



**中石化石油工程技术服务有限公司**  
**Sinopec Oilfield Service Corporation**

**2017 Environmental, Social, and  
Governance (ESG) Report**

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## About the Report

Sinopec Oilfield Service (Corporation hereinafter referred to as "Sinopec Oilfield Service" or "the Company" or "Oilfield Service Corporation") has always focused on the values of sustainable development, creating economic value for shareholders, while conducting business in a socially responsible manner. The performance of the Company's fulfillment of social responsibilities are reflected not only in the construction, service, operation and management of projects, but also in the contribution to employee development, environmental improvement, community care and other aspects.

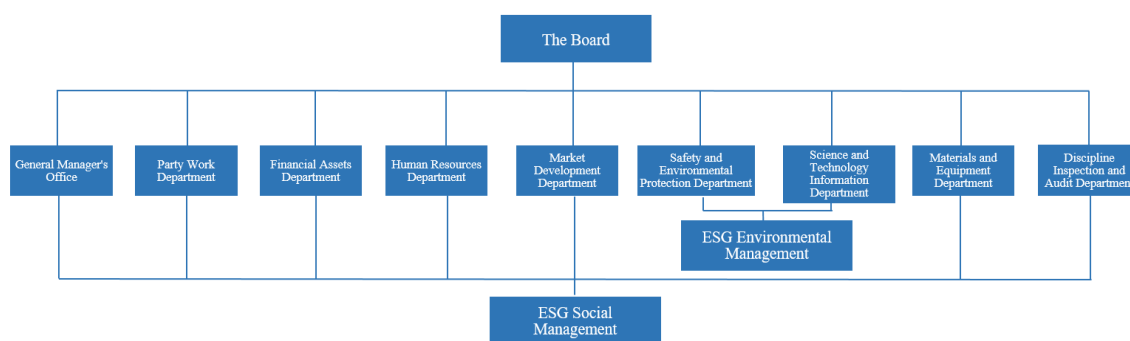
The Report is developed based on the actual conditions of the Company and in accordance with the Guidelines of Shanghai Stock Exchange for the Information Disclosure Management Bylaws of Listed Companies and the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (Exchange Listing Rules): Appendix 27 – Environment, Society and Governance Report Guideline and other relevant laws and regulations. Unless otherwise stated, the scope of the Report includes Sinopec Oilfield Service Corporation and its subsidiaries.

The information and cases in the Report are from the original records of actual operations of Sinopec Oilfield Service Corporation and its subsidiaries.

## ESG Management System

Sinopec Oilfield Service is China's largest integrated oil and gas engineering and technology service company. The Company vigorously laid emphasis on market exploration, cost reduction, project effectiveness enhancement and strict management by entrenching the development idea of “all for benefit-oriented win-win cooperation grounded upon market and service” and promoted steadily the innovation-driven initiative, reform deepening, structural adjustment and transformation development with new progresses made through difficulties and hardships. The Company, while striving for survival and development since the economic downturn, fulfilled its social responsibilities in real earnest and attached importance to safety in production, resource saving, environmental protection and employee caring with supports rendered for public welfare undertakings and assistances contributed to the regional economic development, which facilitated the balanced and sustainable development between the enterprise and the employee and between the community and the environment.

In order to carry out the Company's development philosophy and promote the implementation of the ESG management work, the Board of Sinopec Oilfield Service is responsible for formulating the overall ESG strategy and making decisions on major issues in ESG management. Meanwhile, Sinopec Oilfield Service relies on the current management organization structure to clarify the management functions of each department, and conducts comprehensive management of all aspects of the ESG through General Manager's Office, Party Work Department, Financial Assets Department, Human Resources Department, Market Development Department (Project Management Department), Safety and Environmental Protection Department, Science and Technology Information Department, Materials and Equipment Department and Discipline Inspection and Audit Department .



Based on the characteristics of the overall business and operating activities, Sinopec Oilfield Service has identified key stakeholders including shareholders and investors, government and regulatory agencies, employees, suppliers, customers, partners, communities and the general public. In the process of ESG management, Sinopec Oilfield Service gradually sorted out and defined communication channels with various stakeholders through continuous improvement of the communication mechanism to ensure

that the expectations and appeals of each other can be effectively communicated in a timely manner. Major stakeholders and their communication channels include but are not limited to:

Summary of major communication channels and concerns of stakeholders of Sinopec Oilfield Service		
Stakeholders	Communication channels	Topics of concern
<b>Government &amp; regulators</b>	Important conferences, Policy advisory, Case report, Inspection, Documents exchange, Information disclosure	<ul style="list-style-type: none"> <li>• Operation compliance</li> <li>• Corporate governance</li> <li>• Energy conservation</li> </ul>
<b>Shareholder &amp; investors</b>	Shareholders' meeting, Periodical report, Interim report	<ul style="list-style-type: none"> <li>• Profitability</li> <li>• Operating strategy</li> <li>• Transparent disclosure</li> </ul>
<b>Clients</b>	Client visits, Client satisfaction survey, Clients complaints hotline	<ul style="list-style-type: none"> <li>• Service quality</li> <li>• Information security</li> </ul>
<b>Employees</b>	Employee satisfaction survey, Employee activity, Employee training, Internal publication	<ul style="list-style-type: none"> <li>• Salary and welfare</li> <li>• Development and training</li> <li>• Occupational Health and Safety</li> </ul>
<b>Suppliers</b>	Supplier identification, Communication meeting	<ul style="list-style-type: none"> <li>• Fair cooperation</li> <li>• Honest agreement</li> </ul>
<b>Partners</b>	Strategic cooperation talks, Bilateral talks	<ul style="list-style-type: none"> <li>• Fair cooperation</li> <li>• Honest agreement</li> <li>• Joint development</li> </ul>
<b>Community and the public</b>	Public benefit activities, Community activities, Recruitment talks, Opportunity of internship	<ul style="list-style-type: none"> <li>• Cooperate social relationship</li> <li>• Community relationship</li> <li>• Employment promotion</li> <li>• Community investment and public welfare</li> </ul>

In 2017, through diversified communication channels, Sinopec Oilfield Service identified most concerned topics of stakeholders as “product responsibility” and “employment and labour practices”; topics of more importance include “emissions”, “use of resources” and “environment and natural resources”; related issues include "supply chain management", "anti-corruption" and "community investment."

