



Assesment of ecological, social and economic effects of the support under axis VI Environmental Protection and Resource efficiency of the ROP LC 2014-2020

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Purpose of the study

Impact assessment of environmental interventions in three dimensions: **ecological, social and economic.**

Methodology

- research approach based on theory-based evaluation, complemented by case studies and a statistical analysis;
- analysis of programme documents, competition and project documentation, strategic documents, thematic reports and studies, legal acts and statistical data;
- individual interviews with representatives of the Managing Authority, experts and beneficiaries;
- internet survey (CAWI) with beneficiaries.



Scope of the study

Measures implemented under Priority Axis VI Environment protection and efficient use of resources of the RPO LV 2014-2020:

- Measure 6.1 Ecological security
- Measure 6.3 Waste management
- Measure 6.4 Water and sewage management

Timeframe:

from the beginning of the implementation of the ROP LV 2014-2020 (2015) until November 2022.

MEASURE 6.1: Ecological security

Specific objective:

- ✓ Effective rescue and emergency services system

Number of projects funded: 1 integrated project

Amount of EU funding: 18,600,000 PLN

Key effects of the projects:



purchase of **43 specialist rescue and fire-fighting vehicles** for Volunteer Fire Brigade (VFB) units from 43 communes in the Lubelskie Voivodship



range of impact of the projects (reduced vulnerability to natural disasters)

Key benefits of the projects:

- ✓ **increasing the effectiveness of the rescue and fire-fighting operations** - reducing the **response time** to threats and **increasing the scope of activities**
- ✓ **direct impact on improving the safety of approx. 15% of residents of the Lubelskie Voivodship**
- ✓ **minimising material losses**
- ✓ raising the **prestige of the VFB** and encouraging residents to join the VFB structures

Good practices

- **integrated formula** for implementing the project aimed at increasing the ecological safety of the region
- **very precise way of defining indicators for key ecological effects** - unified measurement method, accurate determination of the actual scale of impact

MEASURE 6.3: Waste management

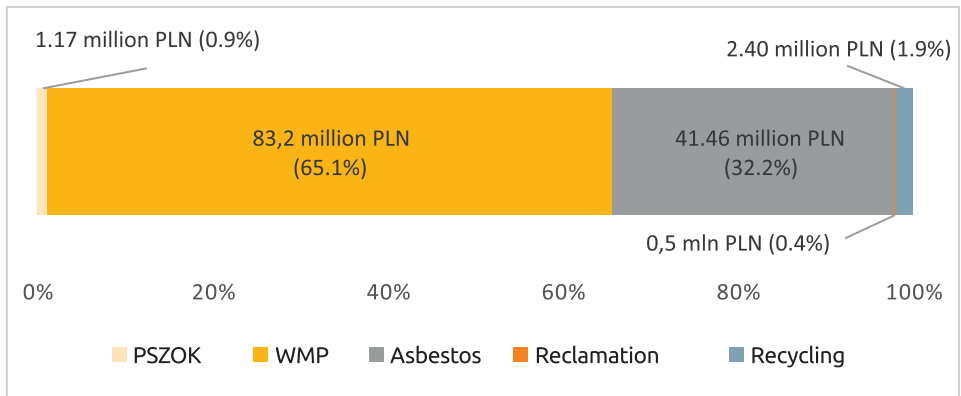
Specific objective:

- ✓ Efficient selective waste collection system based on regional installations

Number of projects funded: 8 (including 2 integrated projects)

Amount of EU funding: 128,800,000 PLN

CHART. DISTRIBUTION OF SUPPORT FOR MEASURE 6.3 BY KEY INVESTMENT TYPES



Key effects of the projects:

Modernisation of **8 waste management plants (WMP)**, including:



extension of 4 waste sorting facilities



increase in capacity by **50,976 Mg/year**, i.e. by **13% in relation to existing capacity of sorting facilities for mixed and selectively collected waste**



extension of 6 bio-waste facilities



increase in capacity by **28,326 Mg/year**, i.e. by **21% compared to the total capacity of all green and other bio-waste facilities**



extension of 1 recycling facility



construction of 4 Points of Selective Collection of Municipal Waste (PSZOK) and extension of 1 existing PSZOK



25 293 residents covered by the selective waste collection system



disposal of 104,000 tonnes of asbestos-containing products from 41,000 locations in all communes of the region



reclamation of 2 landfill sites covering the area of 4.46 ha - 10% of the area of landfill sites requiring reclamation in the Voivodship

Key benefits of the projects:

