LIFE Project Number

LIFE11 ENV/SK/1019

FINAL Report
Covering the project activities from 01/08/2012 to 19/04/2015

Reporting Date
27/10/2015

Revitalization of the climate in dried-out communities in Eastern Slovakia via hydro-climate recovery

Data Project

Project location	SLOVAKIA
Project start date:	01/08/2012
Project end date:	30/09/2015 **Extension date/Early termination:** 19/04/2015
Total Project duration (in months)	38 **Extension months/Early termination: 33**
Total budget	1 431 535 €
EC contribution:	690 267 €
(%) of total costs	
(%) of eligible costs	48,219%

Data Beneficiary

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1. List of content

2. Executive Summary

The main objective of the project “Revitalization of the climate in dried-out communities in Eastern Slovakia via hydro-climate recovery" is aimed at mitigation of climate change through a new water management in the country. This new way of management should ease the effects of extreme weather events - floods and droughts.


The main task of the project is to capture water in small water retention measures in non-permanent watercourses - e.g. on forest roads, erosion grooves on the edge of the fields and farmland, or directly in roadside ditches and gardens.


There was one associated beneficiary in the project – the Regional Association of Ondavka Municipalities. There was a very close cooperation of both project partners and there were no problems in project management and monitoring.

Project main actions included

- Assessment and selection of specific locations for the implementation of the project (completed)
- Opening a planning and strategy meeting (completed)
- Establish education/training workshops (completed)
- Construction of water retention ponds, flow control barriers and rainwater gardens in selected areas, and the re-cultivation of decommissioned and old logging roads (partly fulfilled)
- Develop and publish a manual "Revitalizing the Climate in my Region" outlining the effects of the projects measures (partly fulfilled)

Given the unique functions of water on earth, the proposed measures can be considered as a climate change adaptation project. The retention of rainwater on earth allows water to carry out its numerous unique functions which support various forms of life on earth. Water maintains a stable climate and a healthy hydrological cycle. Water is essential for evaporation which transforms the sun's solar radiation into latent heat and thus contributes to a cool and stable climate. Without water, the sun's solar energy is released back into the atmosphere as sensible heat therefore contributing to a rising temperature and drier atmosphere. An atmosphere abundant in moisture content maintains a stable and cool climate mitigating weather extremes such as drastic temperature oscillations, heat waves and intensive precipitation. As such the proposed project mitigated the effects of climate change such as temperature oscillations, flooding and drought, and contributed to the well being of the local residents.

In spite of the fact that project could not be completed in the foreseen extent due to financial reasons described below, the reached results – both of technical and dissemination actions – well contributed to the overall objectives stated in the application and proved immediate positive environmental and social impacts.

Early termination of the project

The main reason for early termination of the project is that we were unable to obtain the necessary co-financing for continuation of the project. NGO People and water for the whole time of project implementation did not find understanding from the Slovak government

to co-financing the project after the change of the government policy in March 2012. The project originated at a time when the Slovak Government program booted Landscape Revitalisation and Integrated River Basin Management (approved by the Government of the Slovak Republic on 27th of October 2010), and substantially promoted the ecological restoration of damaged landscapes and their vital functions. The project proposed to the LIFE+ program had the ambition to contribute to a deeper knowledge of the processes of reconstruction of damaged landscapes and to positive social impacts on the community where the project is implemented. During project implementation, in a defined area, where the project was implemented, there have been more than 1,300 near-natural water retention measures constructed. For the implementation of the measures we initially employed 56 long-term unemployed for almost 12 months.

We were requesting early termination of the project for these reasons:

1. NGO People and water did not obtain the necessary co-financing for the project continuation.
2. Lack of interest of the current Slovak government to support projects that deliver specific environmental and social benefits in damaged and poor regions.
3. Obstructions of the Ministry of Environment practically excluded the possibility that the project implemented by the NGO People and Water should be co-financed by the Slovak government.
4. Multiple attempts to find resources for funding from other sources were also unsuccessful:
    a) The project proposed by Ondavka regional association (associated beneficiary) to the Norwegian Financial Mechanism (managed by the Office of the Government) was excluded from the evaluation of the projects submitted in 2013, reportedly because of a conflict of interest. Reason was that the statutory of NGO People and Water, Mr. Michal Kravčík, worked at the Government office from April 2011 to March 2012, in the team of Representatives of government for landscape restoration and integrated river basin management. The agenda included the preparation of program on climate change adaptation. This decision of the Government office broke human rights of Michal Kravčík and injured not only the NGO People and water, but also the people in the Ondavka region. Please note that the Government Office used the funds from the

Norwegian Financial mechanisms, directly linked for the adaptation to climate change, for the reconstruction of pumping stations which are in direct conflict with the determination of the Norwegian fund. The statement of Government office please find in annex 7.1.3.

b) The project proposed by Ondavka regional association (associated beneficiary) to the Norwegian Financial Mechanism for cross-border cooperation with Ukraine to exchange experience with poor Transcarpathian region in Ukraine, was not supported. The reason was reportedly the lack of financial resources. This decision of Government Office expressed the minimum will to help to our eastern neighbour in the transfer of experiences from Slovakia to the accession process of Ukraine to the EU. The statement of Government office please find in annex 7.1.4.

c) Multiple discussions with the competent Department of the Ministry of Environment led to the changed criteria for co-financing. The last criterion of the Ministry of Environment approved in 2014 was that they could not finance projects that did not have supporting statement from the Ministry of Environment in the time of the submission of the project in Brussels. The statement of Ministry of Environment please find in annex 7.1.5.

d)

5. The Ministry of Environment and professional bodies in the current time are trying to approach this agenda by various non-standard ways, and point out that such approach to nature conservation and climate is inefficient and that it would be effective only if the public funds use much more money. The project "Revitalization of the climate in dried-out communities in Eastern Slovakia via hydro-climate recovery" funded by the LIFE+ was for them an obstacle. Obtaining specific knowledge of the involvement of poor people to the recovery of damaged country would be serious cut of misuse of EU funds for environmental policy in Slovakia.

