

CHAPTER 5

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OVERVIEW OF SUSTAINABLE DEVELOPMENT

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

(As defined by the Brundtland Commission of the United Nations on March 20, 1987).

OVERVIEW OF SUSTAINABLE DEVELOPMENT AND OBJECTIVES, PRINCIPLES OF PVFCCo'S SUSTAINABLE DEVELOPMENT

Sustainable development is a combination of three aspects: Economic development, social development and environment protection. Over the last decade, there has been an increasing global interest in sustainable development, a requirement for globalization. Sustainable development is a humanity goal and it is in line with the guidelines of the Vietnam's Party and the Government.

PVFCCo's core business activities are fertilizer and chemicals production and distribution. It is linked to the Vietnamese

agriculture, farmers and rural livelihoods and affects 70% of the population. Through its economic strategy, PVFCCo adopts the sustainable development principle and its core values. Over the past 15 years of sustainable development, the motto of "Entrepreneur development to be accompanied by environmental protection and social responsibility" has been preserved and developed by generations of employees as an asset, a beauty culture of business.

The Corporation ensures that the balanced and optimal implementation of the following targets:



The Corporation's President & CEO is the one who assumes the highest responsibility for environmental policies/issues in PVFCCo.

With the above mentioned objectives, PVFCCo has taken steps to achieve its sustainable development targets, regulations and specific activities conducted by the Corporation. The specific principles and activities that have been implemented in the past include:



Employees

PVFCCo has built a culture of "Professionalism - Efficiency; Dynamics - Creativity; Aspiration - Outreach; and Responsibility - Sharing", through a positive and professional work environment, fair employee policy and a friendly workplace. In particular, the achievements of PVFCCo are as follows:

**TRAINING
BUDGET**
5.36
BILLION VND

- › PVFCCo has invested in a manufacturing plant system and an office building, which are well-designed, properly ventilated, well-lit and air-conditioned. The Corporation has achieved energy efficiency and provided good working conditions for its workers.
- › PVFCCo introduced key performance indicators (KPI) and improved their reward system. The Corporation also set up a framework to ensure a fair and professional working environment. At the same time, PVFCCo improved its human resource policies to ensure its employees have the amicable working conditions and career advancement opportunities.
- › Human Resource Development for parent Company: 144 capacity building courses were conducted for 5,486 attendees with a budget of VND 5.36 billion. The development program in 2019 achieved its performance target, met the corporate goals, and succeeded in delivering human resource courses.
- › Building Corporate Culture: The first PVFCCo Culture Handbook was published in 2011, with the values and standards of conduct applicable for all employees. The Handbook was disseminated to all employees and posted on the corporate website.

OVERVIEW OF SUSTAINABLE DEVELOPMENT



Customers

The Corporation provided customers with high-quality products, effective solutions and services as mentioned below:



- › Ensuring high quality products is a top priority. All Phu My fertilizer products, other fertilizers and chemicals are complied with registered standards.
- › To help farmers optimize the ratio of fertilizer usage and crop yield, PVFCCo partners with local authorities and scientists to organize cultivation technique workshops at experimental gardens and sample fields to train farmers.
- › PVFCCo maintains its warehouse and logistics management systems well nationwide, so that their products are delivered to farmers on time at reasonable prices.



Shareholders

PROFIT BEFORE TAX

467

BILLION VND

2.3 times higher than the plan assigned by the General Meeting of Shareholders

In order to create products and services to maximize shareholder value, PVFCCo has carried out the following activities in 2019:

- › PVFCCo implemented and achieved production and business targets. In particular, profit before tax reached VND 467 billion, or 2.3 times higher than the plan assigned by the General Meeting of Shareholders.
- › To ensure optimal use and control of its resources, PVFCCo has invested in IT such as business support software, document management software and other innovative approaches. The Corporation also invested and built its own resources planning application software such as ERP, STOP, 5S, APC, System 1, RBI, KPI, etc.
- › The Board of Directors of PVFCCo provided guidance in streamlining the project initiatives. In 2019, 123 innovation initiatives benefited the Corporation in value amounting to VND 19.39 billion plus other qualitative benefits.
- › From the sci-tech initiatives, there were 07 R&D topics, of which 01 topic was selected for review and 07 additional sci-tech project initiatives were conducted in 2019 valued at VND 6.48 billion. The initiatives helped to optimize the business operations and improved product quality, hence laid the foundation for investment development and product diversification.
- › PVFCCo's business practices included prudent spending and anti-corruption policies. In 2019, PVFCCo saved VND 129.309 billion, equivalent to 332% of forecasted figures.