## Work Safety

The Company has consistently implemented the policy of “safety first, prevention first and comprehensive management and control” and strictly complied with regulatory requirements such as the Law of the People's Republic of China on Work Safety and Interim Provisions on the Investigation and Control of Safety Accidents of the People's Republic of China. Based on its own operation, the Company formulated the HSE Management Regulations of Sinopec Oilfield Service Corporation, Work Safety Responsibility System of Sinopec Oilfield Service Corporation, and Administrative Measures on Safety and Environmental Supervision of Sinopec Oilfield Service Corporation and other safety management rules and regulations. In 2017, the Company strengthened the fulfillment of its management responsibilities, formulated and issued the “HSE Management Guide of Sinopec Oilfield Service Corporation and other systems to divide the roles and responsibilities of each job, and further improve the safety management and control system.

In 2017, the Company focused on prevention for safety and took fundamental ways to improve its safety management system persistently, strengthened the supervision team building, focused on the fulfillment of safety production responsibility, kept a close eye on the on-site risk management and control, pushed forward work priorities, paid great attention to the implementation of systems and measures and management improvement to ensure that the production situation of the Company throughout the year was smooth and steady as a whole, including:

- Strengthening the operation of HSE sub-committees. The Company and its regional (professional) companies set up a total of 56 HSE sub-committees, standardized operations, and earnestly carried out key tasks such as system revision, risk identification, professional training, and special inspections, effectively strengthening professional supervision.
- Strengthening the fulfillment of the responsibilities of grass-roots units. The Company established a relatively complete performance appraisal mechanism to implement quantitative assessment, assessment and incentives at each level. It further enhanced the awareness of responsibility of various grass-roots units, strengthened self-management, standardized the operation of officers and employees, and conscientiously performed the duties of “localized management”, achieving better fulfillment of the responsibilities of grass-roots units.
- Strengthening the construction of HSE supervision team. Each regional (professional) company set up a HSE inspection brigade with HES supervision stations established under the secondary units, and the construction project department staffed with full(part)-time HSE managerial personnel, and allogeneic supervision personnel quartered at drilling, overhaul, geophysical prospecting and other on-site works, to promote the fulfillment of HSE responsibilities.

In 2017, the total man-hour of Sinopec Oilfield Service was 325 million hours, and the LTCF and TRCF decreased by 10.5% and 2.6% respectively compared with those in 2016.

### Safety Awareness Training

In order to further improve employees' safety awareness and work safety skills, the Company organized a series of employee safety education and publicity activities around the “work safety month” and “work safety long march”, such as: organizing HSE site management promotion meeting and typical experience exchange meeting, conducting work safety session on the responsibilities of major leaders of the Company and various units, holding activities such as work safety volunteer publicity, and education on safety warnings.

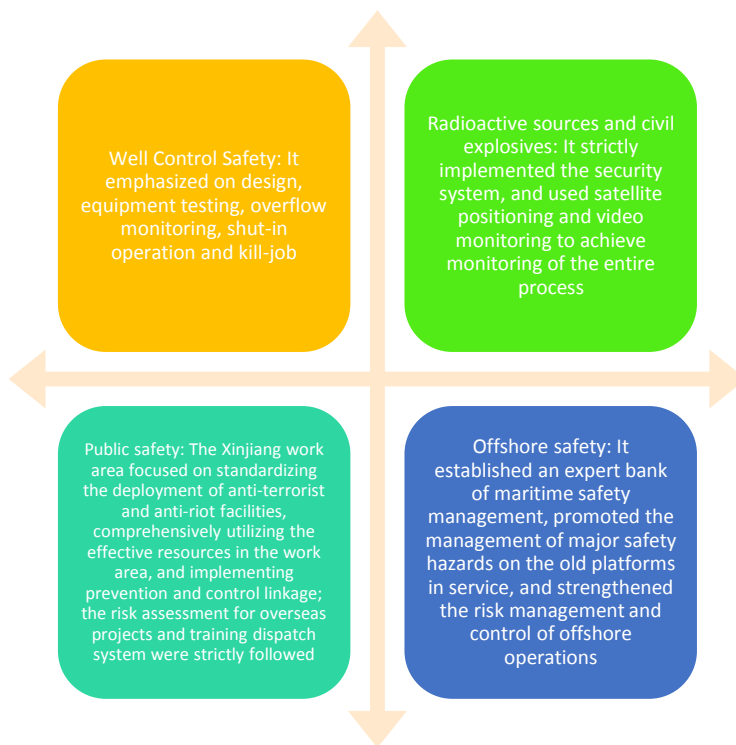
In addition, the Company strictly implemented the training principles of "training for the entire staff and qualifying for jobs", and paid attention to grass-roots employees' routine training such as downtime training and return-to-work training to improve training effectiveness; improved bank questions that grass-roots employee should know , seriously conducted tests for every inspection; increased the weight of practical training and simulation training, and built a total of 36 sites for practical training and simulation training; implemented the linking of passing the safety training exams with employment and promotion, and explored the implementation of full employment with certificates to fundamentally prevent the occurrence of safety accidents. In addition, the Company widely adopted opinions and promoted the normalization of all-staff safety inspection and diagnosis works. In 2017, a total of over 19,000 safety-related diagnostic suggestions and recommendations were collected.

