



九天化工集团有限公司

JIUTIAN CHEMICAL GROUP LIMITED



AUGMENTING OUR CAPABILITIES

SUSTAINABILITY REPORT 2017

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1. Highlights

1.1 Corporate profile

Jiutian Chemical Group Limited (九天化工集团有限公司) (**Jiutian** or the '**Company**'), together with its subsidiaries (the '**Group**'), are engaged in the manufacture and production of dimethylformamide (**DMF**) and methylamine in the People's Republic of China (**PRC**). We are also involved in the processing and sale of consumable carbon dioxide and oxygen.

The business is divided into three main business divisions:

- DMF division producing DMF as its main product and methylamine as our secondary product;
- Sodium Hydrosulfite division producing Sodium Hydrosulfite; and
- Gas and Oxygen 18 division producing consumable carbon dioxide, Oxygen 18 and deuterium-depleted water.

We are located in Henan Province in the People's Republic of China (**PRC**). Whilst economic development and industrialisation in the PRC began on the eastern and southern coast, this process has begun to spread rapidly inland, including to Henan and its surrounding regions, where cost of labour, land and raw materials are significantly lower.

As a result, industrialisation and urbanisation are occurring at a rapid pace in these regions, and the consequent establishment of factories producing a wide range of consumer products is driving the demand for chemicals such as DMF and methylamine. Being the only significant DMF producer in the Henan Province (within 500km from the plant), we are well-positioned to take advantage of this trend.

In addition, our location in PRC's Coal Belt allow us to enjoy a cost advantage over other PRC DMF producers due to our secure and low-cost access to the coal-based raw materials that are used in the manufacture of our products. Our production efficiency and cost-effective supply chain management strategy, which include direct piping-in of raw materials from our main supplier, has provided us a relative cost advantage against our competitors.

Henan Province is also on the Beijing-Guangzhou railway and its capital Zhengzhou, has one of Asia's largest railway stations and network. Zhengzhou has been developed into a logistics central station for cargo transportation. This will further reduce the transportation costs of our products. Our customer base in China consists of customers in Henan, the surrounding provinces adjacent to Henan, namely Hebei, Shaanxi, Shanxi, Hubei, Shandong, and Anhui, and provinces in the Yangtze Delta Region, namely, Jiangsu and Zhejiang.

Some of our customers are manufacturers of downstream products that use methylamine and DMF, while others, especially those located further away in the Yangtze Delta Region, are trading intermediaries that distribute these chemicals to customers that use these chemicals in their manufacturing processes. With our second DMF/methylamine facility of 120,000 annual ton capacity completed in late 2007, we have emerged as one of the world's largest manufacturers of DMF with a total annual capacity of 150,000 tons of DMF and methylamine.

Jiutian was listed on the Singapore Exchange Securities Trading Limited (**SGX-ST**) on 4 May 2006.

1.2 Message to stakeholders

As a leader in DMF and methylamine production in China, Jiutian is poised to take a leading role in the environmental, health and safety (**EHS**) aspects to ensure sustainability of our operations and fulfil our responsibility towards our stakeholders.

In 2017, we continue to engage in constructive dialogue with our stakeholders and focus on our four key pillars of Quality Management, Production Safety, Environmental Protection and Employee Well-being.

During the year, we have increased our operational efficiency at Anyang Jiutian and increased the plant capacity utilisation rate from 57% to 65% for DMF production and from 92% to 100% for methylamine production. This efficiency forms a solid base upon which we can grow our business.

Looking ahead, we remain optimistic. The major maintenance of our DMF and methylamine plants undertaken in 3rd Quarter 2017 will allow our plants to operate at a high efficiency in 2018.

We are aware that the Chinese government's emphasis on environmentally-friendly industrial operations will necessitate us keeping abreast of related regulatory developments and consequently improving our operations to comply with these changes. This pro-active stance will in turn place Jiutian on a more sustainable growth trajectory.

In addition, we wish to confirm that the Board has considered sustainability issues as part of its strategic formulation, determined the material environmental, social and governance (**ESG**) factors and overseen the management and monitoring of the material ESG factors.

As part of Jiutian's commitment to sustainable development, we will continue to strive to do business in a responsible way.

On behalf of the Board of Directors

WANG YIMING

Non-Executive and Non-Independent Chairman



1.3 Scope of sustainability report

The scope of the report covers information on material sustainability aspects of Jiutian, namely the Group's significant subsidiary, Anyang Jiutian Fine Chemical Co., Ltd (安阳九天精细化工有限公司) (**Anyang Jiutian**), from 1 January 2017 to 31 December 2017 unless otherwise specified. This should sufficiently address stakeholders' concerns in relation to sustainability issues arising from the major business operations of the Group.

This report is prepared in accordance with the Global Reporting Initiative (**GRI**) Standards: Core Option as it provides a set of an extensive framework that is widely accepted as a global standard for sustainability reporting. It also considers the Sustainability Reporting Guide in Practice Note 7F of the Singapore Exchange Securities Trading Limited (**SGX-ST**) Listing Manual Section B: Rules of Catalist (**Catalist Rules**). In preparing our report, we applied the GRI's principles for defining report content and report quality by considering the Group's activities, impacts and substantive expectations and interests of its stakeholders.

The data and information provided within the report have not been verified by an independent third party. We have relied on internal data monitoring and verification to ensure accuracy.

