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Luye Pharma Group Ltd. 绿叶制药集团有限公司 (incorporated in Bermuda with limited liability) Stock Code: 2186

Environmental, Social and Governance Report 2017

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Environmental, Social and Governance Report

Environmental, Social and Governance (ESG) Report 2017

Water Resources Management

Education of Environmental Awareness

Waste Management Chemicals Management

1.	About this Report Basis for Preparation Scope of Report Endorsement and Approval Reader's Feedback	2	6.	Caring our People Employment Management Employee Training Safety Guarantee Employees' Benefits	30
2.	Responsibility Management Core Values Prevention and Control of Operational Compliance Communication with Stakeholders	3	7.	Social Responsibility Supply Chain Management Anti-corruption Public Welfare	38
3.	Scientific Research and Innovation	8	8.	Honors Obtained in the Year	41
	National Research Projects Protection of Intellectual Property Rights		9.	Appendix Environmental Performance Table Social Performance Table	42
4.	Quality Products and Services Drugs Manufacturing Management Product Sales and Customer Service Management	13		"ESG Reporting Guide" Content Index	
5.	Care for the Environment Climate Changes Air Emission Management	16			

1

About this Report

Basis for Preparation

This report aims to present the environmental and social performance of Luye Pharma Group Ltd. (hereinafter the "Company") and its subsidiaries (collectively the "Group" or "we" or "us") during the year 2017. This report is the second Environmental, Social and Governance Report (the "ESG Report" or the "Report") of the Company, which is available to the public and is prepared in accordance with the Environmental, Social and Governance Reporting Guide as contained in Appendix 27 to the Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited (the "Main Board Listing Rules") issued by The Stock Exchange of Hong Kong Limited (the "Hong Kong Stock Exchange"). Our environmental and social management approaches, strategies, relevant significance and objectives will be disclosed in respective sections of the Report.

Scope of Report

The content of the ESG Report mainly focuses on the Group's core business conducted in Mainland China, with an aim to report our environmental and social policies and performance. Unless otherwise stated, the Report covers a period from 1 January 2017 to 31 December 2017 (the "Year").

Endorsement and Approval

The Company's board of directors is responsible for its environmental, social and governance ("ESG") strategies and reporting, including the assessment and identification of ESG risks and ensuring that appropriate and effective ESG risk management and internal control systems are in place.

Reader's Feedback

You are welcome to contact the Group for any valuable opinions on our ESG reporting work at +852-3523 0423.

Responsibility Management

Core Values

Integrity, cooperation, innovation and excellence are the basis of the Group's business philosophy, and has been rooted in our business activities for many years. These principles guide us in complying with strict environmental, safety, health and social laws, regulations and guidelines during our operation.

Prevention and Control of Operational Compliance

During the Year, the Group has set up a compliance management organization to gradually improve and enhance our compliance mechanism, implement compliance-related work, and further optimize our legal risk prevention and control system.

- An operation mechanism for our compliance system has been established during the Year. We have formed a compliance project task force to sort out our existing marketing procedures and marketing policies. Fundamental policies and systems are set up to enhance procedural management, compliance management and execution supervision, thereby achieving compliance, system and overall risk monitoring and management on our operations.
- To improve the Group's information security management system, we have developed a crisis management manual and set up a crisis management team to ensure effective control over information and delivery of correct information to external stakeholders. The information security management system minimizes the impact of information security incidents, and ensures the Group's business can continue to operate safely on an ongoing concern.
- We continue to carry out self-compliance review of drugs promotion activities and strengthen our employees' training
 of employee handbook, employees' code of conduct and code of conduct on drugs promotion, to erect the awareness
 of legal compliance and eliminate bribery and improper manners on promotion and selling activities. We formulate
 marketing and promotional plans and relevant procedures for contract approval, coordinate works among all
 responsible departments, and integrate prior prevention, process supervision and post audit, to ensure all operations in
 all material aspects are in compliance with the applicable laws and regulations.
- We make adjustment to our sales strategies based on the market changes from time to time, and make flexible use of various strategies and marketing methods to improve customer satisfaction and loyalty, promote accomplishment of sales target, and increase our market share; strengthen regular assessment of our business partners, conduct all-round evaluation on cooperators through rating various relevant indicators, and minimize the risk of bad debts by control over sales channels, customer credit management, improvement in receivables management system and other relevant measures; adopt effective measures to eliminate high-risk partners, in order to ensure no doubts exist during the cooperation with all partners, thereby avoiding potential risks.
- We strengthen the establishment of an internal complaints and reporting system within the Group, and enhance internal monitoring to prevent occurrence of any improper behaviors and violation of laws and regulations and make rectifications. A reporting management organization has been set up to take charge of routine reporting affairs, ensure a regulated reporting management, and protect the legal interests of whistle-blows according to the law, in an effort to cultivate an internal environment with trust and integrity.

Communication with Stakeholders

The Group treasures the opinions of stakeholders. We understand their evaluations and expectations through various communication channels and platforms, which helps the Group objectively review and resolve the problems identified in our sustainability work. Currently, the Group's stakeholders mainly include government and regulators, investors, employees, customers, business partners, peers and the public.

In an effective response to the expectations and concerns of stakeholders, the Group first adopted the form of questionnaire to understand how internal stakeholders concerned about our sustainability issues, and prioritized such issues after analysis during the Year.



Materiality Analysis of Luye Pharma Sustainability Issues

According to the score level, the most concerned issues are as follows:

Score level				
(from high to low)	Name of issue			
1	Product R&D and innovation			
2	Drugs manufacturing and quality management system			
3	Hazardous waste discharge and management			
4	Pollutant discharge and management			
5	Occupational health and safety system			
6	Employee salary and benefits			
7	Safety production and emergency handling procedure			
8	Employee training and occupational development			
9	Operational compliance			
10	Chemicals management			
11	Management of projects as supported and encouraged by the state			
12	Use of water resources			
13	Use of energy			
14	Management of key laboratory			
15	Non-hazardous waste discharge management			

After deriving the sustainability issues most concerned by our internal employees, we integrated such issues into respective sections in the Report as key disclosure, so as to respond to their expectations.

We also maintained communication with different stakeholders through diversified channels during the Year, to understand their expectations.

Major stakeholders	Expectations on the Group	Our response channels	Respective sections
Government and regulators	 Compliance with the laws and regulations Enhancement of technical research and development of pharmaceuticals 	 Undertaking a number of national research and development projects Participating in and holding forums, seminars and lectures 	 Scientific Research and Innovation Care for the Environment
Investors (shareholders)	 Sound corporate operation management to minimize operational risks Good investment returns Transparent information disclosure 	 Holding regular results announcement presentations and general meetings Improving legal risk prevention and control system Updating the Company's website on a regular basis to ensure investors have access to latest information on the Company 	Responsibility Management
Employees	A good workplaceBright development prospects	 Providing good packages Holding a diversity of training programs Organizing various employee activities 	Caring our People
Customers	 Provision of safe and quality drugs Diversified drug types Protection of consumer interests 	 Increased investments in drugs research and development Improving drugs manufacturing management system Customer service hotline Conducting customer 	 Scientific Research and Innovation Quality Products and Services

satisfaction survey

Major stakeho	Iders Expectations on the Group	Our response channels	Respective sections	
Partners	Mutual benefits and reciprocity	Active in seeking quality suppliers	Social Responsibility	
Peers	Advancement of industry development	• Actively holding and participating in industry forums and exchange activities	Communication with Stakeholders	
Public	Serving the communityPublic welfare and charity	 Taking an active part in community activities Taking an active part in charitable activities 	Social Responsibility	

Presentation of communication with stakeholders



internationalized innovation.

On 16 September 2017, Luye Pharma attended the On 11 November 2017, Luye Life Sciences Group assisted International Conference on Pharmaceutical Innovation and in organizing the 3rd Jinling Oncology Symposium 2017 in Development 2017, and shared our experience in Nanjing, which gathered over 300 experts and scholars nationwide for in-depth exploration of method for cancer treatment.