### On-site Safety Management

On-site safety management procedures and system standardization are important foundations for establishing a safe working environment. In 2017, the Company strongly promoted on-site management at grassroots level, carefully carried out the “Three Actions” for work safety, paid close attention to the safety “three basic” work focusing on teams and sites, vigorously promoted visual management, and fulfilled the responsibilities and requirements of “localized management”, standardization of on-site management standards, and intensified supervision and inspection to reduce HSE risks at work sites, including:

- The permit-to-work management system was implemented, and approver and safety watch training was conducted to ensure 100% employment with certificates.
- The Company promoted on-site emergency management, revised and improved on-site emergency procedures, prepared and distributed emergency disposal cards, organized emergency training and drills, and focused on practical exercises such as well control and anti-hydrogen sulfide to enhance emergency response capability at grassroots level.
- The Company deepened HSE allogeneic supervision, constantly optimized the management and operation mode of allogeneic supervision, and standardized the work of selective appointments, centralized training, and quantitative assessment.
- The Company set up a safety video monitoring system to achieve 100% coverage in operational drilling, operation teams, and key locations.
- The Company established relevant safety operation regulations from different safety perspectives to strengthen monitoring:

In 2017, the Company further intensified supervision and inspection, carried out an annual HSE inspection, improved the examination questions bank, detailed quantitative



assessment rules, and transferred experts to form four inspection teams. Discussions, tests and drills were conducted at every inspection. Inspections were conducted at a total of 145 sites, identifying and rectifying over 1,800 issues; regional companies and secondary units carried out monthly, quarterly and annual comprehensive and special-period HSE inspections, which played a good role in potential risks identification and risk management and control.

### Emergency Management

The Company strictly abided by the Law of the People's Republic of China on Work Safety, the Law of the People's Republic of China on Emergency Response and other laws and regulations, and formulated the Work Safety Emergency Management Regulations of Sinopec Oilfield Service Corporation and Measures for the Management of Security Incidents of Sinopec Oilfield Service Corporation and other regulations and management measures. It actively promoted on-site emergency management, revised and improved on-site emergency procedures, divided the roles and responsibilities of each job, improved safety management and control standards, and organized emergency training and drills. It adhered to the principle of “seeking truth from facts and respecting science” in reporting and investigation of safety accidents and classified accidents and held related personnel responsible according to the principles of “those in charge shall be responsible,” “the Party and government share responsibility,” and “four not to be missed”.

Work Safety Cases: "high altitude escape system training for the derrick" and "on-site safety training"





## Operation Compliance

Operation Compliance is the foundation for the Company's steady development. The Company has always adhered to the quality policy of “quality always one step ahead”, and constantly consolidated the foundation of quality management; paid attention to brand building, regarded quality as one of the core contents of corporate culture construction; actively improved the feedback mechanism to solve problems efficiently; respected and protected intellectual property rights of the Company and others; resolutely eliminated information leakage of customers and suppliers.

## Quality and Service

With good service quality, differentiated market positioning and cost advantages, the Company has established a diversified international market and overseas customer base, providing petroleum engineering services for national oil companies and well-known multinational companies in the oil and gas industry in many countries, with its popularity increasing rapidly. Currently, it has entered five large-scale markets in Africa, the Americas, Central Asia, South Asia, and Southeast Asia, becoming the largest onshore drilling contractor for oil companies in Saudi Arabia, Kuwait, and Ecuador, and the largest international geophysical contractor for Algeria Petroleum. In spite of this, the Company continues to strengthen its quality management foundation, pays close attention to the effectiveness of quality management system construction, construction quality and quality of materials procurement to provide solid quality assurance for the Company to deepen reforms and improve quality and efficiency.

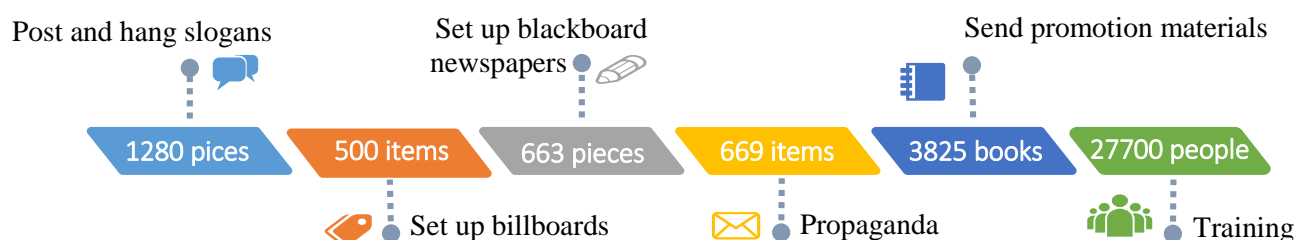
The Company has formulated rules and regulations such as the Quality Management Measures of Sinopec Oilfield Service Corporation and the Implementation Rules for Awards for the Selection of Outstanding Construction Projects of Sinopec Oilfield Service Corporation and continuously strengthened the quality control and on-site supervision of the entire process of petroleum engineering projects and products, conducted quality supervision and spot checks of oilfield chemicals and QC team activities, and held technical supervision meeting to ensure service quality. Meanwhile, the Company continuously improved the quality management system, carried out quality management system inspections and audit observations, and continued to improve the operation effectiveness of the quality management system. Some units have completed the system

version change and obtained certificates. As of the end of 2017, the quality system of the Company's 79 units has passed third-party certification.

The Company attaches great importance to brand building and strives to increase the visibility of “Sinopec Oilfield Service” in domestic and foreign markets by providing first-class service to customers. In 2017, the Company actively carried out “Quality Day” and “Quality Month” activities, mobilized all employees to actively participate in the “Total Quality Management Knowledge Contest for National Enterprise Employee”, and used newspapers, Internet, mobile platform and other media to vigorously promote the quality policy, goals and social responsibility slogans of Sinopec, tell the story of quality of Sinopec Oilfield Service, and sing the quality of Sinopec Oilfield Service loud.