OVERVIEW OF SUSTAINABLE DEVELOPMENT



Government

PVFCCo has ensured that its business activities complied with the laws. PVFCCo has achieved the following results:

- › Total payments to the State in 2019 was VND 170 billion - achieved 83% of annual plan.



For business partners

In working with strategic business partners, the principles and values applied were:

Healthy competition, collaboration and advancing customer best interests.

- › Besides supporting Phu My Fertilizer Plant, PVFCCo also provided experts and skilled workers to support other national projects such as Ca Mau Fertilizer Plant, Ninh Binh Fertilizer Plant, Nghi Son Oil Refinery and Dinh Vu Polyester Manufacturing Plant, ensuring their operations run smoothly and efficiently.



Community and society

- › The Corporation is committed to carrying out its responsibilities to the community and society.
- › Besides effective development and environmental protection, the Corporation was served both the employees and society.



Environmental and global issues

PVFCCo is committed to environmental protection and globalization, such as reduction in greenhouse gas emissions, climate change, sea level rise, etc.

PVFCCo is confident that sustainable development is most effective when embedded in the organizational policies and guidelines, corporate strategy and business decision making. The Corporation believes that it can overcome challenges to develop a sustainable and long-lasting enterprise, preserve the environment and carry out its corporate social responsibility.



In particular, PVFCCo has implemented and achieved the following results:

- › In commissioning the Phu My Fertilizer Plant, PVFCCo has applied advance technologies in both safety management and equipment maintenance. This has stabilised the engineering operations and reduce energy consumption and carbon emissions.
- › For new projects, the Corporation has deployed only the most advanced production technologies to optimize effective usage of input materials, especially natural gas, and minimize carbon emissions.
- › PVFCCo complied with statutes, regulations and processes in production and business in accordance with the ISO 9001:2015, OHSAS 18001:2007, ISO 14001:2015 and ISO 50001:2011 standards.

REPORT ON SAFETY, HEALTH AND ENVIRONMENTAL PROTECTION

Safety, health and environment work in business is always the top concern of PVFCCo. As a production and trading company in the field of fertilizers and chemicals with high risk of fire and explosion, PVFCCo has determined that the exclusion or reduction of risks causing potential harm to human health and life, property and the environment is the highest responsibility of the Corporation.

Every year, PVFCCo's safety, health and environment work is continually reviewed and renewed with many improvements in terms of content, implementation method and performance. The safety, health and environment work has played an active role in prevention of accidents and incidents and contributed greatly to the fulfillment of PVFCCo's business and production targets.

With these achievements, since its inception, PVFCCo has always been proud of its pioneering work in ensuring the safety, health and environmental protection of Vietnam's Oil and Gas industry. This has enabled PVFCCo not only to achieve sustainable development, but also to ensure a safe environment for the community and society.

In 2019, the remarkable results that PVFCCo achieved in the area of health, safety, and the environment were recognized and highly appreciated by PVN and by other agencies, divisions and departments.

