



CHINA SHENGMU BIODIVERSITY AND MULTI-CAPITAL ASSESSMENT REPORT

About the Report

This report is the first biodiversity-focused report by China Shengmu Organic Milk Limited (Shengmu). It represents China’s inaugural involvement in the multi-capital assessment pilot under the aegis of the “The Economics of Ecosystems and Biodiversity for Agriculture and Food (TEEBAgriFood)” initiative, conducted by the United Nations Environment Programme (UNEP).

Reporting Period

The report encompasses the timeframe from January 1, 2020, to December 31, 2022. Certain content and data extend to previous years for context and completeness.

Scope of Reporting

This report presents details on Shengmu’s practices and measures in biodiversity conservation and its approach to multi-capital assessment. This includes evaluations and analysis of the effectiveness of Shengmu’s actions and their respective outcomes.

Data Sources

The data and cases in this report are primarily from Shengmu’s official documents, financial disclosures, Environmental, Social, and Governance (ESG) reports, and other relevant public information.

Guideline Adherence

This report adheres to the evaluation procedures and methodology specified in the *TEEBAgriFood: Operational Guidelines for Business*.

Reference Note

For clarity and brevity throughout this report, “China Shengmu Organic Milk Limited” will also be referred to as “Shengmu”, “the Company”, or “we”.

Language Versions

The report is available in both Chinese and English. In case of minor discrepancies between the two versions, the Chinese text shall prevail.

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Preface

The State of the World's Biodiversity for Food and Agriculture report highlights the critical importance of biodiversity for food and agriculture. As such, achieving sustainable development in the agriculture and food industry is a key concern for many stakeholders. This not only helps to ensure global food security and support healthy, nutritious diets, but also improves rural livelihoods and enhances the resilience of residents and communities. According to the World Economic Forum's New Nature Economy Report, the agriculture, food, and beverage industries are subject to the highest natural risks and face significant economic losses. The degree of attention paid to the global food system's reliance on natural ecosystems and the value of human-nature interactions directly impacts a company's financial performance. As such, it is crucial that we accelerate the transformation of businesses towards a "Nature-Positive" approach and enhance productivity and investment resilience across the industry chain. This will generate a series of "net positive impacts," delivering comprehensive benefits for society, the economy, and the environment.

The multifunctionality of agriculture has been effectively demonstrated in the past 20 years, including various outputs (food, feed, fiber, agricultural fuel, medical products, and ornamental plants) and its impact on multiple aspects of human well-being, especially rural livelihoods and employment, human health, environmental services, landscape facilities, and cultural heritage. For such a dynamic system, it is challenging to accurately capture its interactions with the external environment and its externalized value using a single or financial index. This makes it difficult to effectively evaluate and manage corporate risks. Multi-capital Assessment, as a globally recognized standardized framework and methodology, offers businesses an effective tool for identifying, measuring, and valuing various forms of capital, including natural, social, and human capital. Assessing the impacts of corporate on capitals, as well as the interdependence between them (including related costs and benefits, potential risks, and opportunities), can help businesses balance the return on investment (ROI) across different forms of capital. This includes productive capital representing investment in means of production and facilities, financial capital obtained from banking and financial institutions, and green credit. By doing so, businesses can gain more valuable information for decision-making, reduce risks, and create new business opportunities.

Shengmu is on a mission to "revitalize agriculture, strive for excellence, and pursue common development," with the vision of "developing into a top brand in the organic milk industry worldwide." We are dedicated to exploring a new model of organic, ecological, and sustainable development in the animal husbandry industry, and to promoting harmony between humans and nature, as well as between the company and the environment and society. This will result in multiple benefits for ecological protection, economic growth, and social development. To externalize benefits, Shengmu has taken the lead in introducing multi-capital assessment approaches, with the aim of incorporating comprehensive capital assessment results into business decisions and showcasing the achievements of Chinese companies to the world while developing eco-friendly branding projects.

Protecting natural resources

Since 2009, Shengmu has been dedicated to protecting and managing the Ulan Buh Desert ecosystem while

simultaneously developing the sand industry. By planting trees and grass, we have established a flourishing ecosystem that includes trees, shrubs, and pasture grass. This has enabled us to effectively prevent wind erosion and fix sand in place, resulting in an improved desert climate. We have also introduced the process for preparing bedding material from fermented cow manure and renovated our composting sites. This allows us to provide our cows with safe bedding and use manure in an environmentally friendly way on the farmland. As a result, we have achieved 100% organic recycling of manure from our pastures. By implementing water-saving management practices throughout our entire industry chain, we have achieved sustainable irrigation while conserving water sources. This has resulted in both economic and ecological development, creating a win-win outcome. We are also committed to supporting the United Nations' Sustainable Development Goals (SDGs) and the *Paris Climate Agreement's* goal to "limit the temperature increase to 1.5°C above pre-industrial levels." In line with the action goals of the *Convention on Biological Diversity* (CBD) and the Kunming-Montreal Global Biodiversity Framework, we have established science-based carbon targets. Under a new nature-positive business model, we are building the Shengmu organic ecological product brand and contributing our expertise to addressing global climate change and promoting sustainable development.

Empowering employee development

At Shengmu, we value employees as our most important asset and are dedicated to empowering their growth. To this end, we have implemented the "Excellence 100" employee development program to offer them diverse career development opportunities. We also prioritize workplace safety by identifying and addressing hazards, promoting health and safety awareness, and fostering a healthy work environment. Our goal is to create a diverse, inclusive, and supportive atmosphere that benefits all employees. We also offer assistance with personal matters such as marriage and children's education to help our employees feel at home at Shengmu.

Creating social benefits

Shengmu is dedicated to operating legally and in compliance with regulations. We collaborate with shareholders, strategic partners, suppliers, and other stakeholders to create a prosperous industry ecosystem that benefits all parties. Our sustainable sand industry in Ulan Buh has boosted the local economy and created numerous jobs for residents of Bayannur and nearby areas. We have also improved local infrastructure, including roads, electricity, and water conservancy, to enhance the business environment for local communities. We value the importance of organic feed and raw milk and strive to ensure fair benefits for our suppliers, farmers, and herders. Our efforts align with the United Nations' *Convention on Biological Diversity* and the *Nagoya Protocol's* principles of fair and equitable sharing of benefits from genetic resources. At Shengmu, we combine natural and human capital and leverage our ESG system's social network to gain recognition from various stakeholders. We have also transformed the value of ecosystem services into product quality and brand value. In the future, we will continue to deepen our understanding of natural, social, and human capital, regularly assessing their dependencies and impacts while remaining alert to potential risks and opportunities. This will enable us to provide data and case studies that support our commitment to promoting healthy, organic, eco-friendly, and low-carbon practices.

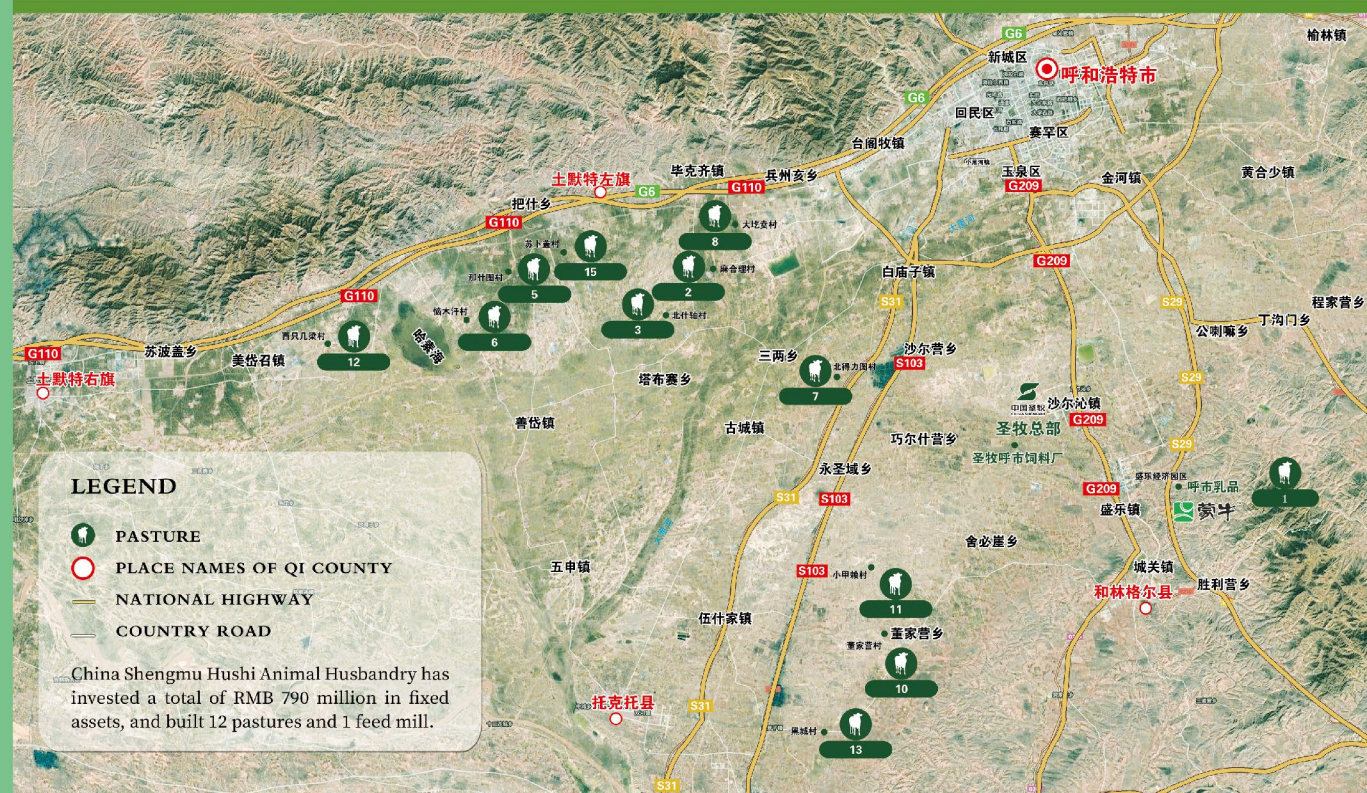
About China Shengmu

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 Company's business encompasses the entire dairy industry value chain, from forage planting and dairy cow breeding to raw milk production and the processing and production of premium liquid milk products. 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. Shengmu's core focus is on maintaining safe milk source bases through the organic planting of forage and the organic breeding of dairy cows. Leveraging its high-quality organic raw milk, the Company has established stable partnerships with downstream dairy companies.