Sustainability contact

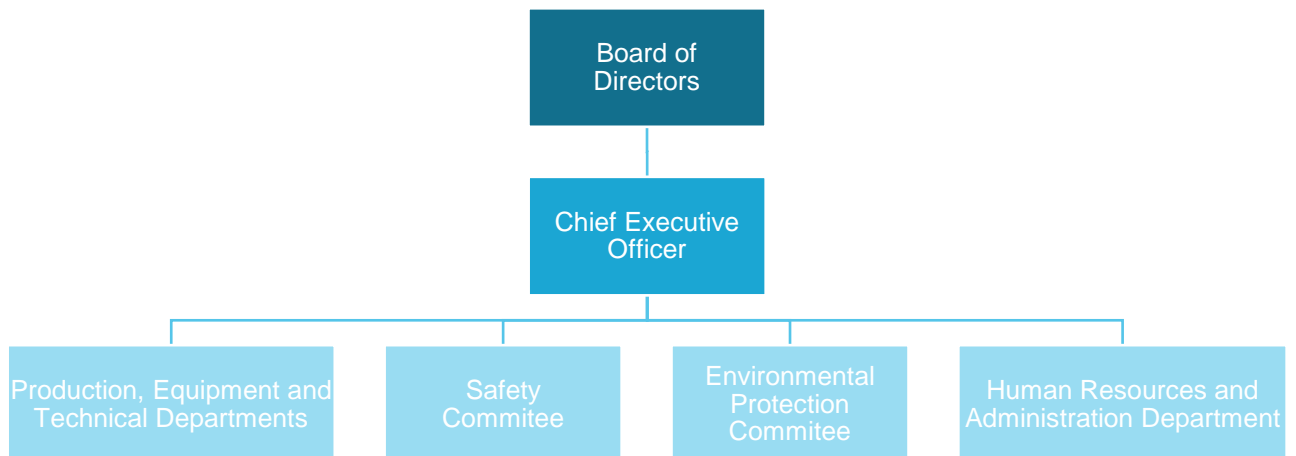
We welcome your views and feedback on our sustainability practices and reporting at admin@jiutianchemical.com.



2. Our approach to sustainability

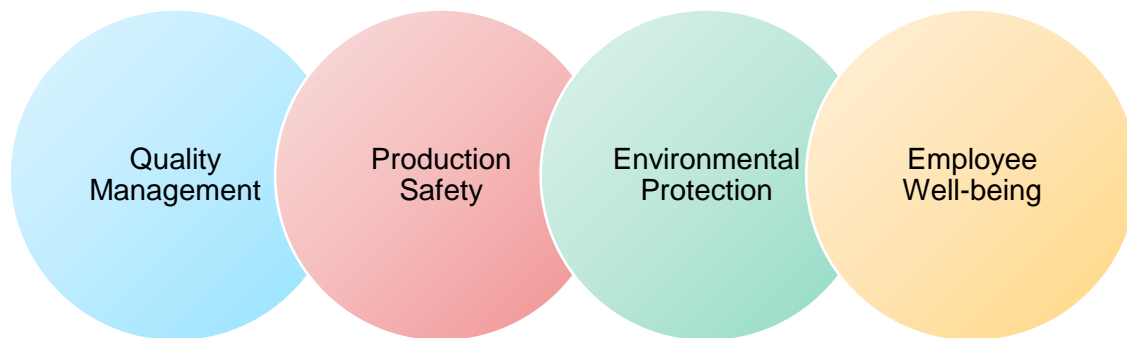
2.1 Sustainability organisational structure

Sustainability is a vital part of our corporate strategy for achieving long-term growth. The values we create for our people, the environment and society at large very much determine our financial performance. We developed a sustainability organisational structure to move things forward:



2.2 Sustainability strategy

At the Group, our sustainability strategy aims to create integrated values. Together with disciplined execution of our strategy and a commitment to doing business responsibly, we commit to deliver value to all our stakeholders through the following:



The sustainable strategy is underpinned by our comprehensive internal policies on the following:

- Production Safety Management (安全生产管理), which covers aspects on safety culture, safety training and development, occupational health and safety, handling of hazardous chemicals, fire safety and prevention, equipment maintenance and supplier management.
- Environmental Protection Management (环境保护管理), which covers aspects on source pollution management, air pollution monitoring, proper discharge of solid and liquid waste and pollution management, and pollution management diagrams for our production of DMF and methylamine.
- Emergency Response Management (应急预案), which covers aspects on emergency response procedures in the event of serious safety or environmental incidents.
- Human Resources Management (人事管理), which covers aspects on employee handbook, department-specific performance evaluations, rewards and penalties.

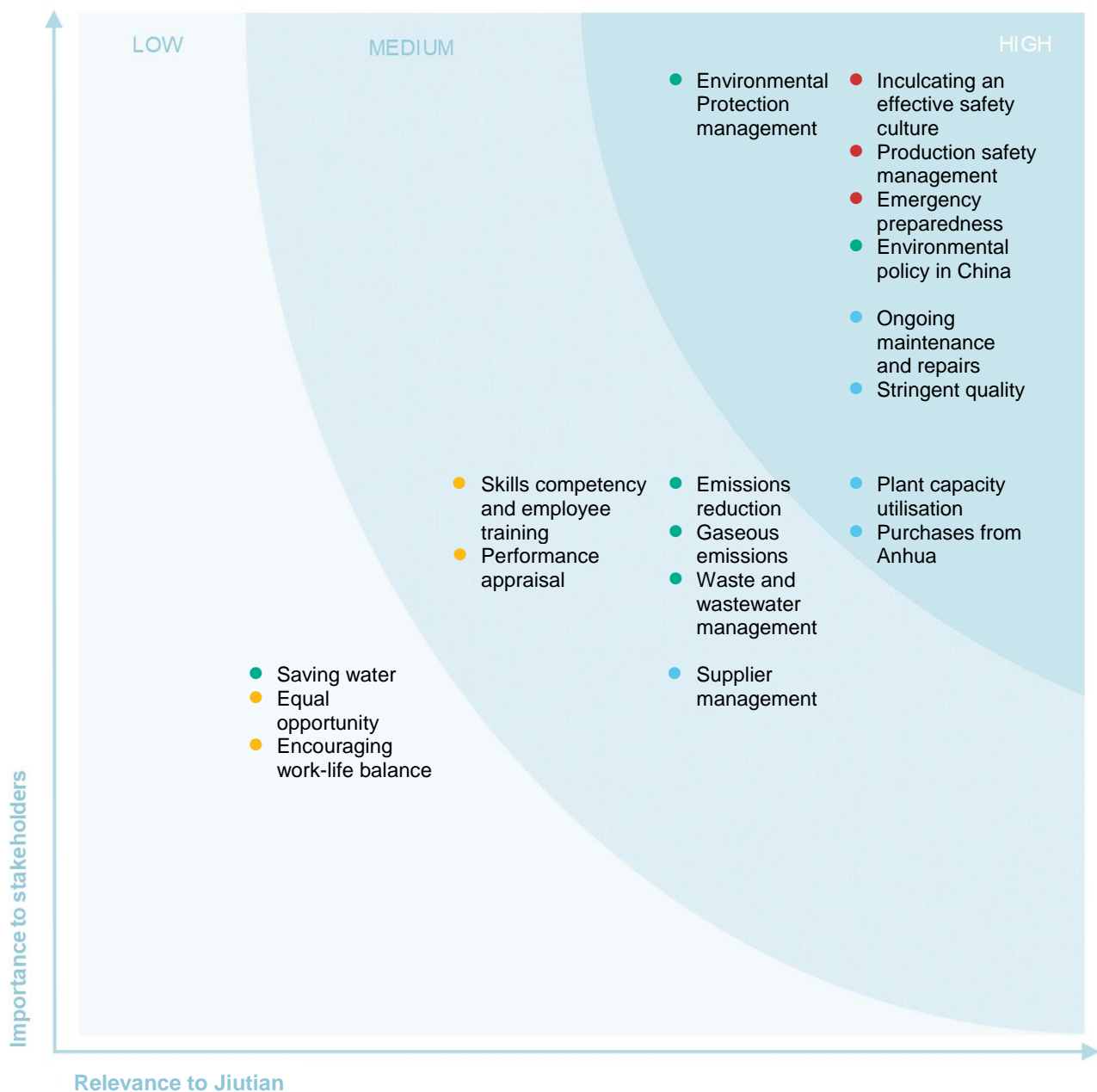
The strategy is also guided by external sources, including the Global Reporting Initiative Standards and Sustainability Reporting Guide in Practice Note 7F of the Catalyst Rules.

