



A CASE STUDY ON RESOURCE EFFICIENT AND CLEANER PRODUCTION

TOSHIBA INDUSTRIAL PRODUCTS ASIA CO., LTD

The project "Eco-industrial Parks Intervention in Vietnam" 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) improves the environmental, economic and social performance of industries in Viet Nam through the implementation of eco-industrial park approach in selected pilot industrial parks and relevant policies at the national level.

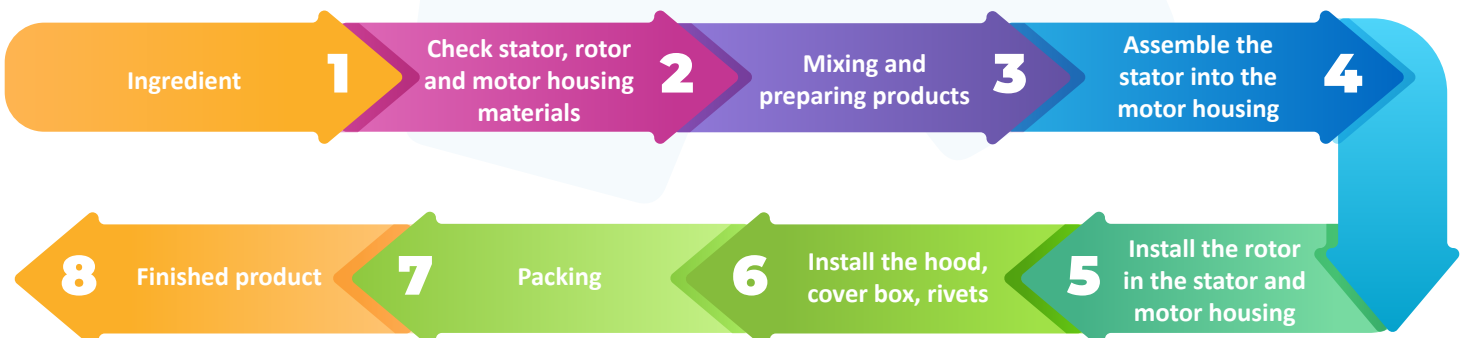
The project supports more than 100 businesses in pilot industrial parks to apply Resource Efficient and Cleaner Production (RECP) to improve the living quality of the workers and promote sustainable production.

COMPANY INFORMATION



Company name: Toshiba Industrial Products Asia Co., Ltd
Address: No. 309, Street 9, Amata Industrial Park, Long Binh Ward, Bien Hoa City, Dong Nai Province
Key products: Motor
Factory area: 80,000 m²
Workshop area: 26,826 m²
Number of workers: 167

PRODUCTION PROCESS



WASTE STREAM

Wastewater

- » Domestic wastewater: 22,032 m³/year
- » Overflowing rainwater

Wastewater is collected and pre-treated before being connected to the industrial park's wastewater treatment system

Solid waste

- » Hazardous waste: 88 t/year
- » Recyclable waste (paper, iron, steel, plastic): 4,698 t/year
- » Other waste: 28 t/year

THE PROJECT'S INTERVENTIONS AND IMPACTS

The Project has supported:

- » Capacity building training on RECP and industrial symbiosis for technical staff of enterprises
- » Assessment of RECP by project experts
- » Proposing technical solutions to improve the efficiency of resource use and improve production efficiency of enterprises

Energy saving solutions




- Turn off underloaded MBA
- Compressed air leak
- Improved ventilation/cooling of air conditioners

Renewable energy development solution

- Install rooftop solar power

Water saving solutions

- Reduce hand wash faucet flow to 6 liters/min
- Replace the watering pipe with a smaller one and have a spray nozzle at the top of the hose
- Wastewater treatment of paint room exhaust gas treatment system

Solution type	Potential benefits	Implemented results
 Save energy	3 solutions to reduce electricity consumption: 169,431 kWh/year (equivalent to 136t CO ₂ /year) and save 339 million VND/year (14,436 USD/year)	2 solutions to reduce electricity consumption: 161,240 kWh/year (equivalent to 130t CO ₂ /year) and save 322.5 million VND/year (USD 13,738/year) 01 solution is being reviewed and going to be implemented
 Save water	3 solutions to save water and reduce consumption: 3,042 m ³ /year, equivalent to save 54 million VND/year (2,289 USD/year)	02 solutions to reduce water consumption: 3,042 m ³ /year, equivalent to save 54 million VND (2,289 USD/year) 01 solution is going to be implemented
 Renewable energy development	01 solution to reduce electricity consumption: 2,791,000 kWh/year (equivalent to 2,244.2t CO ₂ /year) and save 5,582 million VND/year (237,795 USD/year)	It is not implemented yet due to the policy barriers
Total	7 solutions to save: 393 million VND/year (16,724 USD/year) (excluding the solar energy) Power saving: 169,431 kWh/year (excluding the solar energy) Water saving: 3,042 m ³ /year Emission reduction: 136t CO ₂ /year (excluding the solar energy)	4 solutions: 376.5 million VND/year (16,027 USD/year) (excluding the solar energy) Power saving: 161,240 kWh/year (excluding the solar energy) Water saving: 3,042 m ³ /year Emission reduction: 130t CO ₂ /year (excluding the solar energy) 02 solutions are going to be implemented