We would like to continue in the project that brings practical experience how to recover the damaged country, how to prevent disasters (floods), and how to tackle environmental issues for sustainable life. So far, the implemented part of the project confirmed that the project was designed well, and that it would fundamentally bring the methodologies how to recover the damaged landscape. This experience will be useful for

Slovak government and also for other EU countries, so we believe that this should be in their interest to continue in the future.

Preparation and delivery of the reports

Inception report was submitted to EC on 30th April 2013, covering the project activities from 1st August 2012 to 31th March 2013. Reaction from EC on Inception report is dated on 24th September 2013. Reaction was slightly positive with several recommendations.
On 7th November 2013 we asked for the postponement of the Mid-term report due to the non-exhaustion of funds (we did not reach the threshold of 150% of the first advance payment). The original submission date was 30th November 2013. We proposed a new date for the Mid-term report 30th September 2014. On 8th November 2013 we got an acceptance from EC.
On 26th September 2014 we again asked for postponement of the Mid-term report, due to non-exhaustion of funds. Low financial pumping of the project is caused by the problems of co-financing.

Therefore, we proposed a new date for mid-term report: 31th March 2015 instead of 30th September 2014. According to Common provisions (12.1) we proposed submission of the progress report on 31th October 2014. On 3th October 2014 we got an acceptance from EC.
Progress report was submitted to EC on 31th October 2014, covering the project activities from 1st April 2013 to 30th September 2014.

Unfortunately due the persistent problem of co-financing we were forced to submit the request for early termination of the project on 19th April 2015.

Until 19th April 2015, around 37,94% of the approved budget was incurred while most of the planned actions were carried out and the preliminary results brought visible benefits in the target region. For personnel costs, it was incurred almost 45%. Due to the problems with co-financing, we have not employed the full number of the planned staff. The costs of travel and subsistence reached nearly 55,74% of the planned amount. The costs of external assistance reached almost 10,25% of the planned amount. The costs of the equipment reached only 9,35% of the planned amount due to the problems with co-financing. Within consumables costs, there are mainly tools for workers and construction material. Tools have already been purchased, the construction material was bought as appropriate, and therefore the spent amount is around 39,91%. Other costs reached the amount of 21,43%.

3. Introduction

Expected results and environmental benefits

The greatest environmental benefit, which is already proven, is avoiding the floods during torrential rains as was usual before the revitalization of the country. More water remaining in the country also significantly increases photosynthetic and thus carbon sequestration in biomass. Significant environmental benefit is also the eco-social behavior of communities in implementing the project. The direct engagement in project implementation very positively increased their sense of environmental safety and changed the community perceptions on environment protection and sustainability. The largest expected result already in the near future will be an increased water retentiveness of the country and the unfolding biodiversity.

Expected longer term results

As the processes of drying damage and landscape degradation are mostly caused by man, it is also possible to restore the process to revive the country. The degradation and therefore also the restorative processes are slow, not spontaneous. We expect that the measures undertaken to achieve the restoration of damaged ecosystems will fully succeed within 8-10 years. It is therefore very urgent task to observe and research these processes in EU Member States to acquire a specific experience how these processes in time and space work. Although in Slovakia there is a big cynicism and indifference to such solutions, it is urgently necessary that similar projects could be launched in the EU in order to test the impact of rainwater on ecosystem restoration processes in dealing with climate recovery.

4. Administrative part

4.1 Description of the management system

4.1.1 Action E1: Monitoring project output within allocated financial resources and processing the results and outcomes of project

Project team

The project team was created at the beginning of the project.

Project coordinator Ms Dana Kravcikova was responsible for the project proceeding, performance of the project activities, monitoring the project results and outputs and clear accounting of the project. She was responsible for the complete documentation of the project implementation and for the Steering Committee meetings as well as for the preparation and sending of reports to the co-financers.

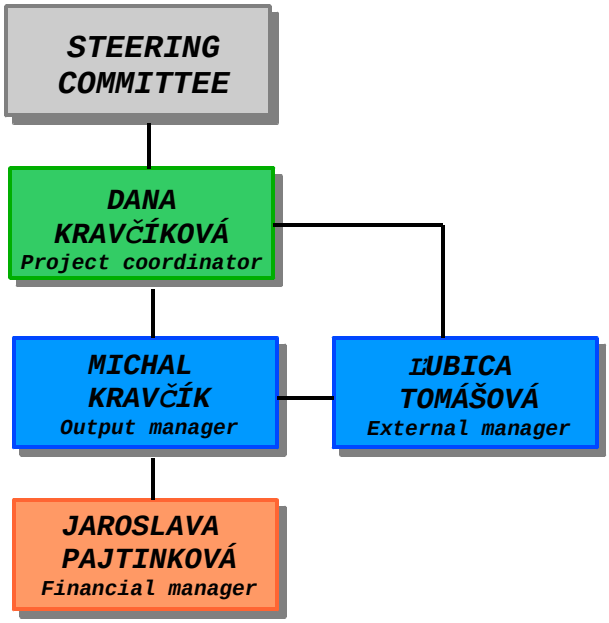
Output manager Mr Michal Kravcik was responsible for the implementation and management of the project and the project team. He was also responsible for the performance of the project duties, work plan and project outputs and financial performance of the project budget. The employment contract was concluded with the entire team responsible for the project at first. The contract is concentrated on project *Hydro-climate recovery* activities realization financed by the Programme LIFE+. This contract contains a reference to the project, position under the project and total number of hours to be worked for the project. All responsible members of the team have been involved in the project.