Scientific Research and Innovation

As driven by research and development for our long-term development, the Group focuses on the research and development of new drugs in central nervous system (CNS), oncology, cardiovascular system, alimentary tract and metabolism areas. With a market-oriented approach and a global view, we endeavour to realize our strategic R&D goals through independent R&D, integration of production, teaching and research, and internationalized cooperation, with an aim to be a world-leading international and professional pharmaceutical manufacturing enterprise.

Investment in Research and Development

During the Year, the Group's investment in research and development amounted to RMB288,696,000, with 421 research staff. We have set up R&D Centres in the PRC, the United States and Europe, focusing on CNS, oncology, cardiovascular system, and diabetes areas.

R&D expenditures during the Year: **RMB288,696,000**

Total number of research staff of the Group as at the end of 2017: **421**

The Group has set up several innovation platforms at provincial level or above in the PRC, including:

- State Enterprise Technology Centre (國家企業技術中心)
- State Key Laboratory of Long-acting and Targeting Drug Delivery System (長效和靶向製劑國家重點實驗室)
- Post-doctorate Scientific Research Work-station (博士後科學研究工作站)
- Base for International Science and Technology Cooperation (國際科技合作基地)
- Shandong Engineering Technology Research Centre for New Preparations (山東省新型製劑工程技術研究中心)
- Shandong Natural Drug Engineering Research and Development Centre (山東省天然藥物工程技術研究中心)

The Group is among the first batch of Chinese pharmaceutical enterprises which conducted clinical trials in the international market. In CNS, oncology and other areas, we have a number of innovative preparations and drugs under registration with the United States Food and Drug Administration and under clinical research, and have achieved breakthroughs.

Research project cases



Drugs for Parkinson's disease research project

are approximately 3 million patients with Parkinson's disease treatment of major depressive disorder. in China, and the new disease incidence is rising at a rate of over 100,000 cases per year. As aging problem of the globe The Group had obtained patents of the compound, crystal Parkinson's disease.

Drugs for moderate to severe depressive disorder research project

LY03003 project is under clinical trial in the PRC and the LY03005 is a Class 1 new drug developed within the United States. LY03003, the first product worldwide to Group's new compounds platform for the treatment of major produce long-term Continuous Dopamine Stimulation (CDS), depressive disorder. Currently, it has completed the phase II delivers medication by weekly intramuscular injections. There clinical trial in China, and showed positive results for the

population escalates, the market for LY03003 is expected to form and formulation for the project. The patent of be promising in the future. Besides the medicine type which compound has been granted in China, the United States, delivers medication by weekly intramuscular injections, the Europe, Japan and Korea; the patent of crystal form has Group is further developing Extended Release Microspheres been granted in China, the United States, Japan and Korea. for monthly injections, to generate better economic effects This research project has been continuously supported by while further providing better choices for patients with the special funds for major projects under China's Eleventh, Twelfth and Thirteenth Five-Year Plans. According to the data of IQVIA, the market size for anti-depressants in the United States and Europe for the first to third quarter in 2017 was US\$3.7 billion and US\$2.23 billion, respectively, while that in the PRC for the same period was approximately RMB3.45 billion. The Group plans to register and launch such product in the United States, Japan, China, Europe and other countries.

9

National Research Projects

The Group is also highly active in coordinating China's research and development strategies by undertaking a number of research projects as supported by the state, such as the major special science and technology projects under China's Eleventh and Twelfth Five-Year Plans.

Case: Undertaking the New Application Mode for Intelligent Manufacturing Project for 2017 of the Ministry of Industry and Information Technology of the PRC



In June 2017, the Ministry of Finance issued the list of 2017 integrated standardization and new application mode of intelligent manufacturing projects which were supported by the state, in which our New Application Mode of Intelligent Plant for Sterile Injections Project was included. Based on the industry network and through the establishment of intelligent production line, online inspection and smart warehouse logistics, the project completed the synergy and integration of Manufacturing Execution System with production line, inspection, warehouse logistics, Enterprise Resource Planning, Procedural Knowledge System and other systems, and achieved digital, network-based and intelligent management and control of full life circle of injection products including research and development, process, manufacturing, inspection, logistics and services. An intelligent plant for injections was set up to form a new mode of intelligent plant for sterile injections.

Case: Receiving site survey on major special science and technology project of New Key Drug Formulation

On 13 September 2017, the Major Special Project Office of the Ministry of Science and Technology visited the Group to conduct a survey on our implementation of major special science and technology project of New Key Drug Formulation. The panel members visited our production line for scientific research, held symposium, and listened to report on implementation progress to get informed of the results of project innovation, industrialization progress, organizational management, use of funds and other relevant information. Our research and development efforts and results achieved were highly recommended.



Meanwhile, we have set up a State Key Laboratory of Long-acting and Targeting Drug Delivery System (長效和靶向製劑國 家重點實驗室), and Dr. Li You Xin, our President for global research and development, serves as the director of the Laboratory. We conduct research of innovative pharmaceutic preparations by leveraging on such platform.



Holding a grand academic meeting of the State Key Laboratory

On 15 September 2017, the second meeting of the second session of the Academic Committee of the State Key Laboratory of Long-acting and Targeting Drug Delivery System (長效和靶向製劑國家重點實驗室) was opened in Yantai. Dr. Li You Xin, the director of the Laboratory and our President for global research and development, reported our work progress in the recent two years and next development plan to the Academic Committee. Liu Dian Bo, the President of the Company, also attended the meeting and exchanged his views. The experts of the Academic Committee highly appraised the research results achieved by the Laboratory, and gave their opinions and recommendations on the future development plan for the Laboratory.

Organizing an academic lecture of the State Key Laboratory

On 15 September 2017, the members of the Academic Committee and Professor Wu Chuan Bin, a professor at Sun Yat-Sen University, were invited by the Laboratory to give an academic report headed "Research Progress of New Injection Form Drugs" at the State Key Laboratory. Professor Wu introduced, in detail, the latest research progress of new pharmaceutic preparations, and fully interacted with the research staff of the Laboratory, showing a sound academic atmosphere.



Protection of Intellectual Property Rights

The Group attaches great importance to the combination of independent innovation and intellectual property rights protection. We have set up an intellectual property rights department early in 1998 to protect intellectual property rights for technology innovation. As guided by "intellectual property rights-oriented strategies" and under the premise of "independent technology innovation", we insist on integrating intellectual property rights into the entire process of technical research and development, product manufacturing and marketing to effectively ensure we are advanced in technology and exclusive in the market with adequate legal safeguard, with an aim to develop into an international branded enterprise with proprietary intellectual property rights and sustainable and stable development.

The Group highly values intellectual property rights and strictly abides by the Patent Law of the People's Republic of China. In order to regulate intellectual property rights work, we took the opportunity of intellectual property rights management system certification to develop and improve a number of rules and regulations on intellectual property rights management system, including the Control Procedures for Use of Intellectual Property Rights, the Control Procedures for Risk Management of Intellectual Property Rights, the Patent Management System of Luye Pharma Group Ltd., and the Inventor's Signature System of Luye Pharma Group Ltd., integrating intellectual property rights management into all links of our business operations. The Patent Management System of Luye Pharma Group Ltd. regulated the requirements for constitution of an organization in charge of patent works, duties of the organization and staff, patents and property rights management system, use of patent information, implementation of patents, and reward for inventors.

As of December 2017:

- In 2017, we obtained 43 licensed patents in total, including 2 in China, and the remaining 41 in Europe, Russia, the United States, Japan and other countries.
- Currently, we have obtained 252 licensed patents and 52 pending patents in China; 416 licensed patents and 114 pending patents overseas.

Licensed patents obtained in the PRC and abroad in 2017 43

Licensed patents obtained in total in the PRC: **252**

Licensed patents obtained in total abroad: **416**



Certificate of intellectual property rights management system rectification

Quality Products and Services

The Group has been highly valuing our product quality and customer experience. We insist on improving our product management system while observing the international and national regulations and standards relating to the quality of pharmaceuticals. Moreover, adhering to a customer-oriented operating philosophy, we are committed to serving our customers with heart to their satisfaction, thereby achieving mutual development.

