



世紀陽光

世紀陽光集團控股有限公司
Century Sunshine Group Holdings Limited

Stock Code : 509.HK

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A B E T T E R F U T U R E

2018

Environmental, Social and Governance Report

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Introduction

Century Sunshine Group Holdings Limited (“Century Sunshine” or the “Group”) has been pursuing the concept of green agricultural and sustainable development, balancing soil fertility level and increasing crop yields, maintaining the ecological balance of farming, and fulfilling the environmental protection and corporate social responsibility.

The Group prepares this report based on the “Environmental, Social and Governance Reporting Guide” set out in Appendix 27 to the Rules Governing the Listing of Securities of the Stock Exchange of Hong Kong Limited. This report confirms and discloses the environmental, social and governance (“ESG”) matters that have significant environmental and social impact and are relevant to the business of the Group during the reporting period.

When preparing the report, the Group has discussed with our business partners, employees and other stakeholders in various circumstances to consider and reflect their responses and opinions.

The report sets out the ESG measures of the Group from 1 January 2018 to 31 December 2018 (the “reporting period”).

The operating practices and key performance indicators of the ESG subject areas are explained based on the following aspects.

A. Environmental

A1: Emissions

The Group is committed to the production of ecological fertilizers and promotes the balanced development of agro-ecology. During the reporting period, the Group has complied with all relevant local environmental laws in the nations where it operates. Among which, the Company’s nitrogen oxides (NOx) and sulfur oxides (SOx) emissions are lower than the national standard of 400 mg/cubic meter; the particulate matter is lower than the national standard 120 mg/cubic meter. The combined discharge of atmospheric pollutants complied with the GB 16297-1996 national standard and any local standards if applicable. During the reporting period, the Group did not have any significant non-compliance in regard to environmental issues.

Greenhouse Gas Emissions

Greenhouse Gases	tonnes
Carbon dioxide (CO ₂)	19,740

The Group is committed to increasing the investment in emission reduction equipment, upgrading the compound exhaust gas and the three-waste boilers tail gas treatment facilities, and adopting advanced environmental protection facilities and treatment processes to improve the efficiency of dust removal and desulfurization.

Measures to reduce greenhouse gas emissions and the results achieved are as follows:

I. Fully utilize residue heat and minimize greenhouse gas emissions.

- The sulfuric acid system takes into account the comprehensive utilization of residue heat. The sulfuric acid residue heat boiler produces 60 tonnes of medium-pressured steam per hour, all of which is used for power generation. It reduces energy consumption by more than 10,000 tonnes of standard coal per year, equivalent to the reduction of greenhouse gas emissions (CO₂) of approximately 40,000 tonnes per year.
- Recycling and energy-saving transformation of low-heat energy of sulfuric acid.

The low-temperature residue heat of the dry-suction section of the 400,000 tonnes/year sulfuric acid production facilities is utilized to produce low-pressured steam. The upgrading of this project allows the Group to reduce its greenhouse gas emissions (CO₂) by more than 5,000 tonnes per year.

- II.* Purchasing high-quality coal with low ash content, high volatile matter, low sulfur content and high calorific value, to improve coal combustion efficiency and stabilize the combustion environment, thus ensuring low emission level of nitrogen oxides.

Type of Pollutants

The Group generates hazardous wastes including used ink drums, used printing plates and waste engine oil during its production. Non-hazardous waste mainly includes solid waste and domestic waste. Hazardous and non-hazardous waste discharges and treatment methods during 2018 are as follows:

Types of Hazardous Waste	Discharge: tonnes	Treatment Methods
Used ink drums	0.333	Engage qualified party for disposal
Used printing plates	0.081	Engage qualified party for disposal
Waste engine oil	0.750	Recycle and reuse

Types of Non-hazardous Waste	Discharge: tonnes	Treatment Methods
Solid wastes	241,209	Comprehensive utilization
Domestic wastes	407	Disposal by the environmental and hygiene department

Hazardous Wastes Disposal and Measures to Reduce Discharge and the Results

During production, we employ stringent management to reduce hazardous wastes such as used ink drums and used printing plates. We manage hazardous wastes strictly in accordance to the national requirements of "Solid Wastes Laws", and set up standardized hazardous wastes storage facilities for centralized management.

Non-hazardous Wastes Disposal and Measures to Reduce Discharge and the Results

I. Comprehensive utilization of general solid wastes to reduce discharge.

- Various procedures produce raw material for one another to minimize consumption. The Company's three-waste boilers use the slag and dust coal as fuel to produce medium-pressured steam, so as to eliminate solid wastes from the slag so produced.
- The Company employs the comprehensive utilization method to reduce discharge, in order to eliminate solid wastes produced during the production of fertilizers, including the comprehensive use of wastes produced during production of calcined gypsum plaster.

