we aim to increase the awareness and participation in environmental issues among our employees, customers and the community. We actively organized "Green Farms Public Open Day" publicity activities on Environment Day, filmed and published an article entitled promotional video for "Modern Pastoral: Green in Motion and Sound" to spread the concept of ecological civilization and tell the story of China's ecological and environmental protection. Government-enterprise joint environmental protection publicity activities on Environment Day were also carried out.



Waste clean-up operation

Sustainable Procurement

► Responsible Procurement

We actively practice responsible procurement. With reference to the *Law of the People's Republic of China on Tenders and Bids* and the *Code for Procurement Management of State-owned Enterprises* and other industry standards and norms, and taking into account the actual situation of the Group, we formulated the *Procurement Bidding Management System*, the *Supplier Management System*, the *Raw Materials Procurement Management System*, the *Auxiliary Materials Procurement Management System*, the *Equipment Procurement Management System* and the [Localization Procurement Policy](#). All these laws and policies guide us to manage our suppliers throughout their life cycle and empower and train them for mutual development. For low-carbon operation, we advocate sustainable procurement and are committed to building a green supply chain.

Supplier Lifecycle Management

We implement full lifecycle management for our suppliers. By regulating their behaviors, observing their risks and performance in terms of environmental protection and social responsibility, and improving the procedures of supplier access, identification, and assessment, we aim to reduce our procurement risks and promote sustainable procurement within Modern Dairy. To this end, we have developed the [Supplier Code of Conduct](#), which all suppliers are required to comply with. The [Supplier Code of Conduct](#) consists of four major parts: labor standards, health and safety, environmental protection and social responsibility, business ethics and information protection.



"Green Farms Public Open Day" event

We also organize internal and external "waste clean-up operations" on the farms. Employees enhance their awareness of environmental protection through personal participation in environmental protection actions such as garbage clean-up.



Supplier Access and Engagement

Modern Dairy actively implements the [Localization Procurement Policy](#) and prioritizes building partnerships with local farmers, suppliers and communities to promote local economic development. We prioritize local sourcing of dairy cattle, feed, equipment, services and other supplies from our Farm operations to support the development of the local agricultural chain and reduce transportation costs and environmental impact. We purchase forage grown by local farmers on a long-term basis and provide them with technical guidance to help them improve forage yield and quality.

In the supplier access and engagement process, we focus on suppliers' environmental and social risks of suppliers and identify and assess these risks. We have added relevant requirements for suppliers' environmental and social performance in the [Supplier Code of Conduct](#), the [Supplier Management System](#), the [Raw Materials Procurement Management System](#), the [Auxiliary Materials Procurement Management System](#), the [Equipment Procurement Management System](#) and other procurement management systems. Our quality inspection department and the purchasing demand unit jointly form an audit team. This team incorporates environmental and social indicators such as environmental management, labor management, health and safety, social responsibility, and business ethics into the scoring criteria of the [Supplier Comprehensive Evaluation Form](#). In the [Supplier Comprehensive Evaluation Form](#), the scoring weight of labor management indicator is 3%, and the scoring weight of quality and price indicators are 30% and 35%, respectively. The audit team fills out the [Supplier Comprehensive Evaluation Form](#) based on the supplier's overall performance during on-site auditing, document auditing and sample inspections. We prioritize selecting suppliers who demonstrate superior environmental and labor management performance and have higher comprehensive scores.

In terms of environmental protection, before cooperating with suppliers, we conduct on-site auditing to their plants to make sure that their production facilities have no impact on the environment. We require our feed suppliers to have stand-alone plants with no pollution sources around the plants that would affect the safety of the feed products. We also check whether the suppliers dispose of wastes in compliance with laws and regulations. For our soy product suppliers, we require compliance in pesticides use and conduct third-party pesticide residues testing to their products to avoid soil pollution due to excessive use of pesticides.

In terms of social factors, we set requirements for suppliers' business ethics, labor management level, and product quality. In addition, we have zero tolerance for behaviors such as forced labor, child labor, and discrimination and harassment in the workplace. We focus on product quality risks and have launched a "Raw Material Risk Map" to manage the quality of feed and other raw material sources. We conduct quality inspection of the raw materials on site, score the quality of the raw materials based on the inspection results, and upload the score to the SRM supplier management system. The system summarizes the overall supply quality of each supplier, uses color to distinguish the quality risk of each source of goods in the "raw material risk map", and provides suggestions for the procurement department. As of the end of the reporting period, no raw material safety and quality issues occurred within Modern Dairy. When suppliers are in the admission process, they are asked to sign the [Commitment Letter for Sustainable Procurement Management Guidelines](#). When we enter into a co-operation agreement with the suppliers, they are further required to sign the [Sustainable Procurement Management Agreement](#). These help us monitor their practices in environmental and social aspects such as biodiversity conservation, labor safety and health protection, quality control and tracking, and production process control and tracking. In 2023, the [Sustainable Procurement Management Agreement](#) and the [Commitment Letter for Sustainable Procurement Management Guidelines](#) were signed by all our suppliers.

Supplier Tier Management

By tracing the upstream supply chain, we have identified Tier 1, Tier 2, and Tier 3 suppliers. In terms of procurement expenditure, approximately 87% of raw materials are directly procured from plantations at the source to achieve cost reduction and efficiency. The raw materials consist of feed and forage. As of the end of 2023, we conducted a 100% ESG audit on the company's Tier 1 suppliers (including all types of suppliers such as equipment, raw materials, auxiliary materials, services, etc.). During the reporting period, the Company had a total of 190 Tier 1 suppliers.

In 2023, approximately 71% of Modern Dairy's soybean meal procurement expenditure comes from its tier 1 supplier, COFCO International. The company require COFCO International to conduct ESG audits on its Tier 1, Tier 2, and Tier 3 suppliers annually and regularly assess their ESG audit status. This commitment aims to avoid collaboration with suppliers that pose ESG risks. In July 2020, COFCO International publicly committed to achieving full traceability of soybeans purchased directly from Brazilian farmers by 2023. Furthermore, In May 2022, COFCO International publicly committed to establishing a soy supply chain by 2030 that is completely free of deforestation and vegetation destruction issues in environmentally sensitive areas in Latin America, such as the Amazon, Cerrado, and Gran Chaco.

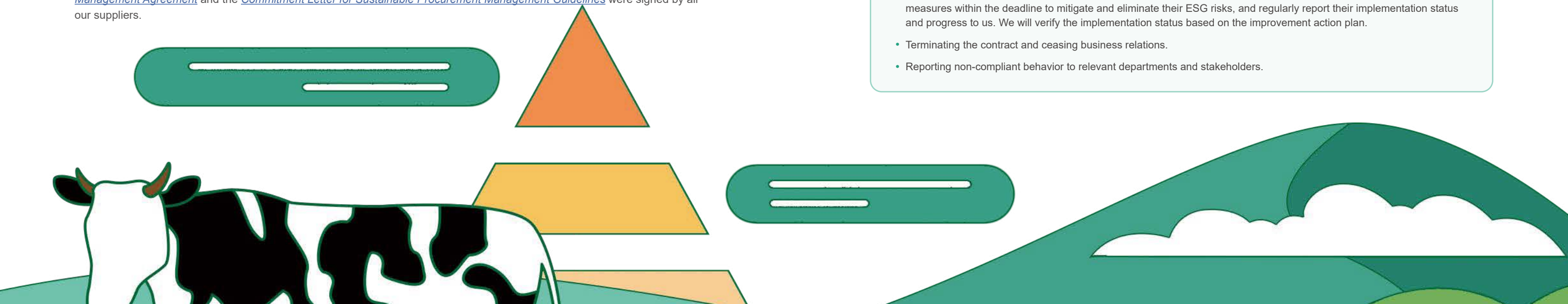
Supplier Auditing and Rectification

We conduct monthly audits of all suppliers based on the [Supplier Audit Form](#), which includes multi-dimensional assessment standards such as quality and safety management, product packaging, timeliness of delivery, medication management, feed management, cleaning management, and self-inspection management. We also audit suppliers' environmental and social risks, including whether suppliers discharge waste gas and wastewater according to regulations, whether their employees work in safe conditions and whether there are any instances of forced labor in their workplaces. In the [Supplier Audit Form](#), the scoring weight of labor management indicator is 3%, and the scoring weight of quality and price indicators are 25% and 30%, respectively.

Based on the evaluation of the audit panel, we have classified suppliers into four categories: Excellent (Long-term Cooperation), Good (Continuous Cooperation), Qualified (Cooperation Alert), and Unqualified (Ordered to Rectify within a Deadline). In accordance with the management requirements of these categories, we will determine further audit requirements and modes of cooperation for suppliers.

Suppliers deemed unqualified are required to carry out rectification within a limited time according to the [Supplier Rectification Issue Letter](#). This letter provides a framework for addressing environmental and social issues. Drawing from the assessment findings, we propose specific rectification requirements, which are formulated according to the environmental and social standards in the [Sustainable Procurement Management Agreement](#). For issues that need rectification, we take the following actions, including but not limited to:

- Requesting suppliers with potential high ESG risks to submit an improvement action plan, complete the improvement measures within the deadline to mitigate and eliminate their ESG risks, and regularly report their implementation status and progress to us. We will verify the implementation status based on the improvement action plan.
- Terminating the contract and ceasing business relations.
- Reporting non-compliant behavior to relevant departments and stakeholders.





Supplier Empowerment

Modern Dairy regularly carries out supplier training and creates industrial chain ecosystem with suppliers. We conduct SRM system training for all cooperative suppliers, introduce system functions and usage methods to suppliers, improve collaborative work efficiency, and realize the digital transformation of supply chain management.

We focus on communication with suppliers and are committed to achieving common growth with suppliers. This year, we held the Modern Dairy Suppliers Conference, in which we put forward the requirements of product quality, contract performance, honesty and win-win to the core suppliers. We clarified the company's quality standards at the conference, requiring suppliers to self-inspect products before sending them to the farms to reduce the on-site rejection rate.



2023 Modern Dairy Suppliers Conference

Suppliers Key Performances of Modern Dairy

Indicators		Unit	2023
Total suppliers <sup>13</sup>		Number	571
Suppliers <sup>14</sup> by region	Inner Mongolia Region	Number	105
	Bayan Nur Region	Number	13
	Northeast Region	Number	22
	Northern China Region	Number	35
	Eastern China Region	Number	33
	Central China Region	Number	97
	Saibei Region	Number	16
	Northwest Region	Number	29
	Chabei Region	Number	5
	Overseas	Number	3
	Other Regions	Number	213

<sup>13</sup> "Total Suppliers" means the number of suppliers that remain and have partnerships in the SRM system as of December 31, 2023.

<sup>14</sup> "Region" means the place where the supplier is registered

► Zero-deforestation Value Chain

Modern Dairy attaches importance to the management of biodiversity in the whole product value chain, and has set up the [Forest Protection Policy](#). We have launched a series of initiatives to minimize disruptions to production and operations, aiming to build a "zero-deforestation" industrial chain with upstream and downstream partners. The Company actively promotes the traceability of raw materials and attaches the [Sustainable Procurement Management Agreement](#) to the procurement contracts of suppliers, which explicitly requires that product and project design plans be formulated in accordance with the concepts of energy conservation and consumption reduction, green and low-carbon in a priority manner. We also require suppliers to take actions to reduce pollution and protect the ecology, such as reducing waste generation, ensuring compliance with regulations on the temporary storage and disposal of wastes, committing to "Zero-deforestation", and preventing soil erosion, actively promoting ecological environmental protection management among suppliers.

During the year, we cooperated with our key Tier 1 suppliers to implement the pilot project of deforestation risk-free procurement to build a zero-deforestation industrial chain.

Case First Soybean Intent Order with A "Zero-deforestation" Commitment

As a major agricultural product, soybean is widely used in the production of food, feed and industrial products. To meet the growing market demand, more land is needed for soybean cultivation, and some forests are disappearing to make room for soybean cultivation. This leads to the destruction of ecosystems and lower biodiversity. Soybean meal, a solid substance left over from soybean oil extraction, can be used as feed for cows and other animals.

We are very concerned about the biodiversity management by our upstream enterprises. In November 2023, Modern Dairy entered into a cooperation agreement with our key first-tier supplier COFCO, expressly requiring that soybeans purchased by us for the production of soybean meal be subject to COFCO's "Zero-deforestation" criteria. Specifically, COFCO is required to ensure that the soybean production areas are free of deforestation risk after December 31, 2020 and should provide a third-party audit report. In 2023, approximately 71% of Modern Dairy's soybean meal procurement expenditure comes from its tier 1 supplier, COFCO International.

This soybean trading cooperation is one of our major actions to achieve our 2030 goal of "Zero-deforestation" commitment and our strategic vision of "Greener, More Nutritious and Smarter", advancing the Group's efforts in building a green industrial supply chain.



Biodiversity

As a leading dairy livestock operator and raw milk producer, Modern Dairy understands the importance of rational land use and biodiversity conservation. In view of this, we plan and utilize land resources in a scientific and rational manner, and actively carry out biodiversity conservation initiatives to maintain the ecological balance and promote the sustainable development of the industry. In addition, we make efforts jointly with the upstream and downstream companies to manage ESG performance and design systematic solutions for recycling farms, striving to build a "Zero-deforestation" green recycling industry chain.

Biodiversity conservation is not only of great significance to the building of ecological civilization system, but also a key to the sustainable development of enterprises as well as the whole society. When formulating the internal management methods such as the *Requirements for Safe Distance from Farm Sites* and the *Checklist for Pre-construction Procedures for Farm Construction*, we have incorporated our requirements on site selection, land use, resource use and waste management, supplier ecological protection measures, and ecological restoration to ensure that the disruption of our operations to the ecosystem is minimized through diversification initiatives.

The Company publicly released the [Biodiversity Policy](#), committing to protect and restore biodiversity. The policy applies to all of our operating areas and suppliers. The ESG Committee of the Board supervises the progress of biodiversity conservation work, and all business units should be cooperative in relevant conservation work.

Ecosystem Protection Plan

We strive to maintain a balance between ecological and environmental protection and sustainable social development. By monitoring the ecological conditions in our operating areas, and taking various ecological protection and restoration actions, we aim to minimize the impact of the Company's operations on the ecological environment.

We continuously monitor changes in original landform and surface vegetation around our operating areas and reduce the ecological impact of our operations by improving breeding and expanding greening area.

Adoption of an organic farming model to avoid pollution threat

We adopt and promote a resource-utilizing farming model, whereby the manure produced in the farming operations of the Company and the surrounding areas is harmlessly treated and fertilized and returned to the fields, replacing the use of chemical pesticides and fertilizers and avoiding the pollution to the ecological environment caused by our operations. As of the end of the reporting period, we had organic fertilizer returned to over 1 million mu of planting land, including approximately 50,000 mu of black land and 60,000 mu of saline-alkaline land. Other measures such as deep land plowing, proper fertilization, and crop rotation also help us reduce the ecological and environmental impact of our operations.

Adoption of a rotational cropping system to establish a good soil environment

The Company has established a stubble rotation system based on the actual conditions of the plots, which increases soil fertility and reduces dependence on chemical fertilizers and pesticides in the planting process by rotating different crops, which is important for the sustainable development of the ecosystem.

Case

"Turning Waste into Treasure" to Make Saline-Alkaline Land Resource

Modern Grassland, a subsidiary of Modern Dairy, boasts a forage industrial park covering 53,000 mu of land in Wushen Town, Togtoh County, Hohhot City, Inner Mongolia Autonomous Region, where all the soils are alkaline or mixed saline-alkaline soils. Through cooperating with multiple planting and professional saline-alkaline land treatment technology companies in the industry, we adopt differentiated fertilization methods for soils with different salinity levels to overcome technical problems such as low seedling emergence rate and low yield for planting in saline-alkaline land.