2.3 Sustainability materiality

We recognise the need to continuously develop our responsible business approach in order to address growing stakeholder expectations around our impact on the economy, environment and society. As such, we periodically consult with our stakeholders to determine the issues that are most relevant to them and Jiutian. Some of our stakeholder's comments can be found in **Appendix B**.

Using a materiality index, we align our responsible business priorities with the Group's principal business and operational risks, as illustrated in the diagram below.

We have also developed metrics to help us measure our progress, as indicated in our sustainability scorecard in **Appendix A**. We will review and adjust the material issues and relevant metrics each year, as the external and business context changes.



3. Our performance

3.1 How we measure our performance

Our **sustainability strategy** is embedded into the appropriate parts of our business, with dedicated teams for each focus area, and coordination by our relevant departmental managers.

Progress will be tracked in two key ways: measuring performance against metrics, and evaluating how well the programs have advanced, through a series of 'commitments'.

Metrics and targets

We have established key performance indicators for each of the four focus areas outlined in our **sustainability strategy**. As this is our first year adopting sustainability reporting, we will be establishing quantitative targets within the next year to hold ourselves accountable and track how we are doing.

Periodically, we plan to introduce new metrics and update targets to ensure alignment with our strategy.

Commitments

To ensure we have a robust sustainability program in place, we will also publish the key initiatives we plan to implement within the next year.



3.2 Quality management

Overview

Anyang Jiutian is primarily engaged in the manufacture and production of high purity DMF and methylamine to support the needs of our customers, mainly for their use as feedstock in the production of polyurethane (PU). We have established comprehensive procedures to ensure quality throughout the production process.

In addition, we believe that effective management of our supply chain can help us conserve resources, optimise processes, increase productivity and promote positive corporate values. We are dedicated to the consistent implementation of our procurement policies and procedures across our entire operation.

Plant capacity utilisation

During the year, we have increased our operational efficiency at Anyang Jiutian and increased the plant capacity utilisation rate from 57% to 65% for DMF production and from 92% to 100% for methylamine production. This efficiency forms a solid base upon which we can grow our business.

Ongoing maintenance and repairs

On 14 August 2017, Anyang Jiutian commenced annual major maintenance and repairs on the DMF and methylamine production line, which lasts approximately one month. Production stops during this annual exercise, which comprises technological improvements, maintenance and repairs on piping, meters and insulation, and other structural reinforcements. These maintenance and repairs will improve production efficiency and quality, and also prepare the chemical plant to run smoothly during the harsh winter months.

In addition, regular maintenance and repairs are also carried out which does not affect the daily operations of the chemical plants. In 2017, total expenditure on maintenance and repairs amounted to more than ¥31 million.

Even as the production of DMF and methylamine has been ongoing for more than 10 years, the Production, Equipment and Technical Departments are always on the look out to improve the efficiency and effectiveness of the current production work flow through process improvement initiatives. In 2017, total expenditure on process improvements amounted to close to ¥4 million.

65%

DMF plant capacity utilisation rate

100%

Methylamine plant capacity utilisation rate

¥31m

Investment on maintenance and repairs

¥4m

Investment on process improvements

Stringent quality management

The main raw materials for DMF and methylamine are methanol and liquid ammonia. Each incoming raw material shipment will be subject to stringent analysis and inspection by our in-house laboratory to ensure that the raw materials meet our production requirements for high purity chemicals. Shipments that cannot meet the purity requirement are entirely rejected and returned to the suppliers.

Ongoing production are also subject to hourly quality inspection to ensure the consistency of DMF and methylamine production.

Backed by our stringent quality management process, we seek to continue to achieve 100% product acceptance rate by our customers in the coming year.

100%

Product acceptance rate by our customers

Purchases from Anhua

Commencing from 1 January 2005, Anyang Jiutian signed a 20-year raw materials and spare parts purchase agreement with our principal supplier and shareholder, Anhua Group (**Anhua**), including the supply of coal, distilled water, steam and electricity.

We continue to enjoy a close working relationship with Anhua to ensure the quality and consistent supply of these essential raw materials and utilities to our facilities at a reasonable price.

