

# 2022

CHINA SHENGMU ORGANIC MILK LIMITED  
ENVIRONMENTAL, SOCIAL AND  
GOVERNANCE (ESG) REPORT





# About the Report

2022 ESG Report is the seventh annual report of China Shengmu Organic Milk Limited to disclose the information on its environmental, social and governance performance.

## 🕒 Reporting Period

The report highlights our sustainability performance for the period from January 1, 2022, to December 31, 2022.

## 📄 Reporting Scope

The report covers the information of China Shengmu Organic Milk Limited and all of its branches and subsidiaries, which is consistent with the scope of Shengmu's consolidated financial statements.

## 📄 Data Source

Data and cases used in the report mainly come from the official documents, statistical reports, and publicly disclosed sources of China Shengmu Organic Milk Limited.

## ⚙️ Reporting Guidelines

The report is compiled in accordance with the ESG Reporting Guide in Appendix 27 to the *Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited* (hereinafter referred to as the "HKEX ESG Reporting Guide"), including provisions on a "comply or explain" basis and mandatory disclosure requirements therein contained.

## 📄 References to China Shengmu Organic Milk Limited

As used herein, "China Shengmu", "Shengmu", "the Company", and "we" all refer to China Shengmu Organic Milk Limited.



## 📄 Response to the Four Reporting Principles in the HKEX ESG Reporting Guide

**Materiality:** The report shall disclose the materiality matrix of major topics, elaborate the determination process and final results of major topics, and describe significant stakeholders identified targeted measures for stakeholder engagement. For details, please refer to "Stakeholder engagement" and "Identification of material factors" sections in "Sustainability Management".

**Quantitative:** The environmental data disclosed in this Report shall be marked with reference standards, methodologies, and parameters.

**Balance:** The report aims to provide an objective and impartial picture of the Company's performance. Information used comes from internal documents, statistical reports, and publicly disclosed sources (e.g. news coverage) and is presented without any inappropriate modifications.

**Consistency:** Compared with the Company's ESG Report in 2021, there is no major changes in the reporting scope or statistical methods in this report, but the disclosure categories are more refined than required by the HKEX ESG Reporting Guide. For horizontal comparison of ESG data, please refer to corresponding chapters of this report.

## 📄 Accessibility

This report can be read or downloaded on the website of the HKEX or Shengmu's official website. This report is available in Chinese and English. The Chinese version shall always prevail in case of any discrepancy or inconsistency between the Chinese version and its English translation.





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# Message from the CEO

The year 2022 was a year of great importance for the Communist Party of China (CPC) and the country. At the 20th CPC National Congress, a blueprint has been drawn for advancing the great rejuvenation of the Chinese nation, sounding a clarion call for the Chinese people forging ahead on a new journey. The year 2022 was also a challenging year, where the pandemic and climate disasters wreaked havoc across the world; economic recovery was sluggish; energy and food prices were skyrocketing. The world is undergoing profound changes unseen in a century. Nevertheless, sustainable development remains the common pursuit of the international community.

## Green and High-quality Development

Green is the defining feature of high-quality development. Thanks to Shengmu's commitment to maintaining harmony between man and nature and promoting green transition, wonders have been accomplished in green development. By adopting sustainable agriculture practices and minimizing the carbon footprint of our raw milk, Shengmu is pursuing a path of green and high-quality development and doing our part to contribute to a sustainable future.

In 2022, we received the Innovation in Climate Action award from the International Dairy Federation (IDF). This award honored our steadfast commitment to taking action on climate change, combating desertification, increasing forest coverage, creating microclimates and supporting the circular economy. We also completed the questionnaires of the Carbon Disclosure Project on climate change and forests for the first time in 2022 as part of our efforts to identify and respond to risks and opportunities brought about by changes in climate and forest security, reduce GHG emissions, protect forest resources, and move towards carbon neutrality.

## A Top Organic Milk Brand Worldwide

Our mission is "Providing the world's highest quality desert organic milk". We ensure quality control over the whole supply chain, from grass planting to cow breeding to milk processing. We have built the world's first fully organic dairy farming system in the desert, which is lauded as a miracle in the industry. This is a major step towards our vision of developing into a top brand in organic milk industry worldwide.

In 2022, Shengmu Testing Center received the laboratory accreditation certificate from China National Accreditation Service for Conformity Assessment, marking another significant advancement we made in milk quality control. The welfare of animals is paramount in our closed farming system which maintains organic integrity throughout the whole process from growing forage plants to feeding cows. We implement a green agricultural model characterized by high-quality products, high yields, low pollution, and low risks. Our goal is to ensure the quality of dairy cattle and the milk they produce. Our herd size and milk production reached a record high.

## Journey Towards a Win-win, Sustainable Future

Industrial sustainability is conditioned on a thriving industry ecosystem. Joining hands with our stakeholders, we are not alone in the journey towards sustainability. We are committed to creating an industry ecosystem featuring effective synergies and industrial symbiosis and building a community of shared future for

shareholders, strategic partners, suppliers, employees, communities and other stakeholders. International summits and industry events are platforms through which we can influence and empower each other and work together to make our industry ecosystem healthier and more sustainable.

In 2022, we participated in the COP27, where we shared our experience in combining the fight against desertification with the effort to promote circular economy in the Report of China Corporate Action on Sustainable Consumption. We are steadfast in our commitment to protecting our home planet. Other achievements in 2022 include leading the dairy industry in digital transformation and creating the industry's first fully digitalized animal husbandry system; launching the Ace-100 Differentiated Talent Development Program to diversify career paths; supporting many of our employees in both academic and professional development; continuing to work with our strategic partners to build a more sustainable supply chain; issuing panda bonds to raise money to help local farmers and herdsmen increase their income; carrying out village-enterprise cooperation to support rural revitalization.

Moving forward in a new era when China is turning into an agricultural powerhouse, we will continue to expand our leading edge by strengthening our main business, building synergies, improving our corporate culture, reducing costs, increasing efficiency, and unleashing the potential of employees.

Zhang Jiawang, CEO and Executive Director of China Shengmu Organic Milk Limited



# About Us

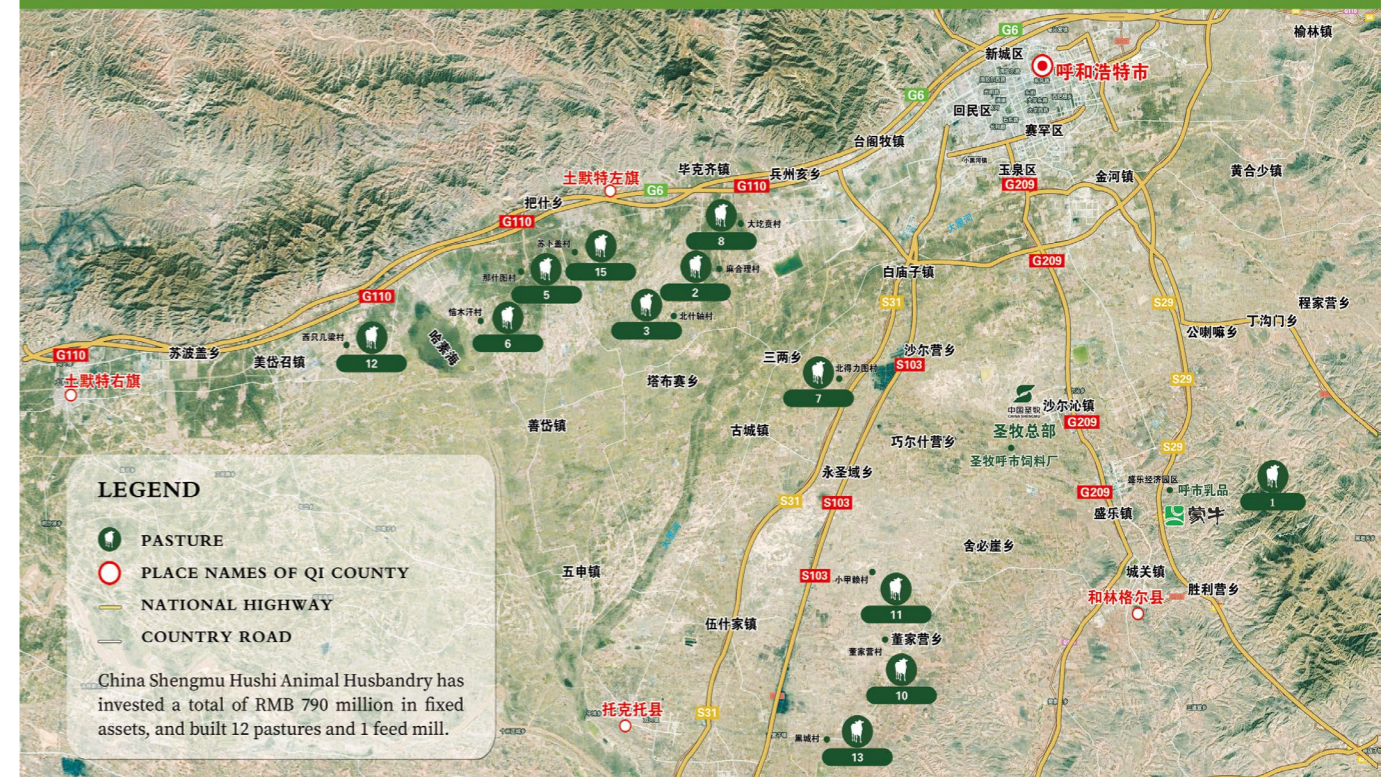
China Shengmu Organic Milk Limited, the largest organic dairy company in the country, produces desert organic raw milk in a circular way integrating planting, and raising. The business covers the entire value chain of the dairy industry, including pasture growing, dairy farming, and raw milk processing. In July 2014, the Company successfully listed on the main board of the HKEX (stock code:1432), becoming the world's first stock in the organic raw milk industry and the first domestic raw milk brand to be certified by organic standards of China and the EU. With the safe milk source base as the core, the Company adopts an organic approach to pasture growing and dairy farming, produces high-quality organic raw milk, and consolidates partnerships with downstream liquid milk product enterprises.

Since its inception, China Shengmu, with the vision of developing into a top brand in the global organic milk industry, has always adhered to the core values of "Integrity, Excellence, Pragmatism, and

Passion." The Company has innovatively combined desert governance with circular agriculture, taken advantage of the favorable geographical conditions and natural environment of the Ulan Buh Desert to improve the ecological environment and develop the sand industry on a large scale, and thus formed an organic industry chain. It has become a pioneer in China's organic circular industry in the desert and the world's largest producer of desert organic raw milk. As the dairy industry speeds its modernization, capital, talent, and other essential resources are rapidly concentrated in the leading enterprises. In the process of industry transformation, China Shengmu has put forward a new development philosophy, adhering to the concept of "Youth, Openness, Reform" and jointly promoting "Sustainable and Common Development" of the industry to build a top brand in the global organic milk industry.



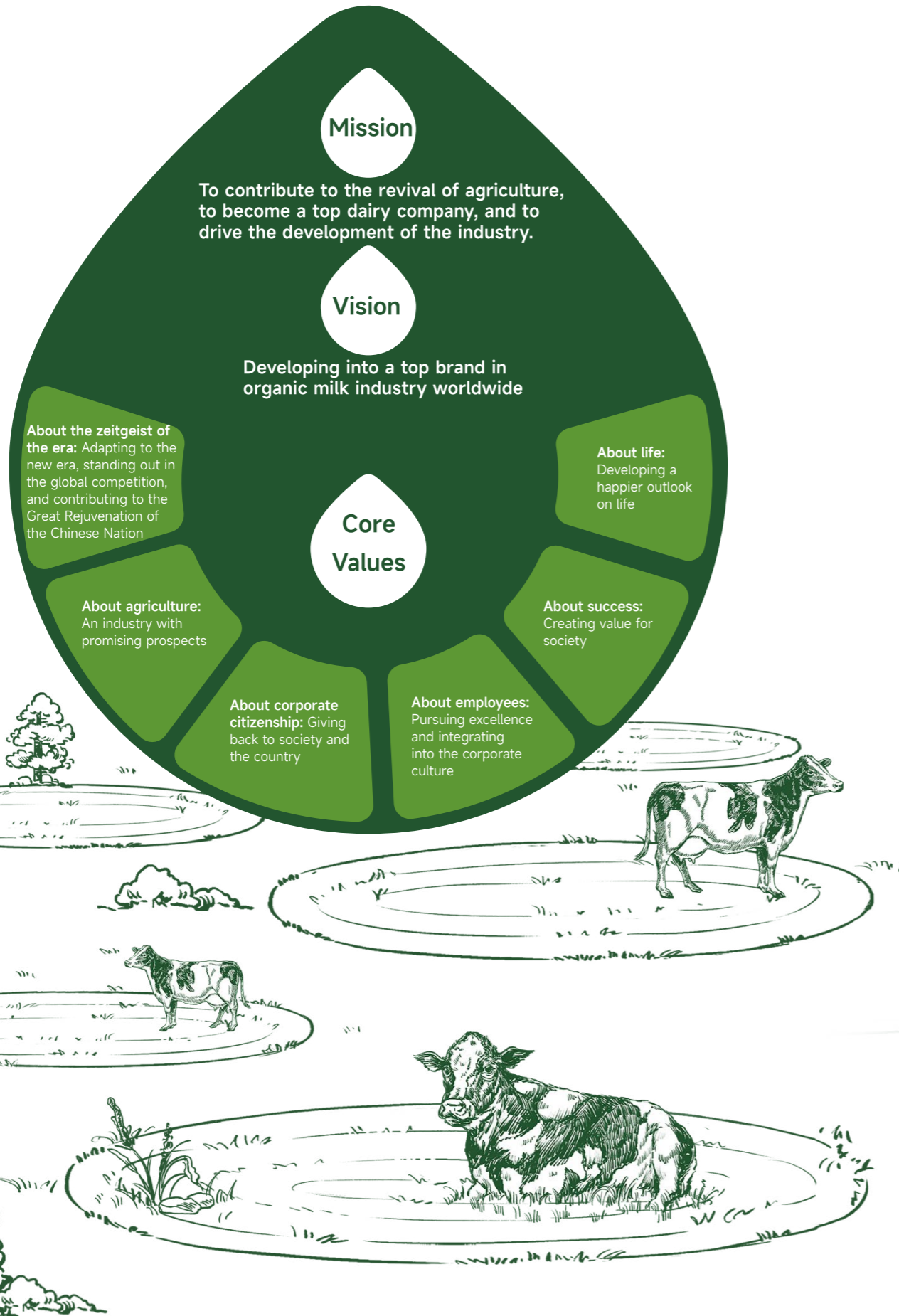
## CHINA SHENGMU HOHHOT ANIMAL HUSBANDRY LAYOUT



## CHINA SHENGMU BAYANNUR ANIMAL HUSBANDRY LAYOUT



# Corporate Culture



# Brand Concept



The logo of Shengmu suits modern aesthetic and the Company's overall image. The combination of "Shengmu Green" and "Natural Green" reflects Shengmu's commitment to promoting harmonious coexistence between man and nature as well as positive interaction between the Company, the natural environment, and the society. It also reflects Shengmu's determination to embark on a path towards organic, eco-friendly, and sustainable development and integrate environmental and economic dimensions of sustainable development.

The upper and lower parts of the logo are like two palms facing each other, reflecting the Company's grand vision for the future. The logo is shaped like the letter S, which is the initial letter of the company name "Shengmu". It also conveys the idea of "spirit", "sustainability", "satisfaction", "sands", "security" and "smile":

The spirit of corporate perseverance demonstrated by Shengmu, a pioneering company based the Ulan Buh Desert.

Sustainability is built into our DNA.

We are committed to producing the world's best quality organic milk to the highest satisfaction of customers.