Drugs Manufacturing Management

In compliance with the Law of the PRC on the Administration of Pharmaceuticals, Implementation Regulations on the Law of the PRC on the Administration of Pharmaceuticals, the Measures for Supervision and Administration of Pharmaceuticals Manufacturing, the Good Manufacturing Practices for Pharmaceutical Products (revised in 2010) (GMP) and other laws and specifications, we have developed GMP quality management system applicable to our drugs manufacturing base. Such system ensures our compliance with hygienic quality requirements under the national rules and regulations relating to raw materials, personnel, facilities and equipment, manufacturing process, packaging and transportation, and quality control, and regulates hygienic condition management of our manufacturing base, and detects and improves any problems existing during our production in a timely manner. The Group has passed ISO 9001 quality system certification in respect of drugs research and development and production, to provide better product quality assurance.

• During the Year, the Group had 21 products in total which passed the PRC GMP certification.



ISO9001:2015 certificate

The Group continues to improve GMP quality management system in order to advance our quality management level on an ongoing basis.

The Group's production lines based in China have passed:

- China GMP (2010 version) inspection
- EU GMP inspection
- Australia Therapeutic Goods Administration GMP inspection

Production lines based in Europe have passed:

- United States Food and Drug Administration GMP inspection
- EU GMP inspection

GMP System

Management aspect

- Quality management
- Plant and facility management
- Equipment management
- Materials and product management
- File management
- Manufacturing management
- Quality control and quality assurance
- Quality shipment and recall management
- Self-check management

Management system

- Management standards
- Operation standards
- Process recording
- Risk assessment report
- Receipts recording
- Accounts recording
- Warehouse cleaning
- Process rules
- Batch production, and batch packaging recording
- Technical standards

The Group will conduct a simple check on product quality after production. The Group has developed the Rules for Acceptance, Inspection and Handling of Sample Products to regulate the entire process including acceptance, inspection and handling of sample products by personnel in charge of sampling and quality control (QC). Upon completion of sample check, the QC personnel will issue an inspection report enclosed with the "certificate of qualification" or "certificate of disqualification" of sample products. Raw materials, finished products, intermediate products, packaging materials to be disposed of and other remaining sample products will be handed over to personnel in charge of sample acceptance, who will fill in the "Sheet of Destruction of Remaining Sample Products after Inspection", and then they will be disposed of by a professional company engaged.

In addition, to ensure the safety of patients who use our drugs, the Group executes the Chinese Pharmacopoeia (2015 version) and has developed the Management Regulations on Drug Recalls to regulate the procedure for drug recalls. This applies to the recall of drugs due to substandard quality or unsuitability for clinical use (suspension of clinical use caused by reported adverse drug reactions). The Group's quality management leaders are responsible for timely summarization of recalled products, and assessing whether the quality of recalled products is affected, and proposing detailed solutions and submitting the same to the group leaders for approval, and also reporting to the drugs supervision and administration department for filing or approval. During the Year, no product of the Group was subject to recalls for safety and health reasons.

Product Sales and Customer Service Management

Under the principle of "pursuing higher quality and satisfying customer's needs", the Group conducts production, sales and services relating to drugs in strict accordance with the Law of the PRC on the Administration of Pharmaceuticals, GPM, Good Supply Practices for Pharmaceutical Products (GSP) and other regulations, to ensure 100% of our products sold in the market are qualified products, and provision of safe and effective products and services for our customers. Moreover, all of the Group's products are labeled according to the Administrative Regulations on Pharmaceutical Product Prescriptions and Labeling, and product prescriptions are designed according to the product prescriptions as approved by China Food and Drug Administration. After filed with the drugs supervision and administration department, advertisement for products is released by relevant media under the requirements of the Law of the PRC on the Administration of Pharmaceuticals, to ensure the truthfulness and accuracy of the information with no misleading or deceptive statements. In addition, we strictly preserve customer information to prevent leakage of it in any form.

To provide better services for customers, the Group conducts customer satisfaction survey on a regular basis, with a view to getting informed of their views on the Group and what shall be enhanced or improved. The Group has developed the Monitoring Procedures for Customer Satisfaction, aiming to collect their evaluations and opinions on our drug quality, work quality and service quality. During the Year, the average customer satisfaction rate of the Group was over 93%.

1. Procedure for customer satisfaction survey:

Quality Assurance (QA) staff of Quality Assurance department and sales staff of sales department shall conduct customer satisfaction survey on an annual basis; and designate annual plan for customer satisfaction survey, to finalize target customer groups, sample size, type of products involved, survey method, term of collecting questionnaire distributed; sales staff will distribute the Customer Satisfaction Survey Questionnaire to target customer groups and collect it based on the survey plan; QA staff will conduct statistical analysis on the questionnaire collected and issue an annual customer satisfaction survey report.

2. Coverage of customer satisfaction survey:

The survey covers product quality, therapeutic effect of pharmaceuticals, accuracy of quantity delivered, rate of timely delivery, customer service, packaging method, transport service, other opinions and suggestions, and customer's feedback.

3. Method of customer satisfaction survey:

The customer satisfaction survey may be conducted in the form of written questionnaire, online questionnaire, site interview, facsimile/telephone calls.

Customer satisfaction rate: **Over 93%**

To effectively manage customer complaints, the Group has formulated the Management Regulations on User's Complaints based on GMP, which regulates the procedures for registration, assessment, investigation and handling of complaints, improves the Company's after-sale services, maintains our corporate creditworthiness, and ensures product quality and safety of customers who use the drugs. The following is the duties of different responsible departments and personnel of the Group for customer complaints:

Responsible department and personnel Duties

All departments and personnel	• Obliged to receive user's complaint through telephone calls, facsimile, etc. and hand it over to director of QA department
Quality assurance (QA) department	 In charge of collection, forwarding and feedback information of all user's complaints either in written or oral form In charge of classification of user's complaints
	• In charge of investigation, assessment and handling of quality-related complaints
	Annual review and tendency analysis on product complaints
Personnel in charge of adverse drug reaction monitoring	In charge of investigation and assessment of medical problem complaints
Production department	Assisting in investigation into production-related complaints
Marketing system	• In charge of investigation, assessment and handling of "suspected fake medicines related complaints"
Quality manager	In charge of implementation of handling user's complaints
Leader of quality management	Approving opinions on handling of user's complaints

Care for the Environment

As a responsible pharmaceutical company, the Group has been adhered to environmental protection and is committed to minimizing the impacts on the environment caused by our daily operations. In the operation of the enterprise, we endeavour to control use of energy, greenhouse gas emission, air pollutant discharge, waste discharge, and disposal of chemicals during production.

We have been promoting green life style and working habits, encouraging our employees to participate in protecting ecological environment. We also encourage suppliers to join us, with insistence and perseverance, making our earth more green and livable. In respect of laws and regulations relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste, the Group has complied with the applicable laws and regulations that have a significant impact on us during the Year.

Environmental Management

Formulating environmental management system is conducive to regulating the Group's business operation management, to achieve effective management of key environmental areas, thereby avoiding, reducing or eliminating the environmental impact of operational activities.

The Group actively promotes the implementation of ISO14001 environmental management system (EMS) in our business operations, evaluates the environmental factor of each product's life cycle, including design, research and development, production, use and disposal process, and adopts measures to improve the usage efficiency of various resources and energy. We conduct annual EMS internal audit for auditing the degree of supervision of management review and our partners to ensure the integrity and consistency of EMS and compliance with ISO14001 standard. Currently, the Group's manufacturing bases in Shandong, Sichuan, Beijing and Nanjing have passed ISO14001 certification.