Differentiated treatments to soils with different salinity levels

We expand greening areas to improve ecological environment

Adhering to the greening concept of "points, lines and planes", we gradually increase the greening rate inside our farm areas. The mixed pattern of planting trees, shrubs, and lawns helps us to create a three-dimensional green space, giving full play to the role of green space in ecological protection and environment improvement.

Recovery and Restoration Initiatives in Disturbed Areas

Recognizing the importance of ecological balance, we have developed a series of recovery, reclamation and restoration plans to be simultaneously implemented in the disturbed areas around all of our operating sites during production and operations.

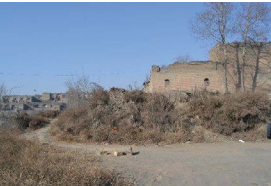
Our restoration efforts are made based on the actual ecological conditions and degree of impact on the disturbed areas. We have developed a detailed greening plan for desertified land. Specifically, appropriate plant species such as drought-resistant, sand-resistant trees and vegetation are planted to resist wind and sand erosion, fix sandy soil, and improve water retention capacity of the soil. We have also designed and implemented water conservation measures to provide sufficient water for plant growth. We also made efforts to improve sandy land. In 2023, about 30,000 mu of sandy land was improved by combination of breeding and planting and by returning manure fertilizer to the fields.

In addition, all of our production projects are offered with reclamation bonds, which are paid to and deposited in a third-party supervisory bank account for subsequent reclamation in the project areas.

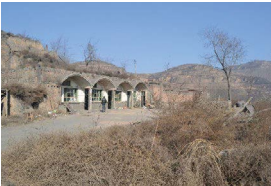


Case Mine Restoration Completed, "Wasteland" Turned into "Green Fields"

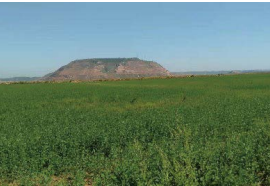
Modern Dairy Xinyuan Farm is established in the coal mine area, and the surrounding villages have environmental problems such as groundwater loss and land subsidence, which seriously affect the daily life of local residents. In response to this problem, we relocated the villagers from the surrounding villages to the newly built district, providing them with spacious and bright buildings and well-equipped property services. In addition, we actively carry out the restoration work and after the restoration, the area has transformed from the original scattered terraced plots into contiguous and leveled land, to achieve the mine reclamation problems.



Before mine restoration



After mine restoration



Biodiversity Impact Assessment

Adhering to the concept of ecological and environmental protection, Modern Dairy conducts biodiversity impact assessments at all stages of site selection, design, production, and operation of farms. To take full account of factors affecting biodiversity in farm operations, we assess the impact of our operations on the environment and the community through scientific site selection, appropriate layout, and community communication.

We strictly abide by the Law of the *People's Republic of China on Environmental Impact Assessment* and other laws and regulations. We carry out environmental impact assessments around the dimensions such as ecology, water, atmosphere, and acoustic environment to ensure that the construction begins only after the environmental impact assessment has been passed.

For risk management, Modern Dairy comprehensively inspects the social environment, geographical environment, biological resources, population, traffic conditions, and municipal planning of the area where it is located, tracks data changes, and fully identifies biodiversity risks in each operating area. Modern Dairy formulates and implements corresponding comprehensive management plans to ensure that ecological risks are effectively controlled.

Scientific Site Selection

We actively carry out biodiversity impact assessments. In addition to complying with national EIA regulations, we have adopted higher environmental standards in the site assessments for new projects. We have established clear regulations regarding the safe distance for pasture site selection, to ensure that they are far away from highly polluted areas, water sources, ecological protection areas, high-value conservation areas, areas rich in natural resources, residential areas, scenic spots and other environmentally sensitive areas. In addition, we are highly concerned about the soil environment around the sites. Within 20 km around a selected site, there should be enough space and proper discharge conditions for the harmless treatment of feces, urine, and sewage, so that the biogas slurry can be used as organic fertilizer and returned to the field.

Appropriate Layout

Regulated land use

The Company obtains the approval of the local land use permit and the relevant departments for the record of large-scale livestock breeding and other approval documents. In the case of land contracting and transfer, relevant agreements must be signed with the villagers in the relevant communities to clarify the rights and obligations of both parties. We respect and protect the rights of local relevant residents, and avoid disputes.

Scientific planning

We always plan land use in a scientific way. On the whole, we follow the guiding principle of "reasonable layout, economical land use and appropriate reserved room for development" for the general layout. The construction is carried out based on the upper and lower wind directions, the separation of rain and sewage, and the separation of clean water and sewage, to ensure that each functional area is relatively independent with the production area and the living area isolated from each other. In addition, we increase non-polluting or less polluting advanced technologies and equipment to control ecological damage at the source. We design farm infrastructure based on a principle of "Zero Interference in the Ecology and Community Environment", and build underground pipelines to transport the liquid separated from solids to biogas slurry pool. It is applied to the farmland as liquid fertilizer after treatment.

Land Use and Community Communication

Based on the principle of Free, Prior and Informed Consent (FPIC), Modern Dairy publicly releases the [Statement on Supporting Community Engagement](#), and proactively conducts community impact assessments and communicates with local village heads and representatives prior to entering any new area to conduct business. The communication allows the villagers to be aware of the risks of farm construction to the local environment and to themselves, such as the potential risks of returning biogas slurry to the field on water, soil, odor, and ecosystem. Besides, we also inform the villagers of the positive effects of operation business on the local community, such as promoting local employment and increasing incomes. This ensures that every resident is fully informed about the impact of our farm operations on the local environment and livelihoods.

We also carry out "Public Participation" activities prior to commencement of project construction, where the *Public Participation Questionnaire* distributed to local residents, to fully informs them of the project situation.

In addition, notices displaying contact information are posted at the project sites, such as reporting phone numbers, e-mail addresses, QR codes, and phone numbers of department heads, making it easy for local residents to get in touch with us.



Notices at Project Sites

# 04 Society

Modern Dairy cares about the well-being and development of employees and provides fair opportunities and a safe working environment. Relationships with and impact on the community are also our focus. We have support community development and contribute to rural revitalization and common prosperity through a variety of activities that connect and benefit farmers.





Employee Well-being

Attaching great importance to the growth of every employee, Modern Dairy is always building a team of quality talents. In addition to sound career development paths, we continue to improve remuneration incentive and training systems to help employees enhance their capabilities and realize their personal values. We care for their safety and health by providing them with more benefits and an inspiring and harmonious workplace.

Talent Attraction and Retention

To create a diversified, equal, and positive career environment, we reserve talents for the Company's development by adhering to the recruitment principle of "openness, fairness, anti-discrimination and inclusiveness". To this end, we also safeguard the rights and interests of the employees and improve the remuneration and benefits system.

Recruitment and Employee Rights

As a responsible employer, Modern Dairy strictly abides by relevant laws and regulations such as the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China*, the *United Nations Universal Declaration of Human Rights*, and the *International Convention on Human Rights*. Based on the aforesaid laws and regulations, we have formulated internal systems such as the *Recruitment Management System*, the *Labor Contract Management System*, the *Employee Entry Management System* and the [Human Rights Protection Policy](#). In the course of our business operations, supply chain management and community communication, we fully respect and protect human rights, ensure the equity among employees and hold a zero-tolerance attitude towards any business manipulation, use of child labor and forced labor under these laws, regulations and policies.

We regulate the signing, alteration, renewal and termination of employment contracts in accordance with the law in the recruitment process. We insist on diversity, fairness and inclusiveness in hiring, and ensure that all applicants are not discriminated against in terms of gender, age, nationality, race, and religious beliefs in recruitment. To avoid the use of child labor, we verify the age of all applicants. In case of any violation against the above principles, we deal with it in accordance with relevant laws and regulations and our internal policies. Aiming to improve human resources management, standardize onboarding management and recruitment policies, as well as clarify the recruitment process and criteria, we hold special meetings every year to discuss and update human resources-related policies. Since the establishment of the Company, no illegal employment practices such as child labor or forced labor have been found. As of December 31, 2023, we had **8,873** employees in total, of which **32.38%** were female. Among the management, female employees take a proportion of **25.45%**.

To improve our talent acquisition channel, we introduced the online recruitment system in 2023. We also launched village-enterprise and school-enterprise cooperation programs. In Modern Dairy, over **83.23%** workforce is local<sup>15</sup>. During the year, we attracted a total of **550** talents through campus recruitment and established cooperation with a total of **22** schools.

We have "Zero Tolerance" for any form of discrimination or harassment. In this regard, we provide multiple anonymous reporting channels for employees to report infringements in the workplace. We make every effort to protect the rights and safety of each whistleblower, and keep whistleblower's information, such as name, home address, and telephone number, confidential. In case of any infringement against rights and interests of employees, we take actions such as disciplinary action and dismissal in accordance with relevant provisions. And if necessary, the case would be referred to the judicial authorities. Based on our review record, **no** discrimination or harassment occurred in 2023.

We conduct regular audits to monitor and ensure the effectiveness of our human rights policy. In 2023, we conducted a random survey of employees.<sup>16</sup> The employees' satisfaction with human rights training<sup>17</sup> was **93%**, their agreement with Modern Dairy's human rights policy<sup>18</sup> was **95%**, and their familiarity with human rights knowledge was **90%**. We have adjusted the content of our human rights protection policy based on feedback from the employees.

We encourage our employees to enhance their awareness of human rights protection and to avoid any form of human rights violations. Therefore, from April to May 2023, we provided training on the *Labor Law of the People's Republic of China* and the *Law of the People's Republic of China on the Protection of Minors* to all human resources staff. In December, we organized training on human rights protection knowledge for all employees.



Offline training on human rights protection of Modern Dairy

Existing Human Rights Targets	Existing Target Progressions
<ul style="list-style-type: none"><li>In our business operations (including the daily work of security personnel), we strive to avoid any serious human rights violations and timely handle and resolve any human rights complaints or grievances</li><li>In our communities, we actively participate in human rights-related projects and activities and establish good communication and cooperation with local stakeholders</li><li>In our organization, we regularly conduct human rights protection training for all employees (including security personnel)</li></ul>	<p><b>Achieved</b></p> <ul style="list-style-type: none"><li>In 2023, <b>0</b> discrimination or harassment cases based on our audit record</li><li>In 2023, we conducted a random survey of employees. The employees' satisfaction with human rights training was <b>93%</b>, their agreement with Modern Dairy's human rights policy was <b>95%</b>, and their familiarity with human rights knowledge was <b>90%</b>. We have adjusted the content of our human rights protection policy based on feedback from the employees</li><li>From April to May 2023, we provided training on the <i>Labor Law of the People's Republic of China</i> and the <i>Law of the People's Republic of China on the Protection of Minors</i> to all human resources staff. In December, we organized training on human rights protection knowledge for all employees</li></ul>

In 2023, Modern Dairy won the DEI Employer Awards (China) 2023 in the DEI (Diversity, Equity, Inclusion) Employer Brand Competition hosted by the Employer Branding Institute<sup>19</sup>.



The DEI Employer Awards (China) 2023 of Modern Dairy

<sup>15</sup> The formula of local workforce of Modern Dairy is the number of employees whose household registration province matches the province of their workplace/the total number of employees in Modern Dairy.

<sup>16</sup> The formula for calculating the employees' satisfaction with human rights training is number of respondents who have chosen the options "Satisfied" and "Very satisfied" when answering relevant questions / number of all respondents in the survey.

<sup>17</sup> The formula for calculating the employees' agreement with Modern Dairy's human rights policy is number of respondents who have chosen the options "Agree" and "Very agree" when answering relevant questions / number of all respondents in the survey.

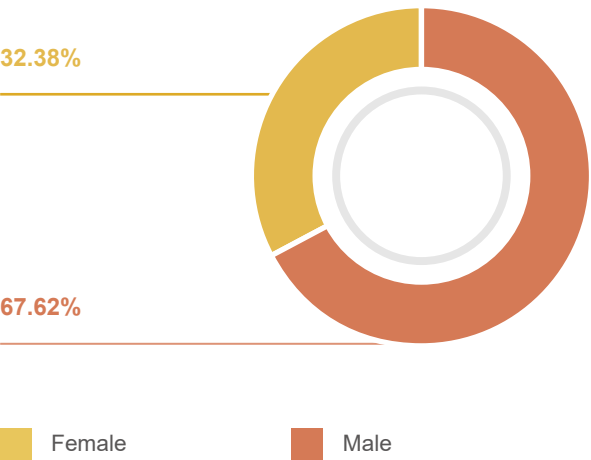
<sup>18</sup> The Formula for calculating the employees' familiarity with Modern Dairy's human rights knowledge is number of respondents who have chosen the options "Agree" and "Very agree" when answering relevant questions / number of all respondents in the survey.

<sup>19</sup> "Employer Branding Institute" is an employer brand communication organization that provides employer branding consulting solutions and tools to companies.

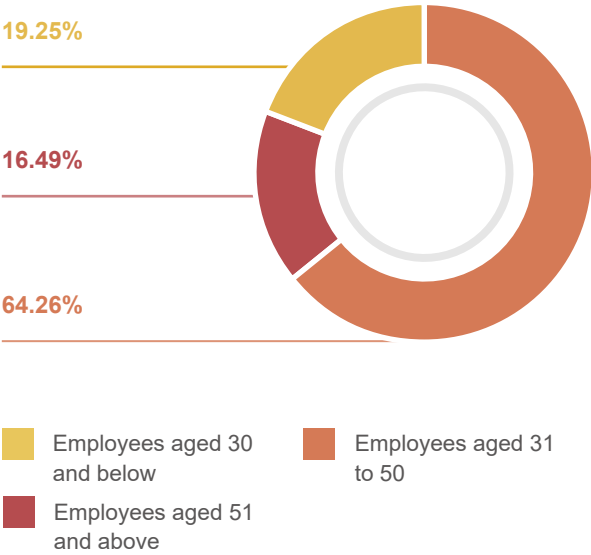
Key Performances of Modern Dairy Employees

Indicator		Unit	2023
Total number of employees		Person	8,873
Total number of employees by gender	Male	Person	6,000
	Female	Person	2,873
Total number of employees by age group	Employees aged 30 and below	Person	1,708
	Employees aged 31 to 50	Person	5,702
	Employees aged 51 and above	Person	1,463
Total number of employees by employment type	Full-time	Person	8,873
	Labor outsourcing/Labor dispatch	Person	0
	Part-time	Person	0
Total number of employees by employment type (level)	Junior employee	Person	8,718
	Mid-level management	Person	147
	Senior management	Person	8
Total number of employees by region	Inner Mongolia Region	Person	1,106
	Bayan Nur Region	Person	566
	Northeast Region	Person	850
	Northern China Region	Person	869
	Eastern China Region	Person	1,119
	Central China Region	Person	928
	Saibei Region	Person	1,152
	Northwest Region	Person	947
	Chabei Region	Person	641
	Hong Kong, Macao and Taiwan of China	Person	3
	Overseas	Person	2
	Other Regions	Person	690
Total number of employees by ethnicity	Han ethnic group	Person	7,946
	Mongol ethnic group	Person	558
	Hui ethnic group	Person	107
	Other minorities	Person	262
Total number of new employees		Person	1,817

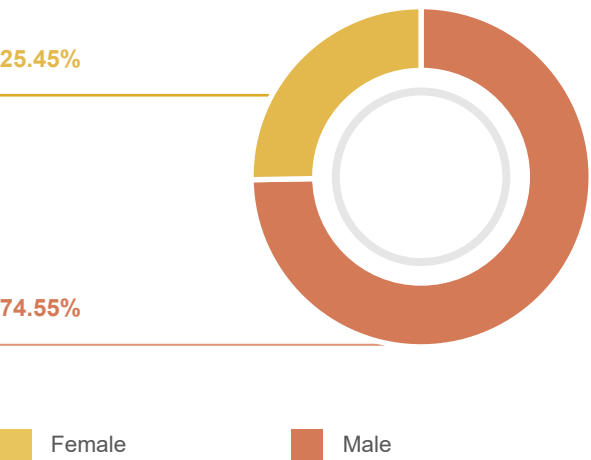
Percentage of employees by gender



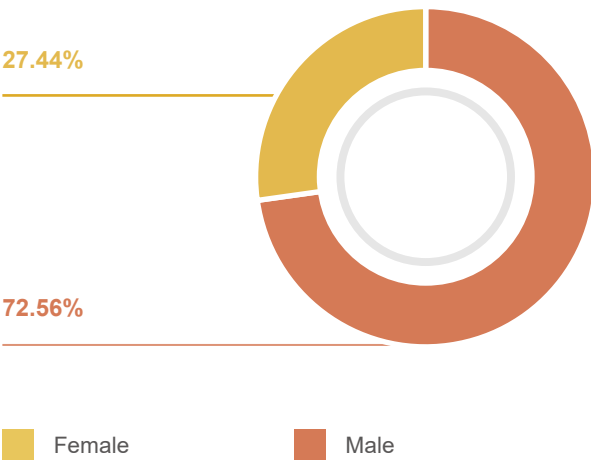
Percentage of employees by age group



Percentage of employees in management positions



Percentage of employees in junior management positions<sup>20</sup>



<sup>20</sup> Junior management positions include first-line managers, junior managers and the lowest management level in the Company's management hierarchy. These individuals are usually responsible for directing and executing the daily operational objectives of the organization, and for communicating instructions from superior officers and managers to subordinate employees.