Since its inception, Shengmu has aimed to become a leading global brand in the organic milk industry, guided by its core values of integrity, excellence, pragmatism, and passion. We have innovatively integrated desert management with circular agriculture, leveraging the natural environment and geographical advantages of the Ulan Buh Desert to undertake large-scale ecological management and sand industry construction, creating an organic industry chain. As a result, Shengmu has emerged as a pioneer in China's desert organic circular industry and the world's largest producer of organic raw milk from the desert. As the dairy industry rapidly modernizes, capital, human resources, and other key factors are increasingly concentrated among top companies. Amidst this industry transformation, we are pursuing a new development concept in our quest to become the world's leading organic milk brand. Guided by our philosophy of being young, open, and transformative, we are committed to achieving a sustainable and co-developed future for the industry.



CHINA SHENGMU HOHHOT ANIMAL HUSBANDRY LAYOUT



CHINA SHENGMU BAYANNUR ANIMAL HUSBANDRY LAYOUT





Honors and Awards

2009

In October, Shengmu was registered and incorporated in Jinshan Development Zone, Hohhot.

2010

In December, Shengmu was honored Key Leading Enterprise in the Agriculture and Animal Husbandry Industrialization of Inner Mongolia Autonomous Region by the Hohhot Municipal Government.

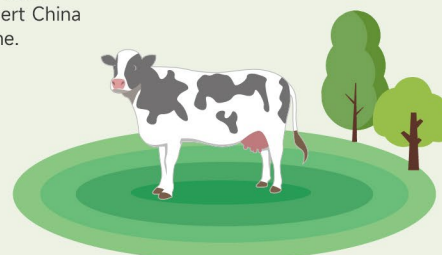
2011

In May, Shengmu obtained the China Organic Food Certification issued by China Organic Food Certification Center for the first time.

In November, Shengmu obtained the EU organic product certification issued by Ecocert China for the first time.

2012

In May, Shengmu won a gold medal at the 6th BioFach China International Organic Trade Fair and Conference for the first time.



2013

In April, Shengmu officially started its grass planting and desertification effort on 160,000 mu (one mu is equal to 0.067 hectares) of sandy land in Ulan Buh Desert.

In May, Shengmu won a gold medal at the 7th BioFach China International Organic Trade Fair and Conference for the first time.

In August, Shengmu was honored Hohhot Excellent Local Private Enterprise by the Hohhot Municipal Government.

In December, Shengmu was honored Key Leading Enterprise for Industrialization of Agriculture and Animal Husbandry in Inner Mongolia by the People's Government of Inner Mongolia Autonomous Region.

2014

In April, following the completion of the Yellow River Water Diversion Project, the Alxa League Phase-1 Base was permitted a total area of diverted water supply of 5.18 million square kilometers. The planting base achieved full network coverage and realized the leap from the E era to the 4G era.

In May, Shengmu won a gold medal at the 8th BioFach China International Organic Trade Fair and Conference for the third consecutive year.

In July, China Shengmu Organic Milk Limited (1432.HK) became the first organic milk company to be listed in Hong Kong.

In December, Shengmu was awarded the Hohhot Quality Management Award by the Hohhot Municipal Government.

2018

In May, Shengmu won a gold medal at the 12th BioFach China International Organic Trade Fair and Conference for the seventh consecutive year.

2017

In May, Shengmu won a gold medal at the 11th BioFach China International Organic Trade Fair and Conference for the sixth consecutive year.

In June, Shengmu was honored the D20 Student Care Enterprises in China Xiaokang Dairy Cow Action.

In July, Shengmu Quancheng Organic Milk won the Brand Loved by Customers Award at the China Children and Women Industry Expo; Shengmu's Quancheng Organic Milk and Cold Fresh Yogurt Machine won gold awards at the China Children and Women Industry Expo.

In August, Shengmu won the gold medal at the 18th China Green Food Expo.

During the National Conference on Integrated Development of Rural Industries held in Bayannur City in September, Wang Yang, then Vice-Premier of the State Council, praised Shengmu for its commitment to the establishment of an integrated desert-based organic circular industry chain in the Ulan Buh Desert and contribution to the prevention and control of desertification in China. He also spoke highly of Shengmu's industry-oriented sand control model.

In November, Shengmu ranked fifth among the top 100 brands of Inner Mongolia with a total brand value of 16.906 billion RMB.

2016

In January, Shengmu was honored in the 2015 China Financial Market Listed Companies Awards organized by *China Financial Market*, a high-end financial magazine in Hong Kong, China.

In March, the Shengmu Organic Fertilizer Factory was completed and put into operation, laying the foundation for the Company's development in the organic world.

In April, Shengmu was honored Key Leading Enterprise for Industrialization of Agriculture and Animal Husbandry in Inner Mongolia during the "Twelfth Five-Year Plan" period by the People's Government of Inner Mongolia Autonomous Region.

In May, Shengmu won a gold medal at the 10th BioFach China International Organic Trade Fair and Conference for the fifth consecutive year.

In December, Shengmu was honored Key Leading Enterprise for Industrialization of Agriculture and Animal Husbandry in Inner Mongolia by the People's Government of Inner Mongolia Autonomous Region.

2015

In March, the trademark "Shengmu High-tech" was named Famous Trademark of Inner Mongolia by the Famous Trademark Committee of Inner Mongolia Autonomous Region and won the 2014 Capital Market Financing Award issued by the People's Government of Inner Mongolia Autonomous Region.

In April, the transfer of 142,000 mu of rural land at the phase-two base was completed, since when the construction of Shengmu Organic Fertilizer Factory had been started officially.

In May, Shengmu won a gold medal at the 9th BioFach China International Organic Trade Fair and Conference for the fourth consecutive year.

2019

In January, Shengmu was honored Key Leading Enterprise for Industrialization of Agriculture and Animal Husbandry in Inner Mongolia by the People's Government of Inner Mongolia Autonomous Region for the third consecutive year.

In May, Shengmu won a gold medal at the 13th BioFach China International Organic Trade Fair and Conference for the eighth consecutive year; China-Denmark Organic Demonstration Farm was located in the 27th farm of Shengmu High-tech, along with which the contract signing and unveiling ceremony was held.

In July, Shengmu established the Herbiologist Workstation; trial planting of organic Beibei pumpkin and sweet potato was successful.

In December, Shengmu entered the list of top 100 brands of Inner Mongolia again with a total brand value of 15.712 billion RMB; won the National Harvest Award for Agriculture, Animal Husbandry and Fishery issued by the Ministry of Agriculture and Rural Affairs.

2020

In September, Shengmu won the honorary title of Demonstration Base of Organic Agricultural Technology R&D Center in Asia authorized by the Asian Organic Agricultural Research and Development Institute.

In November, Shengmu entered the list of top 100 brands of Inner Mongolia again with an evaluated brand value of 15.93 billion RMB, and the Company's value in the industry received wide recognition.

In December, Shengmu was rated as the Demonstration Consortium of Industrialization of Agriculture and Animal Husbandry in Inner Mongolia Autonomous Region by Inner Mongolia Department of Agriculture and Animal Husbandry.

2021

In January, Shengmu's SAP-ERP project was officially put into operation, opening a new digital chapter of building intelligent farms.

In April, Inner Mongolia University Shengmu Pasture obtained the Grade-S Modern Dairy Farm Certificate issued by the Dairy Association of China.

In May, Shengmu won the honorary title of "Leading Enterprise with Excellent Poverty Alleviation Performance in Inner Mongolia During the 13th Five-Year Plan Period" and "Leading Enterprise in Agriculture and Animal Husbandry in Inner Mongolia" by Leading Enterprises Association for the Industrialization of Agriculture and Animal Husbandry in Inner Mongolia.

In November, Shengmu won 2021 GoldenKey·Champion, and a pasture of the Company obtained the certification for sustainable eco-friendly product in the desert.

In December, the carbon neutrality case of Shengmu was included in the *Corporate Net Zero Pathway* published by United Nations Global Compact (UNGC); Shengmu became an official member of the International Federation of Organic Agriculture Movement (IFOAM).

2022

In January, the case of Shengmu was selected by the World Economic Forum as a case in its *New Nature Economy Report Series*.

In March, after over ten years of development and experience accumulation, Shengmu completed comprehensive brand image upgrading, which means that the Company would open up a new era of green, low-carbon, organic, and sustainable development of animal husbandry.

In July, the 17th International CSR Forum was held in Beijing, where China Shengmu won the honorary title of 2022 Impact·Pioneering Enterprise in the 2022 GoldenBee CSR China Honor Roll.

At the IDF World Dairy Summit held in September, Shengmu won the Innovation in Climate Action Award issued by the International Dairy Federation (IDF).

In November, the case of "China Shengmu Turning 'Yellow Desert' into an 'Oasis Bank'" was selected in the *Report of China Corporate Action on Sustainable Consumption*, which was released during the 27th Conference of the Parties to the United Nations Framework Convention on Climate Change (COP27). The release of the report aims to show the contributions made by Chinese enterprises in coping with climate change and supporting SDG12: Responsible Production and Consumption while setting a benchmark for Chinese enterprises in sustainable consumption and production.

About Multi-Capital Assessment

01 Understanding Multi-Capital Assessment

With the growing importance of sustainable development in the global economy, a company's value is no longer based solely on its physical capital. A variety of non-financial factors also play a crucial role in creating value and promoting long-term growth for businesses.



Natural capital

The stock of renewable and non-renewable resources that combine to yield a flow of benefits to people



Social capital

The networks that facilitate cooperation within and between groups, characterized by shared norms, values, and understandings



Human capital

The knowledge, skills, abilities, and traits that individuals possess to improve their performance and improve their lives



Manufactured capital

All machinery, equipment, and financial assets used to produce goods and provide services

Responsible investment and management of natural assets can generate value for businesses. However, if the stock of natural capital is depleted, it will limit its ability to provide value. Overexploitation of natural capital can push it beyond its limits, potentially causing it to stop providing value altogether. For instance, exceeding the environmental carrying capacity - the threshold curve of ecological resilience - may result in irreversible degradation or loss of natural ecosystems, preventing them from providing renewable resources.

Businesses impact and depend on various forms of capital, and there are important interdependencies between different types of capital, which in turn affect how businesses use or invest in capital. By employing multi-capital accounting, businesses can gain insight into how they are supported, both directly and indirectly, by natural, social, and human capital. This approach also reveals the potential impacts of these forms of capital on a business's ability to access external resources, such as legal compliance, industry licenses, organic certification, eco-labels, responsible investment, green credit, sustainable procurement or consumption, and other business opportunities. With this understanding, businesses can better assess relevant risks and opportunities, enabling them to make informed decisions that maximize overall value.