### Quality Promotion Cases

In “Quality Day” and “Quality Month”, with the theme of “pay attention to quality and create quality” and “vigorously promote quality and build a strong quality nation”, all units responded positively. The results are as follows:



In order to better serve customers, the Company has established a sound feedback mechanism to receive customer feedback at the earliest time, handle complaints and suggestions in a timely manner, and manage and control the entire process:

- Establishing a production scheduling system to solve the problem feedback in the service.
- Conducting regular or irregular communications at different levels.
- Establishing a market information management system to pay return visits or visits to customers within the system and regularly receive feedback.
- Investigating and verifying the violations reported by relevant units, holding relevant units accountable, taking appropriate disciplinary actions, and including in the annual assessment

### Construction of Integrity

The Company attaches great importance to combating corruption and upholding integrity and thoroughly implements the work arrangements of the Party Central Committee, the Central Commission for Discipline Inspection, the Party Group of China Petrochemical Corporation, the Discipline Inspection Group and Subordinate Discipline Inspection

Commission of China Petrochemical Corporation on the construction of Party conduct and the fight against corruption. Under the guidance of the spirit of the 7th Plenary Session of the 18th Central Commission for Discipline Inspection, it focused on the Construction of Party Conduct and Anti-Corruption Work, and it continued to strengthen the fulfillment of responsibilities, advance the construction of Party conduct, carry out integrity education, and increase supervision.

The Company has established joint conference system of the Party conduct construction and anti-corruption supervision, and formulated the 2017 Work Plan and Task Decomposition for the Construction of Party Conduct and Integrity and Anti-Corruption Work of Sinopec Oilfield Service Corporation, established multi-channel and multi-form supervision mechanism, signed Letters of Responsibility for the Construction of Party Conduct and Integrity at each level, strengthened accountability for compliance, continuously enhanced the supervision and inspection of employees’ violations, so as to more effectively prevent employees from corruption, bribery, fraud, etc.

The Company carried out various forms of education on Party conduct and integrity. Sinopec Engineering Incorporation has established the Wechat learning platform of “Micro Classroom for the Integrity of Petroleum Iron Army”, and continuously publicized the Party constitution and rules, regulations and anti-corruption practices of various business units in the form of "one lesson a week". In 2017, the Company and its subsidiaries carried out 1,881 education activities on the Party constitution and rules, and educated 79,131 people.

Information and Intellectual Property

We highly value intellectual property management, as such, we respect others’ intellectual property while protecting the Company’s legal interest. We encourage the employees to invent and create, and promote the application of inventions and innovations, so as to enhance the Company’s level of innovation and competitiveness in the market. The Company strictly follows laws and regulations such as the *Patent Law of the PRC* and the *Implementing Rules of the Patent Law of the PRC*, it also established rules and regulations in respect of intellectual property such as the *Administrative Measures on Intellectual Property of Sinopec Oilfield Service Corporation (Pilot)* ,which specify the classifications of intellectual property, clarify the responsibilities of each level of employees and establish measures for supervision, rewards and punishment.

<div>Patent applications and awards in 2017</div>	<div>494 patent applications, 322 patents granted.</div>
	<div>Sinopec Shengli Oil Engineering Company Limited was named as the second batch of innovative enterprises of Sinopec, while the “Logging/Mud Logging Key Technology, Research and Innovation Team for the Ultra-deep Horizontal Wells of Yuanba Gas Field” of Sinopec Southwest Oil Engineering Company Limited was named as the Outstanding Innovative Team of CPC.</div>
	<div>The “Efficient Exploration and Development of Large Marine Shale Gas Field in Fuling” was awarded with the first prize of National Science and Technology Progress Award 2017, while “a type of torsional impact drilling tool” was awarded with National Outstanding Patent Award 2017. It won 8 CPC Science and Technology Progress Awards in total in 2017.</div>

Market information is the Company's foundation in conducting market activities and is one of the most important resources of the Company. Therefore, the Company strongly prohibits the leak of information of customers and suppliers by adding confidentiality clauses in relevant management requirements and adopting relevant measures based on corresponding laws and regulations, the rules and regulations of the Group and the Company and our own situations:

- Require units holding relevant information to report in a timely manner, specify the sources and content of the information and confirm information ownership.
- Carry out regular and irregular supervision and inspection on the confidentiality status of personnel involving confidential information.
- In respect of cases in violation of national laws and regulations, pass to the judicial department of the State for their handling.

### Supply Chain Management

A comprehensive and optimized supply chain system provides strong support for the Company's sustainable development. The Company established the *Measures for the Management of Material Purchasing and Source of Supply of Sinopec Oilfield Service Corporation*, and developed a complete management system regarding the admittance, application, evaluation, appraisal and exit of suppliers. Holding a prudent attitude and strict standards towards supplier selection, the Company values not only the product quality, the standard of service, the business ethics and corporate reputation of the suppliers but also their performance of social responsibility fulfillment. At the same time of opening the door to supply services and actively seeking excellent global suppliers, the Company also improves its mechanism of supplier qualification examination, dynamic assessment, hierarchical management, resources sharing and win-win cooperation.

The Company actively participates in the sharing of the compliant and efficient bidding platform of Sinopec Group to provide the suppliers with open, fair and transparent involvement opportunities through open bidding and e-bidding. In the steps of supplier admittance evaluation, bidding pre-qualification inspection, bidding participation, product and service provision and performance evaluation, the Company conducts centralized treatment and notification on the delinquent suppliers by sharing the evaluation and examination information of suppliers from Sinopec Group. Management on suppliers is reinforced as they are required to be honest and credible, perform operation in accordance with the law, concern about the health, safety and environmental protection requirements and obtain corresponding system certificates. We also carry out irregular onsite inspection on suppliers and their system implementation will also be incorporated into their performance assessment. Meanwhile, the Company considers the bribery records of the suppliers and their legal representatives as an important evaluation index. The bidding qualification of suppliers and their legal representatives with bribery records will be cancelled and their participation in purchasing activities will be restricted, including but not limited to bidding activities regarding material purchasing.