II. Treatment of general domestic solid wastes

- Separate wastes for storage and reuse when possible.
- Strengthen management of production process where domestic wastes are produced, so as to reduce wastes.

During the reporting period, the Group has no significant non-compliance in regard to discharge treatment.

A2: Use of Resources

The Group's operation and production mainly employs resources such as electricity, diesel, natural gas, coal and water. The Group is committed to improving energy efficiency and promoting comprehensive utilization, while gradually reducing energy consumption.

The Group's energy and packaging material consumption in 2018 are as follows:

Resources	Unit	Discharge	Density (based on 1,248,041 tonnes of fertilizers produced in 2018)
Electricity	kWh	45,150,924	36.177 kWh/tonne
Diesel	Liter	286,637	0.230 liter/tonne
Natural gas	m ³	179,310	0.144 m ³ /tonne
Coal	tonne	45,695	0.037 tonne/tonne
Water	m ³	24,315,361	19.483 m ³ /tonne

Packaging material for finished goods	Unit	Discharge
Woven bags	tonne	2,958

The Energy Efficiency Program and the Results

I. Utilize residue heat in the system in the comprehensive utilization

- The sulfuric acid system takes into account the comprehensive utilization of residue heat. The sulfuric acid residue heat boiler produces 60 tonnes per hour of medium-pressured steam, all of which is used for power generation. It reduces energy consumption by more than 10,000 tonnes of standard coal per year.
- Recycling and energy-saving transformation of low-heat energy of sulfuric acid. The low-temperature residue heat of the dry-suction section of the 400,000 tonnes per year sulfuric acid production facilities is utilized to produce low-pressured steam, and reduces the Company's energy consumption by more than 1,500 tonnes per year.

II. All wastewater produced during production is reused in other production processes internally. Sulfhydryl is mainly reused in the phosphoric acid production process, whereas chloro is mainly reused for tail gas washing, and can be optimized and deployed through the pipeline throughout the plant. A small amount of recycled water is used for the greenery and dust reduction in the plant area, so as to achieve zero wastewater discharge.

III. Abolish outdated motors, install new energy-saving motors, employ frequency conversion technologies, automatically adjust the motor speed and power output value by controlling the inverter through the controller, so that the motor operates under the optimal energy-saving conditions, thus achieving the energy-saving purposes.

IV. The Company's comprehensive enhancement of water usage efficiency has achieved remarkable results. All production wastewater is reused in the production cycle, improving water efficiency as well as reducing environmental risks. The initial rainwater collection and mining area water recycling efforts provide comprehensive supplementary water for the production system, and significantly reduces external water supply and saves external water supply costs, bringing about significant economic and social environmental benefits.

A3: The Environment and Natural Resources

The Group places great emphasis on the impact of our business on the environment and natural resources. In addition to complying with environmental regulations and guidelines to duly preserve the nature, the Group has also incorporated the concept of environmental protection into its internal management and project implementation processes.

Actions taken on the preservation of the environment and natural resources are as follows:

- I.* In regard to the use of energy, we maximize the energy efficiency and utilize residue heat, so as to reduce the use of natural resources.
- II.* In regard to the resources, we reduce wastes through measures such as reducing emissions and increasing utilization efficiency.
- III.* In regard to solid wastes and other resources, we recycle the wastes to reuse as resources or recycle in the production, so as to reduce the discharge and preserve the resources.

B. Social

B1: Employment

The Group determines the remuneration of employees based on their work experience, job performance and current market conditions. Employee benefits include medical insurance, regular contribution to the Mandatory Provident Fund scheme, discretionary bonuses and the employee share option scheme. The Group believes that the incentive schemes for employees such as bonuses and the share option offer can attract and retain the high-performing employees, and provide continuous support to the business expansion of the Group.

During the reporting period, the Group has no significant non-compliance in regard to the labour relations.

B2: Health and Safety

The Group is committed to the formulation and strict implementation of health and safety policies, and observes the relevant laws and regulations such as the “Labour Law of the People’s Republic of China”, the “Labour Contract Law of the People’s Republic of China”, the “Social Insurance Law of the People’s Republic of China”, and the “Law of the People’s Republic of China on the Prevention and Treatment of Occupational Diseases”. Relevant implementation systems are established within the Company, which reflects our continuous efforts on improving working conditions and the living environment of our employees, in order to protect their life and physical health.