Supplier management

Anyang Jiutian purchases entirely from reliable local suppliers. A secure and stable supply chain is very important to ensure the smooth and uninterrupted operation of our production activities. As such, we have established a set of Supplier Management Policies (供应商管理办法) to be applied to all our suppliers.

Some of the areas covered by our policies include:

- Supplier classification,
- New supplier qualification and authorisation,
- Supplier evaluation,
- Supplier disqualification,
- Supplier selection through fair competition, and
- Inventory management.

Other matters

In August 2017, we organised a symposium on “Improving Efficiency” (效率效能) for all our employees. During the talk, our Non-Executive and Non-Independent Chairman, Mr. Wang Yiming, and other distinguished speakers impressed upon our employees the importance to improve quality and efficiency in all aspects of our work, including change management, continued improvement, KPI evaluation, product quality, product delivery, and cost management.

In addition, in the spirit of “learning new knowledge and competing technical skills” (学知识、比技能), we organised a technical competition from July to November 2017 to assess and reward the technical competency of our employees.

3.3 Production safety

Overview

Safety is of paramount importance in the chemicals industry, and we have always stressed the importance of production safety in all our operations, especially when we deal with hazardous chemicals in each stage of our production process.

We believe that one of the keys to improving safety is the creation of a more effective safety culture – one that does not emphasise production over safety.

Inculcating an effective safety culture

Safety in the chemical industry relies heavily on following correct procedures. Having an effective safety culture is hence very important. By building an effective safety culture, we can not only reduce injuries, we can also strengthen production, increase operational agility and move ahead on the journey to becoming a high-performance business.

At Anyang Jiutian, our Safety Committee is headed by our General Manager, and supported by our Vice General Manager (Technical), Equipment Manager, Production Manager and Safety Manager.

Daily safety briefings are held before each production shift with weekly and monthly safety meetings to summarise and incorporate lessons learnt. There are also periodic sharing sessions from each department to highlight on important safety aspects.

New employees are required to attend company and departmental orientation trainings where safety features prominently in the topics which are covered. They are also required to familiarise themselves on all safety aspects in relation to their job scope.

In addition, we also organise monthly safety competitions between different production shifts and reward the winning team with additional salary incentives. We believe that this is an effective motivational tool to improve production without compromising safety.

We seek to continue to achieve zero production stoppage due to safety incidences and zero serious accidents in the coming year.

0

Production stoppage due to safety incidences

0

Serious incidents

0

Workplace injuries



Production safety management

We have established a set of Production Safety Management Policies (安全生产管理制度) that requires all employees to adhere to the relevant safety laws and regulations and company standards.

Our employees are required to familiarise themselves with and uphold safety standards in order to achieve “Safety First, Effective Prevention, and Comprehensive Management” (安全第一、预防为主、综合治理).

Some of the areas covered by our policies include:

- Effective safety culture,
- Safety training and development,
- Occupational health and safety,
- Handling of hazardous chemicals, and
- Fire safety and prevention.

Emergency preparedness

While we emphasise on preventing safety incidents, we also prepare the employees to handle and respond to emergencies, including potential explosions, fire and chemical spills. This is very important to reduce and limit the impact and casualty as a result of the any safety incidents that may happen in our line of work.

In addition to departmental trainings and refresher courses, we also conduct annual fire safety and emergency preparedness drills involving company personnel and the local fire station.

In November 2017, we kicked off a full month of activities in conjunction with the “119” National Fire Prevention Month to strengthen fire safety and emergency preparedness awareness within Anyang Jiutian and our local community.

3.4 Environmental protection

Overview

Environmental protection is fast gaining traction in China amongst policy makers and the public. This move has posed significant implications, especially to the chemicals industry. As one of the largest producers of DMF and methylamine in China, Anyang Jiutian is committed to ensuring our full compliance with national environmental regulations.

Comprehensive policies are developed to ensure the Anyang Jiutian's commitment towards environmental protection, reducing carbon emissions, preventing pollution, and minimising waste can be achieved during our daily operations.

Environmental policy in China

Environmental policy in China is set by the National People's Congress and managed by the Ministry of Environmental Protection of the People's Republic of China. The central government issues strict regulations for which the actual monitoring and enforcement is largely undertaken by the local governments.

In January 2015, a new environmental law came into effect, covering land, water and air pollution. It contains strict penalties, including seizing of the property of illegal polluters, with company executives subject to prison sentences of 15 days. There is no upper limit on fines. More than 300 different groups will be able to sue on the behalf of people harmed by pollution.

Anyang Jiutian is fully compliant with China's environmental policy and has obtained the requisite clearance on its environmental protection facilities since November 2015.

Environmental protection management

At Anyang Jiutian, our Environmental Protection Committee is headed by our General Manager, and supported by our Vice General Manager (Technical), Equipment Manager, Production Manager and Safety Manager. They will oversee all environmental protection matters in the Company.

In addition, we have established a set of Environmental Protection Management Policies (环境保护管理制度) that requires all employees to adhere to the relevant environmental protection laws and regulations and company standards.

Some of the areas covered by our policies include:

- Source pollution management,
- Air pollution monitoring,
- Proper discharge of solid and liquid waste
- Pollution management, and
- Pollution management diagrams for our production of DMF and methylamine.

0

Environmental incidents

¥0

Fines on contravention of environmental regulations

Emissions reduction

The corporate culture of protecting the environment is reflected in every operation undertaken by Anyang Jiutian.