# Major Achievements in 2022

## Environmental Performance



- Transformed **230,000** mu of desert into high-quality pastures and **220** square kilometers of desert into oasis and planted more than **97 million** trees;
- Won the **Innovation in Climate Action Award** of the International Dairy Federation (IDF);
- Included as a best practice example in **New Nature Economy Report Series** released by the World Economic Forum;
- Included as a best practice example for desertification control in **Sustainable Consumption in China: Businesses in Action** released at COP27 in Sharm el-Sheikh, Egypt; and
- Responding to the Carbon Disclosure Project (CDP) for the first time, **with rating C on the climate change questionnaire and rating B on the forest questionnaire**, leading the livestock industry

## Social Performance



- 14** ranches (including **9** organic ranches) of Shengmu were rated as S;
- 6** ranches of Shengmu (including **5** organic ranches) were certified by China Good Agricultural Practice (GAP);
- 2** testing centers were certified to ISO/IEC17025 by CNAS;
- Lead a group of **5,786** farmers, covering **236,500** mu of forage crops, helped drive an aggregate income increase of **RMB1.5937 million**;
- Supported **377** upstream and downstream partners in the dairy value chain, and won the 2022 Value Chain Management Award;
- Made **RMB6.3 million** worth of cash and in-kind donations to charities, and received a charity award from Inner Mongolia Federation of Industry and Commerce for our support for charities during the pandemic; and
- 40,907** employees participated in online and offline professional and technical training.

## Governance Performance



- Revenue was **RMB3.363 billion**, up **7.8%** year on year;
- The total number of dairy cows on our farms stood at **136,344**, of which **92,075** were organic dairy cows, a year-on-year increase of **15.6%**; the number of non-organic dairy cows was **44,269**;
- The annualized unit yield of adult cattle was **10.5** tons/head, up nearly **2.4%** year on year;
- Built **33** ranches, including **20** organic pastures (including **one** A2 ranch) and **13** non-organic ranches (including **three** DHA ranches);
- Organized **13** training sessions on integrity, compliance, anti-corruption, safety and health;
- Issued the first ultra-short bond with a principal amount of **RMB100 million** in the Chinese mainland, which was the **first corporate social responsibility bond issued in China**
- Occupied a place on the **2022 GoldenBee CSR List** as a **"Leading Example of CSR"** ;
- Our CEO Mr. Zhang Jiawang was named **SDG Pioneer by the United Nations Global Compact**;
- Won the **Digital Innovation Award** at the Digital Services Conference of the STIF2022 International Science and Technology Innovation Festival;
- Won the **2022 Dingge Value Chain Management Award**;
- Received the honorary title **"Leading Company in the Industrialization of Agriculture and Animal Husbandry in China"** ;and
- Received the **Certificate of Excellence** issued by the Hong Kong Investor Relations Association (HKIRA).



# Our Actions to SDGs

We have made an effort to contribute to SDGs by incorporating sustainability management into our organic dairy and desertification control system. We are committed to safeguarding our home planet.

SDGs	SDG targets	Our actions
	1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable  1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance  1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters  1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions	1. Created jobs for the poor and increased local resident income by supporting the development of animal husbandry in Dengkou County, Bayannur City, where the Company is based;  2. Held foundation stone laying ceremony for the Dengkou County Dairy Industry Revitalization Project (i.e., Shengmu Dairy Industrial Park), and built Shengmu Dairy Industrial Park as part of our effort to support rural revitalization; and  3. Issued the first corporate social responsibility bond in China and used the money raised from the short-term bond to purchase forage crops and fodder from farmers and agricultural cooperatives in remote areas with a view to helping low-income groups improve livelihoods.
	2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality  2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries	1. Adopted organic farming practices and increased the use rate of organic fertilizers to improve soil fertility and the drought resistance of crops;  2. Recycled cow manure to produce organic fertilizers and upgraded our manure composting plants to greatly shorten the composting process of organic fertilizers and increase their production efficiency. The processed organic fertilizers can improve aggregate stability and moisture and nutrient retention capacity of sandy soil; and  3. Adopted scientific dairy cattle breeding practices to increase milk production.
	3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all  3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	1. Updated the Safety Management Policy, conducted occupational health and safety training, and took measures to prevent occupational diseases and accidents and protect the health of employees;  2. Promoted employee health by offering annual physical exams and regularly assessed occupational hazards at workplace; and  3. Shengmu is a leading organic milk producer. Our products have high nutritional value, and our raw milk is pollution-free and safe. We provide the best organic milk produced in a desert.
	4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university  4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship	1. Launched the Ace-100 Differentiated Talent Development Program to diversify career paths and improve the leadership and professional skills of our employees; and  2. Encouraged employees to pursue further education and obtain professional certificates or titles, so as to promote the continuous development of the Company and employees.
	5.1 End all forms of discrimination against all women and girls everywhere  5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws  5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels	1. We have eliminated gender discrimination and achieved gender pay equity. The ratio of male to female employees in the Company is 6:4; and  2. Established a women's federation to protect the rights of female employees and increased the proportion of female managers.

SDGs	SDG targets	Our actions
	<p>6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally</p> <p>6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</p>	<ol style="list-style-type: none"> <li>1. Installed a smart water metering system to achieve real-time monitoring of water use through the Internet of Things and prevent waste of water resources; and</li> <li>2. Recycled the waste water of the dairy farms, reduced the use of groundwater, and cut the discharge of biogas slurry.</li> </ol>
	<p>8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors</p> <p>8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value</p> <p>8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms</p> <p>8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment</p>	<ol style="list-style-type: none"> <li>1. We support diversity, equity (including pay equity), and inclusion in the workplace and do not tolerate child labor and forced labor;</li> <li>2. We attach a lot of importance to corporate culture and work to make everyone feel like we are all one big family. We make an effort to enrich the life of employees and support employees and their family; and</li> <li>3. Directly and indirectly created jobs for local residents and increased the annual per capita income of local farmers and herdsmen.</li> </ol>
	<p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>	<ol style="list-style-type: none"> <li>1. Replaced all boilers with air heat source pumps, improved the recycling process of waste heat, and effectively reduced energy consumption;</li> <li>2. Recycled cow manure to produce organic fertilizers and bedding for dairy cows, thereby enhancing the comprehensive value of resources and greatly reducing CO2 emissions; and</li> <li>3. Increased the use of renewable energy, and used electric loaders at pilot ranches.</li> </ol>
	<p>10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status</p>	<ol style="list-style-type: none"> <li>1. We care for ethnic minority employees, respect their customs, and take measures to ensure equal opportunities and treatment for them</li> </ol>
	<p>11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning</p>	<ol style="list-style-type: none"> <li>1. Shengmu has invested RMB7.5 billion in the Ulan Buh Desert, transformed 230,000 mu of desert into high-quality pastures and 220 square kilometers of desert into oasis, and built 193.3 kilometers of roads, 277.9 kilometers of power lines, 11 reservoirs, 9 organic manure composting plants, and one bio-organic fertilizer processing plant.</li> </ol>
	<p>12.2 By 2030, achieve the sustainable management and efficient use of natural resources</p> <p>12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment</p> <p>12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse</p> <p>12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle</p>	<ol style="list-style-type: none"> <li>1. Created the world's first desert-based organic value chain that integrates forage crop cultivation, animal husbandry, and fertilizer production to produce high-quality organic raw milk;</li> <li>2. Engaged third-party providers with hazardous waste disposal qualifications to dispose of our hazardous wastes (sterilization, pulverization, fermentation, etc.);</li> <li>3. Integrated sustainability into our daily operation and took scientific management measures to promote sustainable use of natural resources, reduce pollution, and minimize environmental impacts;</li> <li>4. We regularly disclose our sustainability management strategy, practices and performance by publishing Annual ESG Report.</li> </ol>

SDGs	SDG targets	Our actions
	<p>13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p>	<ol style="list-style-type: none"> <li>1. Effectively controlled desertification, improved local environment and biodiversity, and enhanced the local ecosystem's ability to adapt to climate change by planting trees and building organic pastures;</li> <li>2. Proposed an emissions reduction pathway, released the carbon reduction strategy and action plan, and effectively completed carbon inventories; and</li> <li>3. Completed the questionnaires of the Carbon Disclosure Project (CDP) on climate change and forests for the first time and highlighted our effort to minimize GHG emissions by reducing fossil energy consumption and tapping into the massive potential of deserts in carbon mitigation as well as our effort to protect forest by stepping up soil and water conservation.</li> </ol>
	<p>15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements</p> <p>15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species</p>	<ol style="list-style-type: none"> <li>1. Worked with Bayannur Daily to launch a tree planting event with the theme "Greening the Ulan Buh Desert" at Shengmu Ranch No. 16 in Bayannur;</li> <li>2. Through our relentless work, we have created a regional microclimate in the Ulan Buh Desert. There are now hundreds of species, including national-level endangered species, in the Ulan Buh Desert. In addition to forage crops and medicinal herbs, new varieties of plants such as alfalfa, oats, corn, and dandelions have been proliferating in the once arid areas. Animals frequently seen in the Ulan Buh Desert include lizards, foxes, hares, and gazelles. The oasis in the desert is home to birds such as waterfowl, egrets, and owls.</li> </ol>
	<p>16.5 Substantially reduce corruption and bribery in all their forms</p> <p>16.6 Develop effective, accountable and transparent institutions at all levels</p> <p>16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels</p> <p>16.b Promote and enforce non-discriminatory laws and policies for sustainable development</p>	<ol style="list-style-type: none"> <li>1. We pursue continuous improvement of corporate governance, reinforce our fight against corruption, and strive to build an efficient and transparent governance system.</li> <li>2. Digital technologies have made it possible to manage the flows of information, capital, and goods together. The use of digital technologies has also enabled the horizontal integration of forage crop cultivation, food production, feed production, and pasture management, and helped use standardize, improve, and increase the transparency of internal control.</li> </ol>
	<p>17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries</p> <p>17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships</p>	<ol style="list-style-type: none"> <li>1. We have established close, strategic partnerships with universities and other companies in the dairy industry. We combine strengths with our partners to jointly promote the development of green and organic agriculture.</li> <li>2. We have put in place a mechanism to promote interest alignment and technology sharing with our suppliers. We seek to take supplier collaboration to the next level by providing technical support to our supplier partners and helping them solve financial problems and build organic supply chain.</li> </ol>



# FEATURE

## An Oasis in the Desert

We are committed to preserving biodiversity throughout our value chain, protecting the health of human beings and the planet, and contributing to the SDGs and the 2050 Vision for Biodiversity of living in harmony with nature. We have also actively promoted financial innovation and issued CSR bonds to support rural revitalization as part of our effort to contribute to the well-being of society.

**Over the past decade** at the Ulan Buh Desert, we have:

- invested **RMB7.5 billion**;
- transformed **230,000 mu** (about 153.33 square kilometers) of desert into fine pastures;
- increased the total area of green vegetation in the desert by **220 square kilometers**;
- planted more than **97 million trees**;
- built **193.3 kilometers** of roads;
- built **277.9 kilometers** of power lines; and built **11** reservoirs, **9** manure composting plants, and **1** bio-organic fertilizer processing plant.

**From 2022 to 2025**, we plan to:

- invest **RMB2 billion** in the Ulan Buh Desert; and transform **100,000 mu** (about 66.67 square kilometers) of desert to high-quality pastures.

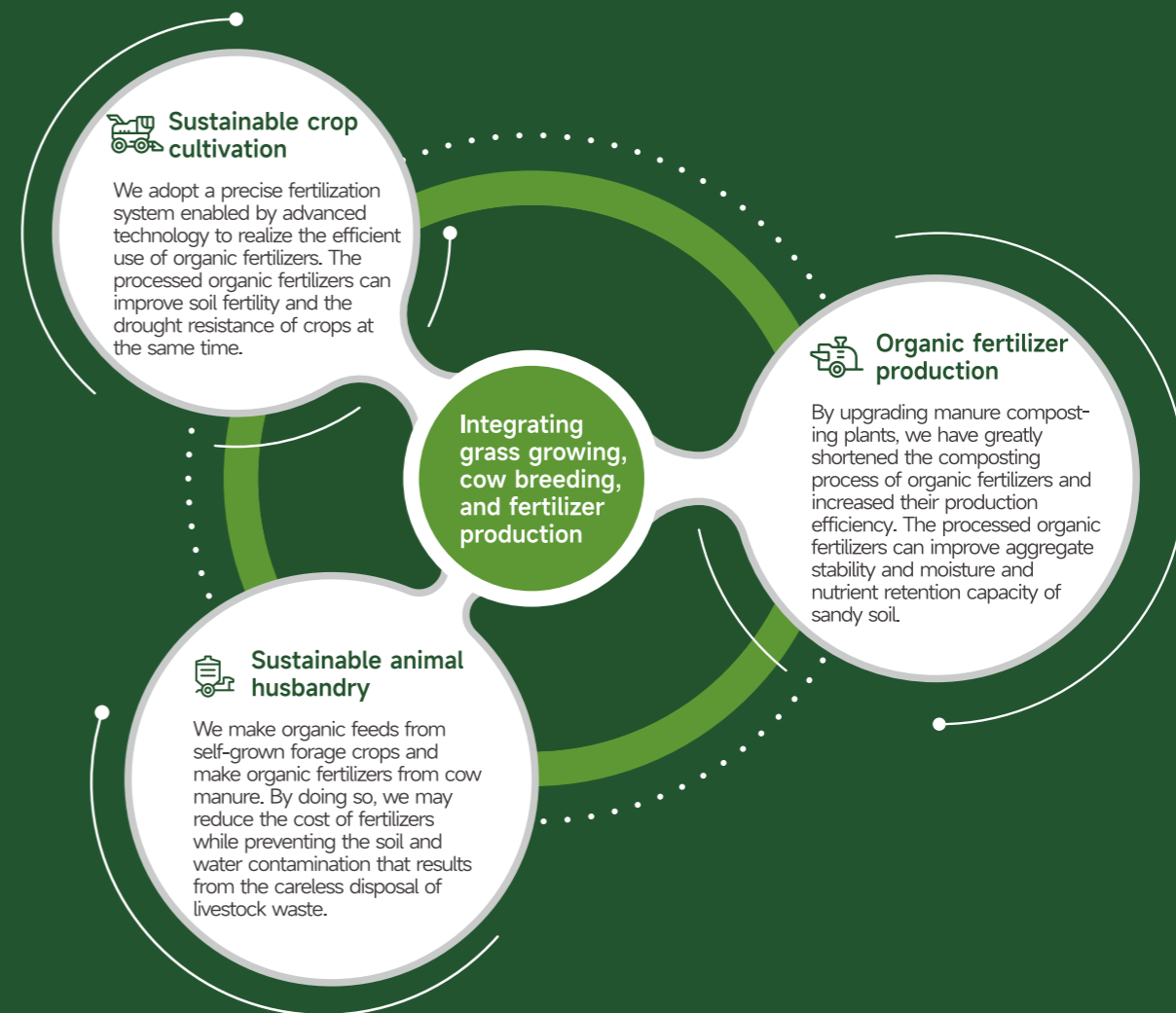
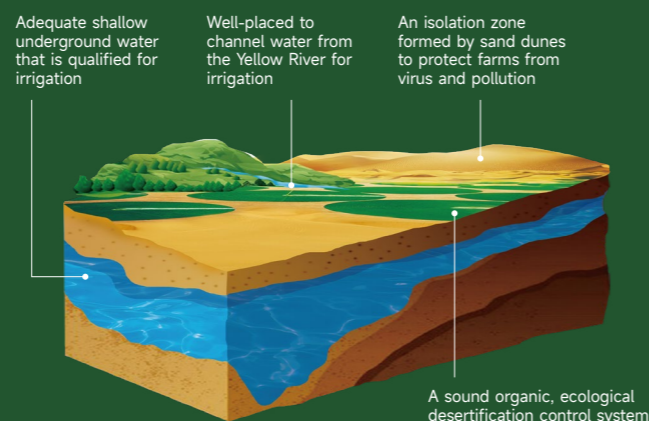
### Integrating Forage Planting and Cow Breeding to Build an Organic Supply Chain in the Desert

The Ulan Buh Desert is located in Bayannur League and Alxa League. Ulan Buh means “red bull” in Mongolian. Land features of the Ulan Buh Desert mainly include sand dunes and desert grasslands. There is almost no canopy in the desert. The soil in the desert is dry and infertile due to the lack of rainfall and is usually a mixture of sand, pebbles and gravel.