Talent Remuneration and Benefits

Modern Dairy continues to optimize the remuneration management system and has formulated the *Remuneration Management System* and other internal systems. We are committed to maintaining competitive remuneration to increase talent retention. We have stipulated the systems implementation standards and accounting methods of employees' remuneration under different circumstances in the *Remuneration Management System*, in a bid to create a performance-oriented, fair and competitive remuneration management environment.

We have built a differentiated Broadbanding Salary Structure<sup>21</sup> for different functional sequences and levels. The Company's remuneration matrix is divided into seven sequences, i.e., farm technology, feed sales, supply chain, farm production, safety quality and engineering, functional support, and administrative and party work, with differentiated compensation positioning for each sequence. In order to attract more key technical talents, we offer payment higher than the market average for similar positions to our farm technical sequence employees. Meanwhile, we have set up multiple remuneration ranges for each position and level in the corresponding Broadbanding Salary Structure to realize the differentiated remuneration for different positions in the same sequence and the same level. We provide additional night shift allowance for the frontline employees of the farms, further improving the employee welfare and care system, and offering more care to the grass-roots employees of the farm production.

We have also set up a mechanism for employees' appeal of remuneration. Employees who have questions about their remuneration can appeal to the Human Resources Department by writing, telephone or e-mail within five days after the monthly payday. After receiving the appeal, the Human Resources Department will check the case and reply to the employee within three working days.

<sup>21</sup> "Broadbanding Salary Structure" is a payment system with a certain payment span based on different levels. "Broadbanding" is the key point, which means that each level has a payment standard with a certain span for employees of different levels. The Broadbanding Salary Structure is built up on the basis of the evaluation of position value and reasonable remuneration strategy to guide the differentiated salary set-up and dynamic salary adjustment of employees.

► Talent Development and Promotion

Modern Dairy attaches great importance to talent cultivation. We make constant efforts to establish and improve the mechanism of talent development and promotion, build a fair and transparent performance appraisal process and incentive mechanism, and lay emphasis on staff training, so as to fully support the career development of employees. We conduct an annual talent review among employees to identify the structure and level of our human resources. We optimize the promotion and incentive mechanism, and develop training measures based on the results of our annual talent review to ensure the professional, efficient and long-term operation of the Company's talent mechanism.

Talent Promotion and Retention

Modern Dairy continuously strengthens the management level of talent promotion and establishes and improves the performance management system. We have formulated internal systems such as the *Talent Development and Training Management System* and the *Cadre Rotation Management System*. We continue to optimize diversified incentive mechanisms to effectively reduce employee turnover.

Talent Promotion

Modern Dairy has built up the talent development system of "two channels"<sup>22</sup>, one foundation". This year, we raised the proportion of individual performance appraisal in the talent review of the management development channel<sup>23</sup> and added the dimension of corporate culture.

In the process of qualification assessment and promotion of the professional development channel<sup>24</sup>, we, with full reference to the results of the talent review of the management channel, take the assessment results and information of the "two-channels" talent development system both into consideration to promote talents better serving business needs. Based on the "diamond-shaped" professional force model<sup>25</sup>, we have formulated the *Qualification Standards Manual*, which was certified by the National Copyright Administration of the People's Republic of China in February 2023. The manual has become the first copyrighted work on dual-channel career development and qualification for dairy farming enterprises in China. According to the requirements of the manual, we have improved the professional development channel system and established four major sequences, i.e., veterinary medicine, nutrition, breeding and equipment. We have also specified the promotion conditions for different sequences to ensure the standardized promotion channel for employees.



Certificate of registration of Modern Dairy's Qualification Standards Manual

<sup>22</sup> "Two channels" refer to the development channels of management positions and the professional positions. The "one foundation" indicates that the talent development system in 2023 was maintained on the basis of the "four-wheel" leadership and the "diamond-shaped" professional force model.

<sup>23</sup> "Management Development Channel" refers to a specific development channel for management personnel. Based on the "four-wheel" leadership model, the channel carries out a series of talent development work such as training, development, inventory and promotion. The channel has the characteristics of clear standards, clear structure, professional inventory and rich resources, helping managers and reserve managers to define their own development goals and promotion trajectories within the organization, and promoting the growth of managers and enterprises.

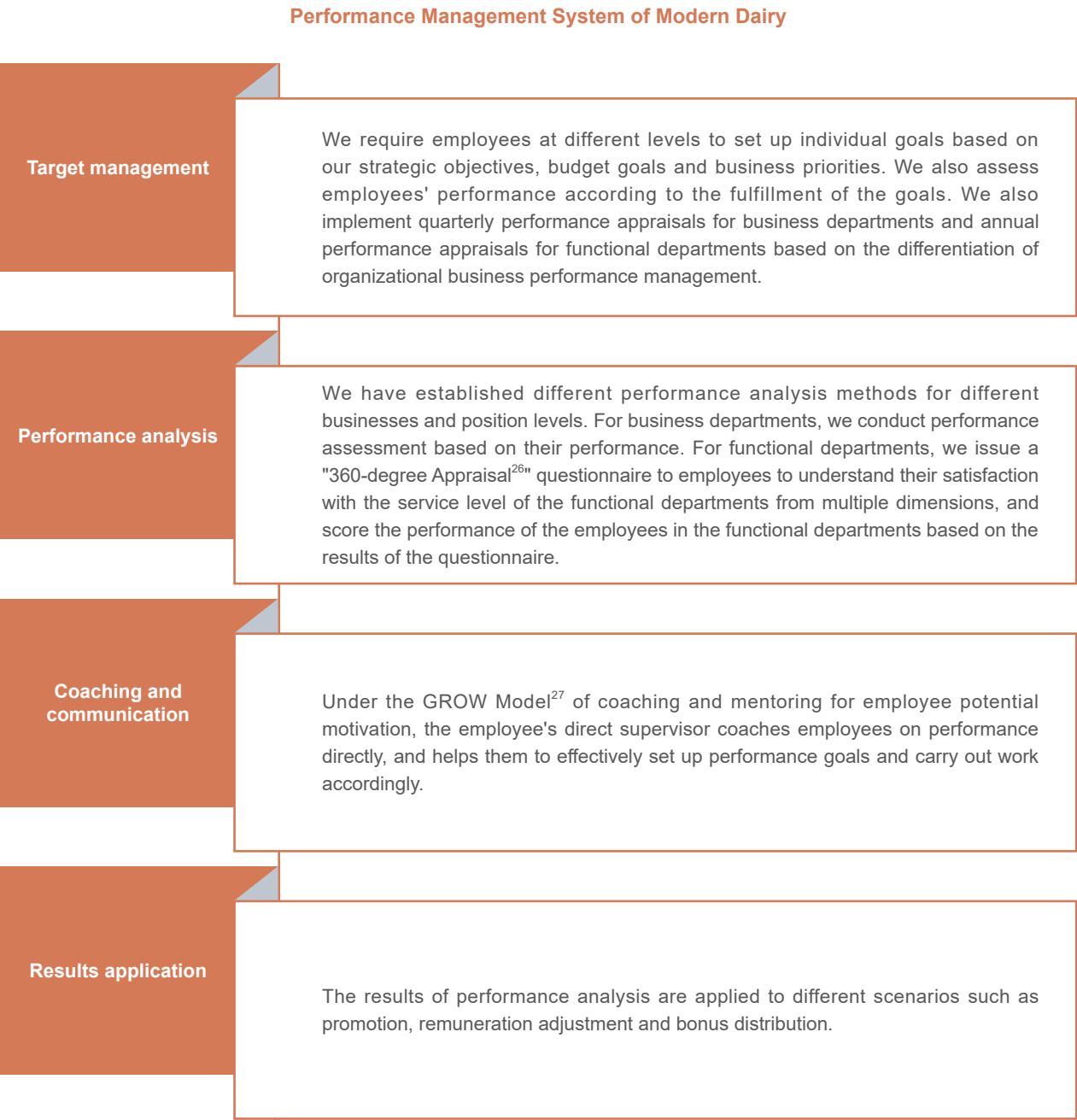
<sup>24</sup> "Professional Development channel" refers to a specific development channel for technical personnel, which carries out a series of talent development work such as training, development, evaluation and promotion based on the "diamond-shaped" professional force model. This channel has the characteristics of clear standards, clear ranks, open evaluation and matching resources, helping technical personnel and technical related employees to customize career development plans according to their own technical expertise and development intentions in the organization, and find knowledge resources, operation guidance and practical scenarios in specific fields from the professional development channel.

<sup>25</sup> "Diamond-shaped" professional force model refers to the Modern Dairy qualification model built according to the characteristics of the industry and the actual technical scene of the pasture. The "diamond-shaped" professional force model adopts the three-dimensional evaluation dimension of "qualification as the threshold, knowledge as the initial assessment, behavior as the assessment, and ability as the extension" to identify whether the employees are competent for technical posts in the pasture, and then develops the training mode and curriculum resources for all technical personnel, forming a technical personnel training system of training, evaluation, appointment and re-evaluation.



Performance Management System

To achieve our goal of realizing "stimulating business growth by performance" and motivate employees' working enthusiasm, this year, we formulated the *Performance Management Manual*, and built a performance management system including goal management, performance analysis, coaching and communication, and results utilization.



<sup>26</sup> The "360-degree Appraisal" refers to a method of obtaining observation of members' behaviors of an organization from multiple perspectives. The evaluator in this evaluation model includes not only the supervisor of the evaluated person, but also other people who are in close contact with him/her, such as colleagues, subordinates, and clients, as well as the self-evaluation of the evaluated person.

<sup>27</sup> The "Grow Model" is one of the most common and effective tools used in coaching skills to coach others through the establishment of goals (GOAL), understanding of the current situation (REALITY), discussion of measures (OPTIONS), and refinement of plans (WRAP-UP). The Grow Model is designed to empower employees to, guided by coaching, take responsibility for finding answers and determining a course of action.

Diversified Incentive Mechanisms



We have set up annual excellence awards, including

16<sup>team awards</sup>  
and  
8<sup>individual awards</sup>



understanding employee satisfaction with the Company from

7<sup>dimensions</sup>  
and  
15<sup>influencing factors</sup>



The survey coverage rate was

44.2%  
and the completion rate was  
99.7%

Modern Dairy has established a diversified incentive mechanism, including current incentive, long-term incentive, innovation incentive, spirit incentive, and development incentive, to continuously activate employees' working enthusiasm.

In terms of long-term incentive, we grant incentive shares under the Restricted Share Incentive Plan, which ties employees' long-term performance with our long-term development goals to build a sustained cooperation between employees and Modern Dairy.

In terms of short-term incentive, we revised the *Unit Yield Breakthrough Incentive Program*, the *Sales Completion Incentive Program*, the *Excess Technical Support Incentive Program*, the *Semi-annual and Annual Excellence Selection Incentive Program*, the *Purchasing Cost Reduction Incentive Program* and the *Innovation Incentive Program* in 2023. Bonuses and praises were given to incentivize the farms to accomplish the production targets, encourage the Procurement Department to reduce costs and increase efficiency, and promote the Technical Department to innovate and conduct research and development. We have set up annual awards, including 16 team awards and 8 individual awards for performance contribution, special breakthrough and ability improvement.

Democratic Management

Modern Dairy is committed to strengthening democratic management and has established a sound democratic management system to safeguard employees' rights to know, right to participate, right to supervise and right to express, and fully protecting employees' democratic rights and interests. We have improved the *Management System of Enterprise Workers' Congresses*, established communication channels for equal consultation, and built harmonious labor relations.

We have built a platform for employee communication and organized two executive communication meetings and one corporate staff representative congress each year. We have opened a variety of complaint and reporting channels. Employees can submit feedback, suggestions, reports or appeals through the QR code of "Voice of Employees", democratic life meetings, mass forums, collective negotiation, labor dispute coordination committees and employee hotline. After receiving such cases, the Company will transfer them in a timely manner to the relevant department for handling.

To understand employees' opinions and suggestions, the employee satisfaction survey is carried out on a regularly basis. This year, Modern Dairy conducted an employee satisfaction survey. Questionnaires were sent to employees through SMS and email, understanding employee satisfaction with the Company from 7 dimensions and 15 influencing factors. The survey coverage rate was 44.2% and the completion rate was 99.7%.



Turnover Rate Key Performances of Modern Dairy			
Indicator		Unit	2023
Total turnover rate <sup>28</sup>		%	1.54
Turnover rate by gender	Male	%	1.52
	Female	%	1.58
Turnover rate by age group	Employees aged 30 and below	%	2.84
	Employees aged 31 to 50	%	1.22
	Employees aged 51 and above	%	1.38
Turnover rate by region	Inner Mongolia Region	%	1.52
	Bayan Nur Region	%	3.79
	Northeast Region	%	1.65
	Northern China Region	%	0.79
	Eastern China Region	%	1.53
	Central China Region	%	0.82
	Saibei Region	%	2.14
	Northwest Region	%	1.78
	Chabei Region	%	1.49
	Hong Kong, Macao and Taiwan of China	%	0.00
	Overseas	%	0.00
	Other Regions	%	1.01

<sup>28</sup> The total employee turnover rate is the total voluntary employee turnover rate. The formula for calculating the total turnover rate is Total number of employees who voluntarily left for the year / (Total number of employees who voluntarily left for the year + Total headcount at the end of the year). This year, the voluntary turnover rate of Modern Dairy was 1.54%.

