RUSALCA LIFE12 ENV/SI/000443 "Nanoremediation of water from small waste water treatment plants and reuse of water and solid remains for local needs"

PERIODICAL REPORT ABOUT DISSEMINATION

Reporting Date

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Table of Contents

1. Planning activities and their co-ordination 3
2. Performed activities 3
3. Communication within local community 8
4. Continuation of the planned activities 8

1. Planning activities and their co-ordination

In accordance with the project plan all planned and required activities within D1 were carried out – that includes mainly communication activities and dissemination of knowledge. D1 activities follow the activities of the other parts of the project, as during the report period the possibility of communicating with the public depends largely on the achievement of goals and objectives of the project.

D1 activity plan covers the following areas and consequently the required goals, or. handouts (highlight the activities that have been conducted or are under way):

D1.1 - The round table discussion with local beneficiaries
D1.2 - Dissemination at the regional level (2x)
D1.3 - Publications and published articles (30)
D1.4 – Official website
D1.5 - Various promotion items: on-site information panels, roll-ups, flags, labels, posters
D1.6 - Layman report
D1.7 – Project presentation brochure

2. Performed activities

During report period all the scheduled activities according to the project plan for action D1 were performed.

D1.3 – Publications and published articles

Publications in the media have followed the progress of the project, where we communicated mainly on three points of the project - the signing of the contract with the contractor for the construction of small wastewater treatment plants, obtaining a building permit for a small sewage treatment plant RusaLCA and commencement of trial operation.

Media outlets reported on the signing of the contract with the contractor for the construction of small wastewater treatment plant in December 2014 (Dolenjski list, Novice24, Mojaobcina.si).

For the portal of Slovenian municipalities (Mojaobcina.si) information to the media about obtaining a building permit and some general information about the project has been prepared, which was subsequently published on the portal in April 2015. Also about the beginning of the trial operation there was broader range of content published in the local gazette Šentrupert in June 2015.

Continued publications in the media are expected in the next phases of the project when we will have information and data about nanoremediation cleaning process, which will allow us to communicate tangible achievements and results of the project.

FIGURE – Release about trial run **of** small wastewater treatment plant – Šentrupert gazzette

DOGAJANJA V OBČINI

Mala čistilna naprava RusaLCA pričela s poskusnim obratovanjem

Projekt sofinancira Evropska komisija

Program LIFE+ (LIFE12 ENV/SI/1000443)

www.rusalca.si

V minulih tednih je potekalo intenzivno delo pri razvoju projekta RusaLCA, saj se je s priklopom gospodinjstev pričelo tudi poskusno obratovanje male čistilne naprave za naselje Poštanje. V obdobju poskusnega obratovanja bodo potekale predvsem analize vode iz prve faze čiščenja – konvencionalne male biološke čistilne naprave. Osnovni cilj poskusnega obratovanja je preverjanje ustreznosti vode, ki je očiščena v mali biološki čistilni napravi in bo v naslednji fazi očiščena še s postopkom remediacije z nanodelci. Pri vzorčenju in analizi vode sodelujejo Zavod za gradbeništvo Slovenije, Inštitut "Jožef Stefan" ter Nacionalni laboratorij za zdravje, okolje in hrano Novo mesto. Potek projekta predvideva, da se bo pričela naslednja faza projekta takrat, ko bodo analize pokazale, da je voda v biološki mali čistilni napravi primerno očiščena, oziroma njeni parametri ustrezajo tistim, predpisanim v slovenski zakonodaji.

Med poskusnim obratovanjem poteka tudi preverjanje delovanja vseh sklopov čistilne naprave, predvsem sistema upravljanja z remediacijskim postopkom, ter seznanjanje upravljavcev čistilne naprave z uporabljeno tehnologijo in s posebnostmi.

