



Advancing resource efficient and cleaner production in Armenia

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.

"GOS" CJSC - FISH FARM



Company overview

Location: Lichk (Gegharkunik)

Key products: rainbow and Gegharkunik trout, crayfish

No. of employees: 7

Main markets: Armenia, Russia

Founding year: 1973

"GOS" CJSC was established in 1973 and it is located within the National Park "Sevan". In the past, the company was the largest fish farm within the Gegharkunik province, raising trout and Khramulia fingerlings. Currently, the farm grows commercial fish: rainbow trout and Gegharkunik trout, as well as crayfish (mainly for the Russian market). Due to a reduction in crayfish stock, the company's focus is now on increasing the production and sale of trout. The main goal of the company is to sell high quality, fresh fish products on both domestic and international markets, as well as to reduce overall production costs. Motivated to improve the quality of its products and address the high annual energy costs, the company participated in the RECP Demonstration Project under EU4Environment (2019-2024). This publication shows the company's experience reported after the monitoring exercise conducted in 2022-2023.

BENEFITS

1

3 RECP options
(focused on
energy and
resource
efficiency)

2

Reduction of
annual electricity
consumption

3

Reduction of
5,676,480 cubic
metres of
wastewater per
year

4

Reduction of
49 tonnes of
CO₂- eq per year

Action implemented by:

The project's approach

The RECP assessment examined the production site and identified several RECP options, out of which the following three were prioritised by the company:

RECP Option 1. Installing a photovoltaic (PV) solar system: This measure consists of installing a PV plant to cover the energy needs of the company, helping it become energy-independent and significantly reducing electricity costs.

RECP Option 2. Organising a nursery for the fingerlings: This measure consists of reviving the facilities used for the growth of fingerlings. This would significantly reduce the costs related to the purchase of fingerlings from the market.

RECP Option 3. Installing an automatic, feeding dispenser system: This would help save raw materials by efficiently organising a computerised fish feeding system. Part of it, it is recommended to install oxygen meters in the growing ponds. The oxygen meters, the feeding plan, and the efficiency of the feed assimilation process, would all be regulated with the help of a tailored computer software.

SAVING ACHIEVEMENTS

Main RECP actions

OPTION 1	Installing a PV solar system
OPTION 2	Organising a nursery for the fingerlings
OPTION 3	Installing an automatic, feeding dispenser system

Economic key figures

RECP OPTIONS	INVESTMENT (EUR)	SAVINGS (EUR/YR)	PAYBACK PERIOD FOR ALL MEASURES (YR)
Option 1:	137,000	8,670	12
Option 2:	74,463	12,410	
Option 3:	100,000	8,000	

Resource savings

RECP OPTIONS	ELECTRICITY (KWH/YR)
Option 1:	121,384
Option 2:	/
Option 3:	/

Total pollution reduction

RECP OPTIONS	TOTAL CO ₂ -EQ (TONNES/YR)	WASTEWATER (M ³ /YR)
Total:	49	5,676,480

“ Our company wanted to familiarise itself with the modern production practices based on RECP, and to get to know what the requirements for organic food production are in the EU. Thanks to the RECP Demonstration Project, we learned that savings can be made at each stage of the production process. As we plan to increase both the efficiency of the production processes and the variety of fish products, the RECP project has inspired us to come up with new ideas regarding the future implementation of RECP measures, said the director, Mr. Karen Soghomoyan. ”

The introduction of RECP has been part of the EU-funded EU4Environment Action and executed by UNIDO. In this context, **GOS** joined the RECP Demonstration Project 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

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



Contact:
REC Caucasus Armenia National Office
Aygestan str. 7, building N 2, 0070, Yerevan
Web: www.recp.am
Tel: +374-115-75-148