Although the natural conditions are harsh, the Ulan Buh Desert has the potential to reduce desertification and achieve transformation. Under the sand layer of the desert, there is a layer of red clay that is more than ten meters thick, which has a stronger water-holding capacity and higher levels of organic matters and nutrients. There are over 200 lakes scattered across the desert, serving as important sources of irrigation water. The desert is also rich in sunlight and its temperature fluctuates greatly between day and night, which is ideal for the growth of forage crops.

We have adopted localized measures to promote sustainable development of agriculture and animal

husbandry. Our cattle herd eat organic feeds made from organic forage crops grown by us. Organic forage is harvested to feed cattle, and their manure is used to maintain and improve soil fertility. We have created the world’s first desert-based organic value chain that integrates grass growing, cow breeding, and fertilizer production. Steps have been taken to ensure the interaction between our value chain and the natural environment is benign. Our way to fight desertification provides a model worth learning and further promotes sustainable development of agriculture and animal husbandry.



## Turning Desert into Oasis

We are dedicated to combating desertification by increasing the coverage of different types of vegetation, including trees (Level 1 protection), shrubs (Level 2 protection), and forage crops (Level 3 protection), and exploring ways to maximize the effectiveness of vegetation to combat desertification.

Bearing in mind the concept that lucid waters and lush mountains are invaluable assets, we hold engaging tree planting activities on a regular basis and encourage employees and their families to actively participate in afforestation campaigns. We want to raise the public awareness of on the benefits of afforestation and get more people to join our effort to turn desert into oasis.

### Case: Tree planting events "Care for every piece of green, with love to protect every drop of milk" organized by Shengmu

We worked with Bayannur Daily to launch a tree planting event themed on "Greening the Ulan Buh Desert" at Shengmu Farm No. 16 in Bayannur. Ninety-seven employees participated in the activity and planted more than 800 trees, including poplar, corkscrew willow, Mongolian Scots pine, willow, and Russian olive. Our employees in Hohhot planted nearly 200 fruit trees in the company's office building area.



Through our relentless work, we have created a regional microclimate in the Ulan Buh Desert. Since 2014, there have been nine heavy fog events in the Ulan Buh Desert. The desert has even experienced a few snowfalls, which are extremely rare, in recent years. Change in regional climate has led to an increase in biodiversity in the desert. In addition to forage crops and medicinal herbs, new varieties of plants such as alfalfa, oats, corn, and dandelions have been proliferating in the once arid areas. Animals frequently seen in the Ulan Buh Desert include lizards, foxes, hares, and gazelles. The oasis in the desert is now home to birds such as waterfowl, egrets, and owls.



- By the end of 2022, Shengmu had planted more than **97 million** trees in the Ulan Buh Desert.
- Compared with that in the 1980s, the amount of solar radiation in the Ulan Buh Desert decreased by **40%-45%**; sand and dust storms decreased by **80%-90%**; average wind speed decreased by **21.41%**; and precipitation increased by **30.36%**. There are now hundreds of species, including national-level endangered species, in the Ulan Buh Desert.



Shengmu won the 2022 IDF World Dairy Innovation Award for Innovation in Climate Action

In September 2022, the inaugural edition of IDF World Dairy Innovation Award for Innovation in Climate Action was launched in New Delhi, India. The award is designed to encourage innovative practices across the global



dairy sector by paying attention to the sustainability of enterprises, including their contribution to environmental protection and innovation in improving the production and processing of milk and dairy products. We are the first winner of this new IDF award. In the award speech, we noted that desert-based milk production is a great practice by Shengmu as a strong competitor in climate change response, reflecting our commitment to fighting against desertification, promoting afforestation, creating microclimates, and developing a circular economy. The award recognized our practice in the Ulan Buh Desert and proved our persistent efforts in improving the desert ecosystem.



Shengmu is included as a best practices example for biodiversity conservation in *The Business Biodiversity Conservation Cases* released during the COP15

In December 2022, the second part of the 15th Conference of the Parties (COP15) of the United Nations Convention on Biological Diversity was held in Montreal, Canada. With the theme of "Accelerating Commercial Action for Biodiversity Conservation in China", the sideline meeting held by the Chinese delegation released *The Business Biodiversity Conservation Cases*. Shengmu's organic dairy farming project in the Ulan Buh Desert is included as a best practices example for biodiversity protection in the report.



## Expanding Oasis to Combat Desertification and Fulfill Social Responsibility

Our solution to desertification involves efforts to maximize the effectiveness of vegetation in protecting soil. We have integrated corporate management with environmental management and created a new model for economic development in desert, which places equal emphasis on ecological and economic sustainability.

- The biological and abiotic resources benefits generated by Shengmu's oasis pastures is valued at **RMB1,459,697,850**.

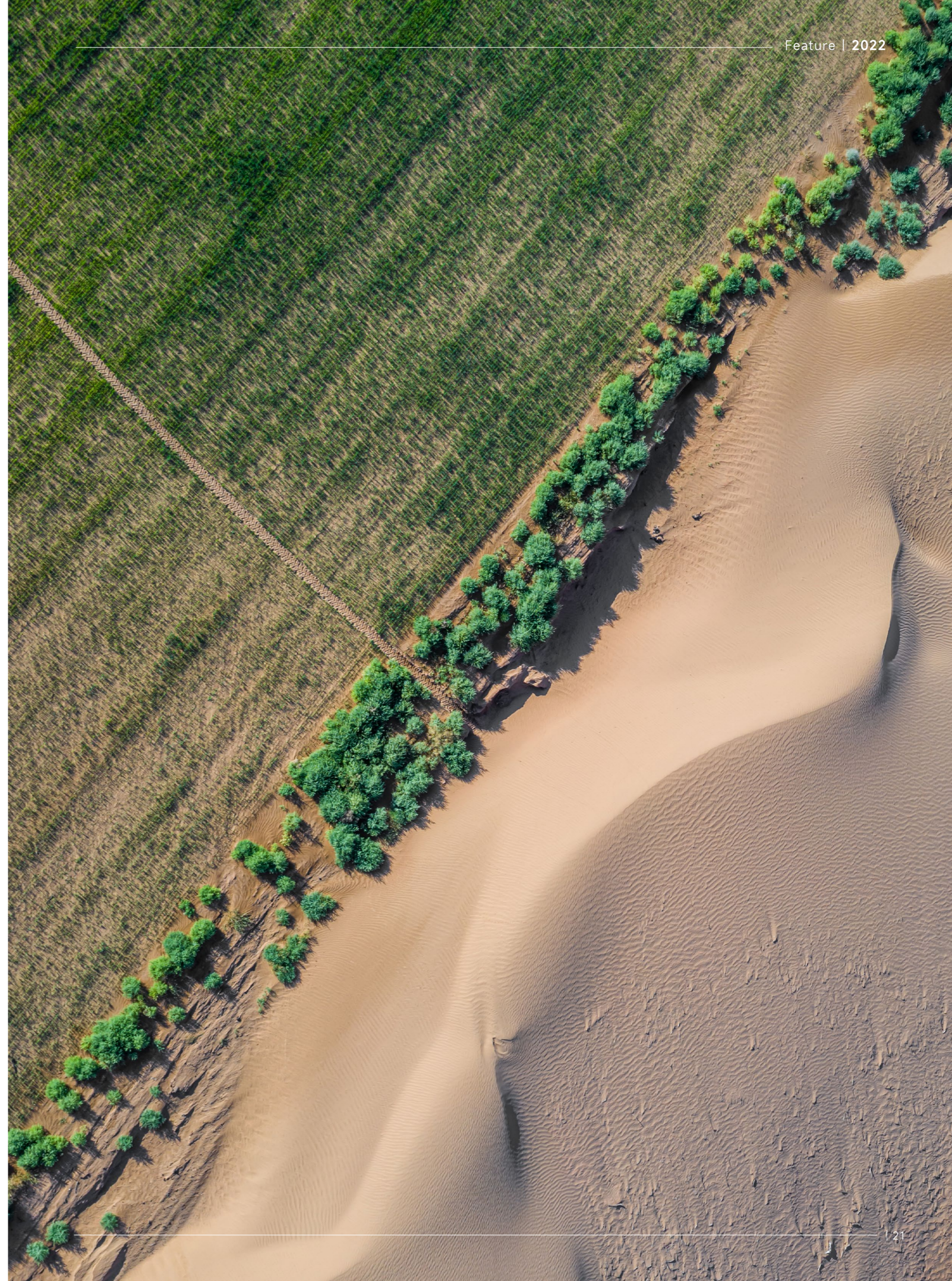
**CASE** Shengmu is included as a best-practice example in the Report of China Corporate Action on Sustainable Consumption

In 2022, the Report of China Corporate Action on Sustainable Consumption was released at COP27 in Sharm el-Sheikh, Egypt. Shengmu is included in the report as a best-practice example in combining the fight against desertification with the effort to promote the circular economy, which showcased the Company's devotion to contributing to SDGs and safeguarding our home planet.



We have always had sustainability at the front of our minds. Our value chain based in the Ulan Buh Desert integrates forage crop cultivation, animal husbandry, and green circular economy. In addition to creating economic benefits, we have also worked to give back to local communities. For example, we have created a microclimate in the region by greening the desert and significantly improved the quality of life of local people. On December 28, 2022, we approved the issuance of the first ultra-short bond with a coupon rate of 3.95% and a principal amount of RMB100 million in the Chinese mainland. This is the first CSR bond successfully issued in China and the first "panda bond" with credit risk mitigation warrant (CRMW) issued by a private company in China.

We understand how important sustainable finance is to achieving our CSR goals. We have established ourselves as an industry leader in CSR by continuously opening up new business areas and achieving breakthroughs that unlock enormous progress in ESG. To help low-income groups improve livelihoods, secure the outcomes of poverty alleviation, and promote rural revitalization, we will use the money raised from the short-term bond to purchase forage crops and fodder from farmers and agricultural cooperatives in remote areas.



**应对气候变化  
共创可持续美好未来**  
可持续消费中国企业行动报告

**案例入选证书**  
Certificate for Selected Case

**中国圣牧有机奶业有限公司**

鉴于贵司的“把‘黄色沙漠’变成‘绿洲银行’”案例既是行业的可持续消费行动标杆、亦对其他行业起示范引领作用，该优秀案例被选入《可持续消费中国企业行动报告》。该报告于2022年11月9日在联合国气候变化大会第27次缔约方会议(COP27)中国角正式发布。

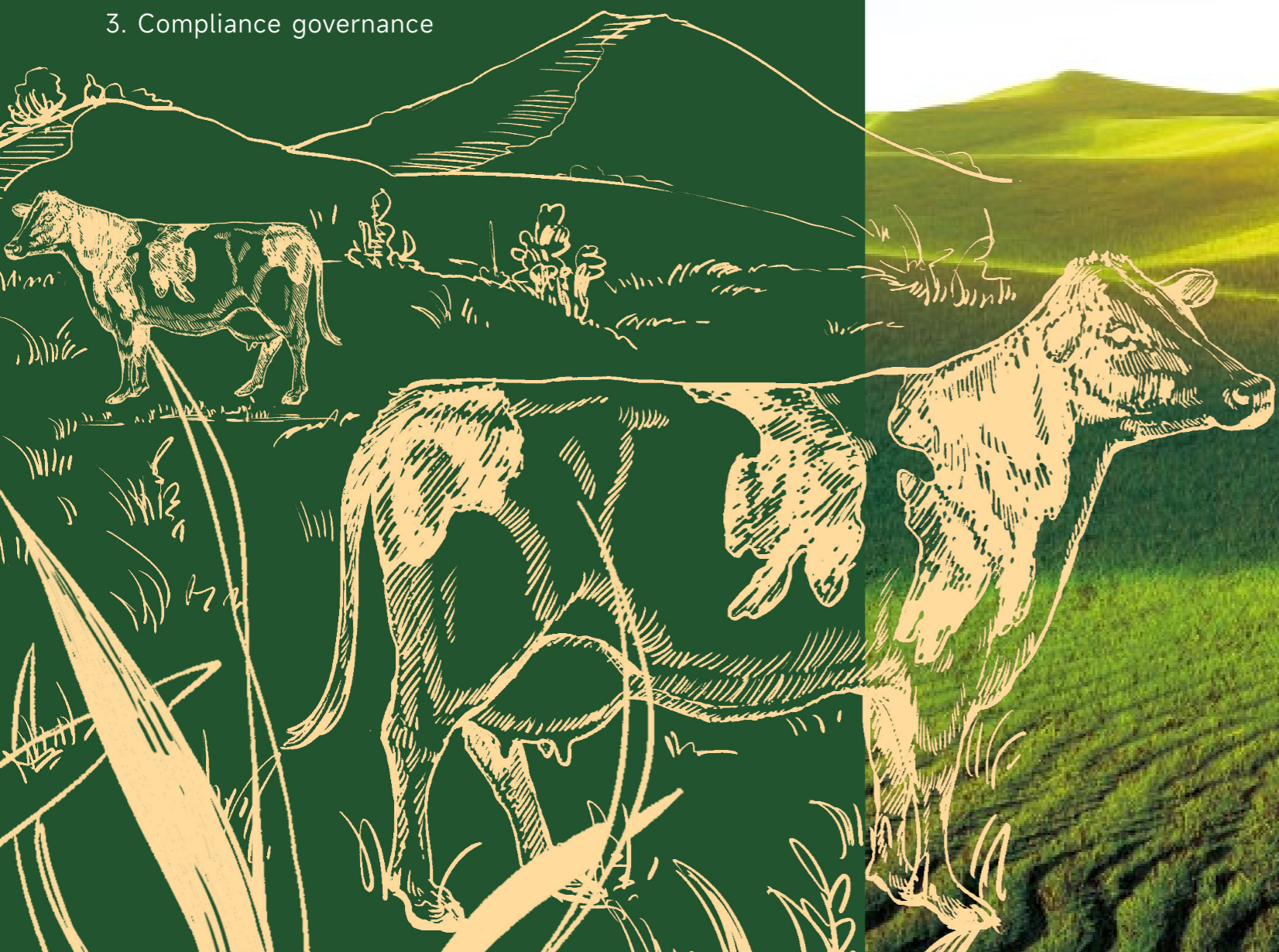
特发此证，以兹纪念。



# Sustainable Corporate Governance

Sustainability is a key focus of Shengmu's corporate governance strategy. We have established an independent, efficient and professional Board of Directors to oversee the implementation of our sustainable corporate governance strategy. We attach a lot of importance to corporate compliance, risk management and internal control, and have taken steps to improve business integrity, accelerate digital transformation, and strengthen the protection of the rights of investors in accordance with relevant laws and regulations. We aim to create a sustainable development model for businesses across the world.

- 1. Sustainability management
- 2. Intelligent corporate management
- 3. Compliance governance



## Our actions and outcomes

We implement a strong sustainability management strategy and strive to meet the expectations of our stakeholders.

We use digital technology, resources and system to link different activities throughout the entire value chain of organic milk production and create an ecosystem where we work together with our value chain partners to generate synergies.