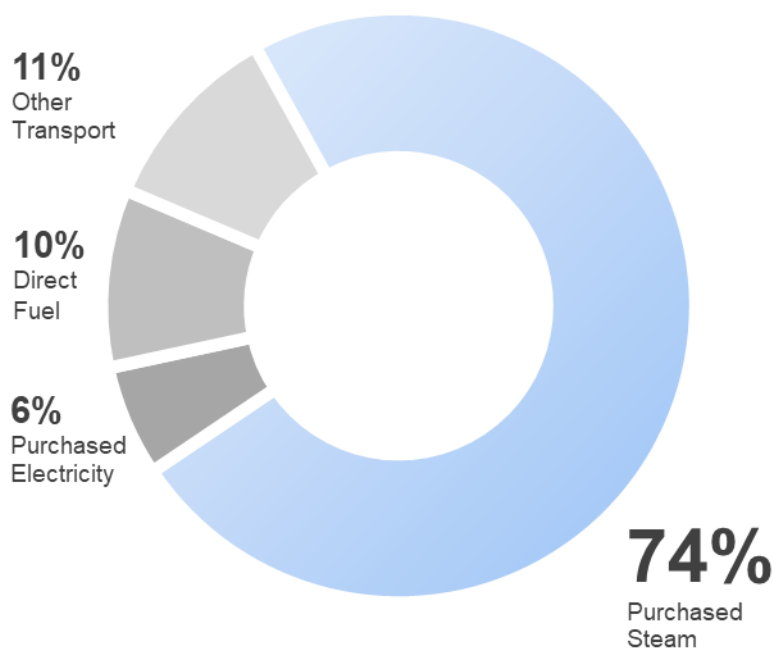
We are committed to positive action on climate change and dedicated to reducing the carbon emission in our daily operations. Employees are reminded to save electricity and fuel consumption through regular internal communications.

To determine the carbon footprint, we collect energy usage data from each our businesses and then calculate our total annual greenhouse gas emissions.

In 2017, Anyang Jiutian generated a carbon footprint of 1,018.59 tonnes of carbon dioxide emission (tCO₂e) with a carbon emission intensity of 4.03 kgCO₂e per tonne of production. The emission mainly arises from purchased steam used in the production process which accounted for more than 74% of the total carbon emission of Anyang Jiutian.

4.03

Kilograms of carbon dioxide emission per tonne of production



We follow the Greenhouse Gas Protocol established by the World Resources Institute and the World Business Council for Sustainable Development, the standard manual for measuring corporate greenhouse gas emissions. Using the “control method”, we include 100% of the emissions associated with businesses which we directly control. Our carbon footprint includes:

- All fuels used directly by our companies (Scope 1 emissions)
- All purchased electricity and steam used in our facilities (Scope 2 emissions)
- Impact of business air and rail travel, and transportation of goods to our customers (optional Scope 3 emissions)

We will continue to monitor the performance on the carbon emission reduction. Progress and performance on the reduction of carbon emission will be reported in the following year.

Gaseous emissions

DMF and methylamine production produces fumes containing hydrogen sulphide and ammonia respectively. These obnoxious fumes need to be securely collected and treated before they can be safely released into the atmosphere.

Hydrogen sulphide gas from DMF production will undergo a desulphurisation process to remove the presence of sulphur to a level of less than 0.1 PPM. On the other hand, ammonia gas from methylamine production is recovered, purified and recycled as feedstock for the production.

As a result, the fumes released into the atmosphere will be able to meet the requirements of the gas emission standard of the Henan Province. We seek to continue to ensure that 100% of our gaseous emissions meet the local emission standards in the coming year.

100%

Gaseous emissions that meets local emission standards

100%

Wastewater discharge that meets local emission standards

27%

Water recycled and reused

Waste and wastewater management

Waste materials from the production of DMF and methylamine are not significant. Any waste engine oils and materials recovered from maintenance of piping, meters and insulation will be aggregated in a locked and isolated container and disposed through proper biohazard disposal channels.

Wastewater disposal is handled by Anhua on the company's behalf. Anhua's facilities are able to handle up to 15,000 m³ of wastewater a day, through a set of parallel biological treatment tanks.

As a result, the treated wastewater discharge will be able to meet the requirements of the water emission standard of the Henan Province. We seek to continue to ensure that 100% of our wastewater discharge meet the local emission standards in the coming year.

In 2017, Anyang Jiutian had a wastewater discharge intensity of 2.27 m³ per tonne of production. The volume of wastewater discharged exceeds municipal water consumption due to water from condensed steam produced during production.

Saving water

Water scarcity is a growing concern around the world and a serious global challenge that we must work together to address.

Water consumption in chemical plant are intensive. Where possible, Anyang Jiutian already has procedures in place to utilise recycled water for its processes.

In 2017, Anyang Jiutian had a water consumption intensity of 0.86 m³ per tonne of production. In addition, up to 27% of municipal water consumption is being recycled and reused.

We will continue to monitor the performance on the water consumption reduction. Progress and performance on the reduction on water consumption will be reported in the following year.

3.5 Employee well-being

Overview

To increase the productivity, Anyang Jiutian has a comprehensive performance appraisal programme and rewards system based on the result of the appraisal. The performance appraisal programme is essential for us to understand the skills level of the employees and appropriate training programmes can be designed to fill up the skill gaps.

We emphasise on the career path and progression of our employees. To achieve this, the management builds several two-way communication channels to ensure the career development needs of the employee are taken into consideration whenever it is possible. Trainings opportunities are equal to all employees based on needs identified.

Though these efforts, Anyang Jiutian is well-positioned to provide a constructive working experience to our employees and contribute to the economic development and skilled labour resources of the local community.

Skills competency and employee training

To ensure that our employee excel, we emphasise on continuous learning in the workplace. Every employee has equal opportunities to upgrade and sharpen their skill sets through formal and on-the-job internal training programs and inter-departmental competitions.

In 2017, Anyang Jiutian invested an average of 84 hours of training on each employee.

Performance appraisal

To ensure the Company achieves its goals, we have various performance appraisal methods in place to determine the performance of the Company as well as each individual employee.

The employee performance appraisal comprises mainly quantifiable evaluation criteria. In addition, we actively collect performance information for each employee each month through inputs from direct supervisors and feedbacks, as well as periodical employee communication sessions.

These collected information allow us to understand the performance and skills development needs of each team and individual employee from multiple aspects. This is crucial for the Company to develop annual training programs for employee that are designed to enhance the skills of the employee and aims to improve the overall productivity.

In 2017, all of our employees are at least subject to an annual performance appraisal by their superiors. We seek to continue this practice in the coming year.