Talent Development and Cultivation

Modern Dairy places great emphasis upon talent training and has constantly innovated and implemented talent development programs. We have formulated the *Talent Development and Training Management System*, the *Qualification Management System*, the *Internal Trainer Management System* and other talent development-related systems. We have built up a dual-channel career development platform and a mechanism for training professional technical talents. The "Learning, Training, Examination and Competition" model is incorporated into our talent development programs. Meanwhile, we have developed the "Niurenhui" online learning platform to provide professional courses for our employees and people from all walks of life in the industry. In 2023, we spent a total of RMB 5,838,200 in training funds, and carried out 140 live training sessions with a total of 153,000 hours, covering 34,000 people. We aim to create a high-quality and industry-leading talent pool. So far, 1,726 technical talents of the Company have obtained qualification, including 9 doctors, 118 masters, and 25 personnel with the Practicing Veterinary Certificate issued by the Ministry of Agriculture and Rural Affairs of the People's Republic of China. During the year, the proportion of Modern Dairy's male and female employees, as well as the proportion of junior employees, mid-level management employees and senior management employees receiving training was 100%.



Management Trainees Cultivation System

Modern Dairy has launched the "Young Talent Programme" to enhance the leadership and professional ability of management trainees. We have adopted an online-offline mix learning mode and offered basic courses such as the Office Series Software Skills Enhancement, the Structured Thinking and the Creative Thinking to help new employees quickly adapt to the workplace. The "Young Talent Program" offers a total of 19 online courses and 5 offline intensive training sessions, with a 100% coverage rate of management trainees.

We also focus on the coaching of our management trainees. There are 46 coaches at manager level or above in the "Young Talent Programme", and a total of 3,726 offline coaching sessions and 18 online growth exchange sessions are organized. In order to improve the comprehensive ability of management trainees and realize quick adaptation to the corporate culture, we have carried out a total of 138 rotations of management trainees. They can choose the department of rotation according to their wishes.

Internal Trainer Lecturing System

In order to optimize the talent cultivation environment of Modern Dairy and improve employees' professional quality, we have established an employee knowledge system, created an internal trainer team and strengthened the construction of knowledge sharing system. We carried out the build-up and operational management of our internal trainers and internal training course system in accordance with the provisions of the *Internal Trainer Management System* and our strategic needs and business characteristics. In 2023, the Company had a total of 140 certified internal trainers, who developed 177 courses, and taught 114 sessions to 28,472 trainees.



Lecture given by internal trainer of Modern Dairy



Training for employees from the "Young Talent Programme" on the farm



Professional Force Cultivation System

According to the "diamond-shaped" professional force model, a professional force training system has been established, opening the "High-grade, High-precision, and Advanced Technologies 100 Special Class" covering four sequences of veterinary medicine, breeding, nutrition and equipment. We design various professional courses in conjunction with farm operation and actual operation scenarios, such as the Veterinary Clinical Diagnosis, the Farm Reproduction and Breeding Management, the Farm Nutrition Formula Management and the Farm Data Analysis and Improvement. To help trainees better apply their knowledge to the work, we also bring them to farms for field visits, investigation, learning and evaluation. This year, we conducted a total of 12 offline intensive professional training sessions and 61 online training sessions, covering 219 employees in the professional sequence.



Trainees from the "High-grade, High-precision, and Advanced Technologies 100 Special Class" on the farm



The "High-grade, High-precision, and Advanced Technologies 100 Special Class" students participate in offline training

Leadership Force Cultivation System

Modern Dairy has established a leadership cultivation system, based on the "four-wheel" leadership model<sup>29</sup>, to implement the "On-the-job Benteng Program" and "Yuanquan Reserve Program".

The "On-the-job Benteng Program" aims to cultivate the leadership of the Company's on-the-job management personnel. We have set up 4 special classes, namely Touniu, Zhanniu, Benniu and Ruiniu, and opened an array of courses, such as the Operation Sand Table, the Summary of EMBA, 4D Excellent Leadership and the Basic Skills for Managers. In 2023, the "On-the-job Benteng Program" conducted a total of 20 offline intensive training sessions and 19 online training sessions, covering 656 on-the-job management personnel.

To foster our reserve promotion personnel, we have carried out the "Yuanquan Reserve Program" and set up 5 special classes, namely Golden Bull, Silver Bull, Bronze Bull, Steel Bull and Iron Bull, which provide the Leadership in Scenario, the Financial Quotient and Thinking, the Efficient Execution of Grass-roots Managers and other courses based on the advanced competency items in the "four-wheel" leadership model. This year, the "Yuanquan Reserve Program" conducted 9 offline training sessions and 17 online training sessions, covering 197 employees.



Offline training for trainees of the "Yuanquan Reserve Program"



Professional Force Cultivation System of Modern Dairy

<sup>29</sup> The "four-wheel" leadership model refers to the team management model built by Modern Dairy according to the business model of animal husbandry and the logic of farm operation. The "four-wheel" leadership model is a set of key capabilities that Modern Dairy leaders need to have in order to achieve better performance, so as to "characterize" excellent leaders in Modern Dairy, so as to effectively guide the training and development of managers at all levels. The "four-wheel" symbolizes the strength of the cow's limbs, which means the momentum and speed of running forward of Modern Dairy managers, providing inexhaustible power for the development of the organization.



Table of Talent Training and Development Key Performance of Modern Dairy

Indicator		Unit	2023
Total number of training sessions		Piece	3,534
Total number of trainees		Person	8,873
Total number of training hours		Hour	220,643
Training hours by training category	Professional training	Hour	120,596
	Management training	Hour	49,620
	Other training	Hour	50,427
Number of trainees by gender	Male	Person	6,000
	Female	Person	2,873
Number of trainees by employment type (level)	Junior employee	Person	8,718
	Mid-level management	Person	147
	Senior management	Person	8
Average training hours completed per employee		Hour/person	24.87
Average training hours of employees by gender	Male	Hour/person	24.95
	Female	Hour/person	24.68
Average training hours of employees by employment type (level)	Junior employee	Hour/person	24.60
	Mid-level management	Hour/person	39.81
	Senior management	Hour/person	41.04
Average training hours of employees by age	Employees aged 30 and below	Hour/person	26.81
	Employees aged 31 to 50	Hour/person	24.39
	Employees aged 51 and above	Hour/person	24.44
Average training hours of employees by ethnicity	Han ethnic group	Hour/person	24.82
	Mongol ethnic group	Hour/person	25.27
	Hui ethnic group	Hour/person	25.40
	Other minorities	Hour/person	25.34

► Safety and Health

With "Safety and Health First" as the core value of the enterprise, Modern Dairy attaches great importance to the safety and health of employees. We have established a production safety management system and strictly implemented various responsibility measures for safety improvement in our supply chain, so as to safeguard the bottom line of production safety and protect the occupational health of our employees. We have developed the [Health and Safety Policy](#) and the policy is group-wide, applying to all employees, contractors and visitors to follow it.

Production Safety

Modern Dairy strictly complies with national laws and regulations such as the Safety Production Law of the People's Republic of China and the Regulations on the Reporting, Investigation and Handling of Production Safety Accidents. We have formulated systems to ensure production safety such as the *Safety Production Management System*, the *Health, Safety and Environment Protection Accident Investigation and Management System*, the *Health, Safety and Environment Protection Unannounced Inspection and Evaluation Management System*, and the *Safety Three Level Education Implementation Scheme*, and applied them to all the employees, suppliers and contractors of Modern Dairy. We conduct an internal audit of such systems per year to audit the implementation of relevant systems and adjust the contents of the systems in accordance with our operations.

Safety Management Targets

Existed Safety Management Target Review	Target Progress	New Targets for 2024
<ul style="list-style-type: none"><li>• <b>Zero</b> fatality</li><li>• Million work hours Injury rate<sup>30</sup> ≤ <b>0.9</b> person per million working hours</li><li>• Occupational disease incidence rate ≤ <b>1%</b></li><li>• <b>100%</b> of employees and contractors receive health and safety training</li><li>• Average health and safety training hours of employee and contractor every year ≥ <b>16</b> hours</li></ul>	<p><b>Achieved</b></p> <ul style="list-style-type: none"><li>• <b>Zero</b> fatality</li><li>• Million work hours injury rate: <b>0.81</b> person per million working hours</li><li>• Occupational disease incidence rate: <b>0.89%</b></li><li>• <b>100%</b> of employees and contractors receive health and safety training</li><li>• Average health and safety training hours of employee and contractor every year: <b>19.5</b> hours</li></ul>	<ul style="list-style-type: none"><li>• <b>Zero</b> fatality</li><li>• Lost Time Injury Frequency Rate (LTIFR)<sup>31</sup> ≤ <b>0.45</b> case per million working hours</li><li>• Occupational disease incidence rate ≤ <b>0.80%</b></li><li>• <b>100%</b> of employees and contractors receive health and safety training</li><li>• Average health and safety training hours of employee and contractor every year ≥ <b>16</b> hours</li></ul>

Safety Management System

Modern Dairy has built a comprehensive production safety management system. Through improving the safety performance management mechanism, clarifying responsibilities, strengthening safety supervision, optimizing the level of emergency response management, and raising employees' awareness of safety, we have ensured risk control and continuous improvement in the production process.

<sup>30</sup> The formula for calculating the million work hours Injury rate is (Total number of work-related accidents of employees/total number of hours actually worked by employees) x 1,000,000.

<sup>31</sup> The formula for calculating the lost time injury frequency rate (LTIFR) is (Total number of work-related accidents of employees certified by the Government's work injury department/total number of hours actually worked by employees) x 1,000,000.

Safety Management Organizational Structure

We have developed the [Health and Safety Operational Structure](#), which provides for the Board's Sustainability Committee to manage sustainability and corporate responsibility matters, including health and safety issues such as occupational health, employee well-being, accident prevention and emergency response, and to develop policies and action strategies to continuously identify and monitor health and safety-related risks and opportunities. Monitor health and safety related activities on a regular basis and report to the Chairman of the Board on the company's health and safety performance and progress. Modern Dairy has established a three-tier safety structure and set up a Production Safety Committee, which is responsible for conducting overall planning and guiding production safety. The Production Safety Committee organizes production safety meetings on a regular basis and sets safety targets and implementation plans for the Company. This year, we set out the detailed rules for safety management, which conduct hierarchical management according to the importance of each department's operations to the Company's production safety. The responsible person for accidents occurring in the production process will be held accountable from three aspect of: salary assessment, performance assessment and administrative punishment.

Safety Management Improvement Measures

We have established a health and safety performance management mechanism, and signed performance contracts with our executives, farm managers at all levels and other relevant personnel. In the performance contracts, there are evaluation clauses by tying executives' salary to safety management goals. We have set up restrictive conditions in such contracts, stipulating that if a grade 1-3 production safety accident<sup>32</sup> occurs during the contract term, the direct person in charge will be, depending on the severity of the accident, deducted points, deducted annual performance bonus and even dismissed.

We have carried out a number of internal inspections, including the "Four Nos and Two Straights"<sup>33</sup> unannounced visits by executives, unannounced inspections<sup>34</sup>, regional mutual inspections, self-inspections of farms and other measures to monitor the implementation of the production safety policy at each farm. Based on the inspection results, we conduct analysis of potential safety hazards on the farm, urge rectification and supervise the rectification process.

In order to respond to safety incidents in a timely manner, we have guided all farms to establish comprehensive emergency plans, including special emergency plans and on-site disposal plans for fire, mechanical and chemical injuries according to different situations. We also require each farm to conduct a drill every six months to test the feasibility of the plan. Before each drill, we will arrange training to the participants on the use of emergency supplies and equipment used in the drill. The farms are also equipped with CPR AEDs and other equipment, and employees are trained in the use of AEDs to improve their emergency care awareness and skills. After the drills, we will revise the contents inconsistency with the reality.



First Aid Drill for Modern Dairy employees

<sup>32</sup> On the basis of the 4 types of accident grades of especially serious accident, serious accident, large accident and ordinary accident stipulated by the state, the *Health, Safety and Environmental Protection Accident Investigation and Management System*, Modern Dairy supplemented the types of accidents into 6 grades, adding the dimensions of casualties and direct economic losses.

<sup>33</sup> The "Four Nos and Two Straights" means no issue of notice, no greeting, no reporting, no accompanied reception, going straight to frontlines, going straight to sites. The "Four Nos and Two Straights" is a way of working formed by the superiors in order to understand the real situation and thoughts of the grass-roots as well as to find out the real problems.

<sup>34</sup> "Unannounced Inspections" is a form of follow-up inspection, which refers to an on-site inspection carried out without prior notice to the inspected department. Unannounced inspections is one of the most common tracking and inspection methods used by international product certification institutions for certified factories, and it is also a significant means to improve the effectiveness of factory inspection.

Improving safety awareness

In order to improve employees' production safety awareness and skills, the Company has arranged multiple safety knowledge training courses, and set up online self-learning platforms and columns, covering production safety policies, special work, and safety and environmental protection culture. The analysis of specific cases such as seasonal risk characteristics and occupational hazard risk prevention and control is also provided. After the training, we will organize a test for our employees to verify the effectiveness of the training at each farm, helping employees consolidate their knowledge of production safety. In 2023, we released 63 pieces of safety-related articles on our internal platform, and carried out 24 safety training sessions.



Modern Dairy carries out safety training

Safety Management of Contractors

Modern Dairy implements the concepts and principles of safety management into the supply chain. We guide our contractors to cultivate safety awareness, pay attention to production safety, and establish a safety system to guarantee the safe operation of the supply chain.

We have established the [Health and Safety Policy](#) that requires all contractors to follow our policies and procedures and to report any incidents or hazards to us in a timely manner. After entering into the partnership with contractors, we will sign the *Occupational Health, Safety and Environmental Management Agreement* and the [Sustainable Procurement Management Agreement](#) with them to clarify the safety management responsibilities and work content of both parties. In 2023, the rate of contractors signing up the *Occupational Health, Safety and Environment Management Agreement* and the [Sustainable Procurement Management Agreement](#) was 100%

The detailed rules for the assessment of construction breaches have been developed to strengthen the construction safety management and supervision of contractors. Supervision units and project engineers carry out safety inspection at the construction site every day, and check the construction pre-control measures in dangerous areas, the construction and use of construction equipment, the establishment of fire prevention facilities and the establishment of construction site safety signs and fences, so as to identify and eliminate potential safety risks in time, and take appropriate corrective measures to ensure the safety of the construction site. We will terminate the cooperation with the contractor who violates the rules or causes a safety accident during the construction process.

We carry out security training for the construction personnel of the contractor at the construction site every day before the daily construction. We have set up a facial recognition access control system at the gate of the construction site to ensure that untrained personnel are prohibited from entering.

Safeguarding Occupational Health

Modern Dairy strictly observes the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, the *National Occupational Health Standards of the People's Republic of China*, the *Provisions on the Administration of Occupational Health at Workplaces*, and other laws and regulations. By the end of the reporting period, 31 dairy farming companies of Modern Dairy passed ISO 45001 certification for occupational health and safety management systems, accounting for 100%<sup>35</sup> of the total.



ISO 45001 Occupational Health and Safety Management System Certificate of Modern Dairy (Group) Co., Ltd

<sup>35</sup> In 2023, some of Modern Dairy's farms are under construction, and 100% of the completed farms are ISO 45001 certified.



Standards formulation

We require the farms to provide articles for labor protection for employees and supervise their wearing in accordance with the standards in the *Personal Protection Management Implementation Scheme* to ensure the normal use during operation. The scheme also requires that farms shall not arrange workers without pre-inspection to engage in operations exposed to occupational hazards, and shall not arrange workers with occupational taboos to engage in operations involving such taboos.