- ✓ ensuring **continuity and uninterrupted processing of municipal waste** in the Voivodship through increased capacity of facilities for mechanical-biological treatment of mixed municipal waste
- ✓ **increase in the weight of waste received and collected selectively in relation to** the weight of mixed municipal waste
- ✓ **increase in the weight of selectively received biodegradable waste**
- ✓ **increase in the weight of recycled waste**, especially in particular in the biodegradation process
- ✓ **reduction in the weight of waste deposited in landfills**

Good practices:

- **integrated formula for the implementation of** key undertakings (WMP modernisation and management of waste containing asbestos):
 - **involvement of a single entity** (beneficiary-leader) in coordination, management, reporting, accounting and organisation of tenders
 - **flexibility in making internal transfers of EU funds** between partners, depending on the needs and changes in the project, while maintaining the assumed effects
 - **cooperation between partners, exchange of experience** - added value of the implementation of the project concerning support for WMP in the partnership formula

MEASURE 6.4: Water and sewage management

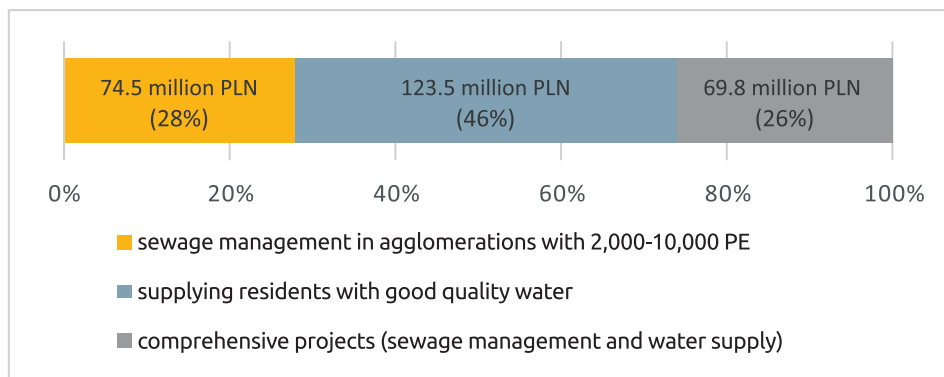
Specific objective:

- ✓ Implementation of accession commitments for wastewater management in agglomerations of 2,000 - 10,000 PE

Number of projects funded: 135

Amount of EU funding: 267,800,000 PLN

CHART. DISTRIBUTION OF SUPPORT TO KEY INVESTMENT TYPES



Key effects of the projects - wastewater treatment:



construction of **253 km** of sewerage networks in agglomerations of 2,000-10,000 PE, which corresponds to **52%** of the needs identified in the 4th revision of the National Programme for Municipal Wastewater Treatment (NPMWT)



construction, expansion or modernisation of **26** municipal wastewater treatment plants, which corresponds to **62%** of the needs identified in the 4th revision of the National Programme for Municipal Wastewater Treatment (NPMWT)



78.500
people

range of impact of the projects (improved wastewater treatment) - as a target **78,500** people, i.e. **35%** of the population in agglomerations of 2,000 -10,000 PE

Key effects of the projects - water supply:

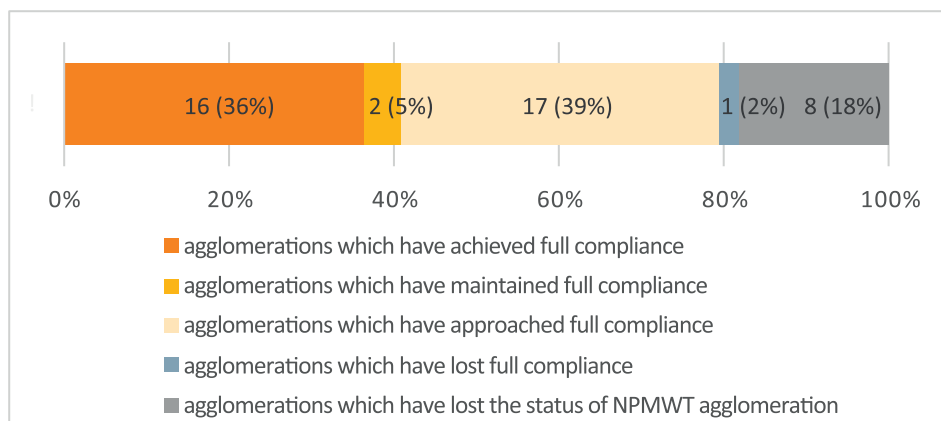
- ✓ construction of **253 km** and reconstruction of **132 km** of water supply networks - approx. **10%** increase in the length of the water supply network recorded between 2015 and 2021
- ✓ construction or extension of **90** water treatment plants in **52** communes, i.e. **24%** of the region's communes
- ✓ construction of **14** new water intakes with a target daily capacity of **32,300 m³/day**, i.e. **19%** of the water supplied to households in 2021
- ✓ range of impact of the projects (improving the quality of drinking water) - **321,100 people**, i.e. almost **16%** of the region's population