To defend the health of our employees, the Group distributes personal protective equipment (kits) to employees in accordance with the industrial standards. The Group makes contributions to the social insurance (including basic medical, work-related injury and maternity insurance, etc.) for our employees. This effectively secures the occupational health and safety of our employees.

The compound fertilizers developed and manufactured by the Group was awarded the “Occupational Health and Safety Management System Certification”, thus recognizes our efforts in securing occupational health and safety.

Century Sunshine provides employees with regular training in occupational hygiene and safety. This ensures the compliance of requirements regarding employees’ working environment and operations. Our operational staffs receive the operational training on the requirements of “operational safety” and the “power and gas outage emergency response plan”, and sit in examination on safety education and training.

During the reporting period, the Group has no significant non-compliance in regard to the laws and regulations on health and safety.

B3: Development and Training

The Group emphasizes on providing training for talents, and values our human resources and the skills and experience of our employees. This is an important element in supporting the long-term development of the Company.

Production bases of the Group would provide the necessary training for relevant operational staffers every year, including the orientation training for new recruits, training and counselling on each positions, operational skills, safety knowledge and regulations and systems, etc. Through the effective employee training programmes, the professional skills of employees are improved, providing stronger support to the Group's long-term business development.

Group training management system:

- In order to regulate and promote the continuous development of employee training, as well as to enhance the professional knowledge, skills and temperament of employees to boost their competency, the Group has developed training plans and management systems through its "Hongri Business School", and has taken up the responsibilities of managing the training programme provided to the entire staff of the Group.
- The training programme aims at different levels of staffer, and implements a standardized system and requirements to improve the overall performance of all employees and management personnel of the Group, including the Group's corporate culture, relevant professional knowledge, marketing strategies and techniques, agrochemical services, job responsibilities, and production and operation.

Training programme:

1. Orientation training

- Orientation training refers to the training that a new employee must receive in order to meet the job requirements before taking up the position. The orientation training applies on three levels, i.e. the Company, the department, and the team level must be passed before employees are qualified for the position.
- Orientation training covers the Company's profile and corporate culture, its development strategy and operation objectives, business ethics, employee behavioral standards, rules and regulations, safety, environmental concerns, occupational health and other common knowledge, in order to introduce to the new employees the Company's work environment, allowing them to quickly adapt to their positions.

2. On-the-job training (position-based training)

- On-the-job training is the routine training for various positions. The main purpose is to improve the employee's proficiency and enhance their performance. On-the-job training covers the position-based knowledge, skills and job responsibilities, work flow and job requirements. The Company's employees are required to receive a designated duration of training and education each year throughout their employment period.

3. *Transferral training*

- When employees are transferred, promoted or demoted, or otherwise transferred to a new position, they must receive job transferal training according to the requirements of the new post, and can only take up the new position after passing the examination and obtained the relevant job qualifications. The training mainly covers the job responsibilities, job duties, work flow, job requirements and other professional knowledge and skills.

4. *Special training*

- The special training refers to the training based on operation management needs, or application of new craftsmanship, new equipment, or new management methods that aims to improve the professional knowledge of certain professionals.

Training formats:

- There are two types of training: internal training and external training. Internal training is taught by internal trainers such as managers and key personnel, or by engaging external trainers or management consulting agencies to conduct relevant professional training programmes. External training is conducted by sending employees to participate in relevant training institutions due to work needs.
- Training formats include special training, courses, training camps, self-study, industry exchange and continuous education.

Training results evaluation:

- The department which organized the training is responsible for evaluating the training results at each level.
- Evaluation Method
 - The training organization evaluates trainees' studies, actions and results according to the integrated evaluation method based on the training content and nature.

Activities for physical and mental health of employees:

The Group organizes regular leisure activities for our employees, such as outbound training, tug-of-war competitions, basketball competitions, dance classes, and Chinese New Year parties, to support the work-life balance practice.

B4: Labour Standards

In strict compliance with the relevant requirements of the Labour Law, the Group requires that all job applicants must fulfill the local statutory requirements for age. The Group strictly prohibits child labour, and therefore adopts a set of integrated screening and recruitment procedures. Open recruitment of new employees is conducted in accordance with the employment criteria for different positions. Those who fulfill the criteria can be appointed. During the recruitment process, the human resources department will verify dates of birth and graduation certificates of job applicants. Century Sunshine does not hire any forced labour.

In addition, Century Sunshine imposes stringent labour audit requirements on its major suppliers. This guarantees that no child labour or forced labour is employed by suppliers. This also ensures that the occupational health and safety performance of our suppliers comply with all the local regulations.

During the reporting period, the Group did not have any material non-compliant case related to the required labour standards of the relevant laws and regulations.