Each team member was responsible for specific tasks under the project and accounted for their implementation to Project manager. Number of meetings with experts, working meetings concerning technical solutions of the project used to be realized as well as everyday activities associated with implementation and internal monitoring of the project.

Financial manager Ms Jaroslava Pajtinkova ensured the financial management of the project. Her main task was the accounting of the project in accordance with the LIFE regulations and national legislation. She was responsible for the accuracy of financial documents, correct definition and reference to the project and other responsibilities arising from her position.

Output manager Ms Lubica Tomasova should be responsible for the technical tasks of the project. She should prepare all the documents concerning technical issues of the project, and project implementation directly in the field. Finally, due to co-financing problems, we decided not to use the services of an external manager, to ensure the lowest possible use of resources, to best effect. However, Ms Tomasova became a member of the project Steering Committee.

The main task associated beneficiary was employing water workers and payment of their salaries and also dealing with labor offices, which co-financed the part of the workers salary. Each municipality was responsible for staff who worked there.



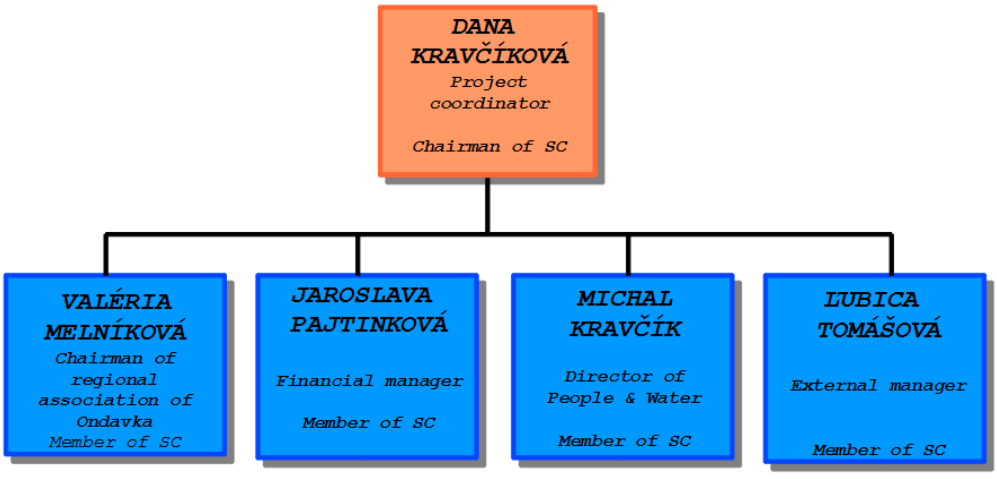
Pic. 1: Organizational structure of project management

Steering committee

Steering committee meeting is held 1 times per year. Project manager presents the project implementation proceeding. Financial manager informs about the financial accounting and together with project coordinator answers all the questions of the SC members. SC discusses all the project elements and the members can find all the essential information and documentation in additional documents. All discussion points were approved by SC members at the end of SC meetings.

Steering committee remained unchanged except of the leaving representative of NPOA (the organisation does not exist any more) and included: Mr. Michal Kravcik, Mrs. Jaroslava Pajtinková, Ms. Danka Kravčíková and Mrs. Ľubica Tomášová, Mrs. Valéria Melniková. The partnership agreement between SC members please find in annex 7.1.2.

The steering committee met two times, on 7th October 2013 and on 18th November 2014. Participant list from both meetings, please find in annex 7.2.4.



Pic. 2: Organizational structure of SC

Work negotiations

Project coordinator convened working meetings with experts and meetings of the project team, whether on her own initiative or at the instigation of the output manager or financial manager, or other team members, or suppliers. Each meeting was convened by

invitation via e-mail. The project team meetings were solving daily problems with project implementation.

Very substantial part of meetings was to establish a timetable for the work for exact day; the work on the project has been carried out continuously.

Meetings with the associated beneficiaries were carried out as required, but mostly during the activity B.1, construction of water conservation measures, which was the main activity of the project. The meetings always took place on the site of the project, in one of eight participating municipalities.

Partnership agreement was delivered to EC with inception report on 30th April 2013.

Project monitoring

NGO People & Water was visited by Mr. Svoboda first time on 11th and 12th February 2012 to the monitoring control from the external monitoring team of the EC. He checked in detail the complete documentation of the project, responsible personal answered all his questions, as well as he answered questions of project team about uncertainties regarding the implementation of the project. He viewed the site and the parts of the project which are already implemented.

Second time was People & Water visited by Mr. Svoboda on 15th and 16th July 2014. The monitoring mission was joined by Mrs. Karin Ocenasova and Ms. Jana Dzurnakova representatives of Ministry of the Environment, by the reason with the will to co-finance the project, which unfortunately never happened. The monitoring session was broken down into two main activities – 1 administrative assessment, 2 field monitoring. The administrative assessment took place on 15th July at the People & Water office in Kosice. The general management of the project such as tracking expenses, monitoring schedules, invoicing, etc. have been addressed throughout the monitoring meeting on the 15th July. Consultations were provided on how to improve project management and address some of the issues.
On the 16th July a trip to the implementation locations provided the external monitoring team with a first-hand account of the progress of the implementation activities. The monitoring team visited the multiple implementation sites across the 8 villages. Here, they had the opportunity to meet the mayors of the participating villages and discuss their views of the

project and the already reached results. Additionally, the monitoring team had a first-hand account of the local workers building the various rainwater retention measures such as the dams.