Read more:

The Economics of Ecosystems and Biodiversity (TEEB) is a global initiative focused on "making nature's values visible". Its principal objective is to mainstream the values of biodiversity and ecosystem services into decision-making at all levels. It aims to achieve this goal by following a structured approach to valuation that helps decision-makers recognize the wide range of benefits provided by ecosystems and biodiversity, demonstrate their values in economic terms and, where appropriate, capture those values in decision-making.

In 2018, TEEB launched a groundbreaking program, the Economics of Ecosystems and Biodiversity for Agriculture and Food programme (TEEBAgriFood), aiming to address the challenges facing food systems. The TEEBAgriFood Evaluation Framework highlights the importance of taking an "integrated approach" to the interactions between various forms of capital, including natural, human, and social capital, and demonstrates the evolution from stocks and flows to values and impacts on human well-being. The assessment method used in this report is based on this framework.

The multi-capital approach offers decision-makers tools to identify, measure, and value their impacts and dependencies on natural capital. This approach highlights the crucial role that nature, its products, and services play in sustainable production, livelihoods, well-being, and traditional culture, as well as how natural capital can be combined with other forms of capital, such as human, social, and manufactured capital to transform nature into an asset that generates greater socio-economic value.

Multi-capital accounting is an internationally recognized standardized process and methodology that consists of four stages: establishing the framework, determining the scope, measuring and estimating, and implementing and applying the results. These stages address key questions such as why multi-capital accounting is important, what its purpose is, how it should be conducted, and how to analyze the results and plan next steps. By following this process, businesses can ensure that their multi-capital accounting is standardized and produces usable results.



02 Assessing the Value of Multiple Forms of Capital

Baselines

Using the capital status of China Shengmu Organic Milk Limited in various forms on December 31, 2019 as the baselines:

Natural capital: The benefits and value produced by energy conservation, carbon reduction, waste utilization, desert vegetation planting, and climate regulation were measured based on carbon emissions, water consumption, waste discharge, afforestation, and regional rainfall and snowfall conditions.

Human capital: The benefits and value produced by employee diversity, retention, development, and welfare were measured based on the proportion of female employees, employee turnover rate, training hours, and employee rights and interests.

Social capital: The benefits and value produced by responsible supply chain management, sustainable industry development, and community prosperity were measured based on supply chain management practices, strategic partnerships, and community development and improvement efforts.

Manufactured capital: 以 2019 年 12 月 31 日的用于生产和服务的专业技术、设施设备和金融资本的投入和使用情况为基线,衡量 2020-2022 年数字化运营、奶牛管理、普惠金融及知识产权所产出的效益及价值。

Scenarios

Spatial boundary

Mainly assessing and analyzing the current situation, with some indicators assessed using "vision" scenarios

Shengmu's headquarters and all branch offices and subsidiaries, as well as the entire Ulan Buh Desert where the Shengmu Organic Industrial Park is located

Temporal boundary

Changes in various forms of capital of China Shengmu Organic Milk Limited from January 1, 2020 to December 31, 2022

Organizational focus

The 33 ranches of Shengmu, including 20 organic ranches and 13 non-organic ranches

Value-chain boundary

The boundary is determined by the participants involved in the operations of China Shengmu Organic Milk Limited. In the "social capital accounting" section, only farmers and feed suppliers upstream of Shengmu's value chain, as well as raw milk processors and milk consumers downstream of the value chain, are considered.

Value perspective

Value to the business and value to society

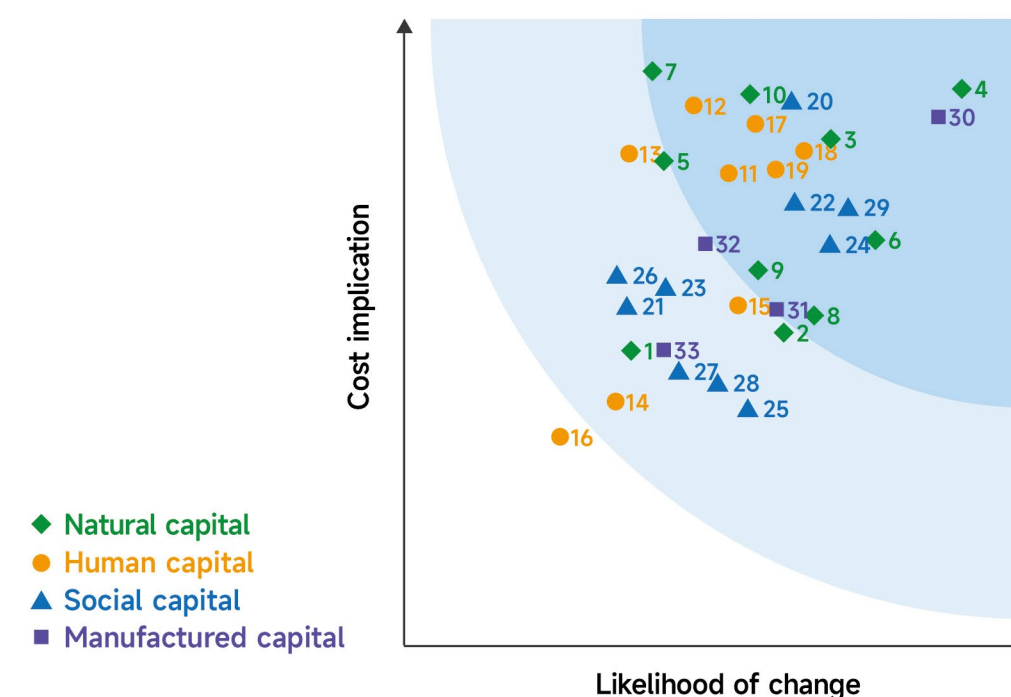
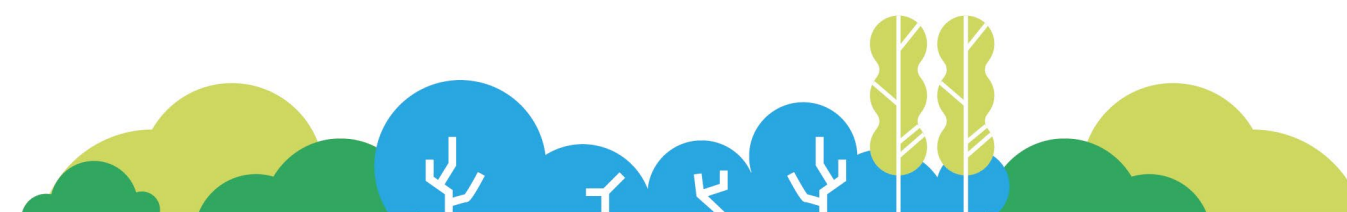
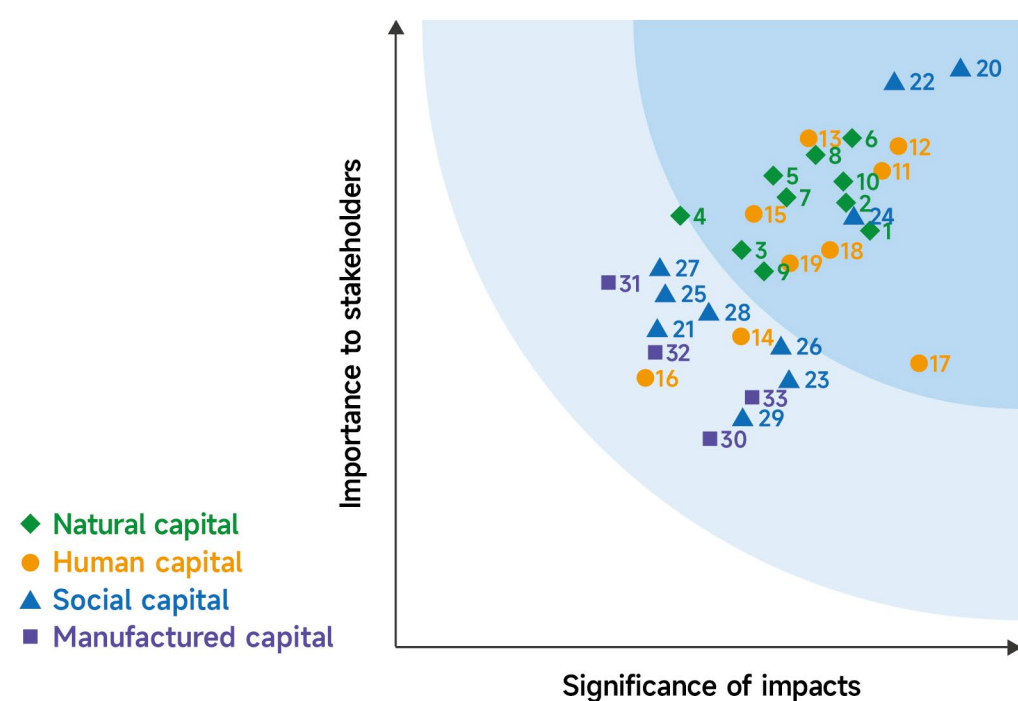
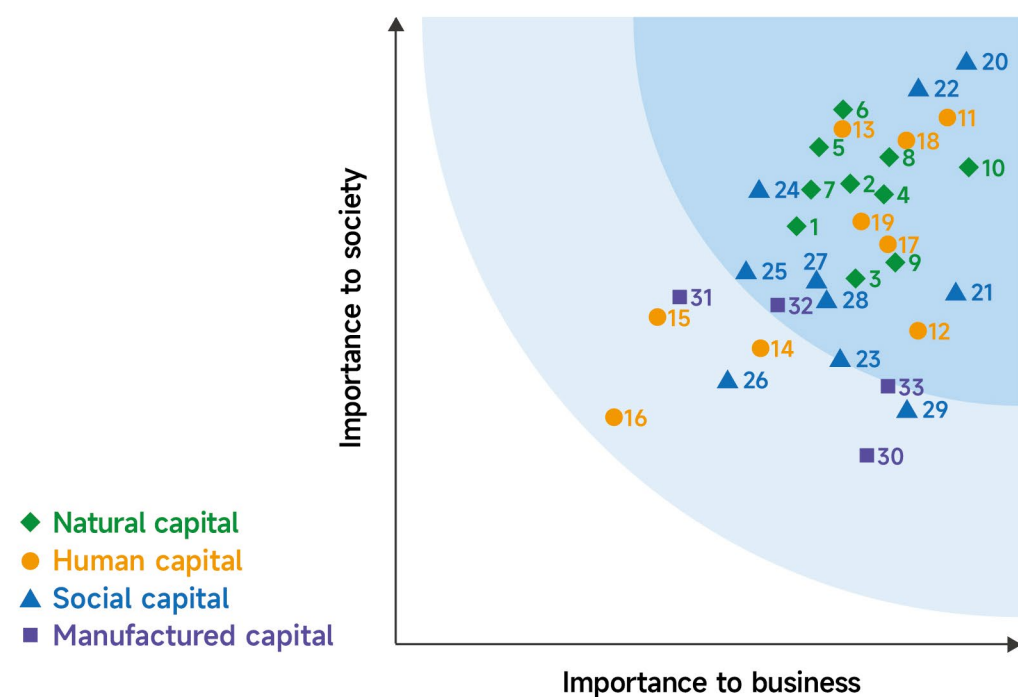
Types of value