Health examination

We regularly organize employee physical examinations to ensure early detection and prevention of occupational diseases. We promote the establishment of occupational health records in all units in accordance with the requirements of respective territories. We have also issued the *Management System for Occupational Health Examination, Diagnosis and Assessment*, which clarifies the unified standards for occupational disease examinations and determines the frequency and items of employee pre-job, on-the-job, and off-the-job medical examinations.

Assessment and supervision

This year, the Company assigned professional personnel to certain farms for special inspections of occupational health work to further assess occupational health risks. We have also formulated the *Environmental Factors and Hazardous Sources Control System*, under which we assess and identify dust, epidemics, noise, etc. during on-site operations and eliminate risk factors to ensure workplace safety.

Awareness cultivation

In order to cultivate employees' awareness of preventing occupational diseases, we have filmed a video on the 10 guidelines for prevention of occupational diseases and played it on a loop in the canteen and other areas. We have also invited industry experts to conduct training on occupational diseases for employees to improve their awareness of occupational protection and encourage them to take proactive measures to protect themselves.

During the reporting period, 100% of Modern Dairy's employees were covered by occupational disease medical examinations, supplementary medical insurance and commercial insurance. During the year, there were no health and safety related complaints or labor disputes.

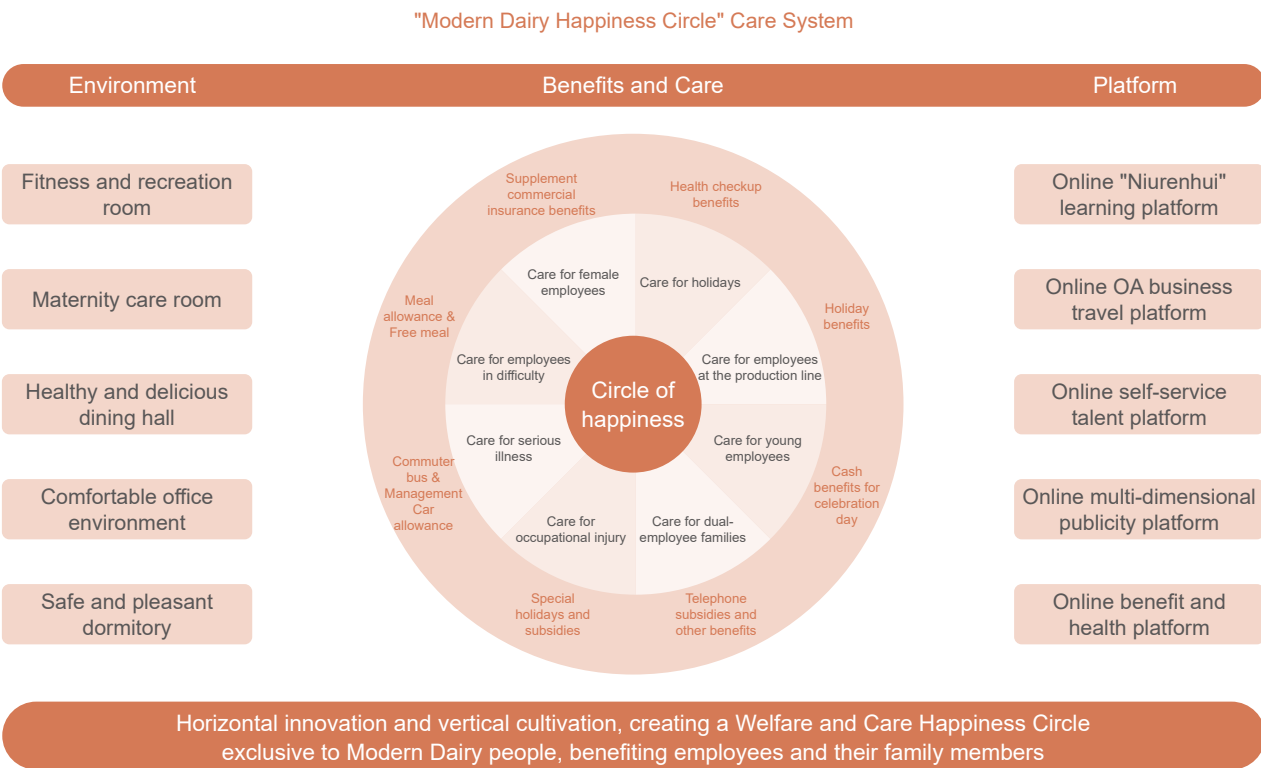
Safety and Health Key Performances of Modern Dairy

Indicators		Unit	Data
Work-related fatalities in each of the past three years	2023	Person	0
	2022	Person	0
	2021	Person	1
Percentage of work-related fatalities in each of the past three years	2023	%	0
	2022	%	0
	2021	%	0.02
Indicators		Unit	2023
Work-related supplier/contractor fatalities		Person	0
Lost Time Injury Frequency Rate (LTIFR)		Case per million working hours	0.49
Lost days due to work injury		Day	814

► Employee Care

Always adhering to the "people-oriented" principle, Modern Dairy is committed to building a caring and responsible employer brand image, and continues to provide benefits for its employees. We have formulated the *Employee Welfare Management System*, adhere to the employer talent concept of "tree industry's fastest growing, strongest professional, best value, the most respected cow", attach importance to the interests and happiness of employees and their families, provide humanistic care for employees, and create a caring enterprise atmosphere.

This year, we created the "Modern Dairy Happiness Circle" care system for our employees and took proactive measures to provide benefits for our employees in various aspects to enhance their experience of work.



We fully consider the differentiated needs of employees according to different levels, positions, gender and other dimensions of employees, and carry out care activities such as Women's Day care, Spring Festival care, birthday care, as well as colorful hiking, fun sports and other activities to enhance team cohesion, strengthen the emotional bond between employees and the company. We also regularly carry out cultural and sports activities for our employees to show their talents. This year, the grassroots-level labor unions spent a total of about RMB 4,245,900 on caring activities.



Modern Dairy organizes hiking activities for employees



Modern Dairy's "Staff Blooming Day"



Modern Dairy cares about the physical and mental health of employees and their family happiness. We provide our employees with annual medical examination benefits at public hospitals or specialized medical institutions nationwide. We also provide supplemental commercial insurance benefits for employees' children, self-funded commercial insurance upgrade plan for their spouses, self-funded group inspection benefit plan for their families, Children's Day benefits, etc. Employees can also enjoy family benefits such as reimbursement of expenses for reunion leave, and some of the farms also provide dormitories for working couples. We actively organize family activities for employees. This year, in order to celebrate Children's Day on June 1, we held a "Modern Dairy Accompanies Me on a Childhood Journey" activity for employees' children, planned a series of game activities for children, and gave them children's Day gifts.



Family activities for Modern Dairy's employees

Modern Dairy comprehensively implements the practice activity of "I do practical things for employees", builds the system of employee care "six-heart project", and pushes forward the further practice and landing of "heart-warming project". 2023, we carried out the theme of "Sending Warmth in Spring Festival, and Cattlemen Build New Achievements" Spring Festival care activities, and provided care and support to 227 employees in difficulties with the total amount of care of RMB 227,000.



"Sending Warmth in Spring Festival, and Cattlemen Build New Achievements" Spring Festival care activities

## Community Development

Adhering to the principle of "be honest and credible", Modern Dairy plays to its strengths in philanthropic donations, public welfare volunteering, local communities development, etc., and actively fulfils its social responsibilities. During the reporting period, the value of external philanthropic donations and gifts of Modern Dairy reached RMB **5.04** million, and various kinds of philanthropic projects were carried out for more than **60** times.

### ► Philanthropic Donations

We make full use of our own resources to provide financial and resource assistance to the needy people from all walks of life. In 2023, the farms of Modern Dairy visited over **20** impoverished employees' families. Through various forms of philanthropic donations, such as donations to poor households and nursing homes, the total donation amount reached RMB **45,500**, and the value of public welfare and philanthropic donations of goods exceeded RMB **28,000** in 2023.

#### Disaster Relief Efforts

The Shangzhi Farm of Modern Dairy carried out the donation activity of "Together through the storm, hand in hand towards tomorrow", and donated RMB 200,000 to the Red Cross to support the local flood relief and post-disaster reconstruction, so as to help the people in the affected areas to tide over the difficult times.



Love donation activity

#### Comforting the Elderly in Poverty

In June 2023, the Changji Farm of Modern Dairy organised a warm-hearted condolence activity of "Caring for the Elderly in Poverty with Sincere Love", and sent rice, noodles, oil, milk and other living materials to more than 10 households of impoverished villagers in Ashili Township, with a donation value of more than RMB 5,000. The act of love and kindness was highly recognised by the local government, building a good relationship between the government and the enterprise.



The volunteer activity "Caring for the Elderly in Poverty with Sincere Love"



Strengthening infrastructure

In September 2023, the Linyi Farm of Modern Dairy paid RMB 150,000 for the construction of the drainage ditch in Tanglin Village, to improve the local infrastructure and the living conditions of the residents.



Linyi Farm support the construction of Tanglin Village drainage ditch

In November 2023, the Chabei Farm of Modern Dairy donated and repaired the street light facilities in the local community, providing a more convenient and safe environment for local residents to travel at night.



Chabei Farm supported to repair the street light facilities in the local community

Community Investment Key Performances of Modern Dairy

Indicators	Unit	Data
Total hours of volunteer service	Hour	3,008.25
Average hours of volunteer service	Hour/person	28.54
Number of volunteers participating in the community activities	Instance	105
Value of philanthropic donations and gifts	RMB 10,000	504

Voluntary public service

Modern Dairy encourages employees to participate in voluntary activities, so that more people pay attention to environmental protection and social welfare. We continue to exert the energy of public welfare volunteers and organise multi-subject voluntary activities to provide knowledge education and support work for different groups, such as children and the elderly. In 2023, employees volunteered approximately **3,008.25** hours of service, with over **105** instances of participation.

Help the Elderly

In March 2023, Modern Dairy organized employees to visit nursing home located at the farms and conveyed care and warmth through practical actions. Volunteer staff trimmed the hair and nails of the elderly, cleaned the nursing home, and created a neater and more comfortable living environment for them.



"Giving Back to the Community and Caring for the Elderly" visits to nursing home





Environmental Protection Actions

The Company actively advocates the concept of environmental protection and goes into the community to continuously enhance the ecological awareness and environmental protection consciousness of community residents by carrying out green actions such as "Rubbish Clean-up", "Walking" and "Tree Planting".



"Rubbish Clean-up" campaign



"Tree Planting" campaign

Love and Care for Students

Modern Dairy actively responds to the national call for poverty alleviation, carries out school donation activities in difficult areas, actively participates in all kinds of public welfare projects, cares for left-behind children in hometown, and practices corporate social responsibility with practical actions.

In 2023, Modern Dairy donated RMB 2 million to Education, Sports, Science and Technology Bureau of Zhangjiakou City Chabei Management District, which was used to support the development of local education and help local children improve their growing environment.



Love and Care for Students Activity

Modern Dairy participated in the "Shapotou Children's Hand-in-Hand Action", "Shapotou Helping Students to Fulfil Their Dreams Action" and other public welfare and charity schooling activities, and provided schooling funds to the children in distress in Zhongwei City, Ningxia Hui Autonomous Region, to provide the children with more relieved, high-quality and environmentally friendly educational resources.



The scene of "We Act Together to Care for the Poor Children"

Community Relations

Modern Dairy respects the rights and interests of the communities in which we operate our farms and formulated the [Statement on Supporting Community Engagement](#), and the [Human Rights Protection Policy](#). We established precautionary and formal grievance (complaint) mechanisms and channels for local community members to raise concerns or complaints about our operations and impacts. We also established community committees and adopted a territorial management mechanism, whereby the management team of each farm, comprising the heads of the relevant business segments, is responsible for receiving and handling complaints, in order to facilitate regular communication with local stakeholders, including indigenous people, women, youth and other vulnerable groups.

Community impact assessment

Whenever we plan to establish a new farm in a new area, we conduct community impact assessment on the community. The assessment is designed to identify and mitigate any potential negative impacts on the social, economic, environmental and cultural aspects of the community. We will share and communicate our assessment results with the local community in due course. We adhere to the principle of applying Free, Prior, and Informed Consent (FPIC) as outlined in the *United Nations Declaration on the Rights of Indigenous Peoples*, and endeavor to ensure that our community impact assessments are conducted in a transparent, well-involved and culturally appropriate manner.

Human Rights Policy Audit and Training

We regularly conduct human rights audits. This year, we conducted a sample survey of employees from all of our farms, distributing more than 500 questionnaires in total, covering all levels, including general employees, middle management, and senior management, as well as all positions, such as farm milkers, breeding division employees, safety and quality departments and other business departments, and functional departments of the company. We analysed the results of our research and optimised our existing human rights policies to better improve their implementation in protecting people in the community. We also conducted human rights training for our employees to raise their awareness of the need to respect the human rights of community residents and to work together to build a harmonious community.

Ethical standards for Contract Security Providers or Security Personnel

Modern Dairy requires all contract security providers or security personnel (As of the end of 2023, all security personnel at Modern Dairy are the Company's employees, and contract security providers are not used) to respect the rights and interests of community residents, to carry out security work in a manner that respects human rights, to comply with relevant laws and regulations and professional standards and policies, to regularly participate in training related to the protection of human rights carried out by Modern Dairy, and to resolve conflict situations that may occur in a responsible manner, opposing the use of violence in any dispute.



## Rural Revitalization

The Company follows the deployment of national rural revitalisation strategy, adheres to the working idea of "applying measures according to local conditions, offering well-targeted support, consolidating achievements and promoting revitalisation", focuses on the key work of rural development, rural construction and rural governance, comprehensively promotes rural revitalisation, and helps to realise the common prosperity. In 2023, Modern Dairy actively developed its industry advantages, drove the employment of the surrounding area through point-to-point assistance and deepening the cooperation of the farmers, to help the farmers increase income and generate revenue, and to drive local development.

### ► Offering Well-targeted Support

Chabei Farm of Modern Dairy set up a rural revitalisation support team to offer well-targeted support to 6 poor families in three poor villages, including Shuangaitang Village, and purchased daily necessities worth RMB 5,000. They also followed up continuously to improve the living conditions of the residents.



Well-targeted one-to-one assistance for families in need

### ► Silaging Supports Agriculture

Modern Dairy attaches great importance to community relations and influence, actively connecting with, benefiting, and assisting farmers. We drive the forage planting industry through the industrial chain, with a planting area of more than one million mu, radiating more than 200,000 households on the periphery of the farm. In 2023, Modern Dairy issued forage payments of more than 7 billion, and 100% of the farms completed silage procurement of more than 3 million tonnes by signing silage orders with neighbouring farmers, solving the employment of more than 7,000 farmers, and greatly contributing to the revitalisation of the countryside and common prosperity.

Modern Dairy's farms, including Shuangcheng Farm, Shanghe Farm, Xinle Farm, Shangzhi Farm, Hengshui Farm I, Hengshui Farm II and Tangshan Farm, etc., led and supported the forage cultivation of nearly 6,500 farming households in the neighbourhoods, increased the land cultivation by more than 200,000 mu, and purchased a total of more than 650,000 tons of silage, which helped farmers to increase their income, continued to develop the mode of industrialised cultivation of the local crops, enriched the types of local industries and contributed positively to the prosperity and stability of the community.