The monitoring team was impressed by the socio-economic effects of the project. The representatives of municipalities provided positive feedback on creating employment opportunities for local inhabitants and how the training seminars and working on implementing the various measures resulted in skill development for local inhabitants. Given the strong socio-economic effects of the project, the monitoring team expressed their concerns on the current co-financing issues faced by the project.

Monitoring project output

DELIVERABLE PRODUCTS OF THE PROJECT	ORIGINAL DATE	MODIFIED DATE	DUE DATE
Assessment and selection project sites	24/08/2012	28/02/2013	16/04/203
Construction of proposed measures	26/09/2014	30/06/2015	not completed
Digital map	09/04/2015	31/07/2015	not completed
Monitoring results	09/04/2015	31/07/2015	15/12/2014
Manual „Revitalizing the climate in my region“	06/03/2015	31/08/2015	not completed
Web page	07/09/2012	31/01/2013	31/01/2013
Information board design	17/08/2012	28/03/2013	28/03/2013
Layman´s report	09/04/2015	31/07/2015	14/07/2015
MILESTONES OF THE PROJECT	ORIGINAL DATE	MODIFIED DATE	DUE DATE
Obtaining necessary permits	31/08/2012	31/05/2013	16/05/2013
Opening conference	05/10/2012	16/05/2013	16/05/2013
Construction of proposed measures	26/09/2014	30/06/2015	not completed
Publication of manual	27/02/2015	31/08/2015	not completed
Closing conference	24/04/2015	15/09/2015	not completed
REPORTS	ORIGINAL DATE	MODIFIED DATE	DUE DATE
Inception report	21/12/2012	30/04/2013	30/04/2013
Progress report	11/10/2013	31/10/2014	31/10/2014
Mid-term report	14/02/2014	31/03/2015	cancelled
Progress report	17/10/2014	cancelled	
Final report	07/08/2015	19/07/2015	19/07/2015

Evaluation of the project implementation by using Grantt-chart

Tasks/ Activities		2012				2013				2014				2015			
		1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T
Overall project schedule	Proposed	1.8. 2012 start date											Progress report 30.10. 2014				
	Actual																
Action A.1 Assessment and selection of specific locations for the implementation of projects	Proposed		X	X	X	X											19.4 2015 end date
	Actual			O	O	O											
Action A.2 Opening and planning strategy meeting	Proposed		X	X	X												
	Actual				O	O	O										
Action A.3 Education training workshop	Proposed				X	X											
	Actual						O				O						
Action B.1 Construction of water retention measures	Proposed					X	X	X	X	X	X	X					
	Actual						O	O	O		O	O	O				
Action C.1 Monitoring and determining the effectivess of applied measures	Proposed		X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Actual					O	O	O	O	O	O	O	O				
Action D.1 Develompent and publication of manual	Proposed											X	X	X			
	Actual																
Action D.2 Closing conference	Proposed													X	X		
	Actual																
Action D.3 Development of press relesese, web page, layman´s report and information boards	Proposed			X	X	X	X	X	X	X	X	X	X	X	X		
	Actual			O	O	O	O	O	O	O	O	O	O	O	O		
Action E.1 Monitoring projects output	Proposed			X	X	X	X	X	X	X	X	X	X	X	X		
	Actual			O	O	O	O	O	O	O	O	O	O	O	O		

4.2 Evaluation of the management system

The process

The project originated at a time when Slovakia was started implementation of the government program of revitalization of the country (2011). There were a lot of enthusiasm and inflammation, so from a position of project promoters and partners. Therefore, during the project preparation the project was significant added value with the possibility to prove and quantify the real impact of the implemented water conservation measures on environmental, social and economic enhancement of the environment where the project was located.

Therefore, we selected an integrated approach in a single basin with specific hydrologic character and with typical rural settlement structure. In addition, we also addressed the demographic decline and the relatively high unemployment in eastern Slovakia, where it is really difficult to obtain work in rural country. Therefore, we have combined a number of elements to know and to really demonstrate the real potential possibilities of participation of local communities in recovery of damaged countries as part of regeneration responsibilities of local communities in the management of the country. After approval of the project, a significant part of management was focused on the search for financial resources for co-financing the project, which ultimately proved to be the greatest threat to the project, which resulted in his premature halt.

In addition to unsuccessful attempt to obtain funding for the project from Norwegian Financial Mechanism program of adaptation to climate change and cross-border cooperation, also the Ministry of Environment decided to exclude the project through additional development of criteria to which it was clear that this is a political decision of the Ministry that project could not completed. It is also one of the reasons why we decided on early termination of the project, when resort which is responsible for protection of the environment creates special-purpose obstruction to the implementer who had limited opportunities to complete the project without the political and financial support from the Ministry of Environment.

It is almost not understandable that nowadays, when fundamental international support to green infrastructure projects provides answers and solutions to the social problems of the poor regions of the peripheral parts of the EU (on the border with Ukraine), the national obstructions also gamble with innovative projects that have ambition to provide answers to several questions on environmental solutions in the ongoing climate change. This is the reality in Slovakia, and Brussels should reasonably know how the Member State complies with international agreements on environmental protection. That was the main reason why we decided for early termination of the project, knowing that we will bear the consequences of repaying funds.