84

Training hours per staff

2%

Employee turnover

100%

Employees subject to regular performance appraisal

Equal opportunity

Anyang Jiutian has always been an equal opportunity employer to provide a fair workplace for employees, following the principles of equality and non-discrimination. Recruitment, remuneration, promotion, and benefits are required to be handled based on objective assessment, equal opportunity and non-discrimination regardless of gender, race, marital status, pregnancy, disability, age or family status.

We attract talent through fair, and flexible recruitment strategy that includes recruitment application, job description, job applications, interview, selection, approval, and job offer. Promotion is based on performance and suitability.

We offers competitive remuneration to attract and retain talented staff members. Remuneration packages (which includes the necessary social benefits) are reviewed periodically to ensure consistency with employment market. Dismissal also complies with employment laws and regulations relating to non-discrimination.

In 2017, female employees comprise 40% of our entire workforce, with female representation in management at 28%.

40%

Female representation in workforce

28%

Female representation in management

Encouraging work-life balance

We organised a variety of employee activities to help them relax their mind and body, develop teamwork, explore their talent, so as to develop a positive attitude in both work and life.

To enhance employee teamwork and cohesion, improve employee health and improve employee work-life balance, Anyang Jiutian has been organising periodic employee gatherings during major festivals and sports competitions.



Appendix A: Sustainability scorecard

Quality management

Performance indicators	Units	2017
Plant capacity utilisation rate (DMF)	Percentage	65
Plant capacity utilisation rate (Methylamine)	Percentage	100
Investment on maintenance and repairs	¥'000	31,033
Investment on process improvements	¥'000	3,926
Products that meet the quality requirements of our customers	Percentage	100

Production safety

Performance indicators	Units	2017
Production stoppage due to safety incidences	Number	0
Serious incidents	Number	0
Workplace injuries	Number	0

Environmental protection

Performance indicators	Units	2017
Environmental incidents	Number	0
Fines on contravention of environmental regulations	¥'000	0
Total carbon footprint	tCO ₂ e	1,018.59
Carbon emission intensity	kgCO ₂ e/tonne	4.03
Gaseous emissions that meets local emission standards	Percentage	100
Wastewater discharge that meets local emission standards	Percentage	100
Wastewater discharge intensity	m ³ /tonne	2.27
Water consumption intensity	m ³ /tonne	0.86
Water recycled and reused	Percentage	27

Employee well-being

Performance indicators	Units	2017
Training hours per staff	Hours	84
Employee turnover	Percentage	2
Employees subject to regular performance appraisal	Percentage	100
Female representation in workforce	Percentage	40
Female representation in management	Percentage	28

Appendix B: Consulting our stakeholders

We listen to our stakeholders and engage with them on an ongoing and ad hoc basis. An overview of our approach and rationale is set out below (with stakeholders listed in alphabetical order), together with the feedback we have received.

Stakeholders	How we listen	Why we do it	What you've told us
Customers	<ul style="list-style-type: none"> Industry association meetings Meetings with customer's procurement department 	<ul style="list-style-type: none"> Ensure ability to meet customer's requirements in terms of quality and delivery timeliness 	<ul style="list-style-type: none"> Provision of high purity chemicals Ability to meet delivery timelines
Employees	<ul style="list-style-type: none"> Internal updates and communication Events and functions 	<ul style="list-style-type: none"> Improve employee's capabilities through internal and external training Improve employee's well-being through managing health and safety, and upkeep of estates 	<ul style="list-style-type: none"> Health and safety Career progression Benefits and rewards External courses
Regulatory authorities (Governments, SGX, MOM, IRAS)	<ul style="list-style-type: none"> Regular updates and communication Reports and compliance Periodical meetings with government bodies 	<ul style="list-style-type: none"> Adhere to environmental regulations for chemical production Good relationship between continuing sponsor and Company Dialogue with SGX Active participation in SGX events to increase visibility and transparency 	<ul style="list-style-type: none"> Compliance with relevant laws and regulations
Shareholder and investors	<ul style="list-style-type: none"> SGX Announcements Shareholder's meeting Annual reports Company's website Regular updates and communication 	<ul style="list-style-type: none"> Committed to delivering economic value to our capital providers through a strong financial performance and our methods of engagement with them. 	<ul style="list-style-type: none"> Long-term profitability Sustainability matters Group's performance against targets Compliance with all relevant requirements
Suppliers	<ul style="list-style-type: none"> Meetings with supplier's sales department Negotiation of bulk discounts 	<ul style="list-style-type: none"> Ensure availability of quality supplies for uninterrupted chemical production at a reasonable cost 	<ul style="list-style-type: none"> Ability to meet Company's quality standards Ability to meet Company's delivery timelines

Appendix C: GRI content index

GRI Standards Content Index

The GRI Content Index references the Jiutian Chemical Group Limited Sustainability Report 2017 (SR), and the Annual Report 2017 (AR).

Disclosure number		Disclosure title	Page reference and remarks
GRI 102: General disclosures			
Organisational profile	102-1	Name of organisation	• AR: Corporate Profile (Pages 2-3)
	102-2	Activities, brands, products, and services	• AR: Corporate Profile (Pages 2-3)
	102-3	Location of headquarters	• AR: Corporate Profile (Pages 2-3)
	102-4	Location of operations	• AR: Corporate Profile (Pages 2-3) • AR: Investment in Subsidiary Companies – Note 16 to the Financial Statements (Pages 84-87)
	102-5	Ownership and legal form	• AR: General – Note 1 to the Financial Statements (Page 56)
	102-6	Markets served	• AR: Review of Operations (Pages 14-16) • AR: Segment Information – Note 28 to the Financial Statements (Page 102)
	102-7	Scale of organisation	• AR: Corporate Profile (Pages 2-3) • AR: Segment Information – Note 28 to the Financial Statements (Page 102)
	102-8	Information on employees and other workers	• SR: Employee Well-being (Pages 15-16)
	102-9	Supply chain	• SR: Quality Management (Pages 8-9)
	102-10	Significant changes to the organisation and its supply chain	• AR: Corporate Profile (Pages 2-3) • AR: Our Products (Pages 4-7)
	102-11	Precautionary Principle or approach	• AR: Corporate Governance (Pages 22-40)
	102-12	External initiatives	• Not applicable
	102-13	Membership of associations	• Not applicable
Strategy	102-14	Statement from senior decision-maker	• AR: Chairman's Statement (Pages 8-10)
	102-15	Key impacts, risks, and opportunities	• AR: Review of Operations (Pages 14-16) • AR: Independent Auditor's Report (Pages 45-49)
Ethics and integrity	102-16	Values, principles, standards, and norms of behavior	• SR: Sustainability Strategy (Page 5)
	102-17	Mechanisms for advice and concerns about ethics	• AR: Corporate Governance (Pages 22-40)
Governance	102-18	Governance structure	• AR: Corporate Governance (Pages 22-40)
	102-19	Delegating authority	• AR: Corporate Governance (Pages 22-40)
	102-20	Executive-level responsibility for economic, environmental, and social topics	• SR: Sustainability Organisational Structure (Page 4)
	102-21	Consulting stakeholders on economic, environmental, and social topics	• SR: Consulting Our Stakeholders (Page 18)
	102-22	Composition of the highest governance body and its committees	• AR: Corporate Governance (Pages 22-40)