Qualitative, quantitative, and monetary valuation



Understanding the Relationship Between Shengmu and Multiple Forms of Capital

Shengmu maintains a close relationship with nature, human resources, and society. Its production and operations have significant impacts and dependencies on various forms of capital, spanning the primary industry (agriculture and animal husbandry), secondary industry (food processing), and tertiary industry (distribution, logistics, etc.). As such, unsustainable production and consumption methods in response to market demand may threaten the ecological environment, public health, and social development at every stage of Shengmu's production and operations. In view of this, Shengmu has assessed and analyzed the materiality of the impacts and dependencies of its value chain from six dimensions, identifying key links where natural capital, human capital, and social capital have material impacts and dependencies.

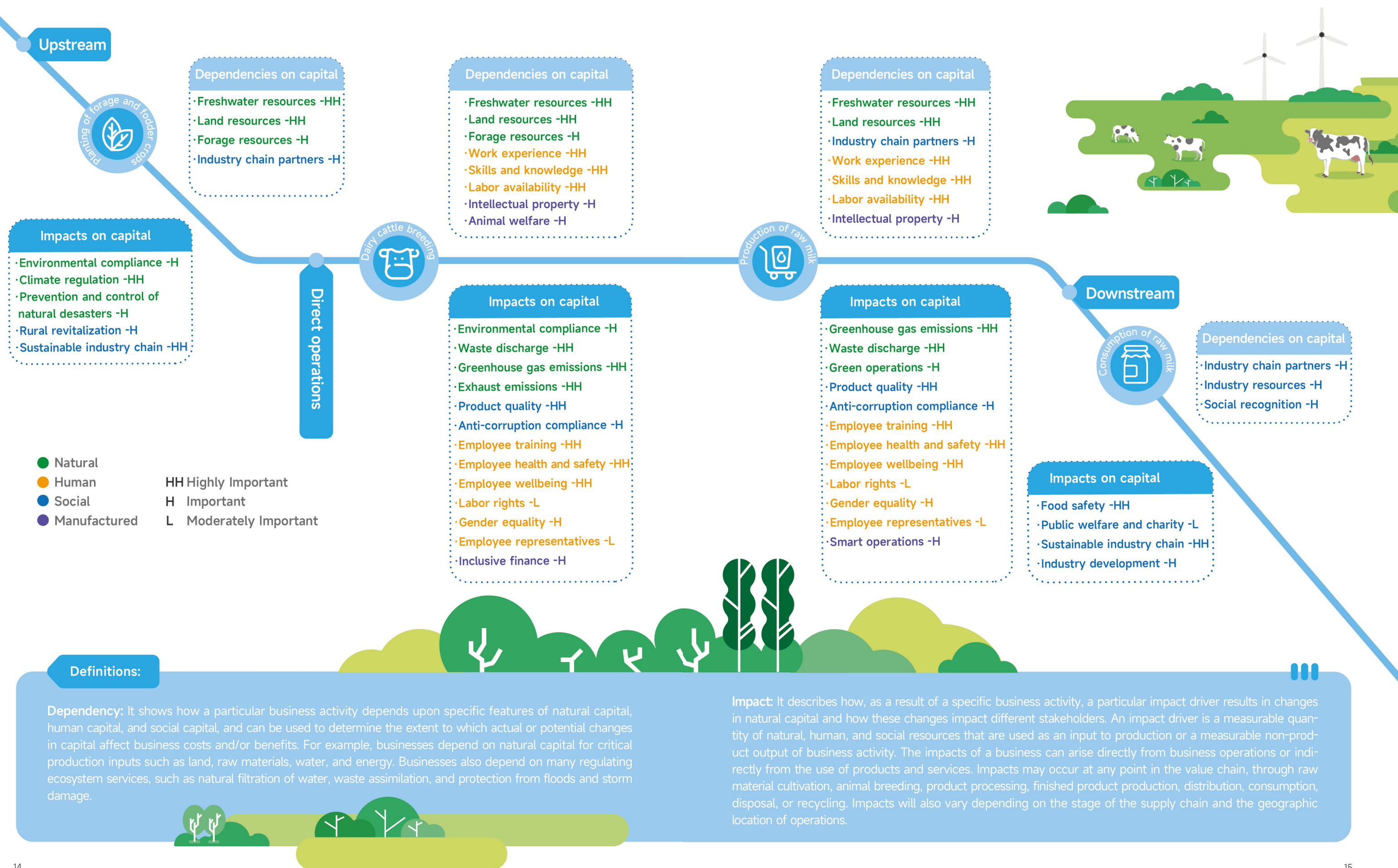


- ◆ 1 Environmental compliance
- ◆ 2 Prevention and control of natural disasters
- ◆ 3 Green operation
- ◆ 4 Waste discharge
- ◆ 5 Greenhouse gas emissions
- ◆ 6 Exhaust emissions
- ◆ 7 Climate regulation
- ◆ 8 Freshwater resources
- ◆ 9 Forage resources
- ◆ 10 Land resources

- 11 Employee training
- 12 Employee health and safety
- 13 Employee wellbeing
- 14 Labor rights
- 15 Gender equality
- 16 Employee representatives
- 17 Work experience
- 18 Skills and knowledge
- 19 Labor availability

- ▲ 20 Product quality
- ▲ 21 Anti-corruption compliance
- ▲ 22 Food safety
- ▲ 23 Rural vitalization
- ▲ 24 Sustainable industry chain
- ▲ 25 Industry development
- ▲ 26 Public welfare and charity
- ▲ 27 Industry chain partner
- ▲ 28 Industry resources
- ▲ 29 Social recognition

- 30 Smart operations
- 31 Animal welfare
- 32 Inclusive finance
- 33 Intellectual property





Measuring Shengmu's Impacts and Dependencies on Multiple Forms of Capital

To fulfill the expectations and requirements of all stakeholders, Shengmu analyzed and measured the aforementioned impacts and dependencies based on the "Three Components" of capital assessment. This approach helps to avoid any limitations that may arise from incomplete consideration.

- **Component 1:** Impacts on our business: Factors that affect our financial bottom line - either now or in the future;
- **Component 2:** Our impacts on society: Factors that affect the well-being of stakeholders or the general public, whether it can arise from our direct operations or indirectly from somewhere else in our value chain;
- **Component 3:** Our business dependencies: Benefits that our business receives from factors, and our business would be interrupted without factors.

01 Measuring Our Impacts and Dependencies on Natural Capital

	Impacts/dependencies	Impact drivers/dependencies	Changes in natural capital	Indicators	Assessment methodology	Monetization reference factor	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Impacts on Shengmu	Environmental compliance	Environmental policies and laws	Changes in the concentration of pollutants in the atmosphere, water and soil	Environmental taxes (10,000 RMB)	Monetization	Alternative cost method	-216.59	-
	Prevention and control of natural disasters	Climate risk identification	Natural disaster risks and losses	Insurance investment (10,000 RMB)	Monetization	Alternative cost method	-322.27	-
	Green operation	Energy efficiency improvement	气候变化	Energy costs saved (10,000 RMB)	Monetization	内蒙古自治区农业用电价格	+10,352.74	-
			空气质量变化			煤炭市场价格	+1,555.88	-
Impacts on society	Waste discharge	Fecal discharge	Waste discharge	Livestock manure (ton)	Monetization	Market price	-	+10,320
		General waste discharge		Amount of general waste discharge (ton)	Monetization	Reference factor calculated in the <i>Environmental Cost Analysis and Ecological Value Creation in the Whole Lifecycle of Manufacturing Industry</i>	-	-6.15
		Hazardous waste discharge		Amount of hazardous waste discharge (ton)	Monetization	Reference factor calculated in the <i>Environmental Cost Analysis and Ecological Value Creation in the Whole Lifecycle of Manufacturing Industry</i>	-	-2,976.61
	Greenhouse gas emissions	Scope 1 1	Climate change	Carbon dioxide equivalent (ton)	Monetization	The average price of carbon quota from 2020 to 2022 specified by the Beijing Environment Exchange	-	-13,157.02
		Scope 2 2			Monetization		-	-1,925.48
	Exhaust emissions	SO ₂ emissions	Changes in air quality	SO ₂ emissions (ton)	Monetization	Reference factor calculated in the <i>Analysis of Natural Capital Costs of Chinese Financial and Investment Institutions</i>	-	-1.57
		NOx emissions		NOx emissions (ton)	Monetization	Reference factor calculated in the <i>Analysis of Natural Capital Costs of Chinese Financial and Investment Institutions</i>	-	-3.98
		Dust emissions		Dust emissions (ton)	Monetization	Reference factor calculated in the <i>Analysis of Natural Capital Costs of Chinese Financial and Investment Institutions</i>	-	-8.30
	Climate regulation	Water conservation	Decrease in local winds Increase in local precipitation	Increase in annual rainfall (millimeter)	Monetization	Price for introducing water from the Yellow River to Inner Mongolia for agricultural irrigation	-	+453.24
		林场建设		Forest area (10,000 mu)	Monetization	2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventory The average price of carbon quota from 2020 to 2022 specified by the Beijing Environment Exchange	-	+65,301.11
		草场建设		Pasture area (10,000 mu)	Monetization	2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventory The average price of carbon quota from 2020 to 2022 specified by the Beijing Environment Exchange	-	+1,965.90
Dependencies on natural capital	Freshwater resources	Water for irrigation	Reduction in available surface water or groundwater	Irrigation water consumption (10,000 cubic meters)	Monetization	Price for introducing water from the Yellow River to Inner Mongolia for agricultural irrigation	-447.62	-
		Water for pastures		Pasture water consumption (10,000 cubic meters)	Monetization		-37.09	-
	Forage resources	Demand for fodder	Changes in vegetation coverage	Yield per unit of land for forage cultivation in deserts (ton per mu)	Quantitative assessment	-	-	-
	Land resources	Land used for ranching	Changes in stock of land resources	Area of land use (square kilometers)	Monetization	Alternative cost method	-54,785.18	-

*1 Direct emissions include intestinal fermentation, manure management, feed processing and energy consumption caused by gas and diesel.