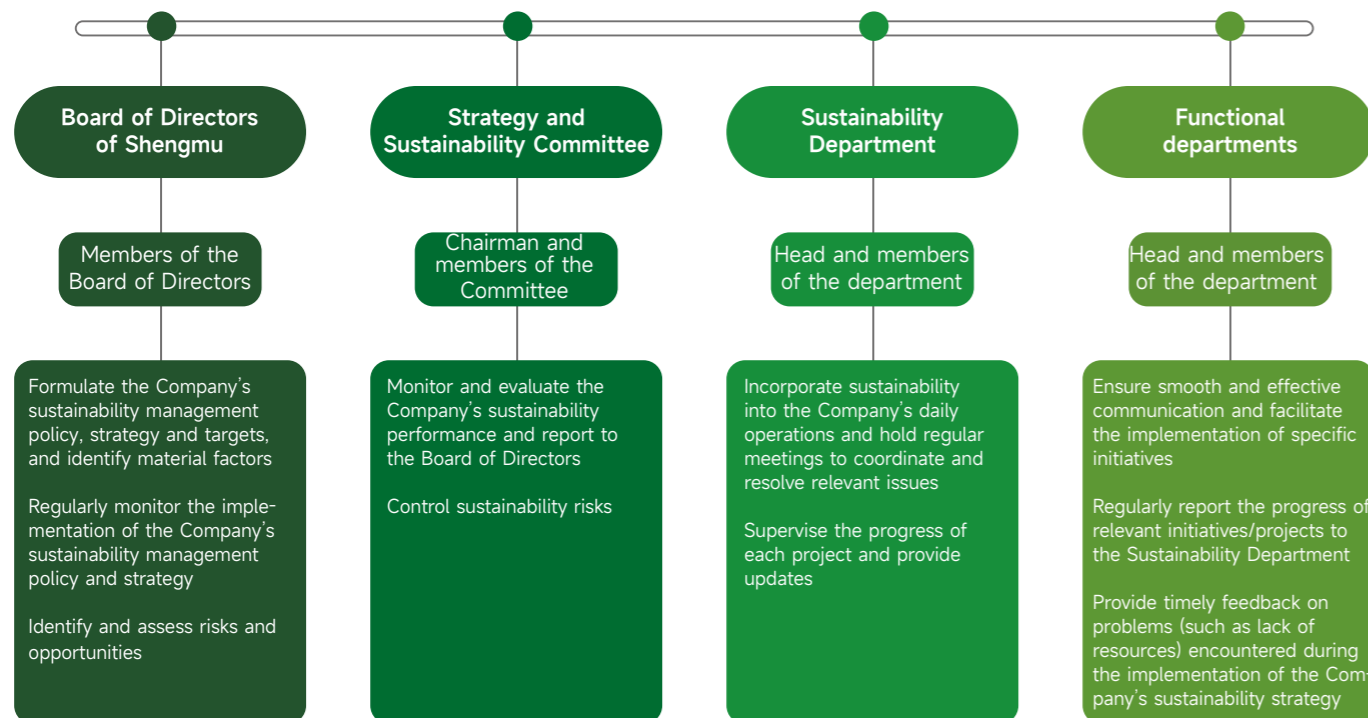
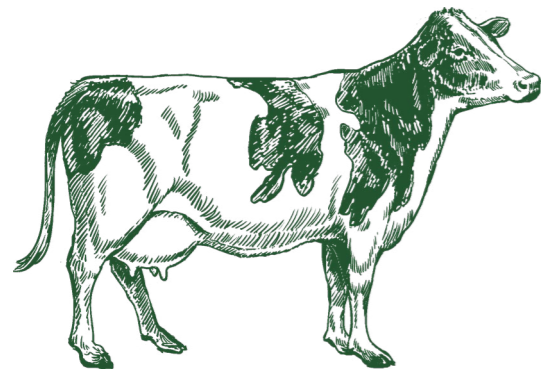
We have put in place an effective compliance governance program, bolstered risk management and anti-corruption efforts, and strengthened the protection of intellectual property rights.

# Sustainability Management

Our sustainability management strategy, guided by SDGs, integrates CSR into our daily business operations. To ensure the optimal allocation of resources and more efficiently drive progress towards SDGs, especially those that best match Shengmu's mission, business model, expertise, and influence, we have established a three-tiered sustainability management structure with the Board of Directors as the highest decision-making body and bolstered stakeholder engagement.

## ✔ Sustainability Management Structure

We attach great importance to ESG risk management and continue to improve our ESG governance structure and management mechanism. In response to our ESG management and business development needs, a Strategy and Sustainability Committee under the Board of Directors has been established.



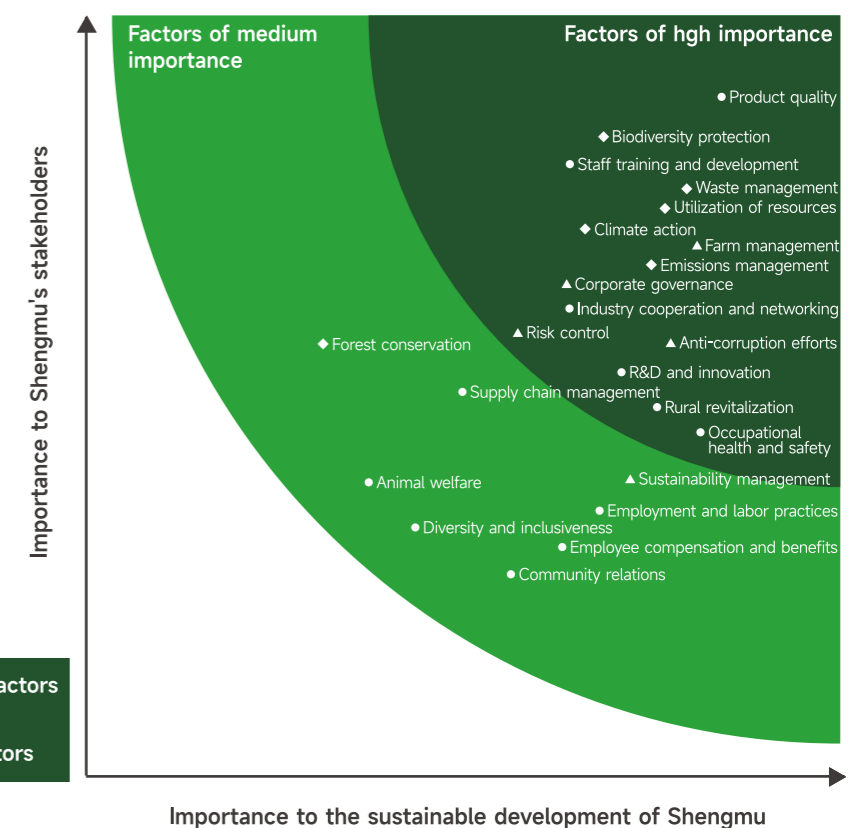
## ✔ Stakeholder Engagement

We have established an institutionalized communication mechanism to keep track of needs and expectations of our stakeholders. We hope to build and maintain positive relationships with our stakeholders through tailored and diverse communication methods so as to timely meet their needs and improve sustainability performance of Shengmu.

Major stakeholders	Major concerns	Means of communication	Response
Shareholders	Sustained and stable return on investment Timely information disclosure Business compliance	Annual general meetings of shareholders Annual reports and corporate announcements	Improve business performance and consolidate the leading position in the industry Disclose relevant company information on a regular basis Improve the internal compliance system
Employees	Career development Compensation and benefits Occupational safety and health	Internal website WeChat official account General Manager's Mailbox Staff meetings	Improve employee recruitment, promotion and other related internal management systems Enrich employees' lives Provide desirable employee benefits
Suppliers	Transparent, fair and open procurement Timely performance of contractual obligations Growth of suppliers and win-win outcomes	Procurement and tendering announcements and information publicity Regular communication of quality requirements Supplier conferences	Ensure transparency throughout the procurement process Ensure timely payment to suppliers Ensure effective communication with suppliers Support the growth of suppliers
Customers and partners	High-quality products and services Customer needs Development of the industry	Customer communication Industry-level exchanges	Strengthen quality control Improve innovation capabilities Promote industry networking
Government	Development of local communities and related industries Compliance Timely payment of taxes in accordance with law	Meetings with government representatives Regular visits Inspection by government officials	Provide jobs and contribute tax revenue Support government supervision and improve the internal compliance monitoring system Comply with laws and regulations
Communities	Development of local communities Charity work	Communication with community representatives Charity and volunteer activities	Maintain close communication with local communities Provide donation and assistance to those in need

## ✔ Identification of Material Factors

This year's ESG factors were selected based on the importance of the factors to Shengmu and Shengmu's stakeholders and after we thoroughly reviewed material factors in 2021, the overall business performance of the Company in 2022, and ESG practices of other companies in the industry. These ESG factors are at the heart of this report. The ESG factors were then ranked by their importance to Shengmu and to Shengmu stakeholders.

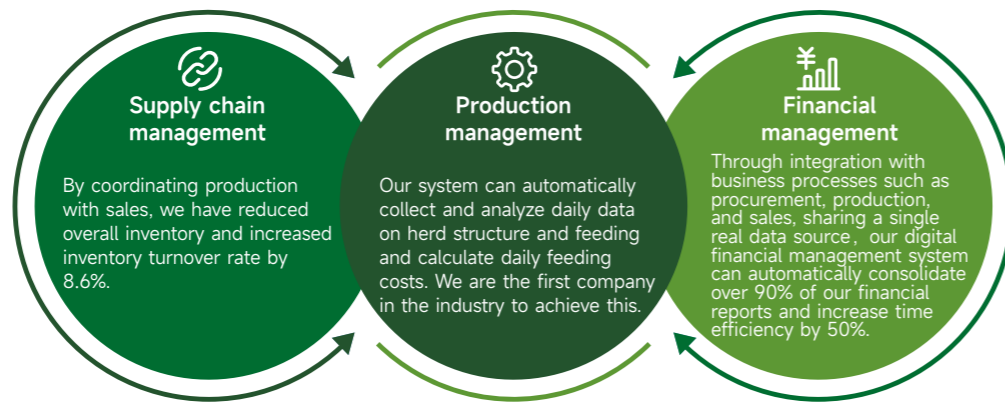


# Intelligent Corporate Management

To support the implementation of our development strategy and intelligent corporate management, we have built an integrated application platform with SAP-ERP as the core, supported by systems in different professional fields. The platform leverages cloud computing, SAP,

RPA, Internet of Things, big data and other technologies to connect different applications, systems, and information islands.

Digital technologies have made it possible to manage the flows of goods, capital, and information together. The use of digital technologies has also enabled the horizontal integration of forage crop cultivation, food production, feed production, and farm management. It has also helped us achieve standardization, refinement, and transparency of internal control. Our digital systems allow us to adopt a customized management and feeding plan for every cow. Shengmu is the first livestock production company to use the ERP system to manage its entire value chain.



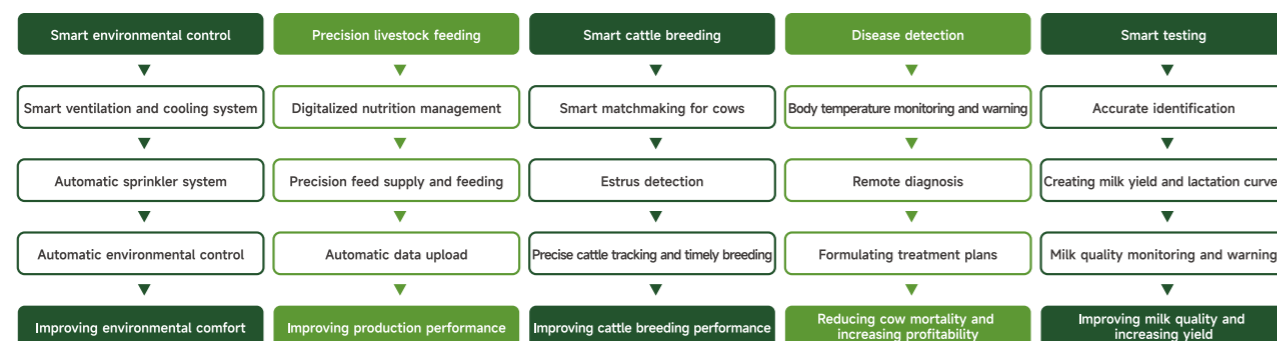
## CASE Digitalization of dairy farming

The Dingge Award is a prestigious award recognizing companies that have implemented successful digitalization strategies. It is as famous as the Ram Charan Management Practice Award, which is the highest recognition of excellent management practices in China.

On November 9, 2022, Shengmu won the 2022 Dingge Value Chain Management Award for the SAP-ERP project (i.e., Shengmu Supply Chain Integration Project). The award was a formal recognition of our exemplary role in the digitalization of cattle farming.



We have worked hard to keep pace with technology change, actively explored innovative development models, and accelerated the construction of smart pastures. We hope our experience in digitalization could potentially help form a digital transformation and upgrading methodology and inspire other companies in the industry.



# Compliance Governance

We are doing everything we could to minimize risks and lessen their potential impact, and ensure our operations are fully running according to laws and regulations, including *Supervision Law*, *Contract Law*, *Company Law*, *Anti-Monopoly Law*, and *Anti-Unfair Competition Law*. We have stepped up internal control, risk management and anti-corruption efforts, and strengthened the protection intellectual property rights, improving compliance governance.

## Anti-corruption and Integrity

The Company attaches great importance to anti-corruption and integrity. We have made efforts to improve our management system and instill fundamental values that curb corruption in employees. Employees who break laws, rules, the code of conduct, or corporate bylaws will be disciplined accordingly. We seek to create an enabling environment for high-quality development of the Company.

<b>Commitment to integrity</b>	Our 352 executives have made a solemn commitment and signed a statement of commitment to integrity.
<b>Integrity review</b>	We have performed 92 integrity reviews on actions and behaviors of newly promoted middle and senior directors and managers and sent integrity reminders to them.
<b>Ecosystem integrity</b>	We value the supply chain integrity. To optimize business cooperation and integrate integrity into our ecosystem, we have signed an integrity agreement with all suppliers and partners.
<b>Self-appraisal and self-correcting</b>	A total of 80 middle and senior directors and managers have engaged in a self-appraisal and self-correcting action.
<b>Integrity reminders</b>	We send timely integrity reminders to our executives on important holidays, such as May 1st, Mid-Autumn Festival, National Day, and Spring Festival, to prevent corruption.

## Innovation Risk Management

We have taken steps to improve internal control and risk management systems and mechanisms, organize internal audits and risk assessments, and strengthen risk prevention in accordance with the requirements of the *Corporate Governance Code* in Appendix 14 to HKEX listing rules and the *Basic Standards for Enterprise Internal Control*. This lays the foundation for our effort to improve sustainability performance.

<b>Improving the management system</b>	We have formulated <i>Risk Management Policy</i> , <i>Working Methods of Shengmu Risk Management Committee</i> , <i>Management of Ten Major Risks</i> , <i>Response Measures for Ten Major Risks</i> , <i>Risk Management Assessment Program</i> , and other policies and measures, setting out the objectives, process, and evaluation methods of risk management.
<b>Innovating management methods</b>	We have set up a risk management team, a risk management committee, and an office for the risk management committee.  We offer one-to-one training programs targeting key issues and business departments in accordance with Shengmu's risk management plan. In 2022, we held 88 empowerment sessions and one review meeting.
<b>Utilizing management tools</b>	Risk identification and assessment: We have compiled a list of major risks following structured interviews and scenario analysis.  Risk response: We have applied the 5W2H method and the PDCA cycle to formulate 25 risk response implementation documents.  Risk information management: We have built a risk database and a risk event database.
<b>Empowering employees to develop risk management tools</b>	Risk reminders, risk management training, risk management briefing, etc.

## Protection of Intellectual Property Rights

We strictly abide by the Patent Law, the Copyright Law and other relevant laws and regulations. We have set up a special fund to apply for and protect trademarks, patents, and designs. Measures are in place to identify and prevent IP risks that may arise in the process of technological innovation and optimize our patent portfolio, improving the quality of intellectual property rights.