THE MAINTENANCE AND IMPROVEMENT OF THE MANAGEMENT SYSTEM FOR HEALTH, SAFETY, AND ENVIRONMENT (HSE)

- › The HSE management system was maintained at high efficiency according to ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007. The Corporation's HSE management system was certified by DNV.
- › In 2019, based on the HSE policies, the Corporation and its subsidiaries established and implemented HSE targets in line with the production and business plan and the actual conditions of units. The performance results of those HSE targets were reviewed and assessed quarterly for the level of completion to provide remedial measures, which formed the bases for targets to be performed off schedule.
- › The apparatus for HSE management in the Corporation and its subsidiaries was well maintained and had its operational efficiency promoted in 2019. In addition to units specializing in HSE at the Corporation such as the Division of Safety, Health, and Environment and the Safety and Protection Division of Phu My Fertilizer Plant, a network of HSE employees was developed both within the Corporation and within regional companies, acting as a strong support force to ensure safety and environmental protection.
- › Internal assessments of the HSE Management System and HSE inspections were planned and fully implemented as prescribed. In 2019, the Corporation conducted additional thematic inspections such as compliance with HSE procedures at the Phu My NPK Plant, flood prevention measures at regional warehouses, etc. The inspection results were reviewed and evaluated so that preventive & corrective actions could be taken to ensure readiness for conducting HSE activities.



SAFETY - SECURITY, FIRE CONTROL, EMERGENCY RESPONSE

In 2019, the Corporation ensured safety in its operation and production with no labor accidents as well as fire and explosion incidents at Phu My Fertilizer Plant and its port warehouses. Highlight safety, security, fire control, and emergency response activities in 2019 include:

- › In 2019, there were no serious labor accidents or fire and explosion incidents causing injuries or property damage.
- › PVFCCo continued to construct the Management System and sets of indicators (PSM & PSI) for technology safety to strengthen the safe operation of the Plant.
- › In technical inspection: All equipment with strict safety requirements has been tested, thereby contributing to reducing the risk of equipment damage and accidents.
- › Inspection and supervision of gas leakage and explosion at Phu My Fertilizer Plant has been strengthened, contributing to a reduction in the number of explosion and gas leakage incidents.
- › The application of advanced technologies in Safety Management Programs such as the RBI Program (equipment failure risk control and management), SYSTEM 1 (Monitoring status of important dynamic devices, collecting data for root cause failure analysis), Asset Integrity Management System (AIMS), Computerized Maintenance Management System (CMMS) (maintenance and repair management, supply of materials for maintenance and repair, etc.) has been maintained to ensure the operational safety of Phu My Fertilizer Plant.
- › Regarding preparedness for Emergency Response: On 17 April 2019, the Corporation issued Executive Decision No. 106 /QD-PBHC on consolidating the Steering Committee for Emergency Response and the Assistance Team for Emergency Response Steering Committee. In addition, Phu My Fertilizer Plant also had an Emergency Response Steering Committee established.
- › The fire safety and rescue team of 25 members at the Corporation's office and the fire safety and rescue team of 27 members at Phu My Fertilizer Plant were consolidated. Training on fire prevention and fighting was sufficiently implemented for members of these two fire, safety and rescue teams, where the number of members trained and certified at the Corporation's office and Phu My Fertilizer Plant were 25 people and 31 people respectively.
- › In 2019, PVFCCo held 11 fire drills and completed fire prevention and fire-fighting procedures at units and Phu My Fertilizer Plant in compliance with legal regulations.



- › Regarding emergency response drills for chemical incidents, the Phu My Fertilizer Plant annually held drills at least once following the approved methods in the chemical incident response plan provided by the Ministry of Industry and Trade. Specifically, a chemical incident response drill was held at the NPK Plant in June 2019.
- › In November 2019, a fire fighting training was held at Phu My Fertilizer Plant. Fire safety and emergency rescue drills were also annually organized at the Corporation and subsidiaries' offices with the participation of local functional forces to enhance the readiness of the on-site rescue force and employees' safety awareness.
- › Security and safety promotion, as well as fire and explosion prevention activities were strengthened during holidays.
- › Activities were organized: OSH Action Month 2019 (01 -31 May 2019). Responding to National Disaster Prevention Week (May 2019).
- › Training classes on fire prevention and fighting, emergency rescue and practice classes for emergency escape slide were held at the Corporation's office for all employees on 31 May 2019.
- › 5S and STOP programs were effectively maintained at Phu My Fertilizer Plant and other units.
- › Expenditures for safety and firefighting activities in 2019 (including fire and explosion insurance, drills, training, propaganda, fire safety equipment purchase and maintenance, etc.) was VND 37 billion.