*2 Indirect emissions include energy consumption caused by electricity.

02 Measuring Our Impacts and Dependencies on Human Capital



	Impacts/dependencies	Impact drivers/dependencies	Changes in human capital	Indicators	Assessment methodology	Monetization reference factor	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Impacts on Shengmu	Labor rights	Labor arbitration	Changes in the risk of labor arbitration penalties	Fines arising from forced labor incidents (10,000 RMB)	Monetization	Alternative cost method	-0.00	-
				Fines for employing child labor (10,000 RMB)	Monetization		-0.00	-
				Fines for not signing labor contracts (10,000 RMB)	Monetization		-0.00	-
				Fines for not paying for social security on time (10,000 RMB)	Monetization		-0.00	-
	Employee representatives	Employees that are members of the employees' congress	Changes in the number of ordinary employees participating in company-level decision making	Number of employees that are members of the employees' congress	Quantitative assessment	-	-	-
		Employees that are members of different levels of people's congresses	Changes in the number of employees participating in the deliberation and administration of state affairs	Number of employees that are members of different levels of people's congresses	Quantitative assessment		-	-
Impacts on society	Employee training	Training duration	Changes in employees' professional skills, knowledge, and management capabilities	Investment in employee training (10,000 RMB)	Monetization	Alternative cost method	-	+234.89
		Training course						
	Employee health and safety	Work safety	Changes in the risk of work-related injuries or fatalities among employees	Number of employees who have suffered work-related injuries or fatalities	Monetization	Production safety accident penalty coefficient	-	+2,890.00
		Occupational health	Changes in the risk of employees developing occupational illnesses	Number of sick days taken by employees	Monetization	Salary of employees	-	+101.65
	Employee wellbeing	Compensation	Changes in compensation	Compensation (10,000 RMB)	Monetization	Average salary of urban employees in agriculture, forestry, animal husbandry, and fishery	-	+34,861.59
		Benefits	Changes in benefits	Employee mutual aid fund (10,000 RMB)	Monetization	Alternative cost method	-	+110.28
				Investment in employee benefits (10,000 RMB)	Monetization	Alternative cost method	-	+129.63
	Gender equality	Proportion of female employees	Changes in the work motivation of female employees	Proportion of female (%)	Monetization	Average proportion of female employees in the industry, Cumulative days of maternity leave and parental leave for employees	-	+12.86
Dependencies on human capital		Employees familiar with breeding technology and pasture management	Changes in the number of employees familiar with breeding technology and pasture management	Number of heads and deputy heads of pastures	Monetization	Average salary of pasture heads, Average salary of deputy pasture heads	-	1,084.37
	Skills and knowledge	Employees with technical titles required for operation and management	Changes in the number of employees with technical titles required for operation and management	Number of employees that have obtained technical titles (excluding grassroots employees that have worked for the Company for more than 5 years)	Monetization	Average salary of employees that have obtained technical titles	-	8,328.61
	Labor availability	Employees required for pasture operation	Changes in the number of employees required for pasture operation	Turnover rate of pasture staff (%)	Monetization	Average salary of pasture staff	-19,473.50	-



03 Measuring Our Impacts and Dependencies on Social Capital



	Impacts/ dependencies	Impact drivers/ dependencies	Changes in social capital	Indicators	Assessment methodology	Monetization reference factor	Business costs/ benefits (10,000 RMB)	Social costs/ benefits (10,000 RMB)
Impacts on Shengmu	Product quality	Quality inspection	Changes in microbial content of raw milk	Increase in raw milk that meets Grade-S standard (%)	Monetization	Raw milk unit price Raw milk output	+43,151.22	-
	Anti-corruption compliance	Internal whistleblowing	Changes in the disclosure of corruption cases	Number of corruption cases investigated and handled	Monetization	Economic losses avoided	+1.50	-
		Audit and supervision	Changes in the Company's ability in corporate risk prevention	INumber of risk warning reminders and execution documents published	Monetization	Alternative cost method	+30.00	-
Impacts on society	Food safety	Organic certification of products	Traceable organic milk for consumers	Premium for organic milk paid by consumers (%)	Monetization	Market price of ordinary milk	-	+101,662.63
	Rural revitalization	Community environment	Changes in community infrastructure	Highways constructed (km)	Monetization	Market cost of highway construction Infrastructure investment return coefficient	+1,546.40	+ 3,092.80
				Transmission lines built (km)	Monetization	Market cost of wire installation Infrastructure investment return coefficient	+833.70	+ 1,667.40
		Industry investment	Changes in the local economy	Contribution to the local tax revenue (10,000 RMB)	Monetization	Market and financial price method	-	+245.47
		Local procurement	Changes in livelihoods in animal husbandry	New jobs created	Monetization	The monthly minimum wage in first-class areas of Inner Mongolia	-	+21,384.00
	Sustainable supply chain	Supplier access	Changes in sustainability resilience of suppliers	Increase in the procurement of zero-deforestation soybean products (ton)	Quantitative assessment	-	-	-
		Supplier capacity building		Number of training sessions to assist suppliers (times)	Monetization	Alternative cost method	-	+90.00
				Decrease in the interest rate of loans to suppliers (%)	Quantitative assessment	-	-	-
	Industry development	Industry exchange and cooperation	Changes in opportunities for enterprises, universities, and research institutes to cooperate	承担或参与科研课题(个)	Monetization	R&D investment Strategic investment return coefficient	+941.10	+1,882.20
				Number of industry associations joined by the Company	Monetization	Alternative cost method	-	+51.00
				Number of international organizations joined by the Company	Monetization	Alternative cost method	-	+45.00
	Public welfare and charity	Environmental knowledge popularization	Changes in public awareness of environmental protection	Number of people covered by the Company's online and offline environmental knowledge popularization activities	Monetization	Alternative cost method	-	+297.00
		Charity donations	Changes in living standards in poor areas	Total value of donated items (10,000 RMB)	Monetization	Alternative cost method	-	+779.90
		Volunteer campaigns	Changes in the level of community integration	参与公益志愿活动时长(小时)	Monetization	The average annual salary of urban employees in the non-private sector nationwide	-	+13.28
Dependencies on social capital	Supply chain partners	Customers	Changes in industrial chain partnerships	Increase in the contribution of sales revenue from the top five customers (%)	Quantitative assessment	-	-	-
		Suppliers		Increase in the number of suppliers of organic products (%)	Quantitative assessment	-	-	-
				Increase in the amount of products purchased from the top five suppliers (%)	Quantitative assessment	-	-	-
				Agricultural cooperatives	Partner agricultural cooperatives	Quantitative assessment	-	-
	Industry resources	International organizations	Changes in inter-organizational communication	Number of globally recognized excellent cases of the Company	Quantitative assessment	-	-	-
	Social recognition	Market recognition	Changes in mutual trust between stakeholders	Increase in brand value (10,000 RMB)	Monetization	Market valuation method	+150,300.00	-

04 Measuring Our Impacts and Dependencies on Manufactured Capital



	Impacts/dependencies	Impact drivers/dependencies	Changes in manufactured capital	Indicators	Assessment methodology	Monetization reference factor	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Impacts on Shengmu	Intelligent operation	Data transparency	Changes in the reliability of data traceability	Increase in the efficiency of identifying the authenticity of data sources (%)	Monetization	Alternative cost method	1,540.00	-
	Inclusive finance	Sustainable finance policies	Changes in the availability of green and inclusive finance	Number of green loans obtained	Monetization	Total amount of green loans Percentage reduction in interest rates of green loan	22.05	-
				Issuance of social responsibility bonds	Monetization	Total amount of social responsibility bonds Percentage reduction in interest rates of social responsibility bonds	80.00	-
Dependencies on manufactured capital	Animal welfare	Animal protection	Changes in health conditions of the herd	Decrease in the culling rate of adult cows (%)	Monetization	Coefficient of relationship between yield and elimination rate in the 2021 Dairy Farm Key Production Performance Index Report Number of dairy cows Milk output per dairy cow	-	177.24
			Changes in the living environment of the herd	Investment in animal welfare facilities (10,000 RMB)	Monetization	Alternative cost method	-	2,045.00
	Intellectual property	Intellectual property protection	Changes in intellectual property availability	Number of patents authorized	Monetization	Alternative cost method	48.00	-



Application of the Results from Multi-Capital Assessment by Shengmu

01 Monetizing Performance

In this multi-capital accounting program, Shengmu has increased benefits for nature, employees, and society by utilizing comprehensive data from all monetized indicators, resulting in a total benefit of

376,268.29 RMB

natural capital benefit of

16,061.02 RMB

social capital benefit of

328,014.60 RMB

human capital benefit of

28,280.38 RMB

manufactured capital benefit of

3,912.29 RMB

	Topics	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Natural capital	Environmental compliance	-216.59	-
	Prevention and control of natural disasters (sandstorms, etc.)	-322.27	-
	Green operation	+11,908.62	-
	Waste discharge	-	+7,337.24
	Greenhouse gas emissions	-	-15,082.50
	Exhaust emissions	-	-13.85
	Climate regulation	-	+67,720.25
	Freshwater resources	-484.71	-
	Land resources	-54,785.18	-
	Total (10,000 RMB)	-43,900.13	+59,961.15
	Total benefits (10,000 RMB)		16,061.02

	Topics	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Social capital	Product quality	+43,151.22	-
	Anti-corruption compliance	+31.50	-
	Food safety	-	+101,662.63
	Rural revitalization	+2,380.10	+ 26,389.67
	Sustainable industry chain	-	+90.00
	Industry development	+941.10	+1,978.19
	Public welfare and charity	-	+1,090.18
	Social recognition	+150,300.00	-
	Total (10,000 RMB)	+196,803.92	+131,210.67
	Total benefits (10,000 RMB)		328,014.60

	Topics	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Human capital	Employee training	-	+234.89
	Employee health and safety	-	+2,991.65
	Employee wellbeing	-	+35,101.50
	Gender equality	-	+12.86
	Work experience	-	+1,084.37
	Skills and knowledge	-	+8,328.61
	Labor availability	-19,473.50	-
	Total (10,000 RMB)	-19,473.50	+47,753.88
	Total benefits (10,000 RMB)		28,280.38

	Topics	Business costs/benefits (10,000 RMB)	Social costs/benefits (10,000 RMB)
Manufactured capital	Smart operations	+1,540.00	-
	Inclusive finance	+102.05	-
	Animal welfare	-	+2,222.24
	Intellectual property	+48.00	-
	Total (10,000 RMB)	+1,690.05	+2,222.24
	Total benefits (10,000 RMB)		3,912.29

02 Supporting Risk Management

Leveraging the principles and methodologies of “Nature-Based Solutions” (NBS), Shengmu applies the Mitigation Hierarchy framework for effective risk management, minimizing the detrimental impact of the Company’s operational activities on biodiversity and the natural environment while creating maximum value for key stakeholders.