Key benefits of the projects:

- ✓ **achieving or maintaining by some agglomerations full compliance with Directive 91/271/EEC**

CHART. IMPACT OF FUNDED PROJECTS IN MEASURE 6.4 ROP LV 2014-2020 ON ACHIEVING COMPLIANCE WITH THE 91/271/EEC WASTEWATER DIRECTIVE REQUIREMENTS

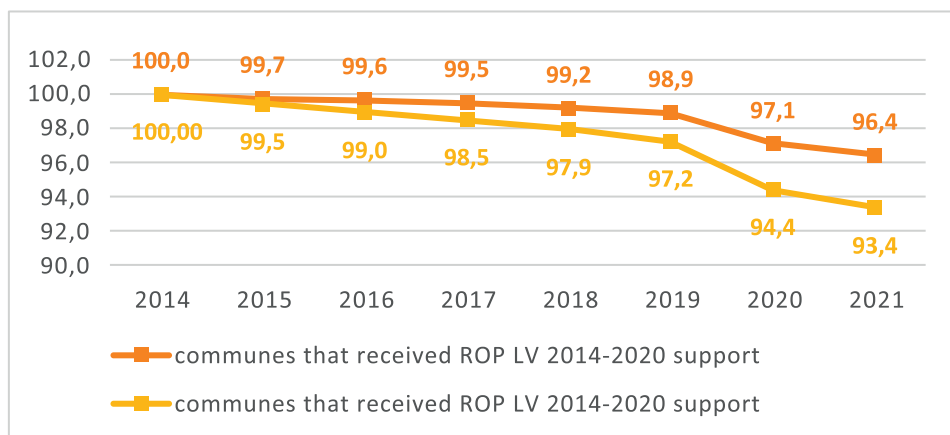
Number of agglomerations with 2,000-10,000 PE that received support: **44** (**61%** of all agglomerations with 2,000-10,000 PE in the lubelskie voivodship)



- ✓ distinct **acceleration of the process of developing sewage infrastructure in communes** and **reduction of developmental disparities** in the provision of basic wastewater infrastructure within the region
- ✓ **improved quality of drinking water** supplied through water supply network and **increased efficiency and reliability of the water supply system**

- ✓ **levelling out the disparities between urban and rural water supply**
- ✓ **improved quality of the environment** in areas **highly valuable in terms of nature, landscape and tourism**
- ✓ **reduced depopulation** in the communes that received support

CHART. IMPACT OF SUPPORTING WATER SUPPLY INFRASTRUCTURE WITH THE ROP LV 2014-2020 FUNDS ON POPULATION CHANGE IN COMMUNES BASED ON A COUNTERFACTUAL APPROACH. AVERAGE POPULATION CHANGE IN COMMUNES COMPARED TO 2014 (2014=100)



Good practices:

- **sustainable formula for financing of sewage management projects in agglomerations with 2,000-10,000 PE** - possible construction of sewerage networks or septic drain fields on condition that an effective sludge management system is ensured
- **sustainable formula for financing of projects involving the supply of good quality drinking water** - formulation of conditions to counteract negative environmental effects and maximise benefits
- **project selection criteria** - strong emphasis on relevance and usefulness of projects
- large scope and scale of **resource-saving measures** (monitoring systems, ICT solutions, RES), as part of a circular economy model

Key recommendations:

- **the area of counteracting natural risks** - for measures concerning rainwater management in urban areas, a strong emphasis should be placed on promoting the comprehensiveness of the projects financed, which, besides the components relating to the discharge of rainwater, should cover components relating to the pre-treatment, retention and use of rainwater, as well as other components relating to the development of blue and green infrastructure
- **the area of waste management** - support should be more focused on the effective implementation of circular economy model, as well as increasing the efficiency of installations at waste management plants to further improve the level of recovery of raw materials (qualitative and quantitative). Support for facilities for composting and digestion of bio-waste is also highly desirable
- **the area of sewage management** - greater emphasis should be placed on verifying the effectiveness of sanitary sewer construction projects, taking into account the concentration ratio
- **the area of water supply management** - increased focus on measures concerning the construction of water supply networks in areas particularly vulnerable to the negative effects of climate change

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