The Group is in strict compliance with national and regional environmental laws and regulations, such as:

- the Environmental Protection Law of the People's Republic of China
- the Environmental Protection Tax Law of the People's Republic of China
- the Law of the People's Republic of China on Prevention and Control of Environmental Pollution by Solid Wastes
- the Law of the People's Republic of China on Prevention and Control of Water Pollution
- the Law of the People's Republic of China on Prevention and Control of Air Pollution
- the Law of the People's Republic of China on Appraising of Environment Impacts
- the Law of the People's Republic of China on Energy Conservation
- Shandong Environmental Protection Regulations
- Sichuan Environmental Protection Regulations

CERTIFICATE OF REGISTRATION 认证证书

山东绿叶制药有限公司

1001-2016月5014001:2015 オアニメコアト 10191、月月、日秋日、武田、福田県村 十世年時、東京市、米谷橋二乙路、田田県 10191日日日日日日日の日本日本日田 1019日日日日日日日日日 1019日日日日日日日日 1019日日日日日日日 1019日日日日日 1019日日日 1019日日日 1019日日 1019日 1019日日 1019日 1019日日 101919日日 101919日 10191919 10191919191919191

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SGS 北京北大维信生物科技 有限公司 南京绿叶制西有限公司 前原除中制再有量公司 定ま大地点未后每以送中心股份有差公司5 2017 年 04 月 26 日至 2017 年 04 月 28 日月員道派的环境管 当终系走行了第 1 次监督审判,他专家出户运转认。 ISO 14001:2015 方面成的上述管理体系起行接触符合 ISO 14001:200 和肉管理体质认证标准要求,认定保持责任风上迷觉 三件系认识综合物 ・第三人に注意(注意) 油量信託戸谷市町立立大品を見ば登込いする部 你有限公司《公开文与》的要求,正确使用认证已下 和伪证标志,课行和关系过。 SGSSCSCS

ISO 14001 certificates:

Meanwhile, we have formulated a number of environmental policies with reference to the laws and regulations, part of which are set out below:

Management aspect		Internal policy	
• Use of	energy	Energy Management Regulations	
Air poll	utant emission	Management Regulations on Electricity Conservation	
• Greenh	nouse gas emission	 Management Procedures for Prevention and Control of Air Pollution and Hazards 	
• Water r	resources	Management Procedures for Prevention and Control of Water Pollution	
• Hazard	lous and non-hazardous waste	 Management Regulations on Sewage Discharge by Plants 	
		 Management Procedures for Prevention and Control of Pollution by Solid Wastes 	
		Management Regulations on Treatment of Liquid Wastes	
		Management Regulations on Pharmaceuticals Waste	
Chemic	cals	Management Procedures for Dangerous Goods	
• Enviror	nmental accidents	 Procedures for Identification, Appraisal and Update of Environmental Factors 	
		 Management Procedures for Prevention and Control of Noise and Vibration Pollution 	
		Environmental Emergency Plan	

Climate Changes

Climate change is a global problem to be solved on an urgent basis. The Group is obliged to actively respond to climate changes by transformation to low-carbon economy, in order to improve the sustainability of the enterprise and society while creating a better and more comfortable living environment for the next generation. We start from greenhouse gas emission and use of energy and try to reduce carbon emission during our operations. Our greenhouse gas emissions are mainly from boilers, refrigeration equipment, production facilities, automobiles and office electricity consumption.

Total electricity consumption in 2017: **41,976,153 kWh**

Greenhouse gas emission in 2017: **41,109 tons**

Intensity of greenhouse gas emission in 2017: **0.11 ton/output value in RMB10,000**

As we implemented a series of energy saving measures during the Year, the intensity of electricity consumption in 2017 recorded a decrease of 8.6 kWh/output value in RMB10,000 as compared to that in 2016.

Intensity of electricity consumption (kWh/output value in RMB10,000)



During the Year, the data of various energy and fuel consumption for pharmaceuticals production and automobile use is listed below:

Natural gas consumption in total in 2017: **2,421,560 cubic meters**

Industrial steam consumption in total in 2017: **72,064 MKJ**

Total gas consumption (by automobiles) in 2017: **37,321 liters**

Total diesel consumption (by automobiles) in 2017: **6,266 liters**

The following is the Group's management policy and measures for energy conservation and emission reduction:

Optimization of Production Facilities and Procedures

- rate of timely maintenance for production facilities shall reach 95%;
- improve operation mode of production facilities, such as optimizing its usage efficiency, to effectively save energy consumption;
- establish high-level production line, optimize equipment and production procedure to reduce energy consumption and waste; and
- apply air conditioning heat pile technique for sewage treatment system to reduce electricity consumption.

Case: Heat recycling for energy saving transformation

During the Year, we installed plate-type heat recycling device for the ventilation system of set spray-drying granulator of our manufacturing base in Beijing, to conduct new preheat exchange and recycle heat, thereby saving steam for heating of fresh air. Energy saving rate is expected to be 25% to 30%, with 238 tons of steam to be saved for the whole year, equivalent to approximately 12,172 cubic meters of natural gas.



Clean Energy

- Use of solar power as the power source of street lighting for manufacturing base; and
- Replace natural gas with industrial steam for the new projects, which greatly reduces the energy consumption.

Green Operation

- Impose limit on energy consumption and implement it through performance assessment;
- Set office indoor temperature for the air conditioning at 24°C to 26°C in summer and 18°C to 20°C in winter;
- Optimize travel plan and enhance cooperation with new energy automobile company for leasing of their vehicles;
- Hold some of the Company's internal meetings through video conferencing system to replace business travels as much as possible;
- Promote low-carbon travel by provision of free transportation to our staff in order to effectively reduce the exhaust gas emission brought by private cars;
- Reasonably control over the use of lighting system and replace incandescent lamps with LED lights to save electricity; and
- Central air conditioning and other industrial refrigeration systems are equipped with environmentally-friendly refrigerants, including R-404A, R-410A and R-133A, effectively reducing greenhouse gas emissions.

Case: Installation of remote monitoring system for power distribution room

During the Year, our manufacturing base in Beijing completed the installation of remote monitoring system for power distribution room of the plant, which enhanced the safety of power distribution system and improved work efficiency of staff. Based on the rush, off-peak and flat hours of electricity use concluded in the electricity consumption form statistics, the production department may make reasonable production plan to save energy. The remote monitoring system is not only a cutting-edge technology for power distribution system in the industry, but also helps the Group downsize the staff and improve labor efficiency.



Air Emission Management

The Group's air emissions are mainly from combustion of boilers and the exhaust gas emitted by the laboratories and workshops. We have developed the Management Regulations on Prevention and Control of Air Pollution and Hazards to monitor the exhaust gas generated by the Company, and ensure our compliance with the existing environmental regulations, so as to reduce environmental pollution. The Regulations prescribes that the Group's exhaust gas emission from combustion of boilers shall be within the limit set under the Emission Standard of Air Pollutants for Boilers (GB13271-2001), and the exhaust gas emission by laboratories and workshops shall not exceed the limit set under the Integrated Emission Standard of Air Pollutants (GB16297-1996). We have respective measures in place for the treatment of air pollutants of different sources.

Treatment of Exhaust Gas from Combustion of Boilers

- Exhaust gas from combustion of boilers shall be emitted through a chimney after dust removal, desulfurization and other treatments. The exhaust gas finally emitted will be monitored by a professional environmental monitoring agency on an annual basis, the results of which shall meet the requirements under the Emission Standard of Air Pollutants for Boilers (GB13271-2001).
- Air treatment capacity is calculated based on the results of acceptance and daily monitoring of boiler exhaust gas treatment facilities. Based on its treatment coefficient, to calculate the maximum ash content, sulfur content and other pollutant content in coals, and formulate quality standard for coal procurement. Coal suppliers shall provide the inspection report issued by technical supervision bureau as proof.

- Control the total air emission for the whole year based on the indicators for total air emission of the places where we operate, and actively respond to state initiative of emission reduction to improve quality standard for coal procurement.
- Documents and packaging materials to be incinerated shall be put into the boilers by the boiler operator for incineration treatment under the supervision of the QA staff. Random incineration and incineration of toxic substance are prohibited in the plant.

Case: Upgrade and transformation of Volatile Organic Compounds (VOCs) treatment project

In order to satisfy the requirements under Emission Standard of Chemical Industrial VOCs for Jiangsu Province (DB32/3151-2016), our manufacturing base in Nanjing invested RMB1.5 million for transformation of air treatment system of the raw materials workshop with class 1 water spray, class 1 demister and activated carbon regeneration devices newly installed. This improved the efficiency of removal of VOCs and other factors and therefore reduced air pollutant emissions.