Natural



Avoidance Ecological redline

Identified risks and opportunities:

As environmental policies and regulations keep tightening, operating within the areas designated as “ecological preservation zones” can significantly threaten local biodiversity, which could potentially lead to hefty tax burdens or fines for businesses. **Since 2010, Shengmu has established a presence in the Ulan Buh Desert, stringently safeguarding the ecological “red line” and complying with the Yellow River Protection Law.**

Solution:

Pasture site selection: We adopt the “low-coverage sand control theory” when building pastures in the Ulan Buh Desert to enhance the pace and quality of managing desertified lands. This practice respects and leverages the regional natural environment, nurturing and planting protective forests and sand control systems grounded in natural restoration. Not only does this method improve water utilization efficiency, thereby reducing costs and groundwater usage, but it also bolsters the windbreak and sand fixation efficiency of the protective forests (projects).



Reduction Resource consumption

Identified risks and opportunities:

The overuse of water, plant, and land resources, coupled with the improper disposal of waste, can result in a steady rise in production and operational expenses. **From 2020 to 2022, Shengmu paid a total of 2.1659 million RMB in environmental taxes for the discharge of pollutants.**

Solution:

Waste gas/waste management: Shengmu has replaced all boilers on its ranches with air source heat pumps to achieve “net zero” emissions of waste gases such as SO₂, NO_x, smoke, and dust. From 2020 to 2022, the reduction in waste gas emissions resulted in a social benefit of 301,300 RMB. Additionally, the use of cow manure on farmland effectively can prevent water and soil pollution caused by livestock excrement. From 2020 to 2022, Shengmu utilized 4,296,600 tons of cow manure, reducing the use of 430,000 tons of chemical fertilizers.

Energy efficiency management: We’ve optimized the process of reusing the waste heat from fresh milk, which not only stabilizes the quality of fresh milk but also reduces the load on refrigeration equipment, cutting down on energy and water resource consumption in the heating process. This improved process can decrease groundwater usage by 0.4 tons per ton of fresh milk, while simultaneously generating 5 kWh of heat.



Mitigation GHG gas emission

Identified risks and opportunities:

By controlling greenhouse gas emissions such as carbon dioxide and methane, Shengmu is not only addressing climate change but also complying with increasingly stringent environmental policies and emission standards.

From 2020 to 2022, Shengmu reduced social costs by 1.6522 million RMB through the reduction of greenhouse gas emissions, compared to the three years from 2017 to 2019.

Solutions:

Carbon management: Guided by China’s goals for peak carbon and neutrality, as well as the Paris Climate Agreement’s commitment to limit global warming to 1.5°C, we have laid out a scientifically robust and effective path for reducing carbon emissions, and have set science-based carbon reduction targets. We have made strides in deploying renewable energy, even introducing new energy electric loaders in our pilot pastures.

Water conservation: Shengmu has made impressive strides in microclimate regulation through water conservation efforts. This has led to an increase in regional annual precipitation from 105.7 mm from 2017 to 2019 to 127.9 mm from 2020 to 2022, generating a value of 4.5324 million RMB.



Restoration Ecological carrying capacity

Identified risks and opportunities:

Ecological restoration initiatives and strategies not only ensure the sustainable functioning of our enterprise but also assist us in carving an eco-friendly brand image. **From 2020 to 2022, Shengmu’s tree and grass planting initiatives led to carbon sequestration that resulted in a whopping 677,202,500 RMB in societal benefits. Additionally, our practice of applying cow dung to the fields reduced corporate costs by 103,200,000 RMB.**

Solutions:

Ecological compensation: Shengmu has made remarkable strides in greening the Ulan Buh desert, planting over 97 million trees of various species and bringing life to more than 200 square kilometers of desert. In our organic cultivation base, we’ve erected a shrub windbreak every 200 meters. Along the borders and roads, we’ve planted arbor trees, forming robust windbreaks. These interventions, along with the herbaceous crops in our fields, have systematically reduced wind power. The local average wind power, initially at levels 6-7, has been successfully mitigated to levels 4-5.

Soil fertility preservation: Shengmu has harnessed cow dung as an organic fertilizer to bolster its water-retention capacity and overall fertility. Each year, we produce hundreds of thousands of tons of high-quality organic fertilizer, amounting to a total volume of 600,000 cubic meters. When spread over the desert at a thickness of 1cm, this volume can cover nearly 10,000 hectares of land.



Human



Avoidance Labor dispute

Identified risks and opportunities:

When employing labor, the Company may face litigation or administrative penalties if labor disputes or arbitrations arise due to violations of laws and regulations. **From 2020 to 2022, Shengmu diligently protected the legitimate rights and interests of its employees, successfully avoiding any labor disputes or arbitrations.**

Solution:

Legal employment: Shengmu is committed to equal employment opportunities and adheres to legal provisions when formulating, signing, and executing labor contracts. The Company ensures timely payment of social security for employees, and guarantees that their wages meet or exceed the local minimum wage standard. Shengmu abides by special regulations for the protection of female employees, strictly prohibits the use of child or forced labor, and effectively ensures legal employment practices.

Reduction Safety accident

Identified risks and opportunities:

Without a mechanism in place to ensure employee health and safety, employees may cause safety accidents during production and operation due to a lack of awareness or improper actions. Poor internal and external communication may prevent employees from obtaining information in a timely manner, causing them to miss opportunities for career development. These issues can result in decreased employee satisfaction, reduced team cohesion, and ultimately, lower production and operational efficiency, hindering the achievement of the Company's strategic goals. **From 2020 to 2022, Shengmu generated a corporate benefit of 28.9 million RMB by reducing employee casualties.**

Solutions:

Employee safety and health management: Shengmu strictly adheres to the safety red line, continuously improving the mechanisms in place to ensure employee health and safety. We have constantly upgraded our safety facilities and provided employees with sufficient protective equipment. We have also enhanced the hygiene management of ranches, and offered health check services to employees to ensure their safety and wellbeing.

Work safety management: Shengmu upholds the belief that "work safety is the key guarantee for corporate development". We diligently fulfill our safety responsibilities and have standardized our safety management system to ensure compliant practices across production, operations, usage, storage, transportation, and disposal. Work safety is further bolstered through measures like the installation of barrier explosion-proof, skid-mounted refueling devices and renovation of electric car shelters.



Mitigation Internal conflict

Identified risks and opportunities:

By fostering a diverse, equal, and inclusive workplace atmosphere, Shengmu is able to improve employee happiness and sense of belonging. This stimulates their vitality and potential, promoting the common growth of both individuals and the Company. **From 2020 to 2022, the proportion of female employees at Shengmu rose to 37.43%, a notable increase from the 2017-2019 period. This shift has generated a societal benefit valued at 128,600 RMB.**

Solution:

A diverse and inclusive workplace: Shengmu is committed to promoting equality in the workplace by adhering to equal pay for equal work and strictly prohibiting any form of discrimination or differential treatment. This includes, but is not limited to, gender, age, race, religion, education, and culture. We actively safeguard the rights and interests of female staff and care for ethnic minority employees by respecting their customs and habits, thus creating a workplace enriched by varied cultural tapestries.

Internal and external communication mechanism: Shengmu elects employee representatives to oversee the Company's code of conduct, and facilitate communication between employees and the Company. The representatives also participate in company decision-making and advocate for employee rights, fostering positive labor relations. Shengmu also sends deputies to the National People's Congress, as a bridge for internal and external communication, to strengthen cooperation with the government and communities to lay a solid foundation for its steady development.

Restoration Labor availability

Identified risks and opportunities:

Shengmu's comprehensive compensation and personnel training systems effectively address the loss of ranch labor caused by inadequate living and working conditions, medical care, and education. **From 2020 to 2022, the employee turnover rate at Shengmu's ranches decreased annually. As of 2022, Shengmu employed a total of 2,845 individuals, demonstrating steady growth for three consecutive years.**

Solutions:

Competitive compensation plans: Shengmu continuously optimizes its compensation systems in compliance with relevant laws and regulations and the Company's actual situation. From 2020 to 2022, the average wages provided by Shengmu exceeded the industry average.

Excellent employee benefits: Shengmu strives to create a healthy and caring work and living environment by improving employee living conditions, organizing a range of cultural and sports activities, and establishing an employee mutual aid fund.

Differentiated personnel training: Shengmu is committed to the comprehensive development of its employees, offering differentiated training programs to achieve this goal. We provide a range of training courses designed to enhance employees' theoretical knowledge, professional and general skills, and leadership abilities. We also encourage employees to further their education, obtain professional certifications, or acquire professional titles during their employment.



Social



Avoidance Violations

Identified risks and opportunities:

Regulatory bodies and the general public are paying closer attention to corporate compliance and expect businesses to enhance their internal governance, improve risk management, and maintain transparent operations to prevent financial and reputational damage resulting from non-compliance. **From 2020 to 2022, Shengmu incurred a cost of 300,000 RMB as a result of its commitment to legal and compliant business practices.**

Solutions:

Risk management: Shengmu is dedicated to continuously improving its risk management system by innovating its methods and formulating major risk lists through structured interviews and scenario analysis. From 2022 to 2022, the Company issued 35 risk warning prompts and execution documents, effectively managing 135 risk indicators.

Anti-corruption: Shengmu takes a strong stance against corruption and upholds integrity by comprehensively regulating employee discipline through the improvement of organizations and systems. Illegal, disciplinary, and non-compliant behaviors are punished to create an atmosphere of integrity where all personnel pursue development endeavors. From 2020 to 2022, Shengmu investigated one corruption case, successfully avoiding a financial loss of 15,000 RMB.