- Shuangcheng Farm purchases about 130,000 tonnes of silage, driving approximately 4,500 farming households to engage in forage planting.
- Xinle Farm purchased 110,000 tonnes of silage, driving the surrounding forage planting and increasing the income of local farmers.
- Shangzhi Farm purchased 59,000 tonnes of silage, driving more than 2,000 farming households to engage in forage planting of more than 20,000 mu.



"Ten Thousand Enterprises Revive Ten Thousand Villages" activity visit

### ► Knowledge Benefiting People

In June 2023, Baoji Farm of Modern Dairy held the "Ten Thousand Enterprises Revive Ten Thousand Villages" helping and condolence activities, using technology to guide farmers to formulate breeding preventive and control measures, solving farmers' technical problems, and practicing knowledge benefiting people through practical actions.

### ► School-Enterprise Co-operation

In order to improve the education and knowledge skills of the children of farmers and herdsmen around the farm, we unite with Vocational and Technical College of Inner Mongolia Agricultural University, Baotou Light Industry Vocational Technical College, Urad Front Banner Vocational Secondary Specialised School and other colleges and universities to carry out the cooperation between schools and enterprises, and establish the order class to provide internships and jobs for the students, which solves the problems of the local farmers' and herdsmen's children in their further education and employment in poor areas. In 2023, Modern Dairy established close cooperation with Tongliao Vocational College and Xilingol Vocational College, providing students with internship and employment opportunities, creating more than 200 jobs for the surrounding areas, and making positive contributions to driving the employment of township talents.



Group photo of students from Vocational and Technical College of Inner Mongolia Agricultural University of Modern Dairy Industry

### ► Village-enterprise Co-operation

Modern Dairy actively promotes the employment of local villagers, provides jobs for local villagers on a priority basis. In 2023, Modern Dairy promoted the employment of more than 600 villagers in 216 villages and towns. A total of 36 farms were covered, representing 71% of the total number of farms.

Modern Dairy actively promotes the company's employment positions in villages and towns around the farms, and works closely with the village committees to ensure that interested villagers can understand and participate in the recruitment process. In order to make the process more concrete and efficient, We take the following measures:

- Recruitment publicity: Publishing the latest employment information in the villages and towns surrounding each ranch and updating the job vacancies on a regular basis.
- Village committee co-operation: Assigning specialists to establish contact with village committees, and holding regular recruitment briefing sessions to answer villagers' questions about jobs.
- Recruitment process: Simplifying the recruitment process by allowing villagers to submit their CVs and application forms through the village committees, with the farm's HR department being responsible for reviewing and arranging interviews.
- Data statistics: Establishing a transparent data statistics system to record the number of applicants and the final number of villagers employed in each village or town, so as to facilitate the evaluation of the effectiveness of the employment promotion programme.

In May 2023, Hongji Farm No.6 village in the farm of Modern Dairy carried out a Government-Enterprise Co-operation to Support Care Programmes for Households in Difficulty, paying condolences to the disadvantaged local households, offering one-on-one employment guidance and creating job opportunities.



Government-enterprise co-operation to Support Care Programmes for Households in Difficulty



# 05 Health

Modern Dairy insists on protecting the health and nutrition of raw milk, constantly pursues excellent quality, provides quality services to customers, and ensures a comfortable and healthy living environment for cows through systematic whole-chain management. While fully practicing the concept of animal welfare, Modern Dairy effectively improves the output and product quality of dairy cows.





Nutrition and Health

Modern Dairy drives the research and development through scientific and technological innovation and promotes product upgrading and transformation in response to market demand. As one of the first batch of practitioners of the "Quality Milk Project", Modern Dairy continues to increase its investment in R&D and innovation to enhance the nutrition of raw milk products and meet the nutrition needs of different consumer groups.

► Nutrition and Health Enhancement

We are constantly optimizing and expanding the types of raw milk, researching and developing diversified raw milk proteins and producing functional specialty milk. Currently, the raw milk produced by Modern Dairy is enriched with 13 kinds of protein ingredients<sup>36</sup>. We plan to add a ruminal lysine to the raw milk in 2024. At present, the Saibei Farm has initiated the experimental process. We are continuously optimizing the research and development efficiency by tracking the experimental data. We have also responded to the national call for construction of the school milk project by working with the Dairy Association of China to certify Modern Dairy's school milk from over ten farms, so as to provide high-quality, nutritious school milk for teenagers.

In 2023, the Company issued the *Management Measures for A2 Milk<sup>37</sup> Production Process*, which set out detailed requirements for genetic screening, feeding methods and milking process of A2 herds. We have screened the existing herds in each farm for the A2 genotype and established an exclusive A2 herd farm in Shanghe Farm, where the dairy cows are fed exclusively, provided with exclusive dietary nutrition and monitored for welfare provisions. This year, Modern Dairy Shanghe Farm corporation obtained the A2β-Casein Dairy Certification, providing quality assurance for the company's specialty milk.

With the mission of "from one blade of grass to a glass of good milk" in mind, Modern Dairy upholds the philosophy of sustainable development and promotes the organic and sustainable growth of dairy farming. We have built an organic milk farm, planting organic pasture in desert areas and implementing the "Two Concentrations and Six Unifications" mode, which means centralized manure treatment, centralized entry and exit of dairy cows, and unified planting, unified feed, unified service, unified testing, unified digital intelligence technologies and unified epidemic prevention measures, to realize closed-loop management of the whole industry chain. We proactively manage the cultivation process, develop annual planning for organic feed, organic feeding operating procedures and organic management documents, and establish organic management systems that can trace the sources of inputs and enhance herbal health management and prevention. This year, the five farms we invested in obtained European and national organic certifications.



A2 Milk Certification of Modern Dairy (Shanghe Farm Corporation)



Modern Dairy's Organic Product Certifications

Excellent Quality

Adhering to the corporate mission of "raise healthy cows, safeguard each and every drop of milk", Modern Dairy pursues excellent quality of its products and devotes itself to providing customers with excellent services. We are dedicated to producing innovative products, driving business upgrading with technology and joining hands with value chain partners to build a high-quality and sustainable industry chain.

► Product Quality Management

Modern Dairy always prioritizes product quality, pursuing "high quality and high standards" management throughout the production and sales chain. We have established and are continuously improving the quality management system. We conduct product quality certifications, and organize quality-related special activities and internal trainings, attempting to provide excellent services to our customers, continuously enhance the quality and safety management level and strengthen our core competitiveness. As of the end of the reporting period, a total of 31 farms of the Company had obtained the ISO 9001 quality management system certification.



The ISO 9001 Quality Management System Certification of Modern Dairy

Quality Management Guidelines

Treating Customers with Integrity

Establishing service consciousness, meeting customer needs, handling customer complaints in a timely manner, and exchanging customer trust with quality service.

Providing Quality Raw Milk

Enhance the quality of the Company's raw milk to provide customers with the best quality raw milk.

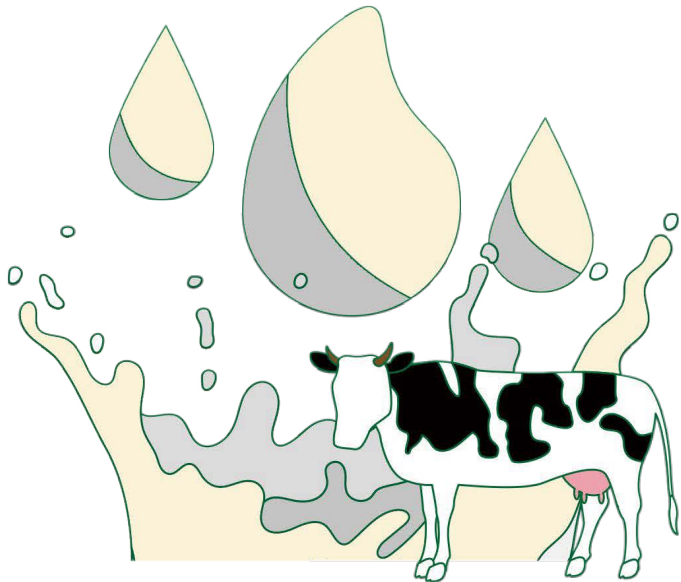
<sup>36</sup> The 13 protein ingredients in Modern Dairy's raw milk include: alfalfa grass, soybean meal, puffed soybeans, rumen bean meal, double-low rapeseed meal, DDGS, brewers' spent grain, sesame meal, spray-on corn husk, pomace meal, rumen methionine, cotton meal and non-protein nitrogen.

<sup>37</sup> A2 milk is a kind of raw milk with A2β-casein type in animal milk.

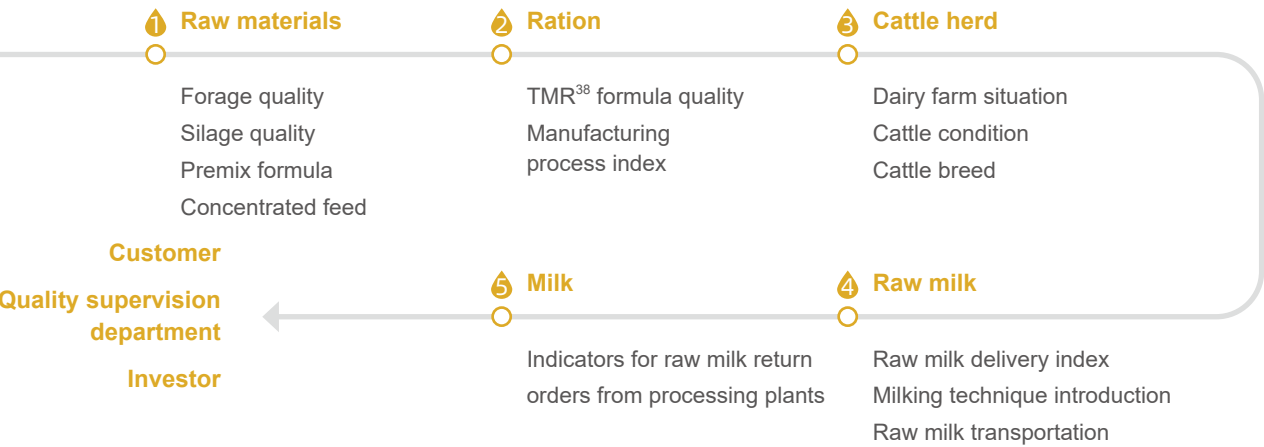
Raw Milk Quality Management

Modern Dairy strictly abides by the laws and regulations such as the *Food Safety Law of the People's Republic of China* and the *Regulations on the Supervision and Management of the Quality and Safety of Dairy Product*. We have established internal standards and systems such as the *Quality and Safety Management System*, the *Sampling and Inspection Method* and the *Inspection Benchmarking Management*. We have also established and improved the quality management system and conducted all-around management for the quality and safety of raw milk. We firmly uphold the brand philosophy of "good cows naturally produce good milk". We strictly control the quality of raw milk products, aiming for a 100% pass rate. To guarantee the quality of raw milk, we require each farm to strictly monitor the production, processing, transport and storage of raw milk.

We have established a whole-process digital traceability process for raw milk quality and safety, which can digitally record every key process of our products from raw materials to raw milk. Modern Dairy always conducts a full-process track on the product when any quality issues are identified. Quality issues include the quality of raw materials, feed distribution, health condition of the dairy herd, milk transportation and other production process. By doing this, we can find out where the problem lies and carry out targeted optimizations and improvements.



Modern Dairy's Whole-process Quality Traceability Flow Chart



<sup>38</sup> TMR (Total Mixed Ration) refers to a nutritionally balanced diet obtained by mixing and blending chopped (kneaded) roughages, concentrates and various nutrient additives in accordance with certain ratios based on the nutritional requirements of ruminants at different physiological stages.

Our raw milk quality management system is as follows:

**Milking process management**

We carry out the raw milk production process according to the internal established standard operating procedure such as the *Production Process Management System* and the *Raw Materials and Additives Management System*, which guarantees a pollution-free environment for raw milk production. Moreover, we clean the raw milk production equipment and verify the cleaning effectiveness in accordance with the annual raw milk testing plan to avoid contamination of the production equipment. We adhere to standardized operational procedures and conduct rigorous disinfection measures during milking to reduce the risk of mastitis in dairy cows.

**Raw milk indicator management**

We have established 14 indicators for raw milk quality. We tested the acidity, somatic cells, microorganisms and psychrotrophs, as well as mastitis milk, to ensure the stability of the raw milk quality. We have also set up a testing station and introduced the Foss MilkoScan equipment<sup>39</sup> to enhance the efficiency and accuracy of our testing work. The testing station can perform intelligent ELISA testing<sup>40</sup> and automated operation procedures for raw milk quality, reducing human intervention and the associated detection biases. We have replaced the previous ultrasonic milk scanner with the Foss MilkoScan and adopted infrared detection principle for assessing milk quality. This upgrading enables a more precise analysis of milk parameters, significantly enhancing the accuracy and sensitivity of our testing.

**Raw milk transportation management**

The Company has established the *Milk Truck Inspection Regulation* to regulate the entry and annual inspections of milk trucks, aiming to prevent quality and safety risks during logistical transportation and storage. During transit, the raw milk is sealed to maintain its original taste, and the entire process is monitored and recorded to ensure compliance with the unpacking and inspection procedures. In addition, the Company rigorously monitors the storage duration of raw milk before it is placed in the warehouse, ensuring that all its indicators meet the required standards for acceptance.

<sup>39</sup> The Foss MilkoScan adopts Fourier transform infrared spectroscopy technology, has a wide range of applicability, can directly detect almost all dairy products, with excellent stability and transmission. The milk sample can be directly tested by the Foss milk composition analyzer without human intervention. The instrument can issue the whole milk parameters within 3 minutes. The detection accuracy and sensitivity of the analyzer are far better than most of the current ultrasonic detection equipment.

<sup>40</sup> ELISA is an immunological detection method commonly used for measuring antibodies or antigens in biological samples, including proteins or glycoproteins.



Feed Quality Management

In order to ensure feed quality, we have formulated the *Planting Management System*, the *Material quality Standard System*, the *Fertilization Management Requirement*, the *Plant Protection Management Requirement* and other systems and requirements to carry out the whole process management of forage planting and feed procurement.

We check the compliance of the purchased feed, and check the feed quality through sensory detection, health index detection and physicochemical indicators<sup>41</sup>, etc., to ensure the health and scientific feeding of cattle.