Disclosure number		Disclosure title	Page reference and remarks
	102-23	Chair of the highest governance body	• AR: Corporate Governance (Pages 22-40)
	102-24	Nominating and selecting the highest governance body	• AR: Corporate Governance (Pages 22-40)
	102-25	Conflicts of interest	• AR: Corporate Governance (Pages 22-40) • AR: Directors' Statement (Pages 41-44) • SR: Sustainability Strategy (Page 5)
	102-26	Role of highest governance body in setting purpose, values, and strategy	• AR: Corporate Governance (Pages 22-40)
	102-27	Collective knowledge of highest governance body	• AR: Corporate Governance (Pages 22-40)
	102-28	Evaluating the highest governance body's performance	• AR: Corporate Governance (Pages 22-40)
	102-29	Identifying and managing economic, environmental, and social impacts	• SR: Sustainability Materiality (Page 6)
	102-30	Effectiveness of risk management processes	• AR: Corporate Governance (Pages 22-40)
	102-31	Review of economic, environmental, and social topics	• SR: Sustainability Report (Pages 1-25)
	102-32	Highest governance body's role in sustainability reporting	• SR: Sustainability Organisational Structure (Page 4)
	102-33	Communicating critical concerns	• SR: Sustainability Materiality (Page 6)
	102-34	Nature and total number of critical concerns	• SR: Sustainability Materiality (Page 6)
	102-35	Remuneration policies	• AR: Corporate Governance (Pages 22-40)
	102-36	Process for determining remuneration	• AR: Corporate Governance (Pages 22-40)
	102-37	Stakeholders' involvement in remuneration	• AR: Corporate Governance (Pages 22-40)
	102-38	Annual total compensation ratio	• AR: Corporate Governance (Pages 22-40)
	102-39	Percentage increase in annual total compensation ratio	• AR: Corporate Governance (Pages 22-40)
Stakeholder engagement	102-40	List of stakeholder groups	• SR: Consulting Our Stakeholders (Page 18)
	102-41	Collective bargaining agreements	• Not applicable
	102-42	Identifying and selecting stakeholders	• SR: Consulting Our Stakeholders (Page 18)
	102-43	Approach to stakeholder engagement	• SR: Sustainability Strategy (Page 5)
	102-44	Key topics and concerns raised	• SR: Consulting Our Stakeholders (Page 18)
Reporting practice	102-45	Entities included in the consolidated financial statements	• AR: Investment in Subsidiary Companies – Note 16 to the Financial Statements (Pages 84-87)
	102-46	Defining report content and topic Boundaries	• SR: Sustainability Materiality (Page 6)
	102-47	List of material topics	• SR: Sustainability Materiality (Page 6)
	102-48	Restatements of information	• Not applicable

Disclosure number		Disclosure title	Page reference and remarks
	102-49	Changes in reporting	• Not applicable
	102-50	Reporting period	• SR: Scope of Sustainability Report (Page 3)
	102-51	Date of most recent report	• Not applicable
	102-52	Reporting cycle	• Annual
	102-53	Contact point for questions regarding the report	• SR: Scope of Sustainability Report (Page 3)
	102-54	Claims of reporting in accordance with the GRI Standards	• SR: Scope of Sustainability Report (Page 3)
	102-55	GRI content index	• SR: GRI Content Index (Pages 19-24)
	102-56	External assurance	• No external assurance
GRI 200: Economic disclosures			
Economic performance	201-1	Direct economic value generated and distributed	• AR: Financial Highlights (Page 13)
	201-2	Financial implications and other risks and opportunities due to climate change	• Not applicable
	201-3	Defined benefit plan obligations and other retirement plans	• Not applicable
	201-4	Financial assistance received from government	• Not applicable
Market presence	202-1	Ratios of standard entry level wage by gender compared to local minimum wage	• Not applicable
	202-2	Proportion of senior management hired from local community	• Not applicable
Indirect economic impacts	203-1	Infrastructure investments and services supported	• Not applicable
	203-2	Significant indirect economic impacts	• Not applicable
Procurement practices	204-1	Proportion of spending on local suppliers	• SR: Quality Management (Pages 8-9)
Anti-corruption	205-1	Operations assessed for risks related to corruption	• Not applicable
	205-2	Communication and training about anti-corruption policies and procedures	• Not applicable
	205-3	Confirmed incidents of corruption and actions taken	• There is no incidences of corruption.
Anti-competitive behavior	206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	• There is no legal actions for anti-competition.
GRI 300: Environment disclosures			
Materials	301-1	Materials used by weight or volume	• Not applicable
	301-2	Recycled input materials used	• Not applicable
	301-3	Reclaimed products and their packaging materials	• Not applicable
Energy	302-1	Energy consumption within the organisation	• SR: Environmental Protection (Pages 12-14)