In order to further optimize the supply chain management system, the Company included the following new important initiatives in 2017:

- Issued notices such as the *Measures for the Management of Material Purchasing of Overseas Projects (Pilot)* and *Notice on the Further Strengthening of the Management of Suppliers Regarding Material Purchasing*, all regional (professional) companies proactively formulated and issued implementing rules and relevant administrative measures to carry out construction of system, in an effort to jointly improve the Company's supply system;
- Pushed forward the construction of the supply management system steadily, clarified purchasing process and determined the responsibilities of relevant units;
- Rapidly pushed forward the construction of the supply information system; the ERP system developed, an application software system reasonably integrating the finance, distribution, manufacture and other business functions, successfully operated on the first batch of pilot units;
- Organized various units to perform evaluation on suppliers' performance seriously and to submit monthly report on incompliance incidents of suppliers. No material incompliance incidents were found in 2017.
- Organized adjustment and elimination work regarding material suppliers: eliminating suppliers unable to meet the requirements, carrying out admission procedures for suppliers meeting the criteria but not yet in the material supply resource pool.

## Environmental Management

The Company adheres to the core value of safety, environmental protection, green and low-carbon development by strictly following laws and regulations on environment, such as the *Environmental Protection Law of the PRC*, the *Energy Conservation Law of the PRC*, the *Environmental Impact Assessment Law of the PRC*, the *Water Pollution Prevention Law of the PRC*, and the *Solid Waste Pollution Prevention Law of the PRC*. The Company also strictly follows industry environmental standards such as the *Effluent Limitations for Pollutants from Offshore Petroleum Exploration and Production* (GB4914-2008) and the *Effluent Standard for Pollutants from Ship* (GB3552-83), so as to seriously carry out environmental impact assessment and implement the “three simultaneity” system regarding the environmental protection measures of construction projects. In respect of overseas operating projects, the Company is in strict compliance with the effluent standards of project host countries and international conventions. In this regard, the Company has established a series of rules and regulations, such as the *Management Rules on Environmental Protection of Sinopec Oilfield Service Corporation*, the *Management Rules on Energy Conservation of Sinopec Oilfield Service Corporation*, the *Measures for the Management on Safety and Environmental Protection Supervision of Sinopec Oilfield Service Corporation*, the *Management Rules on Pollution Prevention of Sinopec Oilfield*

*Service Corporation and the Management Rules on Clean Production of Sinopec Oilfield Service Corporation, etc.*

The Company adopted a series of measures for environmental protection during its course of compliance operation, the details are as follow:

- Pushed forward clean production by using clean energy and resources and promoting the application of clean production technologies and equipment. Continued to carry out clean production work, put duties of various departments into place, established a long-term effective mechanism, such that clean production examination is carried out on schedule, and inspection and acceptance of clean production is reported.
- Established an information submission mechanism, under which, each unit carried out environmental monitoring and environmental statistics according to the status of pollutants production and emission, the relevant information was submitted to the local competent administrative department of environmental protection, relevant management department of the landlords and the HSE management department of the headquarters as required.
- Carried out training on environmental protection and included propaganda and education on environmental protection in the relevant planning and projects of various levels, so as to carry out training on environmental protection for all employees.
- Established an environmental emergency management system, improved the environmental emergency network, and prepared a contingency plan according to the risk evaluation results, amended it in a timely manner and made filings as required. Established an emergency rescue team and carried out regular training and drills based on the contingency plan.

Due to the business nature of Sinopec Oilfield Service, the significant air emissions of the Group is GHG emissions, including carbon dioxide, methane and nitrous oxide, arising mainly from electricity and fuels derived from fossil fuels. In 2017, the total GHG emissions of Sinopec Oilfield Service is 1,743,824.18 tons<sup>1,2</sup>, which is 709,994.09 tons lower than the total GHG emissions of 2,453,818.27 tons in 2016. The GHG emissions per output value is 0.56 tons /RMB 10,000 which is 0.18 tons /RMB 10,000 lower than the value of 0.74 tons /RMB 10,000 in 2016.

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<sup>1</sup>The disclosure scope of GHG emissions : Sinopec Oilfield Service Corporation headquarters and it's subordinates' domestic projects.

<sup>2</sup> GHG emissions data is presented in carbon dioxide equivalent and is based on the "2015 Baseline Emission Factors for Regional Power Grids in China" issued by the National Development and Reform Commission of China, and the "2006 IPCC Guidelines for National Greenhouse Gas Inventories" issued by the Intergovernmental Panel on Climate Change (IPCC).



## Use of Resources

The Company strictly observes environmental protection laws and regulations and energy conservation and emission reduction rules and requirements of the operation or operation host countries and regions, develops and implements management measures like the *Energy Conservation and Emission Reduction Management Measures of Sinopec Oilfield Service Corporation* to continue the cleaner production, energy conservation and emission reduction and carbon asset inspection and review as well as the “energy efficiency redoubling” plan with tangible achievements made in the “ecological civilization construction” and the “green and low-carbon” strategies preliminarily. In addition, the Company also upholds green office and green commuting to downsize consumption of office suppliers and promote office automation by controlling the quantity of printed paper document and requiring double-sided printing and paper reuse. Moreover, video conference is recommended to a great extent which enlarges the coverage of conference participant and improves the efficiency and sharply saves the trip cost for meeting. The policy of saving water and electricity is also put into practice to schedule and utilize electric power and water resources with reason. Vehicles for official business are managed and arranged properly to save trip cost and reduce fuel consumption.

In 2017, the Company continued to push forward energy conservation and emission reduction during the operation of various projects, strengthened the fundamental management on energy conservation and emission reduction, regulated process management in energy consumption and supply, consumption, statistics, analysis, etc., conducted efficiency monitoring and checking, and eliminated equipment with high energy consumption and low efficiency. The Company also reinforced research and development on energy conservation and emission reduction technologies, such as electric pressure pry bars, internal combustion engines using new energy, as well as promoted the application of new technologies and equipment such as using gas and electricity instead of oil, the recovery of waste heat and pressure, etc.

In 2017, the Company used grid powered drilling machines in 356 wells with footage reached of 566,500 m, saving 124,000 tons of diesel oil. The comprehensive energy consumption per industrial production value is 0.279 tons of standard coal/RMB 10,000 which is 0.011 tons of standard coal/RMB 10,000 or 3.8% lower than the actual average value of 0.290 tons of standard coal/RMB 10,000 in 2016; the total energy consumed is 679,440 tons of standard coal, taking up 77.9% of 872,677 tons of standard coal as planned annually.