The project management, the problems encountered, the partnerships and their added value

The structures we have in the project proved to be effective and relevant to the needs without significant problems. The only risk resulted from reality was, how everyone involved

will behave, if we do not obtain co-financing. It proved to be a significant risk of disincentives stemming from people who work in the field and felt that the state apparatus does not want the project. This is ultimately reflected in the performance in the implementation of water conservation measures in the field, especially in 2014 when we actually knew that it would be very difficult to get co-financing. Due the issue of co-financing we decidet to employ long term unemployed people over the Labour Office through the projects partly financed by the European Social Fund. In 2013, we employed 56 people for a period of five months and 58 people in 2014, but for a period of six months. The team has realized substantial activity in the project that brought and still brings considerable benefits for the municipality. This was done with the significant participation of all communities of Ondavka Association, which is a partner in the project.

Technical and commercial application (reproducibility, economic feasibility, limiting factors)

Although the project is not completed in the foreseen extent, it is already clear that the project had visible and significant benefits in the region. Multiple heavy rains in the basin of Ondavka tested the measures implemented and proved that the project contributed to the fact that the municipalities were not flooded like in the past. It turns out that the intention of the project was well chosen. The project brings several benefits and opens up the possibility of using the experience gained in four levels that have a real possibility of practical use and replication:

- Methodology for assessment of the state of damage to the country, its defining influence on flood risks, drought and local climate change;
- Guidance for defining the types and specifications of nature-friendly water retention measures and conditions of their placement in ecosystems;
- Technical Applications of nature-friendly water retention measures in the field;
- Work with the long-term unemployed people to increase their motivation for action and strengthen their responsibility to recovery demaged landscapes.

Comparison against the project-objectives

As the project terminated prematurely, we did not finish some important activities, which should more clearly demonstrate the effect of watering the land on revitalization

microclimate. This is particularly the impossibility to use of thermovision scan for impact assessment on cooling the watering land. We also were not able to implement financially demanding actions, in particular the water retention ponds. However, the completed actions well contributed to the project objectives:

1. Measures for water protection will involve the utilisation of various methods and techniques such as the re-cultivation of logging roads and other connecting paths, construction of flow control barriers, water retention ponds and rainwater gardens, and other measures for the prevention of excess rainwater run-off from land. Results: Except of the water retention ponds, the other techniques were demonstrated, generally in a greater extent than planned.
2. This integrated approach to rainwater protection will have numerous positive effects such as preventing flooding, drought and erosion and mitigating the negative effects of climate change. The multiple functions of water in an ecosystem make the above measures into an integrated solution to numerous problems faced by the involved communities. Results: The implemented measures contributed to preventing the floods as was proved during several torrential rains.
3. The project will reveal new construction methods which will retain rainwater where it falls so that it has the chance to fill groundwater sources, feed vegetation, and to evaporate so that it can revitalise the small hydrological cycle and maintain a stable climate. Natural flow control barriers in streams, rainwater gardens, retention ponds and water harvesting techniques are all tangible aspects of the project providing demonstrative effects. Results: Although the immediate impacts are positive, recognising and validating the impact on the hydrological cycle would need a long-term monitoring.

Effectiveness of dissemination activities

Partial results of the project were presented at several important forums abroad with great interest (Czech Republic - Water in the Landscape - 2013, 2014; USA - Summit Indigenerous People South Dakota - 2013; Tunisia - The World Social Forum; South Korea - Asia Green Forum; Portugal - International water Symposium in Tamera). Also the dissemination events in Slovakia attracted attention of both experts and general public. The sites of project implementation were visited by representatives of other municipalities from Eastern Slovakia.

The future: continuation of the project and remaining threats

Despite the adversity and incomprehensible obstruction by the competent authorities in Slovakia, a subject that NGO People and Water develops through the project has a great future. Water retention in the country will be one of the key themes of solutions that address not only environmental but also social and economic problems in Europe and in the world. Even with all modesty, the project answers the solutions for droughts and global warming at the local level, which can be used anywhere in the world. Therefore, the People and Water NGO not give up this idea and we are currently working on the Global Action Plan on restoration of small water cycles and climate that we want to present this year in several international forums, also on climate summit in Paris.

5. Technical part

5.1.1Action A.1: Assessment and selection of specific location for the implementation of the projects

Expected results included the following:

1. Selected locations for the implementation of the projects which will be presented at the opening meeting
2. The total number of locations will be known;
3. The exact capacity of retained rainwater will be known based on the above geographical land assessments;
4. Collection of data and information on local geography available for reference during implementation phase;
5. 5 hired field experts who will compile necessary landscape assessments;
6. A specific section in the inception report stating the list of permits obtained from landowners for permission to implement project on their lands if this will be required based on survey results; list of land being worked by the project, complete with location, surface and permits if needed;
7. List of deliverables to be carried out by the project on the specified land;
8. List of revised milestones taking into account the progress of work planned as deliverables.

The action was fully and successfully completed.

The research consisted from the field surveys and the study of previously processed analytical materials from eight municipalities included in the project, as well as studies of regional significance. Considerable attention was paid to the study of older archival materials available in the municipalities. Valuable source of knowledge about damage in the landscape were municipal chronicles, where historical events, such as floods and storms, which had a negative impact on the agricultural production, were recorded.

- From the archived documents, chronicles and regional studies it was shown that the damage in the agricultural and forestry landscape started, from the big part, after the establishment of farming cooperatives. Traditional small scale pastures and fields separated by small terraces were destroyed by plowing, in order to gain big areas suitable for intensive machinery. In addition, by grubbing of the green infrastructure, such as

wetlands, and game refuges, which in the past formed the skeleton of hydro-morphologic elements in the landscape, a structure which was able to retain a big part of the heavy rain falls in the landscape was destroyed. Plowing the terraces intensified surface water erosion and gully erosion in deep gorges. By studying the chronicles it was found, that the onset of dramatic flooding in the Ondavka basin started in the early 60's after collectivization of the farmland.