Disclosure number		Disclosure title	Page reference and remarks
	302-2	Energy consumption outside of the organisation	• Not applicable
	302-3	Energy intensity	• Not applicable
	302-4	Reduction of energy consumption	• Not applicable
	302-5	Reductions in energy requirements of products and services	• Not applicable
Water	303-1	Water withdrawal by source	• SR: Environmental Protection (Pages 12-14)
	303-2	Water sources significantly affected by withdrawal of water	• Not applicable
	303-3	Water recycled and reused	• SR: Environmental Protection (Pages 12-14)
Biodiversity	304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	• Not applicable
	304-2	Significant impacts of activities, products, and services on biodiversity	• Not applicable
	304-3	Habitats protected or restored	• Not applicable
	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	• Not applicable
Emissions	305-1	Direct (Scope 1) GHG emissions	• SR: Environmental Protection (Pages 12-14) • SR: Sustainability Scorecard (Page 17)
	305-2	Energy indirect (Scope 2) GHG emissions	• SR: Environmental Protection (Pages 12-14) • SR: Sustainability Scorecard (Page 17)
	305-3	Other indirect (Scope 3) GHG emissions	• SR: Environmental Protection (Pages 12-14) • SR: Sustainability Scorecard (Page 17)
	305-4	GHG emissions intensity	• SR: Environmental Protection (Pages 12-14) • SR: Sustainability Scorecard (Page 17)
	305-5	Reduction of GHG emissions	• Not applicable
	305-6	Emissions of ozone-depleting substances (ODS)	• Not applicable
	305-7	Nitrogen oxides (NO _x), sulfur oxides (SO _x), and other significant air emissions	• SR: Environmental Protection (Pages 12-14)
Effluents and waste	306-1	Water discharge by quality and destination	• SR: Environmental Protection (Pages 12-14)
	306-2	Waste by type and disposal method	• SR: Environmental Protection (Pages 12-14)
	306-3	Significant spills	• Not applicable
	306-4	Transport of hazardous waste	• SR: Environmental Protection (Pages 12-14)
	306-5	Water bodies affected by water discharges and/or runoff	• Not applicable
Laws and regulations	307-1	Non-compliance with environmental laws and regulations	• There is no non-compliance with environmental laws and regulations.

Disclosure number		Disclosure title	Page reference and remarks
Supplier environmental assessments	308-1	New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"> Not applicable
GRI 400: Social disclosures			
Employment	401-1	New employee hires and employee turnover	<ul style="list-style-type: none"> SR: Employee Well-being (Pages 15-16) SR: Sustainability Scorecard (Page 17)
	401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	<ul style="list-style-type: none"> SR: Employee Well-being (Pages 15-16)
	401-3	Parental leave	<ul style="list-style-type: none"> Not applicable
Labor / management relations	402-1	Minimum notice periods regarding operational changes	<ul style="list-style-type: none"> Not applicable
Occupational health and safety	403-1	Workers representation in formal joint management-worker health and safety committees	<ul style="list-style-type: none"> Not applicable
	403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	<ul style="list-style-type: none"> SR: Production Safety (Pages 10-11) SR: Sustainability Scorecard (Page 17)
	403-3	Workers with high incidence or high risk of diseases related to their occupation	<ul style="list-style-type: none"> Not applicable
	403-4	Health and safety topics covered in formal agreements with trade unions	<ul style="list-style-type: none"> Not applicable
Training and education	404-1	Average hours of training per year per employee	<ul style="list-style-type: none"> SR: Employee Well-being (Pages 15-16) SR: Sustainability Scorecard (Page 17)
	404-2	Programs for upgrading employee skills and transition assistance programs	<ul style="list-style-type: none"> SR: Quality Management (Pages 8-9) SR: Production Safety (Pages 10-11) SR: Employee Well-being (Pages 15-16)
	404-3	Percentage of employees receiving regular performance and career development reviews	<ul style="list-style-type: none"> SR: Employee Well-being (Pages 15-16)
Diversity and equal opportunity	405-1	Diversity of governance bodies and employees	<ul style="list-style-type: none"> SR: Employee Well-being (Pages 15-16)
	405-2	Ratio of basic salary and remuneration of women to men	<ul style="list-style-type: none"> Not applicable
Non-discrimination	406-1	Incidents of discrimination and corrective actions taken	<ul style="list-style-type: none"> There is no incidents of discrimination.
Freedom of association and collective bargaining	407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<ul style="list-style-type: none"> Not applicable
Child labor	408-1	Operations and suppliers at significant risk for incidents of child labor	<ul style="list-style-type: none"> Child labour is strictly prohibited.
Forced or compulsory labor	409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	<ul style="list-style-type: none"> Forced and compulsory labour is strictly prohibited.

Disclosure number		Disclosure title	Page reference and remarks
Security practices	410-1	Security personnel trained in human rights policies or procedures	• Not applicable
Rights of indigenous peoples	411-1	Incidents of violations involving rights of indigenous peoples	• Not applicable
Human rights assessment	412-1	Operations that have been subject to human rights reviews or impact assessments	• Not applicable
	412-2	Employee training on human rights policies or procedures	• Not applicable
	412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	• Not applicable
Local communities	413-1	Operations with local community engagement, impact assessments, and development programs	• SR: Production Safety (Pages 10-11) • SR: Employee Well-being (Pages 15-16)
	413-2	Operations with significant actual and potential negative impacts on local communities	• Not applicable
Supplier social assessment	414-1	New suppliers that were screened using social criteria	• Not applicable
	414-2	Negative social impacts in the supply chain and actions taken	• Not applicable
Public policy	415-1	Political contributions	• Not applicable
Customer health and safety	416-1	Assessment of the health and safety impacts of product and service categories	• Not applicable
	416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	• Not applicable
Marketing and labelling	417-1	Requirements for product and service information and labeling	• Not applicable
	417-2	Incidents of non-compliance concerning product and service information and labeling	• Not applicable
	417-3	Incidents of non-compliance concerning marketing communications	• Not applicable
Customer privacy	418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	• Not applicable
Socioeconomic compliance	419-1	Non-compliance with laws and regulations in the social and economic area	• There is no non-compliance with socioeconomic laws and regulations.