Reduction Operational Risks

Identified risks and opportunities:

Neglecting the rights and interests of stakeholders can result in a damaged reputation, severed social networks, decreased cooperation efficiency, and ultimately, threaten the stability of the industry chain. **Between 2020 and 2022, Shengmu worked to continuously build mutual trust with its stakeholders, generating a value of 450 million RMB through its efforts to improve food safety and promote animal welfare.**

Solutions:

Product quality management: Shengmu has fully implemented 6S refined management on its ranches, rigorously monitoring product quality throughout the feed procurement, raw milk production, and transportation processes. The Company has established an internal feed traceability system, and isolates sick cows until tests confirm that there are no drug residues in their bodies. Shengmu also conducts real-time supervision of raw milk production and transportation through the use of scientific and rigorous procedures. During the accounting period, the Company's raw milk Grade-S pass rate increased.



Sustainable supply chain management: Shengmu has implemented a mechanism to align its interests with those of its suppliers. From 2020 to 2022, the Company organized 82 training sessions on organic certification. Shengmu has also established a "zero deforestation" supply chain, promoting sustainable development among its suppliers. By introducing innovative financing products and streamlining financing processes, the company has managed to control supplier financing costs at the level of the loan prime rate (LPR).

Mitigation Negative Interference

Identified risks and opportunities:

Shengmu has worked in cooperation with local governments, cooperatives, financial institutions, and industry peers to promote community integration and development. This has helped to mitigate any negative impact the Company may have on local residents. **From 2020 to 2022, Shengmu created numerous job opportunities, supported local farmers and herders in increasing their income, and generated a social value of 260 million RMB for the local communities.**

Solutions:

Rural revitalization: Shengmu has introduced an innovative industry model that focuses on developing animal husbandry through the growth of silage. This has helped farmers to grow silage and build essential infrastructure such as roads and power lines. In Ulan Buh, we have supported 5,786 farmers to grow 236,500 mu of silage, helped over 20,000 local herders increase their income, and created 3,000 job opportunities.

Public welfare and charity: Shengmu is actively involved in charitable initiatives, organizing employee volunteer activities and donating resources to impoverished areas. We have launched the "3060 Carbon Neutrality Forest Planting Plan - Desert Nature Education Program" to raise public awareness about environmental issues related to deserts. During the accounting period, 586 employees participated in volunteer activities, and our educational courses reached over 520,000 people.

Restoration Industry Environment

Identified risks and opportunities:

The stringent requirements for organic certification demanded by consumers enable businesses to establish a responsible brand image and increase the trust of customers and investors. **From 2020 to 2022, Shengmu's brand value increased by over 1.5 billion RMB, with an additional over 1 billion RMB in value generated through organic certification.**

Solution:

Organic food certification: Shengmu has established the world's first fully organic circular industry chain for desert and forage management. The Company strictly adheres to organic standards in planting and managing crops, while regularly conducting on-site assessments and formula optimization with expert teams. This ensures continuous enhancement of traceability and transparency throughout the industry chain. As a result, Shengmu has become the first domestic raw milk brand to be certified by organic standards of China and the EU.



Industry development: Shengmu has formed strong strategic partnerships with industry peers and universities, creating a platform for learning and collaboration among industry professionals, experts, and scholars. Additionally, the Company has participated in the national key R&D program, initiated by the Ministry of Science and Technology, to advance the sustainable development of green and organic agriculture. Shengmu is a member of 11 industry associations, has led or participated in 8 industry-university-research projects, and holds 120 patents.



Manufactured



Avoidance Violations

识别风险与机遇:

数字化技术应用于企业治理运营, 帮助企业提高供应链数据透明度, 加强资源配置效率, 节约运营成本。
2020-2022 年, 圣牧数字化建设库存周转率提升 8.6%。

Solutions:

Smart operations: Shengmu effectively utilizes technologies such as cloud platforms, SAP systems, RPA robots, the Internet of Things, and big data to eliminate information "islands." The Company has established an integrated application platform with SAP-ERP at its core, supplemented by specialized systems in various fields. This platform has enabled production and sales collaboration, resulting in an 8.6% increase in inventory turnover. Additionally, the platform facilitates automated daily collection and analysis of herd structure and feeding data, as well as automatic calculation of the "daily dairy cow feeding cost." Shengmu shares a single genuine data source, achieving an automation rate of over 90% for financial report consolidation and a 50% increase in time efficiency.



Mitigation Negative Interference

识别风险与机遇:

动物福利产品受到各界关注, 福利养殖成为畜牧业健康可持续发展的重要方向。提升动物福利带来新增长点, 促进畜牧业高质量发展。**2020-2022 年, 圣牧提升奶牛健康水平带来社会价值超 177 万元。**

解决方案:

动物福利: 圣牧提高动物福利设施设备投入, 专业化兽医队伍对奶牛生活环境、疫苗接种和疾病防控等制定完善的技术标准与操作流程; 设计科学的照明系统和自动牛体刷, 提高奶牛生活的质量。2020-2022 年成母牛主动淘汰率降低约 5%。



Reduction Operational Risks

识别风险与机遇:

国内外金融监管机构积极推进金融高质量发展, 旨在通过支持企业健康成长促进实现社会公平, 资本向善。**2020-2022 年, 圣牧契合“更营养、更绿色、更智慧”的行业可持续发展方向, 节约融资成本约 102.05 万元。**

Solutions:

Inclusive finance: Shengmu's efforts and achievements in rural revitalization and sustainable industry chains have been acknowledged by financial institutions, resulting in preferential financing opportunities. In 2022, the Company issued the first social responsibility bond in the domestic market, with an initial issuance of 100 million RMB and an interest rate of 3.95%. The funds raised will be used to support farmers and agricultural cooperatives in remote areas with the purchase of fodder and to foster village-enterprise cooperation.



Restoration Industry Environment

识别风险与机遇:

国家不断健全企业知识产权保护法律法规, 支持新产品、技术高效获取知识产权保护, 提升企业在海内外技术创新竞争力。**2020-2022 年, 圣牧申请知识产权投入 48 万元。**

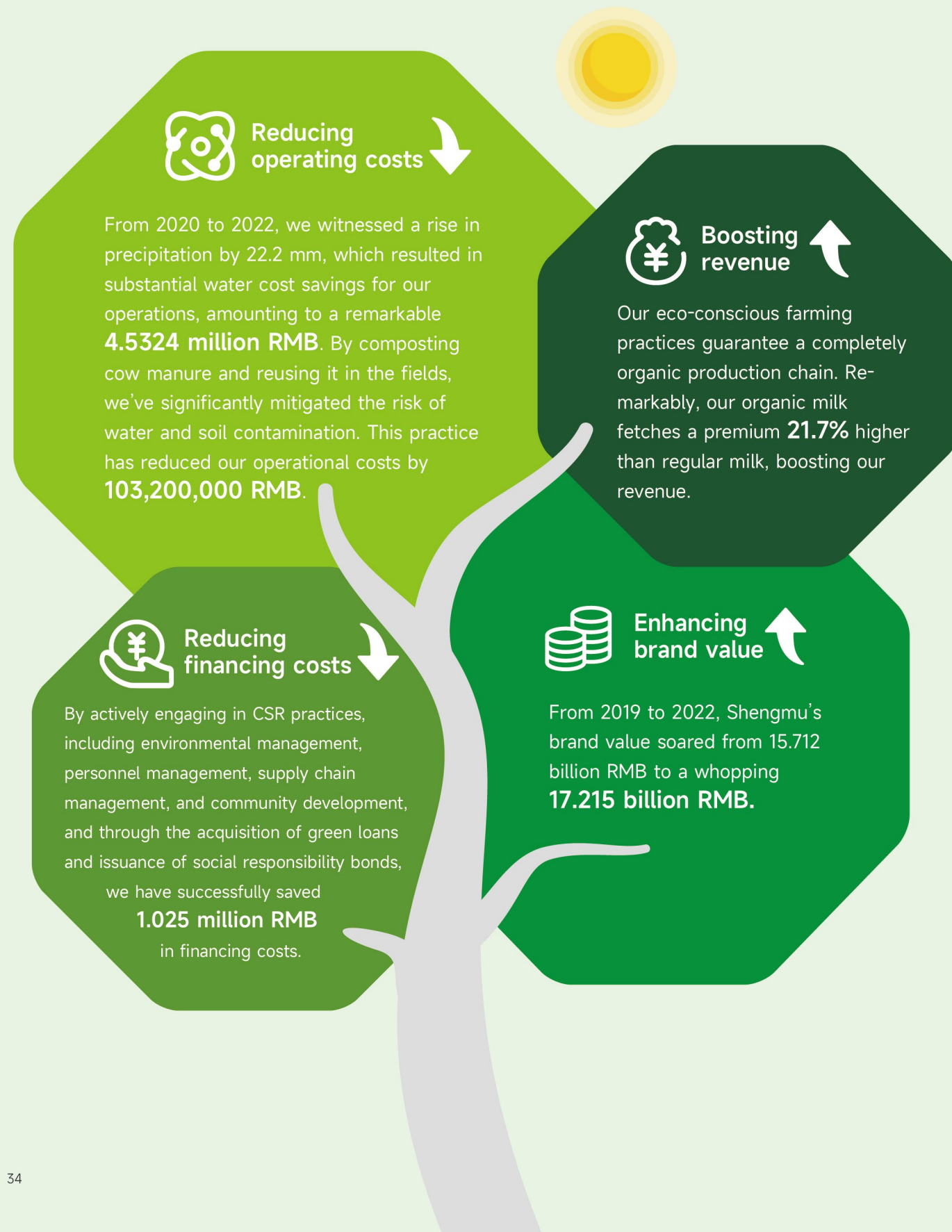
解决方案:

由高品质的原奶, 到高品质的乳品, 自然需要最先进的生产线和最严格的生产标准和规范。圣牧有机奶系列产品先后在第五届、第六届、第七届、第九届、第十届、第十一届中国国际有机食品博览会 (BioFachChina) 上夺得金奖, 背后是圣牧在绿色有机发展领域多年的创新付出与匠心坚守。2020-2022 年圣牧主导或参与产学研项目 8 项, 获得 120 项专利。