Before or when developing a business strategy or plan, we will develop a trademark and brand strategy, defining project drivers and specifying the protection scope of trademark registration, quantity of trademark applications, and trademark protection measures.

# 02

## Product Responsibility

We are striving to make Shengmu a top brand in organic milk industry worldwide. To achieve this goal, we make efforts to assure quality control throughout the entire value chain from raw material procurement to the supply of organic raw milk. We have created a 100% organic supply chain that integrates environment management, crop cultivation, animal husbandry, and product processing. We have also worked together with our supply chain partners to build an organic ecosystem. A strong quality assurance strategy is the cornerstone of high-quality development.

1. Supply of high-quality raw milk
2. Supply chain management
3. Support for the dairy industry



### Our actions and outcomes

We supply high-quality raw milk with a 100% organic supply chain.

We make a continuous effort to strengthen supplier management and motivate supplier social responsibility.


We work together with partners to build a sustainable dairy ecosystem.

# Supply of High-quality Raw Milk

We are committed to producing the world's best quality desert organic milk. To assure product quality, we have attached great importance to the welfare of dairy cows and built a 100% organic supply chain.

## Organic Value Chain

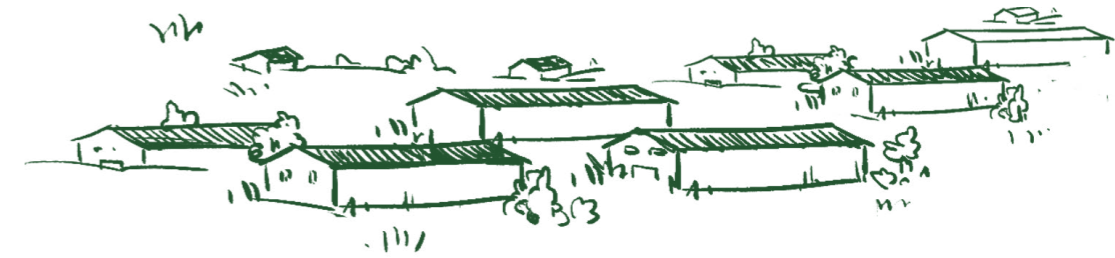
To produce best quality organic milk, we have built an organic dairy farm in the Ulan Buh Desert and created a 100% organic supply chain that integrates forage crop cultivation, animal husbandry, and standard product processing.

 In 2022, annual milk production per cow saw an **2% increase**.



## Animal Welfare

At Shengmu, we are committed to improving animal welfare by paying attention to the health and disease prevention and control of dairy cows and making them live comfortable.



- Comfortable temperature:** We have installed cooling systems such as fans and sprinklers in our barns to ensure cows stay cool in the summer and thermal insulated curtains and hot water storage tanks to keep cows cozy in the winter.
- Nutritional balance:** Our professional nutritionists and veterinarians create balanced diets for dairy cows and ensure our cows are scientifically fed and cared for.
- Clean environment:** Manure is removed from the barns three times a day.
- Entertainment:** We have built a playground with soft bedding for dairy cows.
- High-quality rest:** We use dairy bedding (recycled from sterilized manure), properly designed lighting systems, and automatic cow brushes to improve the life quality of our cows.
- Disease prevention and control:** To strengthen disease prevention in dairy cattle, our professional veterinary team has formulated technical standards and operating procedures for barn disinfection, mosquito and fly control, health care and hoof trimming, vaccination, and disease prevention and control.

### Empowerment of farm staff to become cow whisperers

To improve health and life quality of our cows, Shengmu invited experts from the China-Dutch Dairy Development Centre to conduct an eight-day training on dairy cow signals for our farm staff in 2022. A total of 53 employees participated in the training.

Our farm staff have learned the cow signal diamond, how to observe and interpret signals that cattle give out through their behavior, posture and physical traits (eating, drinking, milking, getting up, lying down, walking, etc.), and how to use cow signals to aid farm management decisions relating to equipment, facilities, feeding and other farm work. This training has empowered our staff to become cow whisperers, and properly manage cattle according to the signals. These management practices have improved comfort and wellbeing of our dairy cows.





## Quality Control

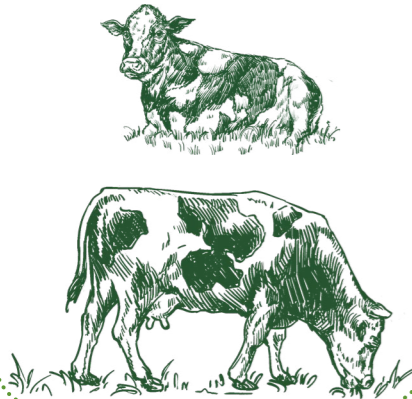
Product quality and safety are at the heart of everything we do. We strictly abide by applicable laws and regulations such as the *Food Safety Law*, *Dairy Product Quality and Safety Regulations*, as well as our own internal quality management policies such as the *Raw Materials and Raw Milk Quality Management Policy*. We adopt the 6S management model and implement a quality-centered safety management strategy for our entire value chain. We embed quality control throughout the entire value chain spanning raw material procurement, dairy farming, and transportation.

### Ensuring the quality and safety of raw materials

Only suppliers that have passed all sampling tests can enter the shortlist of our potential partners. We perform supplier assessments on a quarterly basis and only the top three in each assessment will remain our partners. Supplier management is a key component of our quality assurance system from the source.

To ensure the accuracy of dairy cattle feed testing results, we have performed assessments on the capabilities of our feed testing institutions and benchmark the assessment results with other testing institutions.

We have put in place an internal feed traceability system to track feed all the way from feed suppliers to our pastures.



### Ensuring the quality and safety of raw milk

The entire milk production process from milking to packaging is rigorously monitored. To improve raw milk testing capabilities and ensure the quality of our raw milk, we have invited experts to conduct training on raw milk testing and milk antibody testing.

### Ensuring the quality and safety of milk during transportation

Delivery personnel should follow the planned route between designated places. Raw milk delivery trucks should maintain a good condition; in case of leakages or any other problems, repairment must be done in a timely manner. Delivery personnel are required to keep their phone on throughout the journey for a close contact; refusal of the call is not allowed.

Unauthorized opening of the lead seal, scalping, and adulteration are forbidden during delivery. The trucks are not allowed to take goods other than raw milk.



### Shengmu Testing Center passed the conformity assessment of China National Accreditation Service for Conformity Assessment (CNAS)

Shengmu Testing Center received the Laboratory Accreditation Certificate in 2022 after passing the CNAS conformity assessment. It means that the quality management system of Shengmu Testing Center fully complies with international standards, and that its testing capabilities have been certified by 57 international organizations. It also recognizes our great progress in laboratory construction, testing capacity building, and quality assurance. We will continue to keep our testing center running efficiently and assure safe and quality products through accurate and reliable testing services.

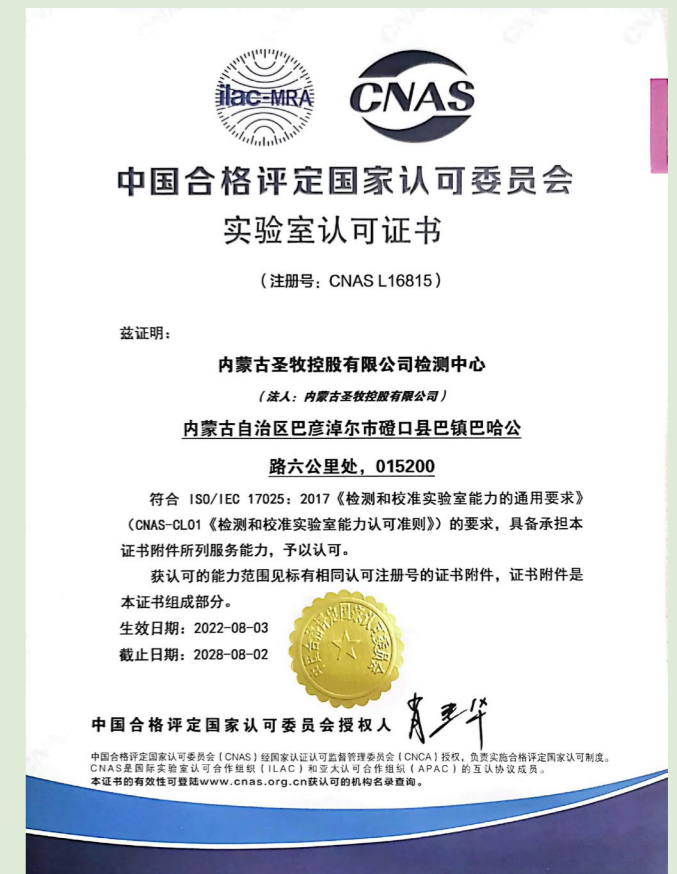


### Shengmu launched the A2 organic milk project as part of its effort to promote functional raw milk

With an insight of the shifts in consumer needs and industry trends, and following the original DHA, Shengmu launched the A2 organic raw milk project in 2022. This has improved Shengmu's product line-up and broadened the range of products available in the raw milk market. It encourages the fragmentation of the raw milk market and focuses industry innovation on producing functional raw milk with greater nutritional value. We have built an A2 organic dairy farm, where each cow would go through at least two DNA tests. Only those who have two copies of the A2 gene for beta casein can be raised at our A2 organic dairy farm, so as to ensure their genetic purity. The diets and wellbeing of these cows are closely monitored throughout the entire process as a guarantee for high-quality A2 milk.

### A positive food safety culture favorable for milk quality

To further strengthen milk food safety management, Shengmu and the Raw Milk Quality Inspection Department of Mengniu Dairy conducted a food safety training at Pasture B16 in Bayannur in May 2022. Focusing on introducing laws and regulations relating to feeding, medication, milking, and transportation of dairy cows, the training aimed to raise food safety awareness of our farm staff.



97.3% of Shengmu milk passed quality inspection, making the Company an industry leader in quality control.

1 ranch of Shengmu passed GAP certification | 2 of our laboratories achieved CNAS accreditation | 14 S-rated pastures including 9 organic ones

# Supply Chain Management

We have made continuous efforts to improve our supplier management system, including scaling up supplier communication and cooperation, increasing support for strategic suppliers, and working together with our suppliers to build a responsible supply chain.

## ✔ Supplier Management

We are committed to ensuring an open, fair and transparent procurement. A code of conduct for our procurement personnel has been developed to ensure integrity is at the heart of every business decision made by our procurement personnel. We have signed an anti-bribery and corruption agreement with all of our suppliers. For suppliers who violate relevant laws or regulations, we will hold them liable. We adhere to responsible procurement, promise and ensure that 100% of the soybeans purchased by the company come from countries and regions without deforestation risk and land conversion risk. We seek to work hand in hand with our suppliers to build a fair, transparent and responsible supply chain.



To ensure the quality of raw materials, we only sign agreements with the best suppliers. We have formulated the *Supplier Management Policy* to strengthen supplier management and optimize supplier access, evaluation, and exit processes.

<b>Supplier access</b>	All suppliers are required to provide evidence to prove they meet the standards for quality, environmental, safety, organic, and other aspects. Those who have passed our quality assessment will be shortlisted. If the assessment result of a supplier is "final decision pending", it won't be shortlisted until the deficiencies are rectified.
<b>Supplier evaluation</b>	We assess the quality of raw materials provided by our supplier partners as well as their supply process and services on a quarterly basis. Positive incentives are offered to suppliers who pass the quarterly assessment. Suppliers who fail to pass the assessment are required to rectify deficiencies. Otherwise, they will be blacklisted.
<b>Supplier exit</b>	We have put in place a supplier exit mechanism. If suppliers commit an integrity or safety violation, provide false qualification documents, or are ranked in the bottom 10% during a regular supplier assessment, we will add them to our blacklist and end the partnership.

## ✔ Supplier Capability Building

We have put in place a mechanism to promote interest alignment and technology sharing with our suppliers. We seek to take supplier collaboration to the next level by providing technical support and helping them solve financial problems and build capabilities.

<b>Technical support</b>	<p>We visit, inspect, and communicate with suppliers on a regular basis to ensure supplier risks are identified and solved in a timely manner. We offer constructive advice to our supplier partners on the scale of forage crop cultivation, production and operation processes, quality control, and long-term planning, and share experience in dairy farming, quality improvement, and integration of forage crop cultivation and cow management with them.</p> <p>In addition to working with our supplier partners to boost profits, we also help suppliers get organic certification and grow their businesses by providing organic farming and organic certification training.</p>
<b>Financial support</b>	<p>By gaining green certification for our supply chain, we can help suppliers obtain substantial interest rate concessions.</p> <p>We have worked with banks to make concessional loans available to corn silage suppliers.</p> <p>Thanks to our efforts to innovate financing products, simplify financing procedures, improve financing efficiency, and reduce operating costs, the financing cost of our suppliers has been kept around LPR, laying the foundation for the sustainable development of our supply chain.</p>



# Support for the Dairy Industry

We work hand in hand with our partners, experts and other stakeholders to support the thriving of the dairy industry and discuss about its path forward via domestic and foreign learning and exchange platforms. We have worked to integrate resources such as talent, technology, and capital to build a sustainable industry ecosystem, contributing to the high-quality development of China's dairy industry.

## ✔ Industry-level Exchanges

We pay close attention to new developments in the dairy industry. At the Dairy Conference of China and other domestic and foreign industry events, we share our experience with our peers. We are also committed to working with other dairy companies and experts to promote sustainable dairy.



**CASE** Shengmu was invited to the 13th Dairy Conference of China and D20 Summit



In September 2022, Shengmu, as one of the top 20 dairy companies in China, was invited to the 13th Dairy Conference of China and 2022 China Dairy 20 Summit. At the China Cheese Summit 2022, Shengmu participated in in-depth discussion on the development of China's dairy industry. Meanwhile, we provide a platform for dairy companies and experts to learn from and exchange with each other, calling for collaboration to build a thriving dairy industry ecosystem.

We have received many honors and awards, including the title of Excellent Dairy Manufacturer, in recognition of our commitment to producing best organic milk from our desert-based farms.

## ✔ Strategic Partnerships

We strive to grow our business through win-win partnerships. We have established close relations with our strategic partners, including other dairy companies, research institutions, and universities, to combine complementary strengths, pool resources, and produce win-win outcomes.

- Every year, we work with functional teams, technical teams and senior executives of the world's top three breeding companies to develop a breeding index for Shengmu, so as to scientifically manage seedstock herds and bolster the competitiveness of the dairy cattle seedstock industry.
- We have invited experts from Cargill and Dabeinong to conduct on-site evaluation, helping us optimize cattle diets and improve sustainability performance.
- We have worked with China Agricultural University, Inner Mongolia Agricultural University and other universities to carry out animal experiments and scientific research, with the aim of exploring ways to improve the life quality of dairy cows.