- Field surveys were focused on mapping the state and extent of the damage in forestry, agricultural and urban landscape. The forest landscape survey focused on damage to ecosystems by logging, state of maintenance of forest roads and description of gully erosion especially in those parts of forests that are situated below agricultural land. In the areas below agricultural land, significant gully erosion was expected, which was confirmed in the field. In the cadastre of each village, research teams of two persons were responsible for the surveys and they made photographic documentation. Fieldwork was conducted with a representative of the village, mainly with the mayor of the village, where the survey took place. Participants of the surveys were: Michal Gazovič, Pavol Šuty, Pavol Varga, Miroslav Hríb, Ján Hronský, Jaroslava Pajtinková, Danka Kravčíková and Michal Kravčík.

- Field surveys were then confronted with map research and the extent of the damage was defined. Also geological, soil and geomorphologic characteristics of the river basins in each municipality were defined. The results were then used as a basis for processing the analysis of the rainwater runoff balance for extreme rainfall totals for each of the municipality. Based on the water balance map data from Slovak Hydro-Meteorological Institute, the water balance calculation was defined for extreme torrential rainfall of 100 mm, with probability of occurrence in given area once in 100 years. Part of the analysis was to define the trends in precipitation changes in time and space. From this analysis it was found that the precipitation in the southern part of the Ondavka basin is significantly affected by desertification of urban and agricultural landscape of Eastern Slovak lowland, which lies south of the Ondavka basin and was significantly reshaped by massive drainage systems and collectivization of agricultural land. The volumes of rain water run-off from various cadastres were then calculated using methodology of CN curves, which realistically describes the impact of landscape damage on hydrological processes of small

river basin system. This section was processed by Michal Kravčík, Pavol Varga and Michal Gazovič.

- Demographic analysis of municipalities lying in the Ondavka basin was conducted, which indicates a very serious trend of extinction of the micro-region. It was found that this is influenced by two negative phenomena. The first negative phenomenon is that the chaotic transformation of economic development in Slovakia after 1989 from centralized economy to a market economy has found rural areas of Slovakia unprepared for socio-political change. After the collapse of farming cooperatives, employment in agricultural production was dramatically reduced in the countryside. The second negative effect is bad motivational criteria for use of agricultural land. Direct EU payments go to land users, instead of the land owners. Therefore, owners of agricultural land can not affect the fact that the farmland is not used for agricultural production, but is only mulched (mowed 2 times a year), for which land users get direct payment for "care for agricultural land“. This is also the reason that the agricultural landscape that has for decades been damaged has very little proper maintenance. Compared with neighboring countries, agriculture in Slovakia employed about 20% fewer people than in the neighboring Czech Republic, despite the fact that until 15 years ago there were employed in agriculture in Slovakia about 28% more people than in the Czech Republic. For this reason it is very good that the realized project was based on creating jobs in rural area to serve as model solution for strengthening, diversification and greening of countryside by creating job opportunities for the unemployed in rural Slovakia. This might prevent their migration and rural areas might get a second chance to be added value of green growth in Slovakia.

GDP production per capita in Prešov region after accession to EU decreasing

1. May 2004

REGION	1995	2008	2013
B. Bystrica	82,85	82,34	72,71
Prešov	64,30	59,93	59,56
Košice	87,24	88,16	78,18

The number of unemployed in the regions after accession to EU

Region	IN COMMON		More than 12 months		More than 48 months	
	2004	2014	2004	2014	2004	2014
B. Bystrica	68 972	63 791	38 859	39 085	9 304	17 945
Prešov	73 142	78 527	39 275	47 977	9 983	20 697
Košice	77 602	67 194	45 175	41 512	12 014	17 700
SK	383 155	373 754	192 002	203 408	46 773	75 811

The presented study comprehensively addresses the river basin of Ondavka, assesses the state of the environment, problems in individual municipalities and possible solutions to mitigate the impacts of climate change on communities in the basin. Based on the study, river basin Ondavka experiences decreasing rainfall for a number of years (greater reduction in the south than in the north), which is related to increasing drought and water scarcity, but also the danger of floods during torrential rains. Those problems are a combination of factors. On the one hand, it is inappropriate solution of torrential rain runoff in the urban communities (undersized culverts), and on the other hand, it is the change of the country in the territory of the local municipality and its degeneration, which is related to accelerated runoff causing flooding and subsequent water shortages in the area, causing drought. Through revitalization of the landscape in the Ondavka basin, both problems can be solved simultaneously. By construction of water retention measures it is expected to improve minimum flows, while reducing peak flood flows. Overall, there is potential for creating 1 million m^3 of water retention capacities in ten years, but to compensate for the loss of water in the basin, 3.8 million m^3 of water retention measures are needed. Implemented project creates conditions for scientific research and quantification of the effect of water retention measures for the recovery of small water cycles in the long run, which could develop a model approach to water policy objectives of EU member states, as defined by the European Commission.

The concept of the EU from November 2012 identifies key actions that water managers and policy makers across the EU need to adopt, to solve the problems associated with the aquatic environment. The solutions proposed in the project fully reflect this concept at the first river basin in Slovakia.

The notice says: "It is necessary for Member States to improve the implementation of the WFD and decrease the hydro-morphological pressure in our river basins by restoring the passages, for example, through the use of green infrastructure". The presented project fully develops this intention.