Spomnimo, da predstavlja inovativna mala čistilna naprava projekta RusaLCA trajnosten pristop k izgradnji malih čistilnih naprav, saj vodo obravnavamo kot obnovljivi vir. Voda, ki bo konvencionalno očiščena v mali čistilni napravi, bo v drugi fazi dodatno očiščena z inovativnim postopkom remediacije z uporabo nanodelcev ničvalentnega železa do takšne stopnje, da bo pridobila status pitne vode. Namenjena bo za zalivanje, kot požarna voda in podobno, kar pomeni, da bo s tem prihranjena pitna voda, ki bi jo sicer uporabljali za tovrstne namene. Projekt sofinancira Evropska komisija preko programa LIFE+, pomemben cilj projekta pa je tudi pridobljeno znanje in dobro prakso širiti naprej med strokovno in splošno javnost. RusaLCA je skladna z vizijo Šentruperta kot energetsko samostojne skupnosti, kjer pa to vizijo lahko razumemo tudi kot samostojnost in neodvisnost na področju vseh virov, ne le energije. Tovrstna inovativna mala čistilna naprava prinaša v prihodnost usmerjen odnos do ravnanja z vodami in odpadki, saj vključuje tudi uporabo blata iz male čistilne naprave v različnih vrstah kompozitov za uporabo v gradbeništvu in okoljskih ureditvah. To bo pripomoglo k ohranjanju naravnih virov na račun ponovne uporabe recikliranih odpadkov, kar posledično pomeni manjše odlaganje in kopičenje odpadkov na odlagališčih.

Kaj sodi v kanalizacijo?

K nemotenemu delovanju kanalizacijskega sistema in čistilnih naprav lahko veliko prispevamo tudi uporabniki. V kanalizaciji pogosto najdemo stvari, ki vanjo ne sodijo in ovirajo ali celo onemogočijo pretok odpadne vode, škodujejo materialom kanalizacijskih cevi ali napravam na kanalizacijskem sistemu, lahko pa celo spremenijo sestavo odpadne vode do take mere, da se upočasni ali povsem zavre biološka stopnja čiščenja na čistilni napravi. Kanalizacija je namenjena izključno odvajanju komunalne odpadne vode iz objektov (fekalni del).

Kaj ne sodi v kanalizacijo?

V odtok in kanalizacijski sistem je strogo prepovedano odvajati:

- meteorno vodo s streh, dvorišč ...
- ostanke izdelkov za osebno higieno (higienske vložke, britvice, palčke za ušesa, plenice, vlažilne robčke),
- uporabljen sanitetni material,
- strupene snovi in snovi, ki razvijajo strupene pline ali eksplozijske mešanice,
- jedke snovi (kisline, alkalije in soli),
- barve, lake, naftne derivate, topila, kisline, zdravila, radioaktivne snovi,
- maščobe in odpadna olja,
- gospodinjske odpadke in ostanke hrane,
- sveže ali pregnito blato iz greznic,
- pepel, kosti, gnoj, gnojevko, odpadne vode iz kmetijskih objektov, škropiva, rastlinske ostanke, trupla poginulih živali, ostanke kolin, pokošeno travo in listje, tekstil, perje, dlake, steklo, žagovino, plastiko in druge predmete,
- gradbene in druge trde odpadke (malta, mavec, cement, deščice, beton, pesek, les).

D1.4 – Official website

The project website was upgraded in 2015 with current information about the project, the start of construction of small wastewater treatment plants, as well as the commencement of trial operation. Additionally, content on networking was updated on the website in the section of Networking.

On the website we published special section on the topic 'What can go into the sewage system" that delivers practical and important information as to which substances households connected to the small treatment plant may discharge into the sewer system and which not.

FIGURE - Latest information www.rusalca.si - Commencement of trial operation

D1.5 – Information tables on-site

In accordance with the plan of D1 action information boards were set up at the site of the RusaLCA project:

- During the construction of the project an information board was set up with details of the project.
- After completion of the construction an informative board with information on the project, plan the treatment plant as well as information on innovative method of treatment was set up. The board also contains a visual QR code for quick link to the project website through smartphone.