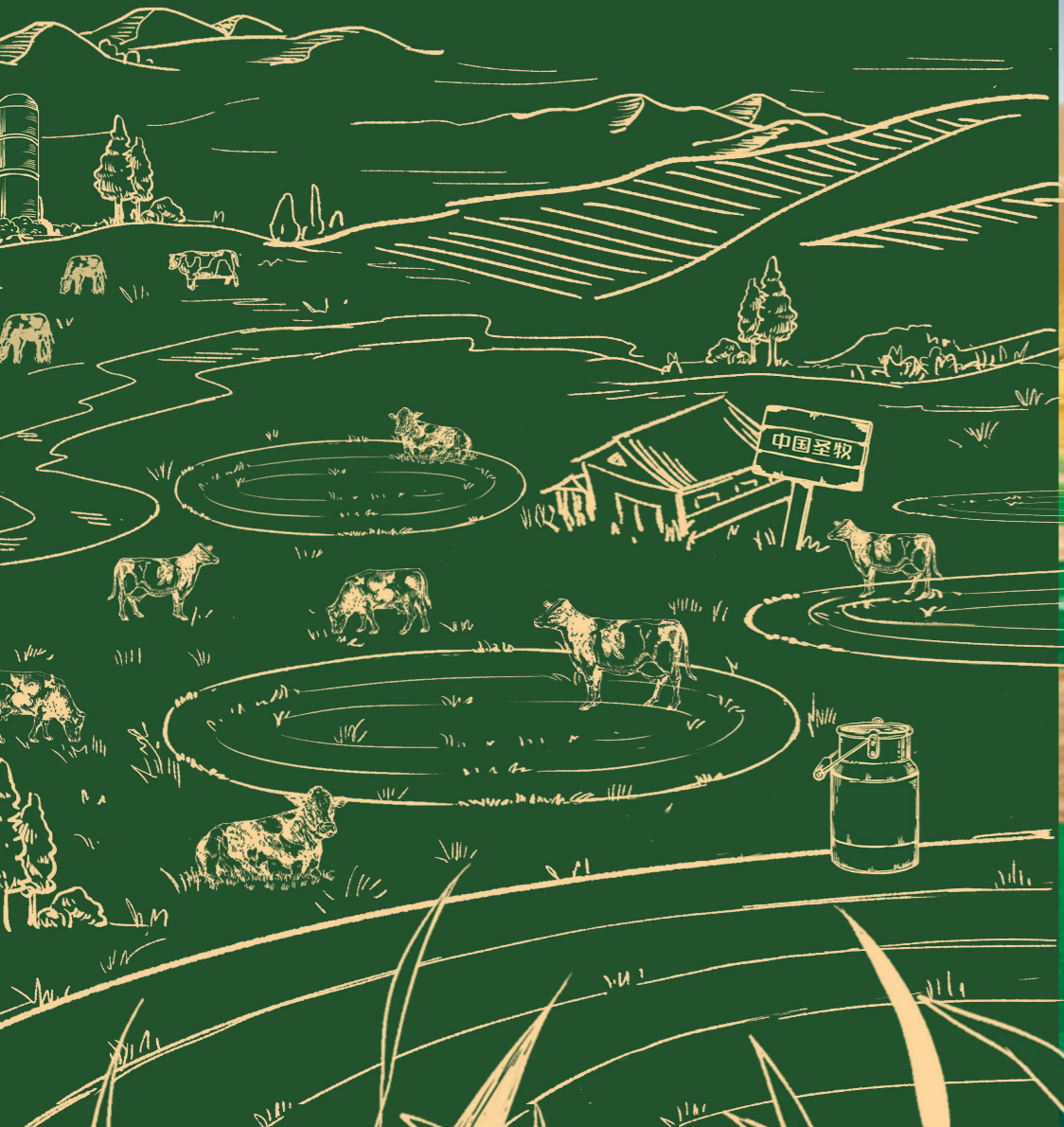
# 03

## Environmental Responsibility

Shengmu always attaches importance to the impacts that production and operation exert on environment and climate. The goals of achieving carbon peak by 2030 and carbon neutrality by 2060 have charted the new course and set new goals for Shengmu to handle issues regarding environment and climate change. Focusing on the carbon peaking and carbon neutrality goals and the *Paris Climate Agreement*, we submitted its emissions reduction target to the Science Based Targets initiative (SBTi) in 2021 and made a commitment to reduce the global climate by 1.5°C aligned with the *Paris Climate Agreement*. Being committed to environmental protection, we pursue the harmonious coexistence between man and nature across the production process. A complete green management system has been established to provide a set of feasible solutions for the industry to achieve the carbon peaking and carbon neutrality goals.

1. Natural resource conservation

2. Green operation



### Our actions and outcomes

We achieve recycling and facilitate water and energy conservation through technological innovation and process transformation.

We have achieved science-based pollution and emission reduction across the whole value chain by adhering to the philosophy of green operation and green development.

# Natural Resource Conservation

Shengmu always conserves natural resources and integrates the sustainability concept in daily production and management.

## Manure Recycling

Aiming at the harmonious coexistence with nature, we give full play to our industrial strength of combining crop cultivation with animal husbandry, reasonably utilize resources, and recycle the manure generated during cattle raising.



### Fermentation of cow manure into bedding material, a circular practice

Due to the disadvantages in fiber length and softness, traditional bedding is prone to make dairy cows feel less comfortable and develop bovine mastitis, which affects pasture yield and causes higher carbon emissions.

In 2021, we introduced the technology of fermenting cow manure into materials for making bedding. The technology has been promoted across Shengmu since 2022 and reached about one third our pastures. Compared with manure application on fields, bedding-making technology saves more electricity and takes up no land resources, which further improves the utilization of manure and significantly reduces GHG emissions.

In 2022, we replaced the bedding materials for cows in four pastures and reduced 8,039 tons of GHG emissions for manure management.





## Intelligent Water-saving

Reasonable utilization of water resources serves as a prerequisite for the sustainable development of Shengmu. Attaching great importance to the sustainable utilization and conservation of water resources, we strive to strengthen the water-saving management across the entire value chain so as to reduce resource waste.




\*As a result of business expansion, gross water consumption in 2022 was higher than that in 2021, while water consumption per unit was reduced, implicating effective achievements in water saving.



### Adoption of the intelligent Internet of Things (IoT) system to monitor reasonable water usage

In 2022, we installed an IoT-based, real-time intelligent monitoring system for water meters in our pastures, which enables us to identify and correct water waste behaviors in a timely manner through background monitoring and analysis. Meanwhile, we improved the management system by drafting water-saving measures. Employees are ranked and rewarded monthly according to the analysis of data collected by the intelligent monitoring system. This encourages our front line workers to carry out water-saving innovation and spread the innovative measures.



### The recycling of waste water in milking parlors as a measure for water saving and emission reduction

Water saving is a major solution to biogas slurry in pastures brought by waste water from milking parlors. In 2022, daily waste water recycled from a single parlor reached over 80 tons, which helped reduce the use of groundwater and the discharge of biogas slurry in pastures. The preliminary purified water that treated through physical methods can be used for cleaning the milking parlors. Since no chemical agents are involved in the treating process for sterilization and disinfection, the treatment is eco-friendly and has no negative impacts on the food environment.

## Energy Conservation and Efficiency Improvement

The Company is committed to reducing energy consumption during operation. We continued to upgrade equipment, replacing all the boilers in pastures by air-source heat pumps and improving the recovery technology of waste heat produced during fresh milk cooling, so as to efficiently decrease energy consumption.



### Application of the waste heat recovery technology to reduce energy consumption.

In the past, groundwater was used to cool fresh milk, and electricity to heat the water used to clean the milking parlor. In order to improve energy efficiency and reduce emissions, we developed the waste heat recovery technology, by which we use the circulating cold-water, instead of the original groundwater, to cool fresh milk, and recycle the heat released by cooling to heat water used for cleaning the milking parlors. While ensuring the quality of fresh milk, we seek to reduce the load of refrigeration equipment and lower the consumption of energy and water resources. The improved technology brought down the usage of groundwater by 0.4 tons and provided 5 kWh of heat by cooling per ton of fresh milk.

Year	Electricity (kWh)
2020	72,235,814.93
2021	90,576,236.69
2022	107,750,814

Year	Coal consumption (ton)
2020	5,559.34
2021	2,503.79
2022	0

Year	Diesel consumption (ton)
2020	3,035.32
2021	2,687.56
2022	3,071.26

Year	Energy use per RMB10,000 (ton of standard coal/RMB10,000)
2020	0.07
2021	0.06
2022	0.04

\*According to the *General Rules for Calculation of the Comprehensive Energy Consumption (GBT2589-2020)*, the power conversion coefficient is 0.1229 kgCE/kWh, and the diesel conversion coefficient is 1.4571 kgce/kg. Calculations shall be conducted accordingly.

\*As a result of business expansion, power and diesel consumption in 2022 was higher than that in 2021, while energy consumption per unit remained unchanged, implicating improvements in the energy consumption structure.



# Green Operation

Following an eco-friendly and green development path, we have continued to practice green operation and management. By strengthening emission management across our value chain, reducing the emission of pollutants, and building ecological pastures, we strive to achieve a sustainable future for ourselves and the society.

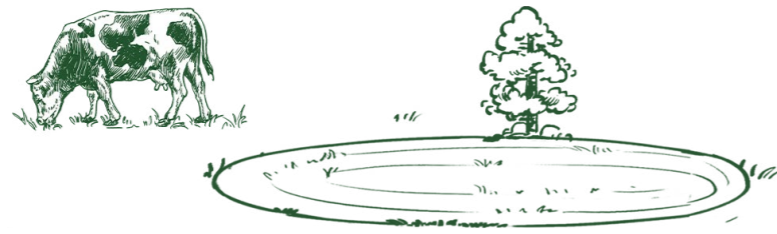
## ✔ Pollution Control

We strictly abide by the *Animal Husbandry Law of the People's Republic of China* and the *Regulation on the Prevention and Control of Pollution from Large-scale Breeding of Livestock and Poultry*. Meanwhile, our *Environmental Protection Policy* is in ongoing improvement. Recycling serves as the top priority for the treatment of the waste gas, waste water, and solid waste generated during operation, while the waste that cannot be recycled is treated before discharged.

<b>Solid waste management</b>	In the light of the <i>Soil Pollution Prevention and Control Action Plan</i> , we formulated the <i>Hazardous Waste Management Policy</i> to further standardize the management requirements of general solid waste, hazardous waste, construction waste and household waste across the whole process covering generation, collection, storage, transportation, and disposal.
<b>Waste gas management</b>	We strictly comply with the <i>Law of the People's Republic of China on the Prevention and Control of Atmospheric Pollution</i> , and devote ourselves to reducing the emissions of waste gas. In 2022, the coal-fired boilers in four pastures were replaced with air-source heat pumps. As a result, there were no SO <sub>2</sub> , NO <sub>x</sub> , soot, and other waste gas emissions, achieving zero emission.
<b>Policy implementation</b>	We formulated and improved the <i>Environmental Protection Policy</i> . Supervision over production process has been stepped up, and security inspection concerning environmental protection has been carried out on a regular basis, so as to ensure the reduction of pollutants from the source. In 2022, we offered 32 training sessions on environmental protection, with 2,600 participants.



\*Hazardous waste was a result of medical waste and the disposal of dead and sick cows.  
 \*General waste mainly refers to the slag produced by the coal-fired heating boiler in our pastures. In 2022, coal-fired heating boilers in the pastures had been replaced by air-source heat pumps, with zero emissions of slag and exhaust gas.



## Energy Conservation and Carbon Reduction

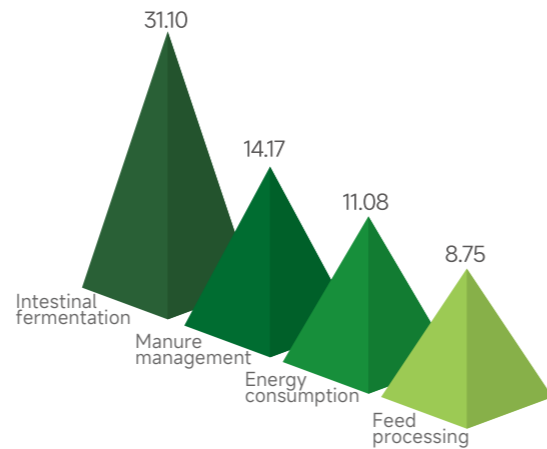
In pursuit of China's carbon peaking and carbon neutrality goals and the commitment of limiting global warming to 1.5° C set out in the *Paris Agreement*, we have conformed to the requirements of the times to lead the industry in designing emission reduction plans, advancing the industry towards a carbon neutral future.

### Energy conservation and carbon reduction measures

We developed the "carbon baseline" inventory audit mechanism covering enteric fermentation, manure management, and energy consumption of dairy cows.

The volume of carbon emissions from intestinal fermentation, manure management, energy consumption, and feed processing was 311,000 tons, 141,700 tons, 110,800 tons, and 87,500 tons, respectively.

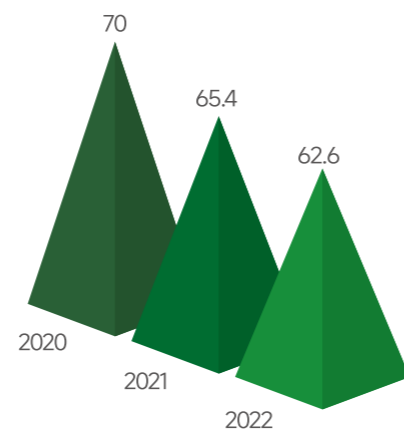
Shengmu's CO<sub>2</sub> emissions by major emissions units in 2022 (10,000 tons of CO<sub>2</sub> equivalent)



We established scientific carbon goals and integrated carbon reduction in operation.

Carbon emissions were expected to reduce to 626,000 tons in 2022, with actual carbon emissions being 651,000 tons, or a goal completion rate of 96%.

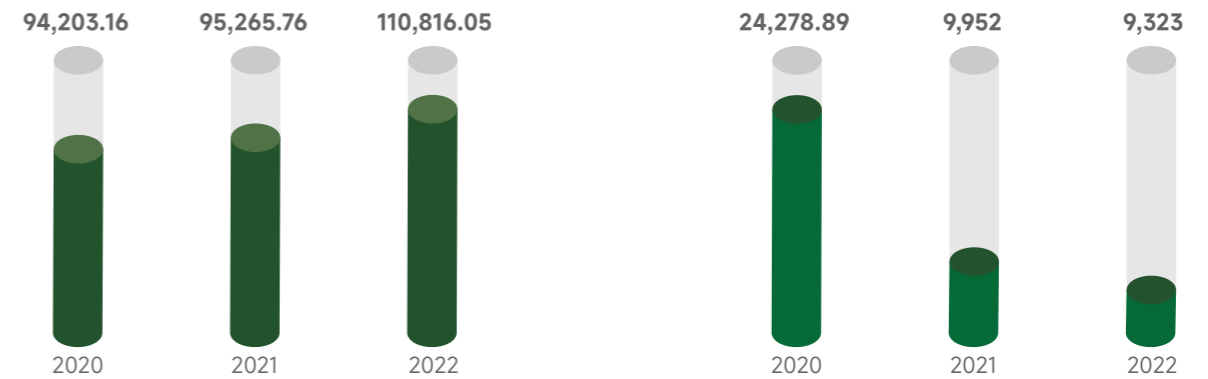
Roadmap of Shengmu's emission targets (10,000 tons of CO<sub>2</sub> equivalent)



We proactively made plans for the use of renewable energy.

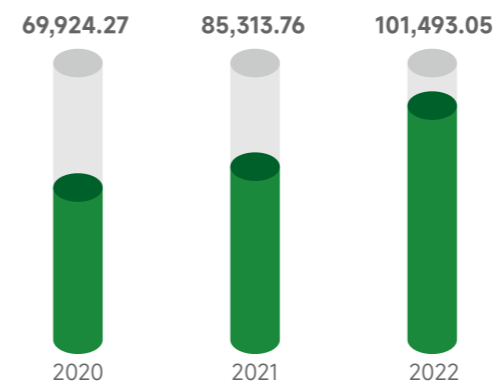
In the future, a number of photovoltaic power stations and biogas power stations will be built to facilitate the electrification of loaders in pastures. In 2022, the electric loaders have been put into operation in pilot pastures.