Treatment of Exhaust Gas Generated during Production

- Production process, room or equipment which generates dust during production shall be equipped with dust extractors. Exhaust gas collected and emitted may be treated for dust removal through filtration or water curtain based on the conditions of process and manufacturing site.
- Any production which generates toxic chemical gas shall be conducted in a confined space with no emission of the toxic chemical gas outside.

Treatment of Exhaust Gas Generated by Laboratories

- Most of the reagents for laboratory use are toxic and harmful substances. Volatile reagents shall be sealed for storage and those which may generate combustible volatile gases shall be stored in a safe ventilation cabinet.
- During the operations in a laboratory, toxic and harmful reagents shall be sealed for prevention of volatilization, and operations with inevitable volatilization shall be conducted in a safe ventilation cabinet, the air outlet of which shall be far away from people. The exhaust gas shall be emitted upon activated carbon absorption of toxic substance.

Case: Air purification transformation

To improve the plant environment and reduce impacts on relevant persons, our manufacturing base in Beijing conducted tail gas purification transformation for the air outlet of drying process of the fermentation workshop located in the Building No. 1 and the air outlet of the laboratory located in the Building No. 3. Activated carbon deodorizing purification device and muffler were installed, resolving the problems of odors and noises caused by the ventilation system and eliminating the impacts of odors on relevant persons.





The Group engages a professional environmental monitoring agency each year to conduct monitoring on the air pollutants (mainly including suspended particles, sulfur dioxide and nitrogen oxides) emitted by the boilers, and to issue a relevant monitoring report.

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		LANDERSCOTTING - Device Black meaning \$200, second

Meanwhile, we calculated the air pollutant emission caused by boilers and automobiles during the Year, data of which is as follows:



Water Resources Management

The shortage of water resources has been a global issue. We are aware of the importance of water resources protection and sewage management. The Group mainly uses industrial water during pharmaceutical production, auxiliary equipment, and domestic water for cleaning and cooking.

Water Saving

To save water, the Group implemented many measures on technology, management and education to improve the effective use of water resources and reduce waste of water. The Group has developed the Water Saving Regulations, to provide guidance on the use of drinking water, washing water, cleaning water, cooking water and domestic water by our employees, and raise their awareness of saving water. It provides guidance on reducing the waste of water resources by employees, and specifies reward and punishment policy for use of water by them. Our safety and environmental department will check and supervise use of water by employees on an irregular basis. Upon detecting any violation of the regulations by any department or individual, rectification shall be made by the department or individual with public criticism within the Company. In addition, the safety and environmental department will also conduct an assessment on the water saving by all departments and workshops for the whole year at the end of each year, and reward those departments and individuals with outstanding performance.

Total water consumption in 2017: **672,428 cubic meters**

Case: Transformation of purified water machine

The Group's manufacturing base in Shandong adjusted the operation mode of purified water machine from 24-hour continuous operation mode to automatic control mode, in which machine operated for certain time within a day and was based on demand of water, which may reduce wastewater discharge by 59,850 tons, save water bills by RMB300,447 and electricity fees by RMB173,880 each year.



As we implemented a series of water saving measures during the Year, the intensity of total water consumption in 2017 recorded a decrease of 0.4 cubic meter/output value in RMB10,000 as compared to that in 2016.



Intensity of total water consumption (cubic meter/output value in RMB10,000)

Sewage Management

Sewage discharge management is another focus of water resources management of the Group. We have developed the Management Procedures for Control of Wastewater Pollution and the Management Regulations on Prevention and Control of Water Pollution, to enhance control over various production and domestic wastewater generated during our research, production, service and other activities, and minimize the adverse impacts of wastewater discharge on the surrounding environment and human health. All sewage generated by the Group will be transported to sewage treatment station for treatment, and that left untreated or failing to meet relevant national standard for sewage discharge after treatment, shall not be discharged. The Group will engage a professional environmental monitoring agency each year to conduct at least once monitoring on the quality of our wastewater discharged.

Production wastewater discharge in 2017: **375,433 tons**

Case: Sewage treatment process

The sewage treatment process of our manufacturing base in Shandong mainly includes activated sludge method, contact oxidation method and sendimentation tank. Among them, aerobic tank #1, with four manholes, needs to adopt defoaming measures for 24-hour defoaming to prevent overflow of foams; aerobic tank #2 needs to adopt defoaming measures discontinuously based on the operational conditions; sendimentation tank shall be sprayed after sludge discharge to clean the sunk scums, in order to prevent them from entering the standard outfall and then impacting the online COD value of effluents. In order not to affect the activity of biological bacteria, the sewage treatment station mainly adopts spraying with running water for defoaming purpose. After the renovation, water pump is used to extract the supernatant liquid in the sendimentation tank for spraying to defoam, saving approximately RMB21,000 for running water each year.



Waste Management

As waste management is an integral part of pollution prevention and control, the Group continues to implement effective measures for waste management. We have developed the Management Procedures for Prevention and Control of Pollution by Solid Wastes and the Regulations on Treatment of Drug Waste, aiming at reducing waste, reusing waste and decontamination throughout the whole process of solid waste generation, collection, storage, transportation, usage and disposal. During the Year, a total of approximately 932 tons non-hazardous wastes and 162 tons hazardous wastes were generated, decreased by 486 tons and 354 tons, respectively, as compared with those in 2016.

Solid Waste Management

 Solid waste mainly includes hazardous waste and non-hazardous waste. Among them, hazardous waste mainly involves medical waste, organic waste liquid, organic resin waste and waste activated carbon, etc. Non-hazardous waste mainly includes domestic wastes and recyclable wastes, such as Chinese medicine dregs, waste packaging materials, etc. For generation of various wastes during the Year, please refer to the Environmental Performance as set out in the Appendix to the Report.

Waste Collection and Storage

- Waste classification: We regularly review the relevant laws and regulations on solid waste, and provide timely update on the list of corporate waste. On 1 August 2016, the new version of the List of National Hazardous Wastes was officially launched. In order to align with the law, we plan ahead to prepare forms, adjust temporary storage site, and guide the staffs to classify the waste.
- Standardizing the construction of hazardous waste temporary storage sites: We list clearly the nature of each dangerous solid waste and their corresponding dangerous characteristics. Hazardous waste warehouses use hollow cofferdam to prevent the risk of solid waste leakage outside warehouse and environmental pollution. For flammable hazardous waste, we install explosion-proof facilities, such as lamps, electrical switches, combustible gas detectors and ventilation facilities, etc.
- Establishment of contingency disposal plan for hazardous waste: Enhance the operator's ability to deal with leakage incident and reduce the detrimental impact to the environment.

Transportation and Disposal

- Internal transfer: Use suitable packaging containers to prevent leakage, spillage, dripping or volatilization during loading, moving or transport. Well-trained operators will transport the waste to the temporary storage point by using closed dump trucks.
- For hazardous waste, we commissioned nationally-recognized professional third party for handling disposal. For transporting disposal, we engage with transport enterprises which have official permits for transporting hazardous waste.
- For non-hazardous waste, we have signed an agreement with the local environmental department that we will transport the domestic waste every day to prevent excessive storage and reduce environmental pollution. General nonhazardous waste, such as package and obsolete equipment, will be recycled by local recycling company. Medicine dregs will be disposed of by professional third party, and made into fermented fertilizer for harmless disposal.

Green Office

• Every business unit is actively taking measures to reduce the amount of paper usage, such as double-sided printing, waste paper reuse and recycling, using office automation (OA) system for approximately 10,000 processes, in order to achieve a paperless office.

Promotion and Education

- Integrating traditional and new social media to build multi-level and multi-directional information channels, we keep promoting waste management's policies and the corresponding effectiveness, which is contributive in building the waste management atmosphere.
- We lead all employees to build up the concept of waste reduction and waste management. We aim to strengthen our day-to-day staff education to increase every staff's awareness of waste classification and resource conservation. Through various promotion methods, we advocate green and healthy lifestyle. In particular, we host painting exhibition in canteen with the theme "Save, Cherish Food", and post the sign advocating "Take less each, multiple rounds" on dining benches.