**Energy and Resources Consumption** ( Scope : Sinopec Oilfield Service Corporation headquarters and it's subordinates' domestic projects)

Indicators	2017	2016
Total energy consumption (MWh)	5,531,317.93	5,628,601.15
Direct energy consumption (MWh)	4,755,661.2	4,681,113.14
Petrol	220,269.85	248,905.45
Diesel	4,067,193.31	3,863,911.69
Natural gas	240,129.79	202,119.86

Coal	187,695.03	316,017.61
Liquefied petroleum gas	1,911.29	2,014.15
Raw petroleum	7,722.82	8,811.06
Other Energy	30,739.11	39,333.32
Indirect energy consumption (MWh)	775,656.73	947,488.01
Electricity	569,518.06	764,595.48
Heating Power	206,138.67	182,892.53
The industrial production comprehensive energy consumption (Tons of standard coal /RMB 10000)	0.279	0.290
Water consumption (ton)	1,271,322.88	1,302,795.63
Water consumption per employee(ton per person)	16.02	16.02

Note:

1 Consolidated energy consumption is calculated on the basis of the consumption of power and petroleum and the conversion factor set out in the [General Principles of Consolidated Energy Consumption Calculation ( GB/T 2589-2008 ) ] issued by the General Administration of Quality Supervision, Inspection and Quarantine of the People’s Republic of China and the Standardization Administration of the People’s Republic of China.

2. Other energy refers to fossil fuels, such as waste oil converted from fossil fuels.

3. Water consumption refers to that of domestic water. Since most of the water used for production is self-collected in remote areas, it cannot be measured separately, so the domestic water consumption is disclosed. The estimate is based on the [Water Consumption Standard for Urban Residents] (GB/T 50331-2002), a national standard issued by the Ministry of Housing and Urban-rural Development.

4. Data for packaging materials are not applicable to Sinopec Oilfield Service.

## Clean Production

The Company established relevant systems such as the *Measures for the Management on Safety and Environmental Protection Supervision of Sinopec Oilfield Service Corporation* and the *Management Rules on Pollution Prevention of Sinopec Oilfield Service Corporation*, it strictly implemented environmental laws and regulations, as well as the effluent standards of project host countries and international conventions, while the hazardous waste is delivered to units with disposition qualification for recovery.

In 2017, the Company carried out clean production and focused on the transformation and application of new technologies and equipment. Based on the work targets of “energy conservation, consumption reduction, pollution reduction and efficiency enhancement”, the Company actively promoted advanced technologies such as grid powered drilling machines, dual-fuel engines, energy-saving variable frequency motors and environmental degradable mud, thereby reducing energy consumption and pollutant emission. Moreover, the Company established a long-term effective mechanism by putting duties of various departments into place, such that clean production examination is carried out on schedule, and inspection and acceptance of clean production is reported.

Meanwhile, the Company also strongly promoted the application of treatment technology “waste drilling mud being integrated with the drill instead of on the ground”, such technology was seriously pushed forward after specifying the direction and techniques through organizing technology project discussion and onsite testing. At present, various



units of the Company have equipped with 38 sets of equipment for the treatment of waste drilling mud being in the drill instead of on the ground, while the whole work area in Northern China used the simplified technology for such treatment.

At present, the waste types involved in sinopec's oil service operation mainly include oil-base cuttings and solid waste, among which the oil-base drilling cuttings are hazardous wastes. To be disposed of by the owner or handled by the company is in accordance with the owner's contract. In 2017, the oil-base cuttings handled by the company's business was 35,000 tons, which would be processed by thermal analysis and other processes. The solid waste handled by the company's business is 63,000 tons, which would be cured by harmless treatment or integrated utilization.

Case of environmental management: “No rock debris on the ground” “An impermeable layer covered underneath the drill floor”



## Care for the Employees

The Company firmly believes that, as employees are the greatest asset of enterprises, the development of an enterprise is inseparable from its employees' contribution. Protecting the rights and interests of employees and constructing a harmonious enterprise is the key to the sustainable development of a company as well as the motive source for its development.

### Employment Management

In respect of employment, the Company strictly conforms to the *Labor Law of the People's Republic of China*, *Labor Contract Law of the People's Republic of China*, *Special Rules on the Labor Protection of Female Employees*, the *Law of the People's Republic of China on Prevention and Control of Occupational Disease* and the *Provisions on the Supervision and Administration of Occupational Health in the Workplace (Decree No. 47 of the Ministry of the State Administration of Work Safety)* and relevant laws and regulations, and formulated a series of relevant rules and regulations according to law, in order to impose rules on relevant areas such as recruitment, employment, employees' salary, promotion, man-hour management, holidays, equal opportunities, diversity, anti-discrimination and employees' welfare. In 2017, the Company had no incidents that seriously violated any

relevant human resources management laws and regulations, and there was no employment of child labor and forced labor.

We sign labor contracts with employees under the principle of legality, equality, free will, unanimity through consultation, honesty and credibility; treat all the employees of different nationalities, races, genders, religious beliefs and cultural backgrounds fairly; as well as improve labor dispatching system and salary management system in order to protect the rights and welfare of outsourcing labor. The Company carefully implemented the *Special Rules on the Labor Protection of Female Employees* to protect various rights and interests of female employees in pregnancy, perinatal period or lactation period. It is strictly forbidden to lower the wage of female employees, dismiss them and terminate labor contract or employment contract with them because of pregnancy, childbirth or lactation, ensuring there is no discrimination against female employees.

### Salary and Welfare

In respect of management of employees' welfare, Sinopec Oilfield Service highly values and cares the well-being of employees in their work and life, and expects to continue to enhance the well-being of all employees through sharing the corporation value with employees. On one hand, the Company continuously improves its income distribution management and has established a quite competitive salary and welfare system to protect the workers' rights and interests entitled by the employees; on the other hand, the Company encourages and organizes various forms of employees' activities to enrich the cultural life of the employees after work, shorten the distance between employees, and continue enhancing the cohesive force within the Company, thereby boosting the well-being of the employees and achieving the ultimate goal of creating a harmonious work environment.