### GHG emissions by year

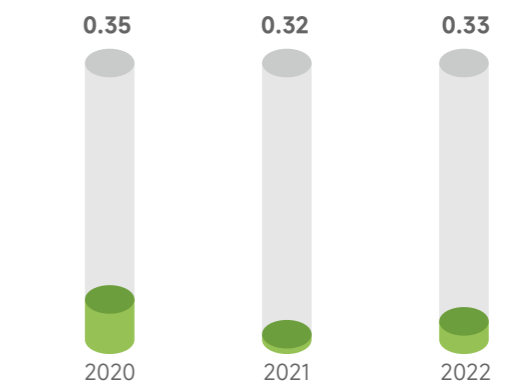


■ GHG emissions (ton)

■ Scope 1 emissions (ton)



■ Scope 2 emissions (ton)



■ CO<sub>2</sub> emissions per RMB10,000 (ton/RMB10,000)

\*The Scope 1 GHG emissions are calculated in accordance with 2006 IPCC Guidelines for National Greenhouse Gas Inventories, and CO<sub>2</sub> emissions from fossil fuels are converted from the use of coal and diesel oil. The Scope 2 GHG emissions are calculated in the light of 2017 Baseline Emission Factors for Regional Power Grids in China and the HKEX Reporting Guidance on Environmental KPIs. Each MWh of electricity consumed in North China is converted to the production of 0.9680 tons of CO<sub>2</sub> emissions.

\* As a result of business expansion, greenhouse gas emissions in 2022 were higher than that in 2021.

## A Focus on Climate Change

Taking a long-term vision, we took active action and turned risks into opportunities. Following through eco-friendly and green development, we have been committed to taking the lead in building carbon neutrality pastures, boosted the effective use of resources across the value chain, protected nature and ecology, and paid close attention to the risks and opportunities related to climate change and forest security.

Per the request of the Carbon Disclosure Project (CDP), large companies across the globe shall disclose their carbon emission information and details of their climate change response each year, which has now become a standard practice of carbon emission disclosure methodology and business process.



Questionnaire on climate change

C

Questionnaire on forests

B

In 2022, Shengmu took the lead in China's animal husbandry sector to complete the CDP questionnaires on climate change and forests. We highlighted our GHG reduction measures, including the reduction of fossil fuel consumption and carbon sequestration in desert, and forest protection measures including commitment to zero-deforestation, sand fixation and water resource conservation. This has laid the foundation for later carbon neutrality and forest conservation efforts. Shengmu's rating result of CDP's climate change questionnaire was C and that of CDP's forests questionnaire was B, ranking top in the husbandry industry and above average in the food industry in China.

## Employer Responsibility

Employees are the cornerstone of high-quality development of an enterprise. Taking a people-centered approach that cares for employees, the Company respects and safeguards their legitimate rights and interests. We have built a talent development platform and works hard to create a diverse, safe, and harmonious work environment in which all employees are equal and respect each other, so as to unleash the potential of employees and provide a strong guarantee for the sustainable development of the Company.

1. Employees' rights and interests
2. Health and safety of employees
3. Career development
4. Humanistic care



### Our actions and outcomes

We safeguard the legitimate rights and interests of employees and seek to create a diverse and inclusive work environment

We ensure employees are healthy and safe by fulfilling the responsibility for safety and promoting workplace safety

We strengthen talent training by various means and pursue shared development with employees

We act on a people-centered philosophy that cares for employees

# Employees' Rights and Interests

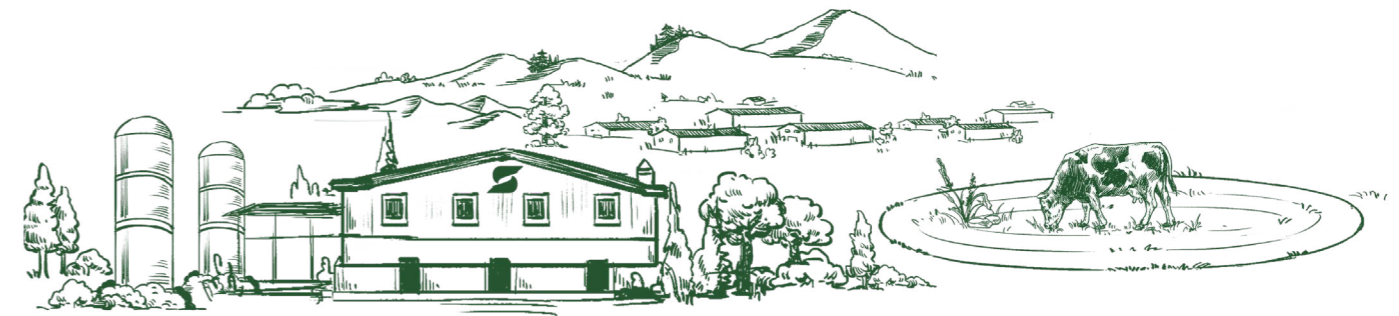
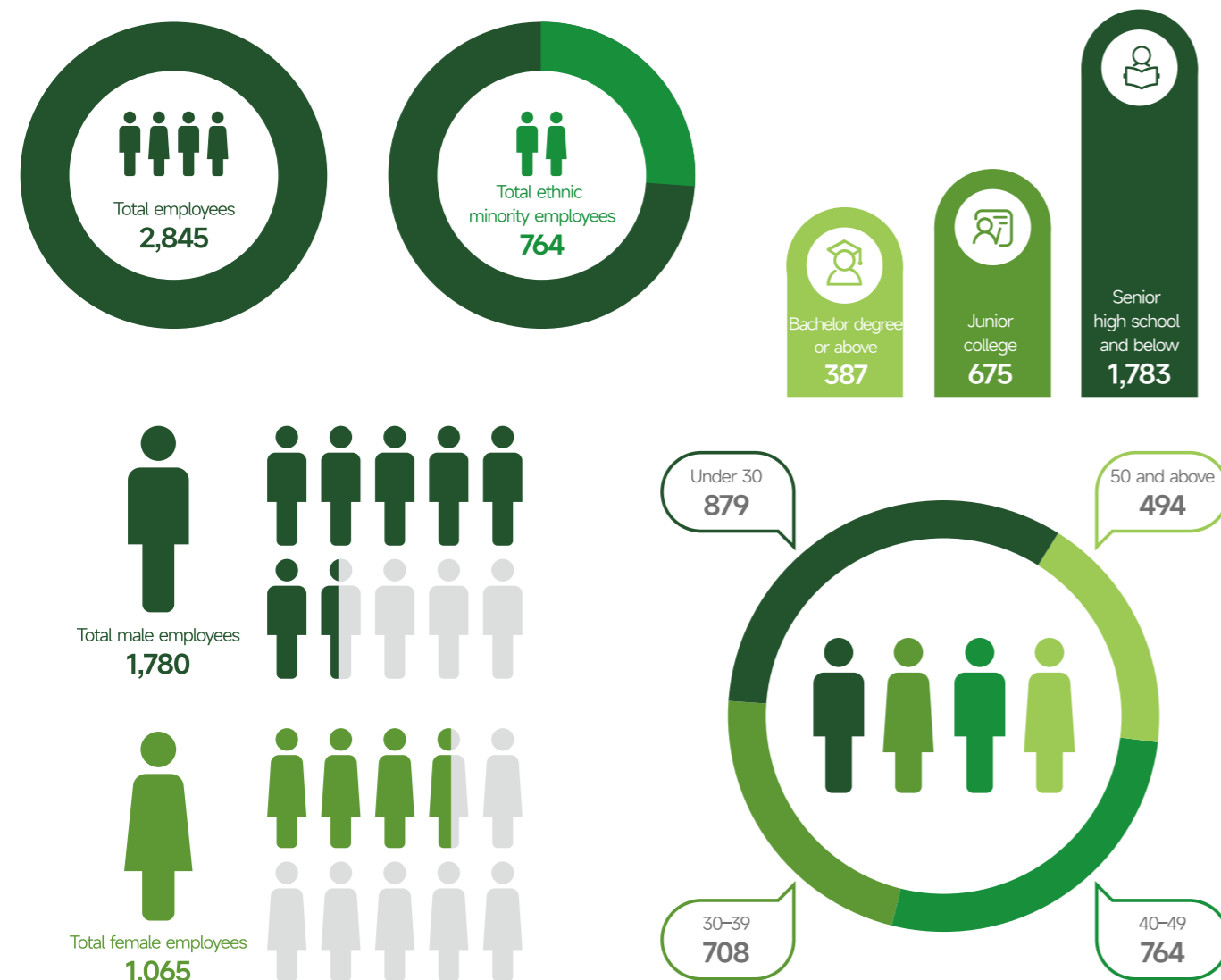
The Company strictly abides by the labor laws and regulations. An employee management system has been established and improved to effectively safeguard the legitimate rights and interests of employees in equal employment, compensation, benefits, and so forth. Meanwhile, we resolutely oppose and forbid child labor and forced labor.

## ✔ The Compensation and Benefit System

We constantly improve the compensation and benefit system, adhere to the principle of equal pay for work of equal value, and provide employees with competitive compensation and a wide-range of benefits. This enable us to enhance their sense of happiness and belonging and fully unleash their potential in creating value and efficiency. In 2022, the *Compensation Management Policy* and *Employee Benefits Management Policy* outlined in a more sound, rational framework came into effect.

## ✔ A Diverse and Inclusive Workplace

We explicitly prohibit differential treatment and discrimination based on, among others, gender, age, race, religion, education, and culture. Besides, we care about ethnic minority employees by respecting their customs and lifestyles and helping them in work and life, with the aim to build a high-quality, multi-ethnic work team.



## ✔ Expanded Employment Channels

We attract outstanding personnel on a continuous basis through external and internal recruitment, including on campus. At the same time, we have expanded employment channels and launched more cooperation programs with schools to enrich our pools of technical, management, and interdisciplinary talents, providing a strong guarantee for the development of the Company and the industry.

In 2022, we hired a total of **304** candidates through campus recruitment, with an increase of **96** from 2021. The map of our campus recruitment reached to Qinghai University and Tibet Vocational Technical College.



### Cooperation with schools for joint development and employment boosting

Shengmu attaches great importance to the connectivity of the talent pipelines and the industrial chain. We are committed to establishing long-term partnership with higher education institutions in cultivation of talent for specific positions, training base construction, and integration of manufacturing, education and research. This also brings social benefits, including providing opportunities for college graduates who are commonly experiencing difficulties in finding jobs.

In May 2022, Shengmu and the College of Animal Science of Inner Mongolia Agricultural University launched a special employment boosting campaign where the management of the College visited us for



investigation and exchanges. We reached a consensus on in-depth cooperation. Both agreed to strengthen exchanges in teaching and scientific research, and signed a three-year cooperation agreement under which Shengmu will provide a training base for students. We proposed a plan for introducing students to the Company, offering nearly 50 posts. This has not only helped students find jobs, but also ensured the quality of our workforce.



# Health and Safety of Employees

Under the people-centered management philosophy, the Company always puts the safety of employees first. We prioritize and stay within the red line of workplace safety, and improve the safety management system on a continuous basis to better protect the lives of employees.

## ✔ Workplace Safety Management

Efforts have been made to ensure workplace safety, so as to provide a significant guarantee for the development of the enterprise. We strictly abide by the *Law of the People's Republic of China on Workplace safety*, the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*, and other relevant laws and regulations; constantly improve the safety management system; and standardize production, operation, use, storage, transportation and disposal. In 2022, the updated Workplace Safety Management Policy came into force, resulting in zero safety incident throughout the year.

### CASE Installation of separate and explosion-proof portable refueling devices for a safer workplace

To ensure the safety of production and operation personnel, we have constantly improved our capability for workplace safety management. In 2022, 32 new separate and explosion-proof portable refueling devices were installed, which may effectively prevent the explosion of oil storage tanks in the presence of open fire, static electricity, welding, shooting, and bumping.



### CASE Upgrading of the charging station for electric vehicles for fire prevention

Safety incidents caused by charging of electric vehicles are common in recent years. Noticing the risk, we have imposed more stringent requirements for fire management regarding electric vehicle, including updating the charging station within the pasture. Leakage protectors were installed in charging junction boxes to prevent fire risks and create a safe workplace.



## ✔ Health and Safety Education

In accordance with relevant laws and regulations and industry standards, we continuously strengthen safety training and improve the training system, so as to enhance the safety awareness of employees and effectively protect their health and safety. In 2022, 13 training sessions have been organized, both online and offline, to spread the basic knowledge about fire safety, improve fire prevention skills, guide resumption of work and production after the festival, improve the capability of safety personnel, and strengthen risk identification and workplace safety management.

### CASE Training session on occupational health

In April 2022, we organized a training session on occupational health, with more than 600 participants, including executives, experts and scholars, either online or offline. Focusing on employee occupational health protection and brucellosis prevention and control in the pasture, the training played a positive role in enhancing the occupational health awareness of employees and popularizing knowledge about occupational health and safety.



## ✔ Employee Health Management

We always care about the physical health of employees. For example, we provide them with access to free annual physical examination; regularly identify, monitor, evaluate, and eliminate occupational hazards that may cause health disorders; check and rectify the occupational health hazards in the operating environment; take actions to ensure all foods consumed by employees are safe; implement a 24-hour standby plan to care for staff and increase emergency rescue equipment to provide first aid.

### CASE Renovation of the disinfection room as a guarantee for employee health

To better improve hygiene of the pasture, a series of measures were taken to minimize the risk of occupational diseases. The sterilizing and washing equipment in the disinfection room have been updated to reduce the probability of the spread of infectious diseases, such as brucellosis.



### CASE Installing living-saving Automated External Defibrillators (AEDs) in the workplace

In 2022, Shengmu installed AEDs in every ranch and office building and planned to offer emergency rescue training and awareness-raising and skill-building opportunities for employees next year. It also donated 6 AEDs to Dengkou County to help ensure local residents could reach an AED in any part of the county within 4 minutes.



# Career Development

The Company attaches great importance to workforce building. By encouraging our employees to pursue continuous improvement through continuous learning and providing smooth channels for promotion, we help them enhance self-value and form a strong workforce that ensures corporate development.

## ✔ Talent Training System

We provide differentiated training for personnel at all levels. The Ace-100 program enables us to empower the leadership and professionals, explore high-potential employees, and build a talent pipeline, so as to ensure that there are no shortage of personnel for key positions.

In 2022

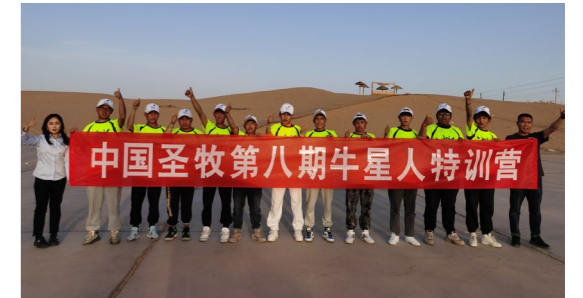


### Ace-100 Differentiated Talent Development Program



### A training camp preparing new employees recruited from colleges for their positions

College students serve as a driving force for the stable growth of an enterprise. We have made constant efforts to build and improve the training system for college students. In 2022, Shengmu optimized the training program by launching a training camp for new employees recruited from colleges and universities. During the three-day pre-job training, which comprised corporate culture introduction, professional knowledge sharing, team building, meeting with leaders, and experience sharing, trainees became more adaptable to their positions, realized the identity transformation from students to employees, and got fully prepared for their jobs.



Meanwhile, we designed different training programs for employees in terms of theoretical knowledge, professional and general skills, and leadership, so as to promote their all-round development.

#### Shengmu manager training camp

A development institute has been established for middle and senior managers of Shengmu to cultivate and improve their comprehensive management capability.

2 special manager training camps were held.  
77 participants participated.  
A total of RMB456,200 was invested.

#### Shengmu management trainee training

Targeting college students, the training aims to cultivate high-quality personnel who have the basic theoretical knowledge and professional skills in animal husbandry and veterinary medicine and are highly competent in organization, management and practice.

A total of 40 college students were selected to attend the training.

#### Employee general skill training

Targeting all employees, the training aims to enhance their general skills. In July 2022, the course entitled Business Etiquette Embedded was launched online.

The course captured 4,398 views.  
The total training time was 1,228.4 hours.