Chemicals Management

Chemicals are being widely used in different medical areas. The Group advocates to prevent and control detrimental impact of industrial chemicals on human health and environment from the source and is committed to manage chemicals from the safety and environmental aspects. Our chemical environmental management focuses on chemical selection and usage during the production process and the solutions to environmental pollution affected by leakage.

We are committed to manage chemicals from the safety and environmental aspects, in order to protect the ecological environment and human health.

Chemical Environmental Management System

With the risk assessment and risk management of chemicals as the basic framework, we have established a number of basic environmental management systems for chemicals, such as environmental pollution control of chemicals, prevention and contingency plans for pollution accident, control of detrimental impact of hazardous chemicals on environment and human health, etc.

Preventive Principle

Considering economic development, human health and environmental protection comprehensively, we carry out precautionary principle while satisfying demand. In selecting raw materials, we replace toxic reagents with non-toxic and environmentally-friendly ones. In selecting suppliers, we check carefully the qualifications of suppliers, such as dangerous chemical safety production license, business license, safety registration system road and transport permits, etc. We also conduct risk assessment on storage site of chemicals and invest capital for fire and explosion precaution and anti-pollution.

Process Intervention Principle

The safety instructions (MSDS/SDS) of the chemicals that we are currently using are provided by suppliers, and are displayed prominently in storage location. For newly introduced chemicals, we develop targeted precaution policy. We implement registration books for toxic reagents, the keys of which are guarded by two of our personnel persons with the use of two locks. For sudden environmental pollution accident, we have developed contingency plan, equipped with emergency rescue equipment and facilities. We organize regular trainings for employees with simulation exercises.

Case: Training on contingency plan for sudden environmental accident

On 11 April 2017, the drill of chemical leakage was conducted in the laboratory building. This training program enabled our employees grasp knowledge on contingency plan for sudden environmental accident and raised their environmental awareness.





Education of Environmental Awareness

In addition to a well-established environmental management system, the Group promotes to start from education of environmental awareness to popularize knowledge and skills on environmental protection and raise the environmental awareness of employees through publicity and education, and is committed to participating in environmental activities. During our operation, we call out to integrate our care for the environment into corporate business operations, thereby achieving corporate sustainability.

Each year, we identify environmental risks and assess the impact of operational activities on the environment. We develop management programs and action plans for major environmental factors, and include environmental protection issues, such as environmental laws and regulations, energy conservation and resource protection, into the annual staff training program.



Participation in the Tree-planting Day activity by Shandong subsidiary



Participation in the World Environment Day activity

Caring our People

"Customer-oriented, Efficient Operation, Staff Achievement" is the Group's business philosophy. We treat staff as the most valuable asset of the Company and the driving force of our corporate sustainable development. Talent development is one of the keys for sustainable development and economic growth for an enterprise. Meanwhile, we focus on the physical and mental health of employees and their living security by promoting a healthy lifestyle and happy work.

Employment Management

The Group strictly abides by the laws and regulations on employment, such as the Labor Law of the People's Republic of China, the Law of the People's Republic of China on Employment Contracts, the Employment Promotion Law of the People's Republic of China, and the Contract Law of the People's Republic of China, with an aim to establish an all-rounded human resources system in order to ensure the Group sets up a talent team and employees enjoy a high-quality working environment with welfare allowance and reasonable working hours. Furthermore, the Group would provide notice and compensation to staff for termination of labor contract, in accordance with the applicable laws and regulations.

The Group strives for creating a compatible corporate culture. As a result, employees can realize their potentials and show their talents, and enterprise can achieve outstanding performance and return to the shareholders, society and employees. In staff recruitment, career development, promotion, training and rewards, we aim at providing equal employment opportunity irrespective of their color, nationality, race, age, sex, religious beliefs or physical inability. We hope that our staff can work in an atmosphere which is full of respect and discrimination-free. Moreover, we resolutely reject use of child labor and prohibit forced labor in strict accordance with the national laws and regulations on employment.

The Group provides competitive remuneration for our employees. We actively participate in the annual salary survey for domestic pharmaceutical market organized by the world well-known salary research companies in order to understand the overall salary level and development trend of pharmaceutical industry. With integrating our development strategies, we develop an overall remuneration strategy to ensure attracting, encouraging and retaining good talents. Meanwhile, in respect of the remuneration structure, we determine the remuneration level of employees through a performance-based assessment system and by looking into three areas: industry average salary level, job responsibility and employees' performance.

The Group always takes a fair and impartial attitude towards our employees. We emphasize on the equality between men and women, and have been committed to maintaining equal proportions for both men and women. As at the end of 2017, the Group has a total of 3,921 employees. The number/percentage of employees by gender, employment type, age group and geographic region is indicated below.



In addition, the Group also derived our employee turnover rate by gender, age group and geographic region during the Year through statistical analysis.

Employee turnover rate by age group



Employee turnover rate by gender

Employee turnover rate by geographic region



Talent Cultivation

In order to maintain a smooth talent development, the Group established multi-channel career development path such as research and development, professional technique and management. We encourage employees to choose their own promotion and career development path, to realize their potential and to achieve the sustainable development of the staff and the enterprise.

We have developed the Management Procedures for Capacity, Training and Awareness, which summarizes the principles for business training for all staff and training on GMP and pharmaceutical management regulations, as well as regulating the formulation of training program and its contents, including induction training for new staff, relevant training for production and quality staff, safety training and training on pharmaceutical management laws and regulations. Staff training and assessment are enhanced to make sure they can meet job requirements and our requirements on quality, environment and occupation health and safety management system.

We also set up the Luye Evergreen College to execute 3 talent development plans: "Set Sail", "Navigate" and "Pilot" Projects. We aim at cultivating enterprise grassroots, middle and senior talents in order to cope with the rapid development and achieve the strategic objectives.

- Job skills training: Invite experienced and skillful internal experts to share their experience and technique. At the same time, we provide training courses or invite lecturers to offer workshops in order to enhance the professional skills of our employees.
- General quality training: Establish online (E-learning) and offline training courses, such as, developing corporate culture, professional quality, effective communication and emotional management.
- Leadership skills training: From three perspectives (leading oneself, leading teams and leading business), we design leadership enhancement projects to enhance managers' leadership skills, stimulate the teams' vitality and create excellent performance.

During the Year, the Group organized a number of trainings, and the following is the statistic on staff's participation:



Case: Training on Corporate Finance & Tax Work under the New Situation

In September 2017, Nanjing subsidiary invited taxation experts to organize a training course named the Corporate Finance & Tax Work under the New Situation. The course provided a thorough explanation on the latest changes in tax policies, such as replacement of business tax with valueadded tax, high-tech enterprises, and increase in super deduction, as well as a key summary on how to avoid common tax risks during routine business operations by combining phase III of the Golden Tax Project.



Case: Technical exchanges training conducted by manufacturing department



To promote the development of all departments, the Group's manufacturing department has implemented the plan of technical exchanges among sub-departments within the manufacturing system since 2015. During the Year, the Group completed three technical exchange meetings, which covered training given by those who received external training, self-learning sharing, summary of new workshop's manufacturing, and daily management experience. During the exchange meeting, technical staff of all departments actively discussed to find the best solutions to difficult problems. All staff of manufacturing department, which maximized the training value and boosted the long-term development of the department.

Safety Guarantee

The Group has established an integrated and all-rounded occupational safety management system and passed the OHSAS 18001 occupational health and safety management system certification. In our business development and operation, we actively prevent any harmful incident happening to our employees, contractors and nearby residents. This is one of the missions as we always strive for excellence in serving the health of mankind.



The safety goal of the Group is to achieve zero damage, zero fire hazards and zero explosions in our operation. We strictly follow the Production Safety Law of the People's Republic of China, the Fire Protection Law of the People's Republic of China, the Regulations on Safety Supervision over Special Equipment and other laws and regulations, and have developed a series of internal policies governing occupational health and safety, such as the Management Procedures for Mechanical and Electrical Safety, the Regulations on Aerial Work Safety for Plants, the Management Procedures for Occupational Disease. In 2017, we realized the goal of no lost working days with no major safety accident.