B5: Supply Chain Management

The Group strictly controls and manages the supply chain. Relevant policies are formulated on the procurement of the raw materials for production in respect of the fertilizer business and magnesium business. Suppliers are subject to thorough inspection and evaluation. In respect of the construction contractors who have submitted tenders for construction projects, several criteria such as their qualifications, technical strengths, construction quality and reputations, etc. will be taken into consideration; the most suitable supplier or construction contractor will be eventually selected. With regard to the products received from suppliers, the Group has also arranged for division of labour in the work of acceptance inspection and supervision. This ensures a smooth flow in each procedure and verifies that the accepted products fulfill the requirements set out by the signed agreements between the Group and suppliers. As for quality and logistics management, any actions which impair the interests of both the Group and suppliers are avoided.

B6: Product Responsibility

The Group has a strong customer service team to understand the needs of customers. Fertilizer products are provided to cater the needs of customers. The Group has maintained a good relationship with customers in order to build a long-term cooperative relationship. In a belief that customer loyalty has a significant impact on the Company's business development, the Group particularly stresses the product quality. This seeks to satisfy the customers' needs with products of the top safety and best quality.

During the reporting period, the Group adheres to its research and development, all of the Group's product brands are well recognised in the market. Established brands "Yanyangtian (艷陽天)" was rewarded "China's Best Fertiliser Brand 2018" (2018中國好肥料卓越貢獻品牌), further enhanced the brand recognition of the Group's fertiliser products. The Group's well-known fertilizer brands "Yanyangtian (艷陽天)" and "Le He He" (「樂呵呵」) were selected as "2016 Top 50 Fertilizer Brands Trusted by Farmers" (「2016農民信賴的肥料品牌五十強」). Regarding the fertilizer industry, the trust from the farmers is the greatest recognition for a fertilizer brand. The top 50 brands represent, from the farmers' point of view, the genuine brands with good conscience.

After-sales customer service

The Group has set up an after-sales customer service hotline, which would refer the calls to the relevant responsible department according to the customer's enquiry. After receiving such enquiries, the responsible department would process them as soon as possible according to the established procedures.

The "National Agricultural-Chemical Services Center" of the Group is a nationwide agrochemical service network that focuses on providing guidance for manufacturing and servicing enterprises in developing balanced fertilization, thus enhances the technological level of agrochemical services in China. The services include pre-sales field demonstration to showcase the effect of fertilizers, after-sales education to help the users to apply the fertilizers correctly, as well as follow-ups and evaluations to track the effect of fertilizers. The professional agrochemical service team is committed to educating farmers to apply fertilizers based on the soil in a scientific manner, and to solving agriculture issues for farmers.

During the reporting period, the Group did not have any significant non-compliance with respect to the relevant legislation on product liability or product description.

B7: Anti-corruption

The Group has developed the "Anti-corruption Management System", which requires each of its production base and department to strictly comply with the legal guidance such as those related to anti-bribery and anti-corruption etc. as provided to employees. Anti-corruption trainings are also provided to employees at different positions. In the event of any conflict of interests related to an employee's duties during his/her employment, this must be immediately reported to the senior level of the relevant departments. The issue would also be handled by the Group according to the Code of Anti-corruption.

Good communication channels are established between the management and employees. In the event of found or suspected corruption activities, employees could file complaints to the management by sending an email about the issues to the management's mail boxes. The cases would be handled by the Group as appropriate.

During the Reporting Period, the Group did not have any material non-compliant cases related to corruption.

B8: Community Investment

The Group respects individual fundamental values and dignity. In the meantime, in support of the community building of where the businesses are located, the Group identifies that maintaining good relationships with the community is a key factor to the enterprise's successful operations. Over the years, the main scope to which the Group aids include helping the less privileged people, assisting emergencies, supporting disaster relief and participating in voluntary works etc.

Century Sunshine joins the community affairs in the vicinity on a regular basis. An official community complaint mechanism is also set up. Assistance is provided in a proactive manner to the charity work of the surrounding communities, which include the participation in sponsoring the local education and cultural work such as pre-school education, as well as poverty alleviation activities including road maintenance and repair works in the villages etc.

Prospect

The Board is responsible for assessing and monitoring the environmental, social and governance risks management, as well as collecting relevant data, and has reviewed its effectiveness as disclosed in the ESG report for the year ended 31 December 2018. In 2019, the management team will as always actively respond to the policy of "Promoting the Application of Green Ecological Fertilisers" (《推動綠色生態肥料的應用》), seize the favourable situation arising from the environmental policies, further promote the development of green fertiliser industry, and continue to strengthen the product differentiation strategy to contribute to the green environmental protection.



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