The result of the analysis and proposed solutions are elaborated in the study: “Water for adaptation to climate change”, consisting of 142 pages, A4 format (annex 7.2.1)

The objectives of this action have been met at 100%. Expenses were 97% of the planned budget. Action was planned to be completed on 28th February 2013. However, the study, which was the result of the action, was printed on 16th April 2013 in edition of 48 copies. The main reason for delays in completion of this action was bad weather. The studied terrain was difficult to access in winter, and survey the terrain lasted longer than we expected.

5.1.2 Action A.2: Opening and planning strategy meeting involving the participation of all interested parties

Expected results included the following:

1. The consensus of the attendants; Their approval or disapproval of the chosen locations will be taken into consideration and dealt with;
2. A clear definition of the parameters of the project meaning that during the meeting it will be stated what the project will achieve and what lies outside its parameters. This means that the attendants will part knowing the purpose, intentions, timeline, costs and expected results of the project;
3. Attendants will be fully aware of monitoring methods and techniques for observing the progress of the project. Meeting will result in future communication between attendants and project managers in order to maintain an open and transparent implementation phase;
4. 100+ attendants at meeting;

The action was successfully completed.

Opening conference was held on 16th May 2013 (Campus Pohoda, Brestov). The conference was attended by 93 people (mayors, members of municipal councils, farmers, foresters of villages in the Ondavka basin). The conference was also attended by representatives of the governments of other municipalities of eastern Slovakia, administrators of watercourses (Slovak Water Management Company and State Forests of the Slovak Republic), representatives of the local government (Office for the Environment, Land Office, Forest Office, Office of Labour, Social Affairs and Family) covering the Ondavka river basin. The conference was also attended by representatives of the media who work in the Zemplin region.

The opening conference presented analysis results and proposed solutions, schedule of activities, details of the project, the structure of technical support for the project and a summary of the study "Water for healthier climate in Ondavka basin", which consists of three parts:

- ANALYSIS OF DAMAGE TO THE COUNTRY

http://www.ludiaavoda.sk/data/files/75_analysis-of-damage-to-the-country.pdf

- TYPES OF MEASURES

http://www.ludiaavoda.sk/data/files/76_type-of-measures.pdf

- PROPOSED SOLUTIONS FOR FORESTED AND AGRICULTURAL LAND AND URBAN LAND

http://www.ludiaavoda.sk/data/files/77_proposed-measures.pdf

After the presentation and discussion, the municipal councils agreed on a resolution to adopt the proposed solutions. The working part of the conference resulted in an agreement by the eight municipalities on the need to start work on the implementation of the proposed measures in and around the involved villages in the summer months. Furthermore, the municipalities, in collaboration with the regional association of municipalities Ondavka basin, agreed to establish lists of potential people who were employed in the implementation of water conservation measures in the first phase by the end of 2013.

Participants expressed their opinion on the quality of presentations and the solutions proposed in a questionnaire handed out at the end of the presentation, whose results were processed are summarized in the questionnaire. The questionnaire was completed by 51 out of 93 conference participants (please see *http://www.ludiaavoda.sk/data/files/78_questionnaire-for-the-participants-of-the-opening-conference.pdf*). Participation list and photos from the opening conference please find in annex 7.2.2.

The original opening date of the conference was postponed by 1.5 months due to the need for further processing of the analytical part of the project, not to cast doubt on the resolution and complexity of the proposed solutions.

Part of the objective of the action was met at 100%, except for the number of participants in the Opening conference. We expected the participation of 100 or more participants. The Opening conference eventually attended 93 people. This was apparently due to the low interest of the local people about their environment.

Originally, the Opening conference was planned in the largest village of regional association Ondavka in Ohradzany. Eventually, however, it was moved to the neighboring village of Bresov that was not involved in the project. The reason was that Ohradzany did not have adequate premises and equipment for such a large conference.

The largest problem was to agree with the local foresters for permission to carry out a project in the forest. However, after discussion, we came to an agreement where we were committed to purchase the wood for the construction of water retention measures from local foresters. Thanks to this, we eliminated spending on transport of building materials.

The total cost of this event reached 73.5% of expected expenditure.

5.1.3 Action A.3: Education/training workshop

Expected results included the following:

1. An educated and more conscious local community as it pertains to integrated water basin management
2. Standardization of methods and techniques for implementing various measures across all involved communities
3. Local project workers and sub-contractors better informed and trained on the methods and techniques to be used for the implementation of the project
4. The emergence of a new water culture where local residents are taking their own initiatives protecting rainwater such as removing their drainpipe from their roof and redirecting it towards their gardens
5. Minimum of 90 participants

The action was completed in a sufficient extent.

The 1st August 2013 was the start date of the training course of 58 workers from the Ondavka basin, who began working on measures for the recovery of the climate in their community. The learning program was also attended by water masters and mayors of municipalities in which the project hydro-climate recovery is being implemented. Learning program consisted of four separate parts and lasted from 1st to 9th August, 2013.

The first part of education focused on lectures presenting the causes of local flooding, drought and climate change, and the degradation of ecosystems and sites in the outer and inner urban forest and agricultural country in general. The lectures are intended to provide the pupils with an understanding as to why it is necessary to revitalize the country, why is it necessary to retain water in the country in terms of environmental impacts (flooding, drought, climate change, biodiversity, preserving ecosystems), economic impacts (which means water in the country in terms of its production potential), cultural impacts (man's relationship to water and water effects on human behaviour), social impacts (job creation), safety reasons (flood protection). The water teams consisted of selected loggers who have undergone training and obtained an additional logger licenses.