All of the Group's employees and contractors, and our joint venture personnel should strictly follow our safety rules and regulations, and intervene in any unsafe behavior and condition. In order to achieve this goal, we believe that it is important to shape the safety culture, so that employees can understand their responsibilities at work, especially managers, as they are the role model and leader to demonstrate safety precautions. The Safety Management Committee will hold meeting every quarter to share experiences, exchange the best practices and discuss the way to enhance safety performance.

Safety is everyone's responsibility. Besides the management, we also have a grass-root safety officer for each business unit. We share safety solutions by establishing our well-established communication system through the internet, so that every grass-root safety officer can communicate, share and find solutions to problems. In the Group, the safety policies and precautions are well set up and fully cover all business units in order to achieve our safety goal.

To ensure the mental health of our employees, we have set up a mental advisory committee which will privately communicate with staff and ease their mental pressure. Meanwhile, we reasonably arrange the work schedule to ensure employees have enough time to rest. We also organize different employee activities and competitive benefits, to ease the living stress and mental pressure of the employees.

In respect of applicable laws and regulations relating to providing a safe working environment and protecting employees from occupational hazards, the Group has complied with the applicable laws and regulations that have a significant impact on it during the Year.
Case: Safety training for workshop

All of the Group's operators actively identify risks relating to production safety in the workshops, and share them at daily workshop meeting, to prioritize "Safety Foremost". Through effective control measures, no safety accident occurred in the workshops and warehouses during 2017.





Fire extinguishment



Posting signs on prevention of occupational hazards in the plants

Employees' Benefits

Employees are the most valuable asset of our Group. We make great efforts on enhancing employees' benefits in order to achieve the win-win of both a healthy lifestyle and happy work.

During the Year, we provided employees with a variety of benefits and organized various staff activities, to make them enjoy their life during spare time and enhance their relationship and team cohesion.

- We generally purchase medical insurance for our employee and provide health checkup to them every year. At the same time, we set up an internal protection fund so that when employees or their families suffer from great difficulties or medical problems, financial support may be available to them.
- We built a staff restaurant to provide employees with free healthy and nutritious meals.
- We provide dormitories to our employees, with air conditioning, optic fiber, and a variety of cultural and sports facilities. Such facilities are aimed at improving the living environment of the employees.
- We establish a variety of staff clubs and carry out a variety of staff activities in order to enhance their physical and mental health. Additionally, our aim is to create a good working and living environment.
- Besides public holidays, our Group has paid annual leave, marriage leave, maternity leave, sick leave, etc., to allow a right balance between work and life.
- We reward the employees with outstanding performances in the areas of work and environmental protection.



The 6th "Luye Cup" Half Marathon



The Group's Basketball Match



The Group's Annual Meeting



Badminton Match

Social Responsibility

Supply Chain Management

In the globalization of pharmaceutical manufacturing business, there are increasing risks relating to the environment and human rights in the supply chain. The Group continues to review our suppliers to minimize procurement-related risks while reaching an agreement on procurement policy with them.

From a business perspective, we believe that purchase of goods and services from local suppliers can support the development of local suppliers while establishing long-term relationship through cooperation. This also helps the Group to gain competitive advantage and optimize the value of the entire value chain.

The Group has formulated the Management Procedures for Suppliers and Related Parties, the Management Regulations on Overall Appraisal and Assessment of Supplier's Performance and other internal policies, to investigate and appraise the environmental safety and social performance of suppliers, contractors and related parties, and exert influence on them to improve their environmental safety behaviors and social performance, thereby together promoting the sustainable development of the society.

Choosing practices:

Focus on reviewing the qualification of suppliers, business reputation, quality assurance and testing capabilities, process technology, production capacity and management level, occupational safety and health, environmental management, social contribution and other factors, and select suppliers based on the reviews of the supplier.

Monitoring practices:

Quality inspection of incoming products, feedback defects in the production of products, regular discussions with suppliers to develop audit, planned audit and special audit.

Assessment and evaluation practices:

Assess the supplier's quality and review their information, in accordance with national standards, industry standards or the agreed quality standards annually.

Distribution of domestic and overseas suppliers:

Number of domestic suppliers: **7,357**

Number of overseas suppliers: **157**

Anti-corruption

The consequences of commercial bribery and corruption can be profound and disruptive. It distorts the mechanism propagation of information through price and the competition of the market. The Group strictly abides by the Criminal Law of the People's Republic of China, the Law Against Improper Competition and other laws and regulations, and has developed the Code of Conduct for Employees, and the Anti-fraud System of Luye Pharma Group Ltd. and other internal policies, to strictly prohibit bribery, extortion, fraud and money laundering behaviors. The code of conduct of the Group stated clearly: employees are prohibited to provide, give, obtain or accept any type of improper payments, gifts or inducement directly or indirectly, abusing their authority to extort or rebate to/from anybody or any organization. Furthermore, we have set up an anti-fraud supervisory committee and provide internal reporting channels, such as hotline and e-mail box, to ensure effective supervision and prevention of bribery and fraud.

During the Year, the Group has complied with the applicable laws and regulations relating to bribery, extortion, fraud and money laundering that have a significant impact on the Group, without any corruption-related litigation.

Public Welfare

While focusing on economic development, we take the initiative to undertake the responsibility as a corporate citizen. "Support education, encourage innovation" is the direction the Group always upholds to in the aspect of charity. During the Year, we continued to contribute the community by actively participating in social activities and helping the needy through donations.

As a leading innovative pharmaceutical company, we support innovation and talent training in the field of bio-medicine through various forms. Meanwhile, we participated in the Poor Students and Orphans and helped poor university students by funding their tuition fees. The Group and the Municipal Government of Yantai, Laishan District has jointly organized the "Luye Cup" Half Marathon for six consecutive years. During the Year, we donated RMB150,000 for the 6th "Luye Cup" Half Marathon. Each year, almost 10,000 people participate in the half marathon.

As we supported education and encouraged innovation, we successively distributed the following scholarships and bursaries in 2017:

Donation project	Donation amount
Luye Fund for Outstanding Young Scholars in Pharmaceutical Biomedical Field of Peking University	RMB1 million
"Luye Scholarship" for Medical Department of Peking University	RMB0.1 million
Luye Scholarship for Yantai University	RMB0.2 million
Luye Love Bursary for Laishan District	RMB0.1 million
"Helping the Poor Students and Orphans"	RMB0.1 million
Donation for "Being with You" charitable activity to fund poor students	RMB0.2 million



Case: Assistance to Xinjiang Action

On 12 November 2017, the ceremony of donating sports & fitness equipment for Shandong medical staff assisting Xinjiang by Shandong Pharmaceutical Profession Association was held at Kashgar Pulmonary Hospital. At the ceremony, 17 key Shandong pharmaceutical manufacturing enterprises including the Group, who were members of Shandong Pharmaceutical Profession Association, donated sports & fitness equipment with a value of RMB1 million for Shandong medical staff assisting Xinjiang.



Honors Obtained in the Year

With efforts from all employees, we have obtained a diversity of awards from various parties during the Year, for which we feel greatly honored. We will keep going to live up to expectations of all parties.