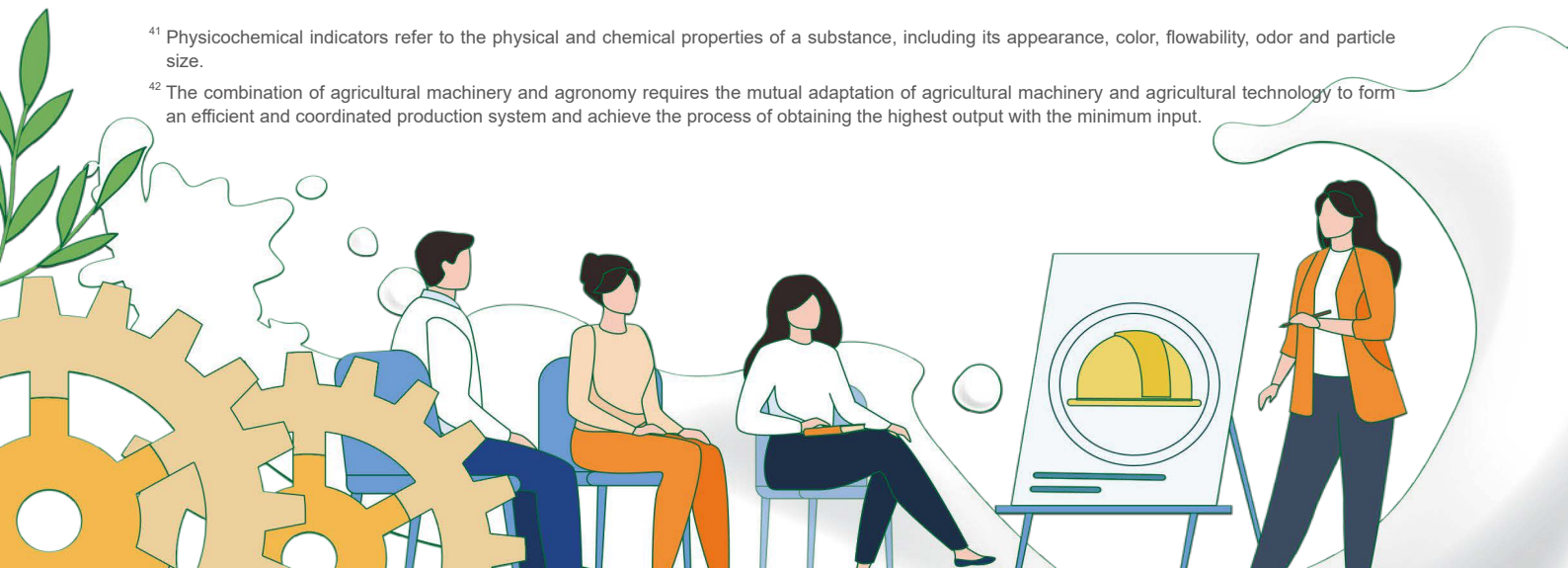
When planting forage, we monitor the quality of forage in terms of land preparation, planting, irrigation, plant protection, harvesting, storage, transportation, etc., and select suitable crop seeds and plant them according to the climate characteristics and land nature of the planting site. We rigorously control the crop protection process, select low-toxicity, low-residue, and easily degradable plant protection products to avoid soil contamination incidents.

We are committed to innovative forage planting models, exploring the potential of multi-category, multi-model planting models to improve crop yield and crop productivity levels. According to the *Guiding Opinions of the State Council on Accelerating the Transformation and Upgrading of Agricultural Mechanization and Agricultural Machinery and Equipment Industry*, we promote the combination of agricultural machinery and agronomy<sup>42</sup>, change the traditional row planting method of farmers, select different sowing methods for different plots, introduce advanced seeder to provide planting services for farmers, improve the uniformity of sowing and seedling preservation density, and enhance land production efficiency. We also actively carry out external innovation cooperation, and jointly promote technological innovation and industrial development of grass industry by establishing close cooperative relations with universities and enterprises.

Case Cooperative practice of forage innovation in Modern Dairy

- 01 Modern Dairy cooperates with Professor Zhang Heping's research group of Inner Mongolia Agricultural University to improve soil quality to increase yield per mu.
- 02 Modern Dairy cooperates with Professor Shen Guoqing's research group of Shanghai Jiao Tong University to explore the methods and technologies of saline-alkali soil improvement.
- 03 Modern Dairy cooperates with Professor Zhang Lijing's research group of Lanzhou University to promote demonstration fields of different forage species.
- 04 Modern Dairy cooperates with Professor Zhang Yingjun's research group from China Agricultural University to promote degraded grassland reseeding technology in Daqing region in 2024.

<sup>41</sup> Physicochemical indicators refer to the physical and chemical properties of a substance, including its appearance, color, flowability, odor and particle size.  
<sup>42</sup> The combination of agricultural machinery and agronomy requires the mutual adaptation of agricultural machinery and agricultural technology to form an efficient and coordinated production system and achieve the process of obtaining the highest output with the minimum input.



Quality Culture Construction

This year, Modern Dairy has carried out a series of themed activities with dairy industry's characteristics, aiming to "enhance consumer confidence and safeguard each and every drop of milk". These activities have promoted the building of corporate quality culture.

Quality culture promotion

We have conducted multi-level, multi-perspective, and multi-form quality education activities in an attempt to create a corporate quality culture atmosphere. We have collected short videos and phrases themed around "quality keeper", "quality stories" and "quality technologies" from different departments, and organized evaluations.

Quality and safety training

We regularly carry out training sessions related to quality and safety, continuously enhancing the professional skills of our employees. In 2023, we carried out key training projects focusing on "Quality and Safety of Raw Milk", "National Regulatory Dynamics and Trends in Key Technical Applications", "Training on Management and Quality Control in Food Testing Laboratories", "Training on Manual Inspection", etc. The training covered all employees at product quality-related positions. This year, we organized a total of 5 offline training sessions and 10 online training sessions on product quality.



Modern Dairy's product quality and safety training sessions

► Excellent Customer Service

Modern Dairy has established internal policies such as the *Product Complaints and Replenishment Management Measures* and the *Raw Milk Sales Management System* to ensure service quality during raw milk sales and to enhance customer satisfaction.

We have defined the conditions for the recall of raw milk products and the procedures for handling customer complaints. In cases where the self-inspected physicochemical indicators are below the acceptance standards of dairy enterprises, or where the food safety indicators (contaminants, veterinary drug residues, hormones, mycotoxins, etc.) exceed the internal control standards, the Company requires the farms to recall the raw milk, analyze the reasons for the non-compliance in raw milk quality, and issue implementation plans for rectification. After the farm makes improvements in response to customer complaints, the farm manager must proactively contact the customer to inform the effectiveness of improvements. During the reporting period, Modern Dairy did not experience any recalls related to product quality.

We continuously strengthen our comprehensive logistics management capabilities, requiring all farms to implement whole-process, all-around and real-time monitoring and tracking of logistics transportation. To avoid unexpected events during transportation, we have developed emergency plans for accidents such as heavy rain and snowstorms, ensuring safe and timely delivery of raw milk.

Modern Dairy values customer feedback and suggestions. We regularly conduct satisfaction surveys to collect feedback from customers regarding product quality, logistics management and customer complaint handling processes in raw milk sales, and make improvements based on the issues raised by customers. This year, we conducted a satisfaction survey of all raw milk customers, and the customer satisfaction rate was 100%<sup>43</sup>. During the reporting period, the Company did not receive any raw milk quality or raw milk sales service complaints<sup>44</sup>.

<sup>43</sup> The "Raw Milk Customer Satisfaction" refers to the proportion of customers who chose "Satisfied" and "Somewhat Satisfied" in the customer satisfaction survey among the total number of participating customers.  
<sup>44</sup> Raw milk quality or raw milk sales service complaints refer to written complaints sent by clients to Modern Dairy regarding raw milk quality or raw milk sales service

Animal Welfare

Embracing the "Five Freedoms Principles"<sup>45</sup> of animal welfare, Modern Dairy is dedicated to ensuring every cow obtains the freedom from hunger and thirst, freedom from discomfort, freedom from pain, injury or disease, freedom to express normal behavior and freedom from fear and distress. We are committed to developing a livestock industry that is resource-efficient, environmentally friendly, quality-assured, and sustainably productive.

Modern Dairy have developed internal regulations including the *Dairy Cow Comfort Management System*, the *Feed Trough Management System*, the *Biological Asset Management System*, and the *Calf Management System*. We have established a standardized farm governance system focusing on the living and behavior welfare, physiological and psychological welfare, and health and safety welfare. We have been continuously optimizing the breeding environment, improving production conditions, and strengthening epidemic prevention measures. We have provided healthy diet, comfortable cowshed, disease prevention, meticulous care and detailed management for cattle. When enhancing animal welfare, we have effectively increased milk yield and product quality. Modern Farming (Shanghe) Co.Ltd. has obtained Farm Animal Welfare Product Certification.



Farm Animal Welfare Product Certification

► Environmental and Behavioral Welfare

Adhering to the principle of creating a better life for cows, Modern Dairy constantly refines the scene of cows' life. We improve the welfare measures in terms of the environment of the barn, the activity space, and the safety of the calves, so as to take care of the growth and health of the cows.

Creating Comfortable Cowsheds

We adhere to international dairy cow welfare principles, insisting on providing dairy cows with comfortable shelters and rest areas. We maintain clean and warm cowsheds to ensure the dairy cows have a comfortable living environment.



Comfortable beds

The farms strictly controls the quality of the bedding material, using eco-friendly materials that meet environmental protection standards for bedding. We regularly clean up manure and check the fluffiness and wear of the bedding materials, promptly refilling and replacing the bedding material as needed.

Adequate lighting

The farms optimizes the interior layout, using natural lighting supplemented by artificial lighting to ensure that lactating cows receive no less than 8 hours of light exposure each day. The indoor lighting level is not less than 180 lux under the cows' visual level, ensuring that the cows receive ample light.

Good ventilation and hygiene

The cowshed controls the ventilation speed throughout the year, and the concentration of ammonia in the indoor air is strictly controlled to be within the standard of <5ppm per cubic meter. The Farm also strictly regulates the cowshed's air temperature, humidity, harmful gases, and total suspended particulates. The farm management personnel conduct regular checks to ensure that the air quality in the cowshed is always good.

Moderate temperature

The Farm is equipped with mechanical ventilation, spray sprinklers, and other cooling devices to help the in the summer dissipate heat and regulate their body temperature in a timely manner. In the winter, the cowshed provides heating lamps, warm air blowers, and windbreak walls among other heating facilities to help the dairy cows stay warm and protected from the cold, ensuring that the cowshed remains warm and comfortable throughout the year.

<sup>45</sup> The principle of "Five Freedoms for Animal Welfare" (Five Freedoms) was proposed by the International Council for Farm Animal Welfare (ICFAW): Firstly, freedom from hunger and thirst, ensuring that animals are provided with the food and water they need to maintain good health and energy; Secondly, freedom from discomfort, providing appropriate housing or shelter so that animals can sleep and rest comfortably; Thirdly, freedom from pain, injury and disease, ensuring that animals are free from additional pain, preventing disease and providing timely treatment for sick animals; Fourthly, freedom to express normal behavior, providing with adequate space, appropriate facilities and company of their own kind; Fifthly, freedom from fear and distress, guaranteeing conditions and dispositions that avoid mental suffering for animals.

Optimizing the Environment of Farms

To minimize harm and restraint for the cattle, the farm ensures that no tethering practices are employed, allowing the cattle full freedom to express their natural behaviors. In addition, to guarantee the cows have adequate rest and exercise, the farms of Modern Dairy take into account the spatial needs of cattle at different stages of growth for lying down, standing, and feeding. Each lactating cow has at least 8 square meters of lying space and a minimum activity space of 10 to 25 square meters. Outdoor exercise areas for dairy cows are thoughtfully planned and provided, ensuring that the activity area is at least 120% of the lying area, to offer cows a more natural, relaxed, and healthy living environment. Farm staff are responsible for keeping the exercise areas dry and pliable at all times and for promptly clearing and draining the areas during rainy weather to prevent conditions such as hoof and limb diseases<sup>46</sup> or mastitis, which can arise from prolonged exposure to wet and muddy grounds.

<sup>46</sup> "Hoof and limb diseases" is a general term for diseases of the limbs and hooves of dairy cows. In dairy cattle breeding, common types of lameness in cattle include wear and inflammation of the fetlock joint, interdigital dermatitis (commonly known as foot rot), and sole ulcers. These conditions are more prevalent during the humid and rainy summer and autumn seasons in dairy farming environments.



Ensuring Calves' Welfare

Modern Dairy abides by the *Calf Management System*, the *Operation and Management Manual for Changing Seasons of Calves*, the *Cold Prevention and Warmth Guidance Plan*, the *Management Plan for Heat Stress*, and other internal systems. We standardize calf feeding management operations, improve the welfare management level of calf feeding, and pay attention to the physical and mental health of calves throughout their growth from calf breeding to new birth and transition.

We care about the welfare of newborn calves and take care of their health. Considering the low immunity of newborn calves, and to prevent the diseases, the farm has set up a special calf island<sup>47</sup> with separate calf waiting pens and Newborn calf temporary storage pens<sup>48</sup>. The calves' living areas and common equipment are sterilized by the farm staff in an all-round way. After the calves are born, the staff uniformly collect the placenta or stillborn calves, which may harbor bacterial parasites, and conducts harmless treatment to prevent bacterial growth. In addition, to reduce the heat and cold stress responses of calves, the farm provides them with protective jackets against the cold, adjusts the orientation of the calf island in time during the change of seasons, and uses thermal insulation materials to cover the calf pens to protect them from cold wind, rain and snow.

We pay attention to the physical and mental development and healthy growth of calves by strictly regulating calf feeding operations, implementing gradual weaning, and transferring and grouping management.

Standardized feeding

Gradual weaning

Group management

The farms standardize the calf feeding operation before weaning, strictly control the sampling and storage requirements of pasteurized milk<sup>49</sup>, and has established a specialized department to be responsible for assisting in the inspection of bacterial colony indicators to ensure the quality of milk fed. We standardize the cleaning procedures from the selection of feeding buckets to the cleaning of pasteurizer, to avoid interruptions in the normal development and healthy growth of calves due to irregular feeding operations.

To avoid weaning transition stress<sup>50</sup> during calf growth, we adopt a gradual weaning method during feeding, using custom-formulated milk replacer powder<sup>51</sup> to gradually replace breast milk feeding, and gradually increasing the proportion of solid feed as the calves grow to help them complete the weaning transition. After weaning, the calves will continue to be raised in the calf island for one week to prevent stress reactions and allow the calves to fully adapt to solid feed.

Due to the strong adaptability of the calf groups and the low weaning stress after the transfer, once weaning is confirmed, the farms will transfer calves into groups<sup>52</sup> and feed them in small pens, with an average of 10–12 heads per pen, to promote calf socialization and reduce calf weaning stress. After the calves grow up, the farms will carry out group management according to growth indicators and body size to provide each dairy cow with a larger and more comfortable living space and to better meet the nutritional needs of cows.

<sup>47</sup> "Calf island" is a single-block barn facility for outdoor individual calf rearing, consisting of a box calf barn and fencing, with a "waiting pen" for cows that will show signs of labor, and a "newborn calf holding pen" for newborn calves, in which the rearing staff performs care tasks such as colostrum feeding and coat drying for calves.

<sup>48</sup> "Newborn calf temporary storage pens" is used to store newborn calves, and the breeding staff takes care of the calves in the temporary storage tank, such as colostrum feeding and coat drying.

<sup>49</sup> "Pasteurized milk" refers to milk processed from fresh milk using the pasteurization method, which is a low-temperature sterilization process at about 72-85°C that kills the harmful bacteria in the milk while preserving the nutrients and pure taste.

<sup>50</sup> "Weaning transition stress" refers to a series of physiological and behavioral difficulties of calves that may be triggered by incomplete development of the digestive, endocrine and immune systems, such as disorder of immune system activity and insufficient feed intake, during the transition from breastfeeding to independent living.

<sup>51</sup> The "milk replacer powder" has ingredients similar to that of breast milk, and is rich in lactose, which can help weaned calves to compensate for the lack of lactose from breast milk and insufficient gastric acid secretion, thus protecting the intestinal tract of calves, and helping them to relieve weaning stress.

<sup>52</sup> "Transfer calves into groups" refers to the process of transferring calves from a single pen in the calf island to a whole group in the weaning barn after the transition from the lactation stage to the weaning stage.

