



LIFE Project Number
<LIFE17 ENV/SK/000036>

Progress Report¹
Covering the project activities from 01/09/2018² to 15/11/2019

Reporting Date³
<25/11/2019>

LIFE PROJECT NAME or Acronym
<LIFE – WATER and HEALTH>

Data Project

Project location:	Stredné Slovensko
Project start date:	01/09/2018
Project end date:	31/12/2022 Extension date:
Total budget:	948,275 €
EU contribution:	566,950€
(%) of eligible costs:	59,99

Data Beneficiary

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¹ Progress Report without any payment request (for Progress Reports with payment request, use the Mid-term Report template)

² Project start date in the case of the first Progress Report, otherwise date since the last reporting period

³ Include the reporting date as foreseen in Form C2 of Annex II of the Grant Agreement or as modified in agreement with EASME

Please refer to the “Guidance to draft a progress report (new template from March 2019)” that you will find under the LIFE Website page <https://ec.europa.eu/easme/en/life-reporting>

Section 1 - Overall assessment of the achievements and as to whether the project objectives and work plan are still viable (2 pages max)

The aim of the project is to improve the health status of the inhabitants of the Slovak Republic (SR) through re-carbonisation (increase of Ca and Mg content) in drinking water. Calcium and Magnesium are very important biogenic elements. Residents who drink water with their low content have shorter life expectancy (up to five years) and increased incidence / mortality for cardiovascular and oncological diseases, as well as for digestive and respiratory systems. A risk assessment had been completed within action B.1 and a short report has been published on the project website.

In this project we will recarbonise drinking water in two water sources in two municipalities, and subsequently monitor the improvement of the health status of people who started drinking water with increased content of calcium and magnesium mainly by measuring the arterial stiffness (actions B.2 and B.4).

One of the selected municipalities is Devičie (302 inhabitants), the yield of the source is 11,000 m³.year⁻¹ and the second is Kokava nad Rimavicou (3,000 inhabitants), the yield of the source 100,000 m³.year⁻¹. In the first stage we concluded a “Memorandum of Cooperation” with the operators of the above mentioned water resources. In the second phase we asked for approval to place the recarbonisation reactor into the water sources. According to Slovak legislation, three consents are required from: the owner of the water source, the operator of the water source and from the relevant Regional Public Health Authority. These consents are planned to be obtained by the end of 2019. In the case of the Devičie water source we already have all three consents. In the case of the water source Kokava nad Rimavicou there is a full presumption of obtaining the necessary approvals by the end of 2019.

We carried out laboratory tests to optimize the recarbonisation process (action B.3). The half burned dolomites (HBD) saturated by carbon dioxide will be used. For both water sources we have prepared technical layout and specification of recarbonisation reactors. They will be made-to-measure for each water source. A tender for the Devičie water source reactor is currently in progress. Its production is expected till March 2020. We also carry out a pilot test on this reactor in order to modify the reactor if necessary. The planned date for beginning of temporary operation of both reactors is 07/2021 (action B.5), so there is a full presumption of their early commissioning.

In action B.4 - *Biomonitoring* we took 71 samples of vegetables (carrots and potatoes) in order to determine the possible different content of calcium and magnesium in vegetables depending on the different content of these elements in the soil. We also have selected municipalities (with cooperation of their Mayors), in which the flexibility of the inhabitants' vessels will be measured. All further technical actions of the project will start after the date of writing this progress report.

The project website is fully operational (more than 1,100 visitors until 25 November 2019). Information board at the research station was installed as well. As part of dissemination we published one article registered in current contents, several domestic papers and abstracts. There was one TV session about the project in the main national television. Further medial promotion of the project will take place after the production and testing of the first recarbonisation reactor (action D.1).

We attended two international conferences (four lectures, one poster) and two domestic conferences (three lectures and one poster) where we presented the objectives and intermediate results of the project (action D.2).

In accordance with the project schedule, the team and the steering committee have been established (action E.1).

Regarding foreseen impacts of the project (actions C.1 – C.4), the monitoring has not officially started yet. The Workshop (Recarbonization of Drinking Water and Anticipated Health Effects, June 2019, Bratislava) was attended by several competent Regional Public Health Authority members. As an impact of our project we can mention the request of the Public Health Authority of the Slovak Republic that asked all water companies in the Slovak Republic to send the calcium, magnesium and water hardness data in all drinking water sources in the Slovak Republic, because a new Regulation for drinking water and new limits for calcium and magnesium content drinking water are prepared.

No indirect impacts on the introduction of the proposed treatment technology have been recorded so far as the reactor has not yet been manufactured and has not been commissioned. Also, we do not yet have data that could be used for Slovak and European legislation to regulate the content of calcium and magnesium in drinking water.

In general, the project objectives and work plan are still viable.

Section 2 - Identified deviations, problems and corrective actions taken in the period (max 2 pages)

During the first 14 months, the project progress is fully in agreement with the project implementation schedule both in terms of expertise/content and time. Several activities are solved slightly in advance. There have been no serious problems that we could not solve so far. All deliverables and milestones mentioned in the project have been met by the deadline. The only exception was deliverable within the activity D.1: Notice boards displayed in two municipalities in which we will recarbonize drinking water (deadline was planned 09/2019). The mayors asked us to install information boards only after the citizens' information meetings were held (foreseen in May 2020).

All technical and financial issues as recommended in the EU response to the first monitoring visit (28/05/2019) were accepted by the project.