



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



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The **Global Eco-industrial Parks Programme - Country level intervention in Vietnam (2020-2024)**, funded by the Swiss State Secretariat for Economic Affairs (SECO) and implemented by the United Nations Industrial Development Organization (UNIDO) in collaboration with the Ministry of Planning and Investment (MPI), aims to enhance the environmental, economic, and social performance of industrial parks and zones in Vietnam. This initiative promotes the eco-industrial park approach in selected pilot industrial parks and supports the development of relevant national policies.

The project supports over 100 tenant companies in pilot industrial parks in implementing Resource Efficient and Cleaner Production (RECP) practices. These efforts aim to enhance the quality of life for workers and promote sustainable production.

COMPANY INFORMATION



Company Name: KNAUF GYPSUM CO., LTD

Address: Lot B3A, Hiep Phuoc Industrial Park, Hiep Phuoc Commune, Nha Be District, Ho Chi Minh

Product: Plaster board

Number of workers: 150 people

Total number of working days in the year: 300 days

PRODUCTION PROCESS



TYPES OF WASTE

Wastewater

- » Wastewater includes production wastewater and domestic wastewater. The production wastewater is mainly generated from the rinsing process of small equipment. Both domestic and production wastewater is directly connected to the wastewater treatment system of Hiep Phuoc Industrial Park

Solid waste

- » Mainly gypsum from the border cutting process, the average amount of waste is about 500 - 800 kg/day. Industrial solid waste such as packaging, PE films... are also classified, collected, transported and treated by an Environmental Service Company




THE PROJECT'S INTERVENTIONS AND IMPACTS

The project has supported by:

- » Conducting capacity building training on RECP and Industrial Symbiosis for company technical staff
- » Conducting RECP assessment by project experts
- » Proposing solutions to improve resource efficiency and production efficiency of companies

Proposed by the project

<ul style="list-style-type: none"> ■ Investing in a central energy monitoring system 	<ul style="list-style-type: none"> ■ Installing multi-function electricity meters
<ul style="list-style-type: none"> ■ Monitoring power consumption, control simple solutions such as controlling compressed air leaks, controlling lights and fans, enhancing maintenance and equipment maintenance, etc. 	<ul style="list-style-type: none"> ■ Installing a 132 kW circulating fan inverter
<ul style="list-style-type: none"> ■ Enhancing inspection and repairing of compressed air leaks 	<ul style="list-style-type: none"> ■ Optimizing compressor operation
<ul style="list-style-type: none"> ■ Optimizing operation of refrigeration and air-conditioning systems 	<ul style="list-style-type: none"> ■ Replacing old chiller with new high-performance one
<ul style="list-style-type: none"> ■ Investing in led lights with integrated solar panels 	<ul style="list-style-type: none"> ■ Investing in a solar power system
Simultaneously implementing the following technical and management solutions:	
<ul style="list-style-type: none"> ■ Checking, zoning, and overcoming leakage points throughout the water distribution system, water reservoir 	<ul style="list-style-type: none"> ■ Checking and replacing/setting appropriate flow rates for water faucet valves (WC, hand washing, cafeteria) if necessary
<ul style="list-style-type: none"> ■ Proactively maintaining the entire faucet valve system in toilets and water consuming equipment 	<ul style="list-style-type: none"> ■ Training to raise awareness of cleaning staff of toilets, kitchens, watering plants

Solution type	Potential benefits	Implemented results
 Save energy	14 solutions to reduce electricity consumption 2,781,717 kWh/year; 1,771mmBTU gas (equivalent to 2,356.7 t CO ₂ /year), Saving 7,115million VND/year (302,765 USD/year)	4 solutions to reduce electricity consumption 107,000 kWh/year (equivalent to 206t CO ₂ /year); Saving 1,087.9 million VND/year (46,293 USD/year)
 Save water	3 solutions to save 3,600 m ³ water/year; Save 576 million VND/year (24,510 USD/year)	3 solution to save 3,600 m ³ water/year; Save 576 million VND/year (24,510 USD/year)
 Other benefits	<ul style="list-style-type: none"> ■ Raising awareness among company managers and workers regarding the use of electricity and water ■ RECP solutions are being studied and evaluated for technical feasibility 	