CARING FOR THE HEALTH OF EMPLOYEES AND PREVENTING OCCUPATIONAL DISEASES

In 2019, PVFCCo properly carried out employee health care. Here are the results:

- As the financial support for employees in case of medical treatment and hospitalization, PVI Care, the employee insurance program, continued to be implemented and supplemented.
- All units organized periodic health examinations for employees in accordance with the law. Employees had their health conditions classified and received intensive care as necessary.
- In 2019, Phu My Fertilizer Plant continued to conduct screening for occupational diseases and medical examinations for people who worked in heavy, hazardous and dangerous environments. The plant also carried out medical evaluation and provided social insurance to employees suffering from occupational diseases. At the same time, it adopted more remedies for corrective and preventative measures to ensure the health of employees working in high noise environments.



- Monitored the conditions and protection, to ensure laborers' health and prevent occupational diseases.
- Assurance of food hygiene and safety at collective kitchens. Organized and provided staff meals that have nutritional value, food hygiene, and safety, by strictly controlling the origin of used food must have clear origin and be provided from reputable units.



ENVIRONMENTAL PROTECTION AND WASTE CONTROL

The commitment to environmental protection and preservation is one of the most important commitments integrated into PVFCCo's production and business activities. To fulfill it, in 2019, PVFCCo completed many tasks to comply with the law to protect the environment:

- In 2019, there was no environmental pollution incident and no case of environmental law violation found during inspections.
- The EIA Report for the NH₃ Revamp - Phu My NPK Complex was completed with the approval of Ministry of Natural Resources and Environment.
- Environmental management measures were applied in accordance with ISO 14001:2015.
- Installation of the automatic monitoring system for cooling water featuring continuous signal transmission to the Department of Natural Resources and Environment has begun implementation and is expected to reach completion in 2020.
- Compliance with environmental laws was evaluated and updated according to new decrees and circulars issued in 2019.
- Periodic environmental monitoring was sufficiently implemented at all corporation warehouses. All monitoring criteria met Vietnamese standards.
- Hazardous waste was fully monitored, transferred, and reported in line with legal requirements.

Environmental reports were produced based on the environmental database of the industry and trade. Information on environmental management was provided to competent authorities.

- Activities supporting the 2019 Earth Hour Campaign and the action month for the environment supporting the World Environment Day (June 05, 2019) were organized.
- Here are some of the environmental performance results from PVFCCo's product and business activities in 2019:



• Resource management in 2019:

Total natural gas consumption for production: 387.34 million Nm³.



• Energy Consumption in 2019:

Total electricity consumption for production: 134,638,819 KWH

Total FO consumption: 1.22 tons

Total DO consumption: 122.97 tons



• Water consumption in 2019: 17,215,453 m³

Water for domestic use and production, groundwater and rivers are used to cool the equipment.

Assessment statistics, waste management situation

No.	Type of waste	Unit	Emissions	Amount of treatment	Level of treatment (Good/Normal/Not good)
1	Production wastewater	m ³ /year	129,198	129,198	Good
2	Domestic wastewater	m ³ /year	10,158	10,158	Good
3	Cooling water	m ³ /year	24,375,744	24,375,744	Good
4	Air emission	m ³ /h	1,379,060	1,379,060	Good
5	Domestic solid	ton/year	124.25	124.25	Good
6	Industrial solid waste	ton/year	386.96	386.96	Good
7	Hazardous waste	ton/year	64.06	64.05	Good

BUILDING A HEALTH, SAFETY AND ENVIRONMENTAL (HSE) CULTURE

Building the HSE culture is an ongoing process that helps heighten the staff's sense of compliance. In 2019, PVFCCo provided a variety of practical activities such as:

- › Educational campaigns were made through an occupational safety week, the World Environment Day, the Earth Hour, the fire prevention and fighting day, etc. Staff awareness of compliance with the legal requirements for safety, fire prevention and fighting, environmental protection, and employee health protection were continuously developed.
- › The contest on HSE Employees was held. Similarly there was participation in the HSE Contest by the Oil & Gas Union, thereby contributed to raise awareness of HSE.
- › Organizing environmental conferences to strengthen knowledge on environmental protection for staff members.
- › Application of Quarterly HSE Reward to encourage employees' participation in HSE activities.