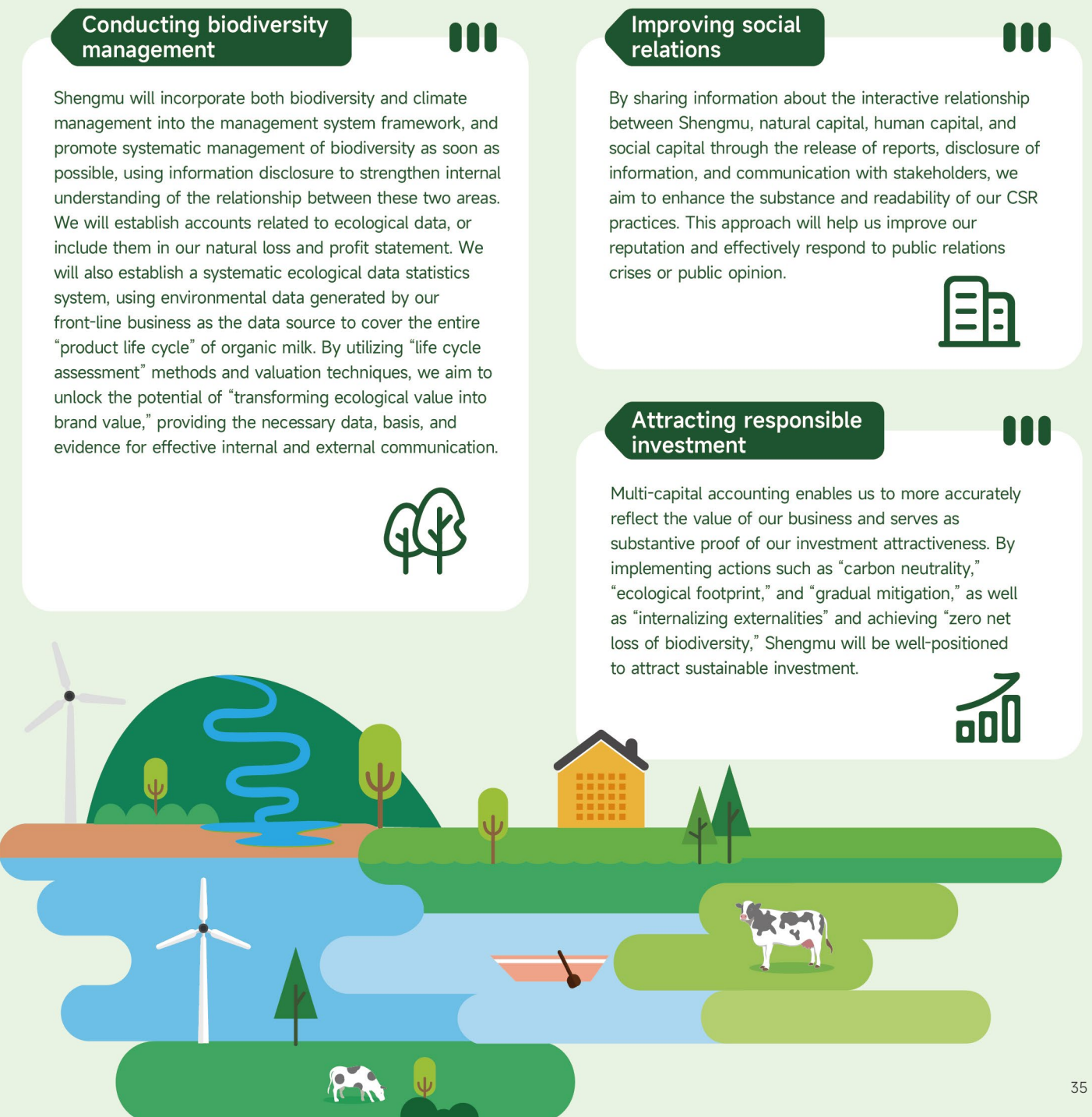
03 Increasing Business Value

Effective environmental governance, paired with judicious use of environmental data, equips businesses with the insights they need to unlock new market opportunities.



04 Next Steps

The multi-capital accounting takes into account Shengmu's impacts and dependencies on the environment, employees, and society in our key operational areas. By incorporating the demands of our target audience into the screening and consideration of material topics, we have effectively supplemented traditional corporate risk management. This approach enables us to identify potential risks and opportunities from a broader perspective of stakeholders. Moving forward, we will integrate the material topics and outcomes of our multi-capital accounting into our corporate decision-making processes, taking into account environmental and social factors when making decisions on major events and projects. In addition to economic benefits, we will also focus on developing comprehensive benefits by increasing the costs and benefits associated with the environment and society. This will enable us to identify potential risks and opportunities in areas such as finance, market, brand, and financing that may arise from social and environmental costs and benefits.



Looking Towards 2030

Incorporating multi-capital assessment into corporate decision-making and daily management processes is an advanced and forward-thinking approach that is set to become the mainstream choice for corporate biodiversity management. Shengmu is committed to actively participating in international exchanges and cooperation with an inclusive and sustainable attitude, and voluntarily adhering to international conventions and initiatives related to sustainable development. Through our multi-capital accounting efforts, we aim to help address the major global crises in climate and ecological environment, working alongside the international community to build a human community with a shared future.



1. Contributing to the targets for urgent action under the Kunming-Montreal Global Biodiversity Framework

In line with the 23 action-oriented global targets for urgent action set out in the "Kunming-Montreal Global Biodiversity Framework" adopted during the second phase of the fifteenth meeting of the Conference of the Parties to the United Nations Convention on Biological Diversity (CBD COP 15) in 2022, Shengmu is poised to offer its expertise and results to further the Framework's 2030 mission of halting and reversing biodiversity loss.



2. Contributing to the United Nations Sustainable Development Goals (SDGs)

Our multi-capital accounting and biodiversity management practices demonstrate our commitment to fulfilling our responsibilities towards the SDGs. We are dedicated to advancing progress towards achieving the SDGs by actively responding to the challenges and opportunities in the three major areas of natural ecology, human wellbeing, and social creation.



- Supporting the employment of local farmers
- Participating in national rural vitalization projects
- Sourcing forage from farmers and agricultural cooperatives in remote areas to bolster stable incomes for low-income groups

In response to Target 9: Diversified products and services



- Embracing scientific breeding techniques
 - Enhancing soil fertility
 - Increasing milk production
- In response to Target 7: Pollution reduction**
In response to Target 10: Sustainable agriculture
In response to Target 13: Sharing of benefits



- Upgrading working and living conditions for staff
 - Implementing regular monitoring and assessment of potential occupational hazards in the workplace
- In response to Target 11: Restoration of nature's contributions**



- Initiating sustainable charitable education programs
- Donating to schools in rural areas
- Carrying out differentiated personnel training programs
- Offering skills training courses for various professions
- Encouraging employees to improve their academic qualifications and credentials



- Promoting gender equality in the workplace
- Continuously enhancing the proportion of women in managerial roles

In response to Target 23: Gender equality



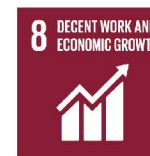
- Continuously improving water use technologies, promoting intelligent water-saving systems, and making efficient use of water resources

In response to Target 20: Technological innovation



- Actively leveraging renewable energy and developing pasture-based photovoltaic projects

In response to Target 20: Technological innovation



- Continuously cultivating a diverse and inclusive workplace atmosphere
- Upholding the principle of equal pay for equivalent roles
- Developing positive incentives to expand biodiversity conservation and sustainable use

In response to Target 18: Positive incentives



- Investing in local infrastructure
- Adhering to sustainable production tech innovations, promoting the use of green and energy-saving technologies, as well as recycling technologies

In response to Target 20: Technological innovation



- Creating job opportunities for ethnic minorities to promote ethnic integration



- Adhering to desert afforestation
- Engaging in scientific pasture site selection and conducting landscape management of pastures
- Guaranteeing community livelihood
- Improving living standards of communities
- Launching innovative programs that provide environmental and social guarantee, like ecosystem service payments, green bonds, biodiversity compensations, and credits, etc.

In response to Target 1: Spatial planning and effective management
In response to Target 2: Ecosystem restoration
In response to Target 3: Area-based conservation measures
In response to Target 19: Financial resources



- Sticking to the pioneering practice in the world that produces desert organic raw milk in a circular way integrating planting and raising
- Assessing deforestation risks in the supply chain
- Training suppliers on organic management
- Continuing to ensure green and organic certification for raw milk
- Obtaining ecological product labels

In response to Target 7: Pollution reduction
In response to Target 10: Sustainable agriculture
In response to Target 16: Sustainable consumption



- Reducing greenhouse gas emissions
- Continuing to transform the desert ecosystem, regulating area-based micro climates, and further conserving water sources
- Implementing industrial sand control measures, and enhancing local flora and fauna's adaptability to climate changes through planting trees and building organic pastures

In response to Target 2: Ecosystem restoration
In response to Target 4: Recovery and conservation of threatened species
In response to Target 8: Climate change
In response to Target 11: Restoration of nature's contributions



- Reducing water pollution to protect the water environment and provide habitats for aquatic life

In response to Target 7: Pollution reduction



- Sharing the commercial benefits obtained from the development of biological resources fairly and justly
- Avoiding land use changes that are harmful to biodiversity

In response to Target 13: Sharing of benefits



- Complying with national legislation and international agreements
- Continuously improving modern, transparent, and sustainable corporate governance practices
- Regularly monitoring, assessing, and disclosing risks, dependencies, and impacts on biodiversity
- Establishing a "natural income statement" to embed biodiversity assessment findings into business decisions

In response to Target 14: Integration into business decision-making
In response to Target 15: Information disclosure
In response to Target 21: Data and information availability



- Forming "communities of shared interests" with governments, financial institutions, social organizations, community residents, and industrial chain partners
- Incorporating environmental, social, and regional goals into corporate strategies

In response to Target 22: Community participation

Read more:

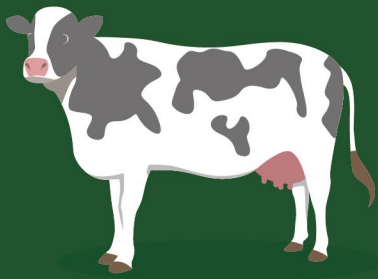
The Kunming-Montreal Global Biodiversity Framework sets out 23 action-oriented global targets under three priority groups: (1) Reducing threats to biodiversity; (2) Meeting people's needs through sustainable use and benefit-sharing; and (3) Tools and solutions for implementation and mainstreaming.

For detailed action targets, please refer to:
<https://www.cbd.int/doc/c/e6d3/cd1d/daf663719a03902a9b116c34/-cop-15-l-25-en.pdf>



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