► Physiological and Psychological Well-being

Modern Dairy always adheres to the welfare principle of "Caring for Animals" and strictly implements the relevant requirements of the *Production Operation Management System of the Veterinary Department*. Through scientific breeding methods, customized nutritional formulations, and precise feed delivery, Modern Dairy pays great attention to the physical and mental health of the animals, and takes care of the emotional state of the animals while helping them to thrive, striving to provide both the physiological and psychological welfare for dairy cows.

Balanced Dietary Nutrition

Modern Dairy focuses on dairy cow nutrition solutions. We balance feed taste and nutritional energy to increase the appetite and feed intake of dairy cows and meet the nutritional needs of dairy cows at each growth stage.

We use AMTS dairy cow formula management software, the latest pasture nutrition model software developed based on Cornell's net carbohydrate and net protein system (CNCPS6.5), to conduct chemical analysis based on feed ingredients, plant cellular components, and ruminant digestion to diagnose the dietary energy-nitrogen balance<sup>53</sup>, reduce the excretion of nitrogen and phosphorus by dairy cows, and scientifically customize a balanced nutritional formula that is more conducive to animal health.

<sup>53</sup> "Dietary Energy-nitrogen Balance" refers to the equilibrium between energy and nitrogen (a component of protein) in an animal's diet, which is the appropriate ratio of energy and protein required for optimal growth, production and health of ruminants.



Customized nutrition

We assign dairy nutritionists in each farm. On the basis of the formula issued by the Nutrition Department, the nutritionist takes into full consideration the differences in the basic conditions and nutritional requirements of various types of dairy cows at different stages, in different regions, in different breeds, and in different physiological conditions, and proportions the ingredient list according to the growth characteristics of cows, and reasonably mixes the concentrate and roughage to give full play to the nutrient combining effect of different raw materials and to ensure that the ingredients contained in the formula meet the needs of cows at various stages of growth, thus producing a comprehensive and balanced nutritional TMR (Total Mixed Ration).

Precise Feed Delivery

The farms strictly implement the feeding process, and ensure uniform mixing, no agglomeration, no foreign matter and no mildew. We use mechanical mixer trucks to mix uniforms all together and transport the daily feed down to each farms. The farms specify the feeding time of the Feeding Department to each farm, and stipulate that the feeding time range of lactating cows and non-lactating cows should be within 20 minutes and 30 minutes, to ensure that the daily feed can be delivered punctually, on time and accurately. In addition, the farms rigorously controls feeding duration, feed distribution points, and the width of the feeding passage for the herd to improve feeding efficiency and the feeding experience of dairy cows.

Safe drinking water

We have established emergency water sources on the farm to ensure 24-hour availability of an adequate water supply. The water temperature is consistently maintained above 15°C, and we regularly assess water quality according to human drinking water standards to ensure that the cows have access to clean and safe drinking water.



Protect Physical and Mental Health

Modern Dairy farming adheres to the welfare principle of "freeing animals from pain and fear", and has formulated and issued the "Veterinary Department Production Operation Management System" to ensure that employees maintain gentle operations during milking and feeding, and prohibit any malicious harm such as forcing the cattle to stand up quickly or shouting loudly which causes fear in the cattle. For actions that violate the care for animals, the farm will punish according to the relevant policies and regulations.

In aspects involving contact with animals, to help employees better practice the concept of animal welfare, the farm regularly conducts animal welfare training for breeding staff. All employees in contact with the dairy cows in the farms must strictly follow standard procedures and receive professional training, such as training on milking operation procedures, detection of mastitis<sup>54</sup> and detection of other abnormal nipples to ensure the ability to promptly identify animal welfare risks, master relevant emergency response capabilities, understand the physiological and psychological habits of dairy cows, to achieve minimal stress breeding of dairy cows.

Case

Conducting Employee Skill Training to Improve Cow Comfort

In 2023, the Xingle Farm of Modern Dairy actively organized two sessions of animal welfare skill training. The training primarily focused on how to reduce the incidence of diseases such as mastitis and hoof and limb disease in dairy cows, continuously improve cow comfort, increase dairy cow feed intake, and ensure the health and robust growth of the dairy cows.

A photograph of a training session. A group of people are seated in a room, facing a large screen. The screen displays a video of cows in a barn. A man is standing at the front of the room, possibly presenting. The room has a green banner at the top that reads "现代牧业'技术100'专班第三期培训".

Conducting animal welfare training

In the aspect of animal transport, to minimize animal transport fatigue as much as possible, we require that transport vehicles maintain a steady speed of less than 80 kilometers per hour to avoid emergency braking. Additionally, we appoint onboard supervisors for each vehicle or a group of vehicles traveling together to check on the dairy cows for any signs of slipping every two hours. During cattle transportation, we equip the cattle transport vehicles with ventilation systems to ensure a minimum airflow of 60 cubic meters per kiloton of effective load per hour. This device can operate independently for at least 4 hours. The vehicles are also equipped with temperature monitoring devices and alarms to alleviate the discomfort that cattle may endure under transport conditions.

<sup>54</sup> "Mastitis" generally refers to an infection caused by the invasion of infectious bacteria into the udder of dairy cows. "Detection of mastitis" refers to the detection and verification of cow mastitis through standardized milk testing, DHI report, hidden mastitis detection, which is helpful for confirmed cows to get timely treatment.



► Health and Safety Welfare

Modern Dairy adheres to the epidemic prevention concept of "prevention first, prevention is more important than cure", and continuously improves the *Management System on Epidemic Prevention*, the *Biosafety Treatment Regulations for Diseased Animals and Diseased Animal Products* and other related internal policies. While realizing the intensive and large-scale development of the dairy farming industry, we promote the standardization and systematization of dairy cattle epidemic prevention.

Dairy Cow Safety and Epidemic Prevention

In Modern Dairy, before selling cattle from the farms, there must be a withdrawal period during which the animals are not treated with medication. The farm must also declare quarantine to the local animal health supervision agency to ensure compliance before allowing the cattle to leave. For deceased cattle or those with unknown causes of death, if they are found to carry diseases through examination by animal in spection agencies, the farm strictly follows environmental assessment requirements to carry out harmless disposal.

Epidemic prevention plans

All farms are required to formulate immunization plans for zoonotic diseases, foot-and-mouth diseases, bovine epidemic diseases and other epidemic diseases on a regular basis every year according to the conditions of their regions;

Full vaccination

The farm regularly conducts monthly initial vaccination<sup>55</sup> for calves up to 4 months of age and re-vaccination for calves up to 5 months of age, and 3 times a year for whole herds of over 6 months of age (avoid immunizations in June, July and August when heat stress occurs);

Daily health check

We assign veterinarians to conduct daily inspection and care for the health of dairy cows in each farm, and conduct routine inspections such as patrolling, care of newly born cows, mastitis treatment and disease treatment. The lameness rate and the mastitis incidence rate are strictly monitored to be below 10%, so as to ensure the health of dairy cows;

Diseased animals treatment

The farms have developed Bio-safety Handling Procedures for Diseased Animals and Diseased Animal Products to deal with sick and dead cattle in a compliant manner, and adopts humanitarian euthanasia for cattle in serious conditions, to minimize the pain and anxiety experienced by the animals before they lose consciousness. Animal carcasses and related animal products are incinerated in a non-hazardous treatment plant recognized and regulated by the local government.

Emergency management

We have formulated the internal emergency plans and systems for major dairy cow epidemics, which have established a sound management mechanism in response to sudden epidemics, and clarified responsibilities and disposal procedures. For cows that die during the sale, the Company will immediately recall and carry out harmless and compliant treatment to effectively control the expansion of the risks and maintain public health and safety.

During the reporting period, Modern Dairy has consistently strengthened its epidemic prevention efforts, upgraded technological capabilities, reduced the risk of cattle diseases, and improved the overall health status of dairy cows.

<sup>55</sup> Newborn calves need to be vaccinated twice to develop sufficient antibodies to prevent disease. The "initial vaccination" is the first vaccination given to calves at 4 months of age, and the "re-vaccination" is the second dose of the same vaccine given to calves at 5 months of age.

Animal Welfare Key Performances of Modern Dairy

Indicator	Unit	2023
Lameness rate <sup>56</sup>	%	0.45
Mastitis incidence rate <sup>57</sup>	%	1.35
Culled cattle quarantine rate <sup>58</sup>	%	100
Foot-and-mouth disease vaccination coverage in dairy cows <sup>59</sup>	%	100

<sup>56</sup> The formula for "Lameness rate" is the total number of adult cows with lameness / total number of adult cows.  
<sup>57</sup> The formula for "mastitis incidence rate" is total number of adult cows with mastitis / total number of adult cows.  
<sup>58</sup> The formula for "Culled cattle quarantine rate" is the number of cull cows actually quarantined / the number of cull cows that should be quarantined.  
<sup>59</sup> The formula for "Foot-and-mouth disease vaccination coverage in dairy cows" is the total number of cows vaccinated against foot-and-mouth disease / the total number of cows.

Control of Antibiotic Use

Modern Dairy has formulated the *Management System on Disease Diagnosis and Treatment*, avoids antibiotic use to the maximum extent possible and set clear guidelines for the use of antibiotics, strictly regulating the use of antibiotics only for the therapeutic purposes of diseased cattle and strictly supervising veterinary medication, recording and tracking antibiotic use data. We have also taken active measures to prevent epidemics by strengthening vaccination and health monitoring of cattle to reduce the likelihood of the need for antibiotics due to disease in cattles. During the reporting period, the antibiotic use rate<sup>60</sup> of Modern Dairy was 5%.

For cattle treated with antibiotics, we manage sick cattle individually and strictly implement antibiotic residue testing to confirm that there are no antibiotic residues in recovered cattle. At the same time, we strive to conduct research and testing of antimicrobial-free medicines, develop antibiotic alternatives to reduce our reliance on antibiotics. In addition, we continue to improve feed quality by increasing probiotic intake and reducing stocking density<sup>61</sup> to enhance the natural immunity of cattle, effectively reduce the occurrence of diseases, and reduce the potential demand for antibiotics.

In 2023, Modern Dairy was awarded the honor of "Demonstration Farm for the Promotion of Veterinary Antimicrobial Drug Reduction Technology" by the Shaanxi Provincial Center for Animal Disease Prevention and Control and the title of "Veterinary Antimicrobial Drug Reduction Standard Farm" by Anhui Provincial Department of Agriculture and Rural Affairs.



"Demonstration Farm for the Promotion of Veterinary Antimicrobial Drug Reduction Technology" by the Shaanxi Provincial Center for Animal Disease Prevention and Control



"Veterinary Antimicrobial Drug Reduction Standard Farm" by Anhui Provincial Department of Agriculture and Rural Affairs

<sup>60</sup> The formula for "antibiotic use rate" is total number of cows treated with antibiotics / total number of cows.  
<sup>61</sup> "Stocking density" is the number of cows per pen as a percentage of the number of cows bedded.

Appendix: HKEX ESG Reporting Guide Index Table

Requirements, Subject Areas, Aspects, General Disclosures and Key Performance Indicators (KPIs)		Location in Report or Notes
Mandatory Disclosure Requirements		
Governance Structure	A statement from the Board containing the following elements: (i) a disclosure of the Board's oversight of ESG issues; (ii) the Board's ESG management approach and strategy, including the process used to evaluate, prioritize and manage material ESG-related issues (including risks to the issuer's businesses); and (iii) how the Board reviews progress made against ESG-related goals and targets with an explanation of how they relate to the issuer's businesses.	ESG Governance
Reporting Principles	A description of, or an explanation on, the application of the following Reporting Principles (materiality, quantitative, balance and consistency) in the preparation of the ESG report	Reporting Principle
Reporting Boundary	A narrative explaining the reporting boundaries of the ESG report and describing the process used to identify which entities or operations are included in the ESG report. If there is a change in the boundary, the issuer should explain the difference and reason for the change.	Reporting Scope
"Comply or explain" Provisions		
A. Environmental		
Aspect A1: Emissions		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	"Dual- carbon" Project  Reducing Pollutant Emissions
KPI A1.1	The types of emissions and respective emissions data.	Waste Emissions KPIs of Modern Dairy
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions and, where appropriate, intensity (e.g. per unit of production volume, per facility).	GHG Emissions KPIs of Modern Dairy
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Waste Emissions KPIs of Modern Dairy
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Waste Emissions KPIs of Modern Dairy
KPI A1.5	Description of emissions target(s) set and steps taken to achieve them.	"Dual- carbon" Project
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, and a description of reduction target(s) set and steps taken to achieve them.	Reducing Pollutant Emissions

Requirements, Subject Areas, Aspects, General Disclosures and Key Performance Indicators (KPIs)		Location in Report or Notes
Aspect A2: Use of Resources		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	"Dual- carbon" Project  Sustainable Operations
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. Electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Dual- carbon" Project
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Sustainable Operations
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	Dual- carbon" Project
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency target(s) set and steps taken to achieve them.	Sustainable Operations
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	No material relevance to the Group's business
Aspect A3: The Environment and Natural Resources		
General Disclosure	Policies on minimizing the issuer's significant impact on the environment and natural resources.	Dual- carbon" Project  Circular Agriculture and Animal Husbandry Biodiversity
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Dual- carbon" Project  Circular Agriculture and Animal Husbandry Biodiversity
Aspect A4: Climate Change		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	Addressing Climate Change
KPI A4.1	Description of the significant climate-related issues which have impacted, and those which may impact, the issuer, and the actions taken to manage them.	Addressing Climate Change
B. Social		
Employment and Labor Practices		
Aspect B1: Employment		
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Employee Well-being
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	Employee Well-being
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	Employee Well-being



Requirements, Subject Areas, Aspects, General Disclosures and Key Performance Indicators (KPIs)		Location in Report or Notes
Aspect B2: Health and Safety		
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to providing a safe working environment and protecting employees from occupational hazards.	Employee Well-being
KPI B2.1	Number and rate of work-related fatalities occurred in the past three years including the reporting year.	Employee Well-being
KPI B2.2	Lost Days due to Work Injury.	Employee Well-being
KPI B2.3	Description of occupational health and safety measures adopted and how they are implemented and monitored.	Employee Well-being
Aspect B3: Development and Training		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Employee Well-being
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	Employee Well-being
KPI B3.2	The average training hours completed per employee by gender and employee category.	Employee Well-being
Aspect B4: Labor Standards		
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to preventing child and forced labour.	Employee Well-being
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	Employee Well-being
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Employee Well-being
Business Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Sustainable Procurement
KPI B5.1	Number of suppliers by geographical regions.	Sustainable Procurement
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, and how they are implemented and monitored.	Sustainable Procurement
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	Business Ethics Sustainable Procurement
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	Sustainable Procurement

Requirements, Subject Areas, Aspects, General Disclosures and Key Performance Indicators (KPIs)		Location in Report or Notes
Aspect B6: Product Responsibility		
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Compliance and Risk Control Product Quality Management
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Product Quality Management
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	Product Quality Management
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Protecting Intellectual Property Rights
KPI B6.4	Description of quality assurance process and recall procedures.	Product Quality Management
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Compliance and Risk Control
Aspect B7: Anti-corruption		
General Disclosure	Information on:  (a) the policies; and  (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to bribery, extortion, fraud and money laundering.	Business Ethics
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	Business Ethics
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	Business Ethics
KPI B7.3	Description of anti-corruption training provided to directors and staff.	Business Ethics
Community		
Aspect B8: Community Investment		
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Community Development Rural Revitalization
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	Community Development Rural Revitalization
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Community Development Rural Revitalization



**China Modern Dairy  
Holdings Ltd.**

中國現代牧業控股有限公司

(Incorporated in the Cayman Islands with limited liability)  
(於開曼群島註冊成立之有限公司)  
Stock Code 股份代號: 1117

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