Recently facing the situation of sustained low oscillation of petroleum price, cutting workload and laying-off construction teams, we set special measures to strengthen the salary and welfare management of lay-off personnel. Along with holding the principle of selecting the best in competition, we also guarantee the interests of the employees.

The benefits established by the Company and its subordinate units include but not limited to: annual medical examination for all employees, the Employee Assist Plan (EAP), overseas work allowance, field work allowance, etc. In respect of the salary and welfare of foreign employees, all overseas projects strictly follow the labor law of the project host countries and other relevant laws and regulations, and implement such salary and welfare after filing with and obtaining approval of the local labor department. Compensation includes basic salary, overtime pay, bonus, allowances, social insurance, medical insurance, etc. Meanwhile, in order to enhance the management of foreign employees, the Company strictly carries out performance appraisal management. Through strengthening the monthly evaluation of foreign employees, and linking performance bonus distribution with the foreign employees' posts, years of service as well as work performance and attendance of that month, the Company enhanced the incentive and restraint mechanism, thus creating a positive working environment.

## Development and Training

The Company values the development and training of employees and is committed in providing the employees with promotion opportunities via various channels and diversified training activities.

The Company actively improves its talent growth and development channel. We construct an entrepreneurial platform for employees to inspire their innovation vitality and help realize employees' self-value; promote management personnel exchanges; enhance personnel construction in areas of engineering and scientific research design; increase efforts on the cultivation and selection of excellent technical talents; continue to improve talent evaluation system; speed up the cultivation of young backbone talents; pay attention to the development of frontline employees; increase humanistic concern on overseas employees to create a great atmosphere for talent development. Until the end of 2017, 30 people obtained the title of professor, 840 people obtained titles of senior posts, 6 people were awarded with the title of Sinopec Group outstanding experts, and 15 people were awarded with the Min Enze Youth Scientific & Technological Talents Prize.

While the employees continue to boost their self-value practically, the Company implements key talents training program by combing enterprise development strategies, job competency requirements and career development needs of employees, so that training with different key points and levels can be provided to various talents. The Company also makes great efforts to carry out training for international operational employees by enhancing business training and foreign language training for professional technical personnel; provides new approach for innovative and professional technical personnel to be successful through various measures, such as off-job training, practical skills training, communication among different posts, mentoring apprentices, technological competition, so as to accelerate the growth of professional technical personnel. The Company also focuses on training for foreign employees by way of domestic employees leading foreign employees, one-to-one approach and mentoring apprentices, such that the training on operational skills and safety skills of foreign employees can be strengthened. We also recommend outstanding foreign employees to go to China to participate in specialized training for foreign employees above company level, including but not limited to:

- Carrying out training regarding knowledge on operation and management for directing staff to enhance their sense of business;
- Continuing to enhance the regular training for existing middle and senior managerial staff and business backbone to increase the overall quality and competitiveness of the management team;
- Cultivating versatile talents and professional talents through various ways such as internal rotation training and fixed position training to enhance employees' comprehensive skills and professional skills;
- Actively exploring and continuously improving the performance evaluation system and corresponding incentive mechanism to achieve sustainable development of

human resources and provide necessary backup talents for the long-term development planning of projects.

- Insisting on the approach of experienced employees leading new employees to leverage on the key position of the experienced talents in projects.



In 2017, the Company organized 13 training projects at company level, providing training for 646 employees.

## Occupational Health

Providing a safe, healthy and comfortable work environment for employees is one of the major fundamental safeguards for the Company to achieve sustainable development. The Company strictly follows various national and local laws and regulations and industry standards, such as the *Production Safety Law of the People's Republic of China*, *Law of the People's Republic of China on Prevention and Control of Occupational Disease* and the *Special Equipment Safety Law of the People's Republic of China*, to ensure full attention on employees' safety and health. The Company requires that facilities for occupational hazard prevention and protection in construction projects must be designed, constructed, commenced production and utilization simultaneously with the main part of the projects, and personnel for occupational health management with regular training to enhance their capabilities should be provided. The Company carries out evaluation on occupational hazard status and performs risk assessment on occupational hazards every three years with a view to implementing preventive measures.

In addition, Sinopec Oilfield Service organizes and strengthens various contingency plan training and drills irregularly and pays attention to the process by strictly following requirements during various emergency drills. It also summarizes the evaluation seriously for problems found in each drill, so as to practically enhance the emergency response capability and level of all employees.



## Caring for the Community

Holding the concept of Honesty and Integrity, Cooperation and Mutual Benefits and Requite the Locality, the Company actively fulfills our corporate social responsibilities during compliance operation in pursuit of our mission and values through continuously strengthening the employee volunteer team, actively involving in public welfare and charity, improving people's livelihood and giving back to society actively. Meanwhile, in order to contribute to the society in an even better manner, Sinopec Oilfield Service provides assistance in specified areas, organizes charitable donations, provides education aids and promotes local employment, during the process, the Company also constructs infrastructure projects to improve local people's livelihood by leveraging on its own advantages.

### Volunteer activities

On 3 March 2017, the Communist Youth League committee of the oilfield engineering service branch of Sinopec Southwest Oil Engineering Company Limited organized over 20 volunteers to visit a junior middle school in Liujia Town, Youxian District. The volunteers signed love pairing cards with 18 left-behind children through the activity "Hand-in-Hand" to establish a long-term supporting relationship with the children by conducting "Five Ones" activities, namely: understanding the left-behind children's performance in school once every month, having one phone call with or sending one letter to the left-behind children every month, spending one meaningful two-day weekend with the left-behind children every term, providing one batch of school supplies every term, and helping the left-behind children learn one new skill or new ability every year.