EFFICIENT USE OF WATER RESOURCES AND ENERGY SAVINGS

- › In 2019, Phu My Fertilizer Plant set up energy-saving and efficient energy use objectives. The performance results of these objectives were constantly monitored, reviewed and evaluated.
- › Various energy-saving solutions were applied by Phu My Fertilizer Plant. The result of energy-saving and efficient energy use in 2019 was nearly VND 14 billion. Fuels saved include CNG, H₂ fuel and electricity.
- › The result of energy-saving and efficient energy use in 2019 was reported and a plan for 2020 was developed and filed to the Department of Industry and Trade of Ba Ria - Vung Tau Province.
- › In 2020, Phu My Fertilizer Plant maintained the energy saving efficiency in both production and business, thereby saving management costs, searching for energy saving opportunities in the existing production lines.
- › Cost-saving targets were set for all divisions at the Corporation's office. The performance results were also monitored, reviewed, and assessed for the level of KPI completion.
- › All employees of the Corporation had improved awareness of energy efficiency through communication.

MAIN TASKS OF THE SAFETY, HEALTH AND ENVIRONMENT WORK IN 2020

- › Ensuring the safe and efficient operation of Phu My Fertilizer Plant to complete the production and business plan of 2020.
- › Operating the NH₃ Revamp - Phu My NPK Plant project in compliance with regulations on safety, health and environment.
- › The overall maintenance of the Phu My Fertilizer Plant was safely and effectively completed in 2020 as planned.
- › Quality management at the Corporation was reviewed and consolidated to control product quality from production to transportation and storage at regional warehouses and agents.
- › Ensuring no fire and explosion at all construction work. Ensuring no fire and explosion incidents causing injury and damage to the Corporation's properties. Ensuring no serious or more serious work accidents at all construction works.
- › Ensuring no environmental incident and full compliance with legal regulations on environmental protection.
- › Occupational hygiene and periodic medical check-up for occupational diseases were maintained for employees throughout the Corporation.
- › Reinforcing the Emergency Rescue team and improving the readiness to respond to storms and floods to prevent and minimize human and property damage during storms.

Achievements in 2019 and targets set for 2020 reflected the ongoing efforts of management and staff to ensure Safety - Health - Environment. This strengthens PVFCCo's branding for sustainable development towards a secured future.



Throughout the unfavorable situations of production and business activities, the Corporation demonstrated its strong sense of responsibility in sharing and directly taking care of the farmers and customers in disadvantaged areas, and mobilized its resources including employees and distribution systems to constantly implement social welfare programs mainly focusing on educational support, health care, and thanksgiving.



A typical and meaningful program engaged by the entire system was "Phu My Run", an event that was organized to raise money and present Tet gifts to the poor. Accordingly, all employees and members of the distribution network participate in the running program organized by the Corporation's Labor Union for physical health training and strengthening solidarity. Every 1 km completed will be converted to money for Tet gifts to the poor. In 2019, nearly 1,240 athletes participated with a total valid distance of 189,242 km and an amount of VND533,863,000 was raised. This amount was converted to 800 Tet gifts presented to poor farmers in under-privileged circumstances, policy beneficiary households, diseased soldiers, and people who have rendered meritorious services to the revolution in Thanh Hoa, Ha Tinh, Binh Dinh, Dak Nong, Dong Thap, and An Giang. Additionally, employees presented 1,000 hand-wrapped "Square cake" to the lonely helpless elderly, severely wounded soldiers and people with meritorious services in the traditional Tet holiday.