## ✔ Pursuit for Further Study and Professional Titles

Concerned about the development of employees, we have an incentive system in place to support and encourage employees to pursue further study, vocational certificates, and professional titles during their employment with the Company. By inspiring the enthusiasm and initiative of employees for learning and building an enabling environment for career development, we aim to enhance their overall competence, thus advancing the sustained progress of employees and the Company.

In 2022,

22 employees with high-school diploma or associate's degree got admitted into the online associate or undergraduates programs;  
12 employees with high-school diploma or associate's degree signed up for adult college entrance examination;  
11 employees with bachelor's degree or master's degree got admitted into the part-time postgraduate programs or doctoral programs;  
4 employees applied for the senior professional titles, among whom 3 have passed the qualification review and entered the evaluation stage;  
12 employees applied for the middle-rank professional title, who have all passed the qualification review and entered the evaluation stage.

## ✔ Smooth Channels for Promotion

We have established an employee development platform, improved the selection and competition mechanisms, set up a talent pool, and implemented incentive policies to encourage employees to fully display their strength through self-recommendation or attending examinations or contests. These have not only provided fair opportunities for employees but also effectively reduced the employee turnover rate.

In 2022,

140 employees signed up for contests, and 72 were included in the talent pool.  
The employee turnover rate reduced by 7.7% from 2021.

# Humanistic Care

The Company is committed to creating an efficient, healthy, and caring workplace. By helping those in need and carrying out diverse humanistic activities, we aim to help employees achieve a work-life balance and enhance their sense of belonging and cohesion, making them feel happy and warm at Shengmu.

## ✔ Employees' Satisfaction

As we value opinions and feedback of employees, an employee satisfaction management mechanism has been established. In 2022, we conducted four quarterly surveys on employee satisfaction with the canteen service in terms of dining environment, nutrition, food taste and service attitude, and proposed improvements based on the survey results.

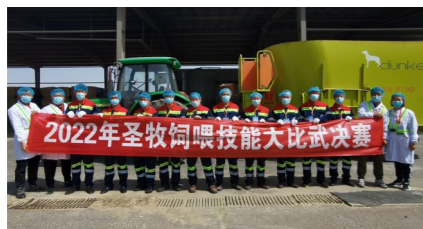
## ✔ Diverse Activities

We respect and support individualized needs of employees and care about their physical and mental health. A variety of sports activities have been organized to enrich their spare-time life and create a warm and united work atmosphere.

In 2022,  
**1** skill contest was organized.  
**2,000** participants joined, accounting  
 for **78%** of the total workforce.

### Skill contest to boost the building of a professional team

We seek to build a high-quality workforce featuring intelligence, technical competence, and creativity by equipping employees with broad theoretical knowledge and practical skills. A skill contest was held in April 2022, encouraging employees to learn, to practice, and to compete. Participants competed with each other in breeding, health care, feeding, calf raising, milking, inspection, office work, safety, among other fields. In addition to providing a platform for employees to show themselves, the contest created an opportunity for the Company to explore outstanding personnel to expand the talent pool.



### Meeting of employees to share vision about future

In May, 2022, we organized a training camp themed on "unity for success".

Senior executives participated in the camp and received training on operations management provided by Professor Wu Jianghua from Renmin University of China. In the desert-crossing and camping activities, they developed a deep understanding of how Shengmu has started from scratch to build a complete organic, ecological sand control system featuring "crop cultivation, animal husbandry, fertilizer production" in the hinterland of the desert over the past decade.

The activity has reinforced our resolve to pursue workforce building as a goal of corporate development. By learning from the past and remaining firmly grounded, we will be more dedicated to providing high-quality dairy products for Chinese consumers and driving the growth of the dairy industry.



## ✔ Caring Programs

We are committed to creating a caring work atmosphere. We organize recreational and parent-child activities that balance the life and work of employees, and offer our hands to those in need, thus enhancing their sense of belonging and cohesion.

### Building of a platform for employee care

We are devoted to cultivating a caring culture. A fund has been established to carry out a variety of support programs for employees in difficulty.

In 2022,  
 a total of **RMB448,200** was raised for  
 employees in need.

### Fostering a sense of family

We firmly carry forward and practice the traditional virtue of the Chinese nation—respecting the elderly. Travels for employees and their parents as well as parents-child activities, among others, have been organized to deepen employees' sense of belonging to and appreciation of the Company.

### Summer camp for outstanding employees and their family members, aiming at fostering a sense of family

In August 2022, we launched a school-visiting summer camp in Beijing for outstanding employees and their family members. Participants visited famous scenic spots, including Tsinghua University Art Museum, Summer Palace, Tiananmen, Great Wall, Olympic Sports Center, and Palace Museum. The activity has strengthened the emotional bonds between employees and their family members, leaving them with a happy, unforgettable memory.



### Shengmu Cares Day

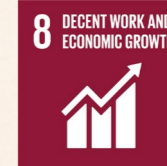
To promote the corporate culture and make employees feel at home, we have designated the 21st day of each month as the Shengmu Cares Day. On that day, a birthday party will be held for employees whose birthday falls in the month as a recognition of their long-term hard work. At the carefully decorated party venue, a cake and gifts will be presented.



## Social Responsibility

While pursuing self-development, Shengmu pays close attention to communities and social demands. We actively engage in rural revitalization and take a lead in providing assistance to support anti-pandemic efforts, giving back to our society and contributing to the building of a peaceful and beautiful homeland.

1. Contribution to the fight against COVID-19
2. Support for rural revitalization by harnessing industrial strengths



### Our actions and outcomes

We have made donations to support the fight against the pandemic with concerted efforts

We develop featured and competitive industries to promote rural industry revitalization

## Contribution to the Fight Against COVID-19

In 2022, the whole society was severely affected by the renewed COVID-19 outbreaks and downward economic pressures. In the battle against the pandemic, we have made contributions by mobilizing resources to support front line personnel with our healthy, nutritious dairy products.

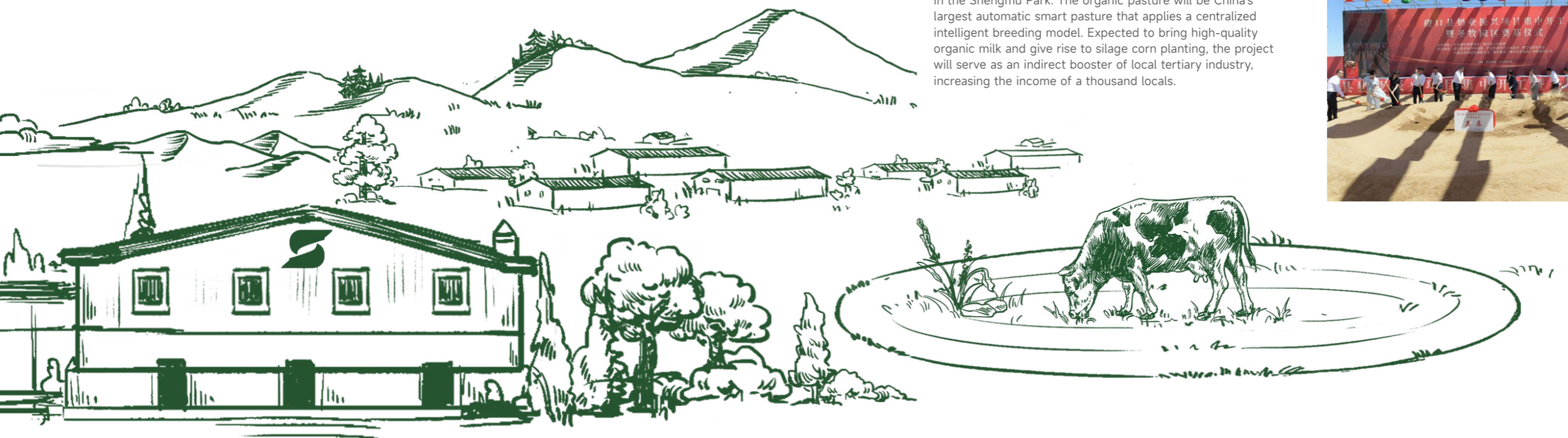


### Support for front line workers in the COVID-19 crisis

In early 2022, COVID-19 prevention and control in Inner Mongolia was severely challenged by outbreaks across the region. Paying close attention to this tenuous and uphill battle, we took timely actions by mobilizing the entire workforce for emergency response and pandemic control.

To ensure the nutrition consumption and health of front line workers in the battle against COVID-19, on February 23, Shengmu donated dairy products and daily necessities to those from the Red Cross Society of Dengkou County, the Inner Mongolia Maternity and Child Healthcare Hospital, the Bayannur medical team dispatched to Hohhot, Beishizhou Township Government of Tumed Left Banner in Hohhot, hospitals, railway stations, entrances and exits of expressways in Dengkou County, and other primary-level institutions for pandemic prevention and control.

In 2022,  
**40** donations were made to support the fight against COVID-19, totaling **RMB6.3 million.**



## Support for Rural Revitalization by Harnessing Industrial Strengths

Under the new development philosophy, Shengmu is speeding up the pace toward a high-quality, green industry as a driver of agricultural modernization and rural development. We are also fulfilling our social responsibilities, contributing to the development of rural areas and the region we operate in by making use of our advantages.



### Shengmu Park as a catalyst for agricultural modernization and rural development

As one of the top eight deserts in China, the Ulan Buh Desert is expanding eastward and southward at a surprising speed due to climate change and artificial destruction, seriously affecting the daily life of people living around. With a corporate culture incorporating ecological civilization, we are committed to turning the desert into an oasis. The eco-friendly initiative goes hand in hand with the Company's business plan, aiming at facilitating agricultural modernization and rural development of the region.

In May 2022, the Groundbreaking Ceremony of the Dengkou County Dairy Development Project and Shengmu Park was launched at Shengmu's Dairy Industry Park. Shengmu planned to build a pasture with a capacity of 12,000 cows and a demonstration organic pasture with a capacity of 3,000 cows in the Shengmu Park. The organic pasture will be China's largest automatic smart pasture that applies a centralized intelligent breeding model. Expected to bring high-quality organic milk and give rise to silage corn planting, the project will serve as an indirect booster of local tertiary industry, increasing the income of a thousand locals.

In 2022,  
thanks to Shengmu, local people saw a rise of their annual income per capita to over **RMB45,000**



# Future Vision

The year 2023 marks a crucial year for implementing the 14th Five-Year Plan. Staying true to the goal of developing into a top brand in organic milk industry worldwide and following a green, eco-friendly path, Shengmu strives to build the Ulan Buh Desert into a global demonstration zone for best organic milk and a national demonstration zone for ecological conservation, providing organic, ecological solutions to climate change.

**Effective governance.** The Company will continue to integrate the sustainability concept into corporate governance to enhance operational quality and efficiency. Efforts will be made to ensure corporate reputation and compliance, build a community of shared interests for the Company, shareholders and

employees, and create synergies among economic, social, and environmental benefits.

**Premium quality.** Staying committed to the mission of providing the world's highest-quality desert organic milk, Shengmu joins hands with suppliers and other partners along the industry chain to ensure stringent and whole-process quality control. Meanwhile, the Company works with the peers, experts, higher education institutions, and other elites in the industry to plan for a high-quality future of China's dairy industry.

**Nature conservation.** The Company will continue to expand the "oasis bank", where a desert-based circular organic dairy chain integrating desertification

control, crop cultivation, and animal husbandry is in operation. Focus will be placed on zero-carbon pastures and zero-carbon raw milk as an accelerator of Shengmu's green, low-carbon transition. A nature-centered business model will be applied to safeguard our planet.

**Empowerment for a better society.** In order to attract, retain and motivate excellent personnel, Shengmu will continue to provide a positive and healthy working environment characterized by rich resources and huge opportunities. A share incentive mechanism will also be in place. All-out efforts will be made to advance rural revitalization and public welfare, so as to make the society a better place.

Moving forward, Shengmu will adhere to the philosophy of caring for and coexisting with nature. We will join hands with various stakeholders to implement biodiversity and economics projects that can promote the sustainability of agriculture and food system, and continue to improve our original organic value chain where grass are planted to both fight against desertification and feed cows. Based on these, a sustainable business model will take shape, enabling the harmonious coexistence between man and nature.



# HKEX ESG Reporting Guide Indicators

Aspects, general disclosures and KPIs	Description	Page of disclosure
<b>Subject Area A: Environmental</b>		
<b>Aspect A1: Emissions</b>		
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.	P40
KPI A1.1	The types of emissions and respective emissions data.	P41
KPI A1.2	Direct (Scope 1) and energy indirect (Scope 2) greenhouse gas emissions (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P42-43
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P41
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P41
KPI A1.5	Description of emission target(s) set and steps taken to achieve them.	P42-43
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.	P40-41
<b>Aspect A2: Use of resources</b>		
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	P38-39
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).	P39
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P38
KPI A2.3	Description of energy use efficiency target(s) set and steps taken to achieve them.	P38-39
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.	P38
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable

<b>Aspect 3: The Environment and Natural Resources</b>		
General Disclosure	Policies on minimizing the issuer's significant impacts on the environment and natural resources.	P16-21
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P16-21
<b>Aspect 4: Climate Change</b>		
General Disclosure	Policies on identification and mitigation of significant climate-related issues which have impacted, and those which may impact, the issuer.	P18-19
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.	P18-19
<b>Subject Area B: Social</b>		
<b>Employment and Labor Practices</b>		
<b>Aspect B1: Employment</b>		
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.	P46-47
KPI B1.1	Total workforce by gender, employment type (for example, full- or part-time), age group and geographical region.	P46
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	P51
<b>Aspect B2: Health and Safety</b>		
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.	P48-49
KPI B2.1	Number and rate of work-related fatalities that occurred in each of the past three years including the reporting year.	P48-49
KPI B2.2	Lost days due to work injury.	P48-49
KPI B2.3	Description of occupational health and safety measures adopted, and how they are implemented and monitored.	P48-49
<b>Aspect 3: Development and Training</b>		
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	P50-51
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	P51
KPI B3.2	The average training hours completed per employee by gender and employee category.	P50-51

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 labor.	P46
KPI B4.1	Description of measures to review employment practices to avoid child and forced labor.	P46
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	Not occurred
Operating Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	P34
KPI B5.1	Number of suppliers by geographical region.	P34
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.	P34
KPI B5.3	Description of practices used to identify environmental and social risks along the supply chain, and how they are implemented and monitored.	P34
KPI B5.4	Description of practices used to promote environmentally preferable products and services when selecting suppliers, and how they are implemented and monitored.	P34
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, labeling and privacy matters relating to products and services provided and methods of redress.	P30-33
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	P30-33
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	P27
KPI B6.4	Description of quality assurance process and recall procedures.	P32-33
KPI B6.5	Description of consumer data protection and privacy policies, and how they are implemented and monitored.	Not applicable

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.	P27
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.	P27
KPI B7.2	Description of preventive measures and whistle-blowing procedures, and how they are implemented and monitored.	P27
KPI B7.3	Description of anti-corruption training provided to directors and staff.	P27
Community		
Aspect B8 : Community Investment		
KPI 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.	P56-57
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	P56-57
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	P56-57



# Feedback Form

Dear readers:

Thanks for reading the *2022 Environmental, Social and Governance (ESG) Report of Shengmu*. For better ESG practices and CSR capabilities, we will appreciate it if you could give your feedback on the report.

1. How do you rate the report?

1 2 3 4 5

2. The report reflects Shengmu's major impacts on environment, society and governance:

1 2 3 4 5

3. The information and indicators disclosed are clear, accurate, and complete:

1 2 3 4 5

4. How do you rate Shengmu's efforts in stakeholder engagement?

1 2 3 4 5

5. How do you rate the layout and design of the report?

1 2 3 4 5

6. How do you rate the publicity of the report?

1 2 3 4 5

7. Which part of the report attracts you most?

8. Other suggestions and advice on the report:





## Cherish resources and your eyesight

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