### **Community activities in Kenya**

Since entering the market in Kenya, the project group of Sinopec Oilfield Service has actively participated and supported social and public welfare undertakings, providing support to the community and the underprivileged where the projects are located. It also provided subsidy for getting school supplies in local community primary schools to improve the learning conditions of the primary school students; made numerous donations to secondary and primary schools in a local community Kongoni; participated “World Wetlands Day Event” organized by Ecofriends, a local public welfare organization; repaired a cobbled road of about 1.3km in a local farm Kedong and repaired a cobbled road of about 0.3km in Kongoni village to improve local transportation condition; and provided drinking water for local communities. The project group dug a water well of about 120m deep at the living campsite at its own expense and equipped it with water purification device. In addition to meeting the living needs of the Chinese personnel, a water hydrant was also set up near the fences of the campsite to provide the local with deep phreatic water.

### **Employees assisting community activities**

In 2017, an abandoned well of 300m deep located 6km outside the TST project in Algeria caught everyone’s attention. The team made a prompt decision to actively communicate with the villagers and suggested to repair the well. The villagers applauded after receiving such news. Under the concerted efforts of the electricians and micro-logging workers of the team as well as the villagers, it only took 7 days to repair a well of 300m deep from purchasing water pumps, controllers, renting a crane to well digging, installing the water pumps, burying pipelines and connecting to electricity. The test results of the well water sent to the local sanitary authority was satisfactory with good PH value and mineral content, reaching grade one quality. Debu(德布) Town wrote a thank you letter to us that says “Thank you SINOPEC, we do not need to worry about water being cut off anymore. SINOPEC, well done!”, the villagers’ appreciation was shown between the lines.

### **World Earth Day tree planting activity**

Integrating into local culture by organizing World Earth Day tree planting activity. On 23 April 2017, team SP137 of Kuwait Project organized an activity for World Earth Day in its station. People participating in the activity included Xu Lihui, expert of KOC Company and deputy general manager of national engineering branch (國工科分公司), project manager Zhang Haichao, members of team SP137 and relevant personnel of drilling crew team KDC-53 who helped organize the activity. The activity centered on the theme for World Earth Day 2017 “Connecting People to Nature” and aimed at striving to live a better life, it also carried out a series of activities regarding environmental protection and being eco-friendly.



### **Internal activities for the employees**

In light of the characteristics of overseas projects, we insist on the normalization of humanistic concerns, allowing employees to have activities for releasing pressure and self-adjustment during onerous production. We have wireless network in all accommodation facilities, and we establish connections and interactions for employees and their families during Chinese New Year and other festivals. We strive to create the harmonious “family culture” atmosphere by actively organizing the get-together for celebrating New Year in Thailand.



## Appendix : Environmental, Social and Governance Reporting Guide

Issues	Description of Issues	Corresponded chapter in the report
Subject Area A. Environmental		
Aspect A1: Emissions		
General Disclosure	Information on:  (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	Environmental management
KPI A1.1	The types of emissions and respective emission data.	Environmental management
KPI A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental management
KPI A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental management – Clean Production
KPI A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	Environmental management – Clean Production
KPI A1.5	Description of measures to mitigate emissions and results achieved.	Environmental management – Clean Production
KPI A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	Environmental management – Clean Production
Aspect A2: Use of Resources		
General disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Environmental management – Use of Resources
KPI A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility).	Environmental management – Use of Resources
KPI A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	Environmental management – Use of Resources
KPI A2.3	Description of energy use efficiency initiatives and results achieved.	Environmental management – Use of Resources
KPI A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	Environmental management – Use of Resources
KPI A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	Not applicable



Aspect A3: The Environment and Natural Resources		
General disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	Environmental management – Clean Production
KPI A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	Environmental management – Clean Production
Subject Area B. Social		
Employment and Labour Practices		
Aspect B1: Employment		
General Disclosure	Information on:  (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	Caring for employees - employment management
KPI B1.1	Total workforce by gender, employment type, age group and geographical region.	—
KPI B1.2	Employee turnover rate by gender, age group and geographical region.	—
Aspect B2: Health and Safety		
General Disclosure	Information on:  (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to providing a safe working environment and protecting employees from occupational hazards.	Safety Production, Caring for Employees - Occupational Health
KPI B2.1	Number and rate of work-related fatalities.	—
KPI B2.2	Lost days due to work injury.	—
KPI B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	Safety Production
Aspect B3: Development and Training		
General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Caring for Employees – Development and Training
KPI B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	—
KPI B3.2	The average training hours completed per employee by gender and employee category.	—
Aspect B4: Labour Standards		

General disclosure	Information on:  (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to preventing child and forced labour.	Safety Production – employment management
KPI B4.1	Description of measures to review employment practices to avoid child and forced labour.	—
KPI B4.2	Description of steps taken to eliminate such practices when discovered.	—
Operating Practices		
Aspect B5: Supply Chain Management		
General Disclosure	Policies on managing environmental and social risks of the supply chain.	Compliance Operations - Supply Chain Management
KPI B5.1	Number of suppliers by geographical region.	—
KPI B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	—
Aspect B6: Product Responsibility		
General Disclosure	Information on:  (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer  relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	Compliance Operations – quality and service
KPI B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
KPI B6.2	Number of products and service related complaints received and how they are dealt with.	—
KPI B6.3	Description of practices relating to observing and protecting intellectual property rights.	Compliance Operations - Information and Intellectual Property
KPI B6.4	Description of quality assurance process and recall procedures.	—
KPI B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	Compliance Operations - Information and Intellectual Property

Aspect B7: Anti-corruption		
General Disclosure	<p>Information on:</p> <p>(a) the policies; and</p> <p>(b) compliance with relevant laws and regulations that have a significant impact on the issuer</p> <p>relating to bribery, extortion, fraud and money laundering.</p>	Compliance Operations – Probity Construction
KPI B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	—
KPI B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	Compliance Operations – Probity Construction
Community		
Aspect B8: Community Investment		
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.	Caring Community
KPI B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport).	Caring Community
KPI B8.2	Resources contributed (e.g. money or time) to the focus area.	Caring Community