Most Innovative Manufacturing Enterprise Award



Honorable Award for Project with Outstanding Contribution to the Industry in Shandong Province



2017 Model Enterprise for Economic Development



2017 Advanced Entity for Technology Innovation

Appendix

Environmental Performance

	Data in 2017	Measurement unit
Resource assumption		
Total electricity consumption	41,976,153	kWh
Intensity of electricity consumption	110.0	kWh/output value in RMB10,000
Total natural gas consumption	2,421,560.0	Cubic meters
Intensity of natural gas consumption	6.3	Cubic meters/output value in RMB10,000
Total industrial steam consumption	72,064	MKJ
Intensity of industrial steam consumption	0.19	MKJ/output value in RMB10,000
Total gas consumption (by automobiles)	37,321	Liters
Intensity of gas consumption (by automobiles)	3,110	Liters/per gas automobile
Total diesel consumption (by automobiles)	6,266	Liters
Intensity of diesel consumption (by automobiles)	3,133	Liters/per diesel automobile
Total water consumption	672,428	Cubic meters
Intensity of total water consumption	1.8	Cubic meters/output value in RMB10,000
Packaging materials consumption in total	3,104,690	Tons
Intensity of packaging materials consumption	8.1	Tons/output value in RMB10,000
Emission of air pollutants by boilers		
CO emission	3,239	Kilograms
NO _x emission	2,316	Kilograms
SO _x emission	23.1	Kilograms
PM _{2.5} emission	293	Kilograms
Emission of air pollutants by automobiles		
CO emission	433	Kilograms
NO _x emission	284	Kilograms
SO _x emission	0.7	Kilogram
PM _{2.5} emission	11	Kilograms
PM ₁₀ emission	12.6	Kilograms
Emission of greenhouse gas (scope I and scope II)		
Emission by use of boilers (scope I)	5,236	Tons
Emission by automobiles (scope I)	104	Tons
Emission by electricity consumption (scope II)	34,471	Tons
Emission by refrigerants	1,297	Tons
Greenhouse gas emission in total	41,109	Tons
Intensity of greenhouse gas emission in total	0.11	Ton/output value in RMB10,000

		Data in 2017	Measurement unit
Production wastewater	discharge		
Production wastewater disc	harge	375,433	Tons
Intensity of production waste	ewater discharge	0.98	Ton/output value in RMB10,000
Non-hazardous waste p	roduced		
Medicine dregs produced		893	Tons
Intensity of medicine dregs	produced	0.0023	Ton/output value in RMB10,000
Packaging materials waste	produced	39	Tons
Intensity of packaging waste	e materials produced	0.0001	Ton/output value in RMB10,000
Hazardous waste produ	ced		
Medical waste produced		20,907	Kilograms
Intensity of medical waste p	roduced	0.055	Kilogram/output value in RMB10,000
Organic waste liquid produc	ed	136.497	Kilograms
Intensity of organic waste lic		0.36	Kilogram/output value in RMB10,000
Organic resin waste produce	ed	780	Kilograms
Intensity of organic resin waste produced		0.002	Kilogram/output value in RMB10,000
Waste activated carbon pro		4,212	Kilograms
Intensity of waste activated	carbon produced	0.011	Kilogram/output value in RMB10,000
Toner cartridge waste produ	lced	130	Unit
Intensity of toner cartridge w	vaste produced	0.0003	Per output value in RMB10,000
Waste fluorescent tube proc	luced	15	Unit
Intensity of waste fluorescer	nt tube produced	0.00004	Per output value in RMB10,000
Social Performance			
Safety			
Death toll	Employee	0	Number of people
	Subcontractor	0	Number of people
		0	
Accidental work injuries	Recorded frequency of accidents	0	Every 200,000 working hours
	Loss of working days frequency	0	Every 200,000 working hours
Occupational disease	Recorded frequency of occupation disease	nal O	Every 200,000 working hours

Employees

		Percentage	Turnover rate
Total number of peop	e	3,921	13%
Gender distribution	Male	49%	13%
	Female	51%	12%
Rank distribution	Directors and above	3%	_
	Managers	10%	—
	Other employees	87%	—
Age distribution	18–25	13%	18%
	26–35	48%	15%
	36–45	28%	7%
	46–55	10%	4%
	56 and above	2%	28%
Region distribution	Mainland China	93%	12%
	United States	0.5%	21%
	Japan	0.1%	0%
	Hong Kong	0.1%	0%
	Singapore and Malaysia	0.5%	0%
	Europe	6%	0%
Average training hours	s completed per employee		
Gender distribution		Male	62 hours
		Female	77 hours
Rank distribution		Directors and above	8 hours
		Managers	33 hours
		Other employees	92 hours

"ESG Reporting Guide" Content Index

A. Environmental				
Item		Descriptions	Related sections in the Report	
Aspect A1: Emission	IS			
General Disclosure		 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to emissions of waste gas and greenhouse gas, discharge into water and land, generation of hazardous and non-hazardous waste 	Environmental Management Climate Changes Air Emission Management Water Resources Management Waste Management	
Key Performance Indicator (KPI)	A1.1	The types of emissions and respective emissions data	Environmental Performance	
	A1.2	Greenhouse gas emissions in total and, where appropriate, intensity	Environmental Performance	
	A1.3	Total hazardous waste produced and, where appropriate, intensity	Environmental Performance	
	A1.4	Total non-hazardous waste produced and, where appropriate, intensity	Environmental Performance	
	A1.5	Description of measures to mitigate emissions and results achieved	Climate Changes Air Emission Management Water Resources Management	
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved	Waste Management	

General Disclosure		Policies on effective use of resources	Environmental Management Climate Changes Water Resources Management
KPI	A2.1	Direct and/or indirect energy consumption by type in total and intensity	Environmental Performance
	A2.2	Water consumption in total and intensity	Environmental Performance
	A2.3	Description of energy use efficiency initiatives and results achieved	Climate Changes
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved	Water Resources Management
	A2.5	Total packaging material used for finished products and, if applicable, with reference to per unit produced	Environmental Performance
ect A3: The E	nvironmer	nt and Natural Resources	
General Disclosure		Policies on minimizing the significant impact of the issuer on the environment and natural resources	Environmental Management Chemicals Managemer Education of Environmental Awareness
KPI	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them	Chemicals Managemer Education of Environmental Awareness

		B. Social	
Item		Descriptions	Related sections in the Report
Aspect B1: Employm	ent		
General Disclosure		 Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to remuneration and dismissal, recruitment and promotion, working hours, rest periods, equal opportunities, diversity, anti-discrimination and other treatments and benefits 	Employment Management Employees' Benefits
Recommended Disclosures	B1.1	Total workforce by gender, employment type, age group and geographical region	Employment Management
	B1.2	Employee turnover rate by gender, age group and geographical region	Employment Management
Aspect B2: Health a	nd Safe	ty	
General Disclosure		 Information on: (a) the policies; (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to provision of a safe working environment and protection of employees from occupational hazards 	Safety Guarantee
Recommended	B2.1	Number and rate of work-related fatalities	Safety Guarantee
Disclosures	B2.2	Lost days due to work injury	Safety Guarantee
	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored	Safety Guarantee
Aspect B3: Develop	nent an	d Training	
General Disclosure		Policies on enhancing the knowledge and skills of employees to perform duties. Describe training activities	Talent Cultivation
Recommended Disclosures	B3.1	The percentage of employees trained by gender and employment type (e.g. senior management, middle management)	Talent Cultivation
	B3.2	The average training hours completed per employee by gender and employment type	Talent Cultivation

General Disclosure		Information on:	Employment
		 (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to prevention of child labor or forced labor 	Management
Recommended B4.1 Disclosures		Description of measures to review employment practices to avoid child and forced labour	/
	B4.2	Description of steps taken to eliminate such practices when discovered	/
spect B5: Supply	Chain M	anagement	
General Disclosu	ire	Policies on managing environmental and social risks of the supply chain	Supply Chain Management
Recommended Disclosures	B5.1	Number of suppliers by geographical region	Supply Chain Management
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	Supply Chain Management
spect B6: Product	Respon	sibility	
General Disclosu	ire	 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress 	Quality Products and Services
Recommended Disclosures	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons	Drugs Manufacturing Management
	B6.2	Number of products and service related complaints received and how they are dealt with	Product Sales and Customer Service Management
	B6.3	Description of practices relating to observing and protecting intellectual property rights	Protection of Intellectu Property Rights
		Description of quality assurance process and recall	Drugs Manufacturing
	B6.4	procedures	Management

Aspect B7: Anti-cor	ruption		
General Disclosure		 Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering 	Anti-corruption
Recommended Disclosures	B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases	Anti-corruption
	B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored	Anti-corruption
Aspect B8: Commu	nity Inve	estment	
General Disclosure		Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests	Public Welfare
Recommended B8.1 Disclosures		Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport)	Public Welfare
	B8.2	Resources (e.g. money or time) contributed to the focus area	Public Welfare



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