FIGURE – information board at the construction site

FIGURE – content **of** informative and explanatory table at the site of the project

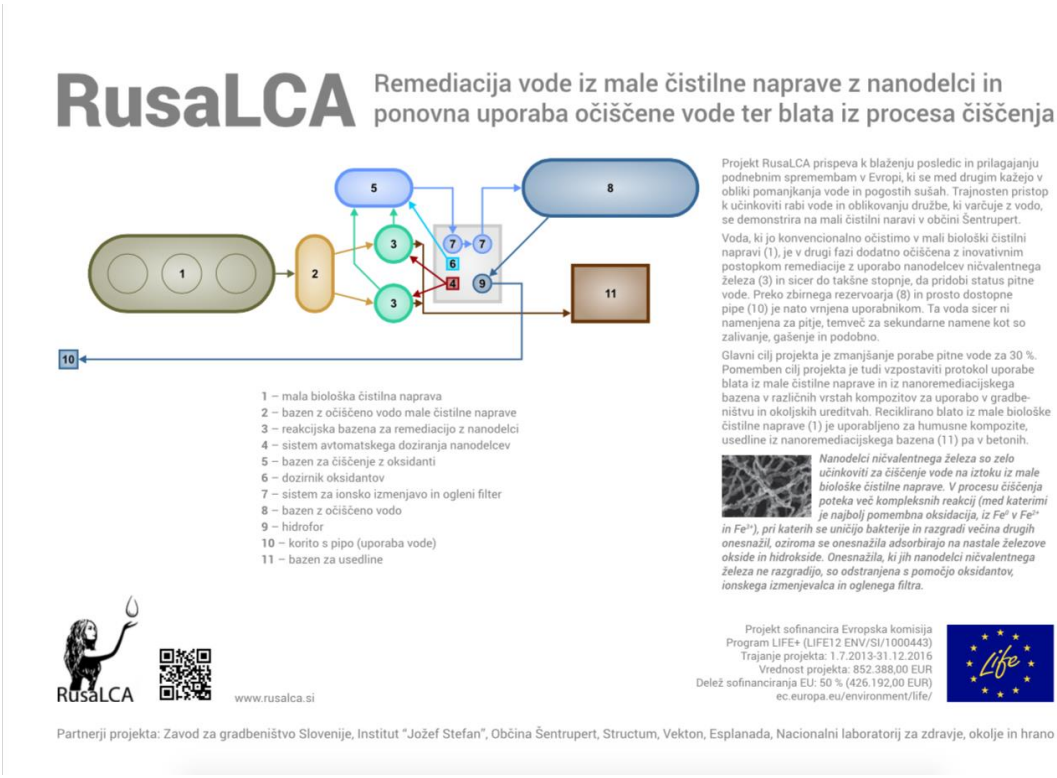

FIGURE – informative and explanatory table at the site of the project

3. Communication within local community

The ongoing contacts with members of local community were carried out by employees of the Municipality of Šentrupert as they communicated mainly in the field of connecting households on new small sewage treatment plant. The personal contacts with every household were directed into requirements for connecting, with a special attention paid to the instructions on the suitability of effluents for discharge into the sewage system. Thus, prospective users of wastewater treatment plant received precise instructions on what is prohibited to discharge into drains, if we want to maintain proper operation of small wastewater treatment plant.

It turned out that it was paramount to have this kind of communication to strengthen and re-transmit information on the adequacy of sewage, because all households did not adequately take into account the instructions. It was also necessary to create incentives for households to accede connection to the sewage network, as we perceive it in a certain amount of reluctance or disinterest for connection - mainly due to additional costs incurred by the connection for the households.

Communication with target public of the local community has once again shown that such personal contacts are an important channel for the transmission of messages benefits, the purpose of the project and its long-term role in local and regional area.

4. Continuation of the planned activities

Future activities will be carried out below and to which we are preparing in the period of preparing the report, covering in particular:

- Continuation of the intensive communication within the local community,
- Updating the website with additional information arising from the development and progress of the project,
- Preparation of the relevant press releases at key milestones of the project (the official opening of the treatment plant) and the publication of articles in relevant publications targeting the general public and experts,
- Organization and holding of two conferences,
- Preparation of brochures.

To continue with the activities we do not foresee specific barriers or risks that could affect their performance, because all communication activities follow the progress of the project and adapt accordingly.