



## Advancing resource efficient and cleaner production in Ukraine

### The RECP methodology

**Resource Efficient and Cleaner Production (RECP)** is the integrated and continuous application of preventive environmental strategies to **processes, products, and services** to increase efficiency and reduce risks to humans and the environment. RECP is all about producing with fewer resources while minimizing environmental impacts and increasing overall productivity. For **Small and Medium-Sized Enterprises (SMEs)**, the RECP methodology can effectively lower production costs whilst improving the SMEs' competitive advantage and applying environmentally friendly practices. RECP is also an effective tool to introduce and promote Circular Economy principles among SMEs.

### "DOKUCHAEVSKI CHORNOZEMY" LLC AGRO-INDUSTRIAL COMPLEX - FOOD PRODUCTION



#### Company overview

**Location:** Karlivka, Poltava

**Key products:** cereals

**No. of employers:** 492

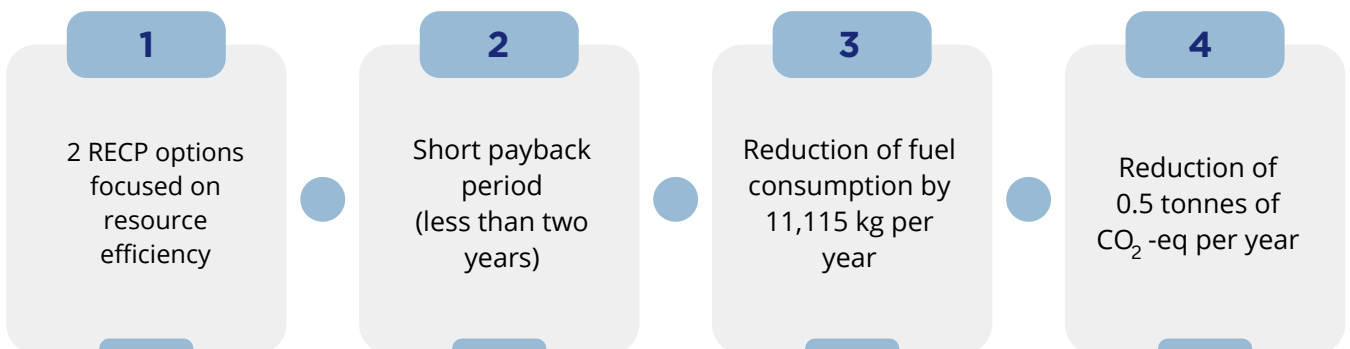
**Main markets:** Ukraine

**Founding year:** 2011



**"Dokuchaevski Chornozemy" LLC Agro-Industrial Complex** was founded in 2011, specialising in growing, storing, and processing grain crops. The entire production cycle is closed, meaning that the company fully covers the growing, processing and selling of inputs. Motivated to increase the efficient use of resources, the company participated in the RECP Clubs programme under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise conducted in 2023.

### BENEFITS FROM IMPLEMENTING RECP OPTIONS



Action implemented by:

# The project's approach

With the support of the RECP self-assessment tool and the contribution of the RECP experts, the company developed its RECP Action plan which identified two RECP options to help reduce fuel consumption and harmful emissions. The company confirmed its willingness to implement all proposed RECP options, as the recommendations included low and medium-cost measures:

**RECP Option 1. Pre-drying of wood chips for combustion in the heat generator:** This measure proposed pre-drying wood chips in open air and preventing them from getting soaked by covering the storage space or moving the chips to another facility. This would significantly increase the efficiency of the heat generator, stabilise the combustion process, and reduce power fluctuations during the operation of the heat generator.

**RECP Option 2. Replacing electric motors in the secondary air fan:** This measure involved the replacement of the currently-used electric motors in the secondary air fans with the new ones designed to operate at high temperatures. This measure would significantly increase the lifetime of the motors and protect them from premature failure.

## SAVING ACHIEVEMENTS

### Main RECP actions

OPTION 1

Pre-drying of wood chips for combustion in the heat generator

OPTION 2

Replacement of electric motors in the secondary air fan

### Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD (YR)
Option 1:	/	207	/
Option 2:	214	142	1.5

### Resource savings

RECP OPTIONS	FUEL (KG/YR)/%
Option 1:	11,115/5.2
Option 2:	/

### Total pollution reduction

RECP OPTIONS	TOTAL CO <sub>2</sub> -EQ (TONNES/YR)
Total:	0.5

“ Our company joined the RECP Clubs programme to enhance our production efficiency, even though the resource use at our main production sites was already satisfactory. Our participation taught us that implementing simple measures, without requiring high investment costs, can yield tangible benefits. Furthermore, our involvement in the EU4Environment Action showed us that bringing in external specialists can result in numerous positive outcomes, particularly in terms of improving the reliability of our equipment, said the director, Mr. Anatolii Kybka. ”

The introduction of RECP Clubs programme has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **Agro-Industrial Complex "Dokuchaevski Chornozemy", LLC** joined the Clubs programme to be monitored under EU4Environment. Follow-up visits have also been conducted to check on the implementation of the recommended RECP options. EU4Environment helps the EU's Eastern Partnership countries preserve their natural capital and increase people's environmental well-being by supporting environment-related action, demonstrating and unlocking opportunities for greener growth, and setting mechanisms to better manage environmental risks and impacts. For more details, visit: [www.eu4environment.org](http://www.eu4environment.org)

This publication has been produced with the assistance of the European Union. Its contents are the sole responsibility of UNIDO and do not necessarily reflect the views of the European Union.

© – 2023 – UNIDO. All rights reserved. Licensed to the European Union under conditions.



United Nations Industrial Development Organization  
Ms. Tatiana Chernyavskaya  
EU4Environment Project Manager  
Tel: +43 1 26 0 26 5520  
E-mail: [t.chernyavskaya@unido.org](mailto:t.chernyavskaya@unido.org)



Resource Efficient and Cleaner Production Centre  
10G Starokiyivska Str.  
Kyiv, 04116, Ukraine  
Tel: +380 44 227 83 78  
E-mail: [info@recpc.org](mailto:info@recpc.org)