In the second part of the training course, concrete measures proposed in Ondavka basin were presented as well as the scope of work, schedule, and management structure of the implementation process (on-site labour). Additionally, specific technical details such as safety precautions and procedures to be followed when working on site as well as guidelines for

implementing the various elements based on agreed upon best practices were also incorporated into the presentations. This training course included also a breakdown of technical, safety and security terminology and definitions as well as the locations being worked on, in order to provide an in-depth overview of the implementation process.

The third part of the training course was a practical hands-on implementation session on site at a chosen location in Ohradzany during which 5 specific water retention measures were constructed, which were then evaluated, and their quality deficiencies observed and addressed. After completing these particular solutions, graduates were divided into 8 teams, which then began to implement the adaptation measures in selected areas of their communities. The final day of training water teams presented the implemented measures in a joint session, during which an assessment of the quality of work, performance and compliance with work safety took place.

From 15th August 2013 water teams worked on implementing adaptation measures in their municipalities under the supervision of water masters and coordination team, which monitored the progress of the work. Work on the measures was implemented gradually to 15th December 2013, when there were joint sessions with the presentation of the results obtained.

Participants expressed their opinion on the quality of training in a questionnaire handed out at the end of the presentation, whose results were processed are summarized in the questionnaire. The questionnaire was completed by 54 out of 58 hydro workers.

http://www.ludiaavoda.sk/data/files/79_questionnaire.pdfthe

The second round of training for the workers took place on 3rd April 2014. The session saw the participation of both existing and new workers. The main focus was to reiterate safety procedures to existing workers as well as train new workers on safety procedures when working at the construction zones. Additionally, methods and techniques for effective implementation were also covered as well as the objectives of the project. The training seminar took place at the same place and it was conducted by the same lecturers as the first round. Participation lists and photos from training workshop please find in annex 7.2.3.

As we expected 90 participants as minimum, the objective of this action was exceeded as we had 114 participants in total. However, as we have not been able to get co-financing for the project, we hired the workers through the Labor Office. Thanks to the program of the Labor office for hiring unemployed people, we spent only 20% of the foreseen payment to the workers. The remaining 80% was paid by Labor office. Resources that the Labor office had for this program consisted of 20% from the state budget and 80% from the European Social Fund. Labor office had strict criteria for recruitment into the program, and the region where

the project was implemented following conditions suit only 56 candidates in 2013, and 58 candidates in 2014.

Expenditure on the action reached 44.3% of the planned expenditure.

5.1.4 Action B.1: Construction of water retention ponds, flow control barriers, rainwater gardens in selected areas and the re-cultivation of old logging roads

Expected results included the following:

1. Tangible differences in the given environment. Tangible aspects include 20 retention ponds (fish ponds), 150 flow control barriers, 35 rainwater gardens and 7 km of re-cultivated logging roads;
2. Residents and other interested people will markedly notice the difference once they sight the amount of water captured by these various structures; This water is central to maintaining a stable and healthy climate, environment and hydrological cycle;
3. Each municipality will retain a certain amount of rainwater in their various structures based on the data gathered from the location selection phase;
4. A spur in vegetative growth will add to the aesthetic appeal of the area. Since these marked differences are difficult to quantify directly, before and after photographs will be taken of all the selected locations and their surroundings in order to visually compare the differences in the environment before rainwater retention structures and after rainwater retention structures. These images will be made available on the website as well as in the final manual and layman's report;
5. Growth in the local economy from the harnessed labour force is another expected result. Unemployment in the communities ranges from 5 persons to 46 with a total of 162 unemployed (numbers may change overtime). Throughout the implementation phase, this number will be greatly reduced. 88 new jobs will be created throughout the duration of the project.

The action was completed in a limited extent.

One of the most important parts of the project was the participation of communities in the restoration of damaged sites. Local communities should deeper understand the context of remediation of the country thanks to their direct and active participation. Therefore, in agreement with the partner (Association of Ondavka Municipalities) and in cooperation with the Office of Labour in Humenne city, we chose in 2013 the 56 unemployed people. After the

training course they were working on the implementation of different types of water retention measures throughout five months (August – December 2013).

In 2014, the fieldwork was launched by April. In cooperation with municipalities and the Labour office we selected 58 unemployed people who worked in eight teams in 8 municipalities in the period of 6 months (April to September 2014).

During the eleven months period, together 114 people worked in 8 in teams (one team in each village) who implemented 1148 flow control barriers (150 were planned), 7 rainwater gardens (35 were planned) and re-cultivated 1 km of logging roads (7 km were planned), with water retention capacity almost 21,300 cubic meters, in the damaged parts of the country. While the plan for technically more simple water retention measures was significantly exceeded, the more technically and financially demanding measures (retention ponds and rainwater gardens) could not be constructed in the foreseen extent due to the refused co-financing and consequent early termination of the project.

In parallel with the implementation of water retention measures we carried out monitoring, control and we registered the retention sites in the coordinate system GPS. From this database we then created a map that is freely available on the web site of the project (*http://www.ludiaavoda.sk/69-sk/aktuality/*) in the format of Google Earth application with photos of all implemented measures.

This action ended in September 2014 but we have not reached the target for 100%. Due to lack of resources, we had to stop it.

It was created 1148 objects of water retention measures by the physical volume of 21,300 m^3. It is a measure constructed by cyclic retain rain water in ecosystems to enhance its infiltration into the soil and slowing it down runoff from the damaged landscape , without which the rainwater drained away quickly and contributed to flooding. From expert estimates based on us while the volume of water retention capacity is actually higher, because retention of rainwater in water conservation measures and increasing the infiltration of water into the soil. Therefore, water retention capacity of completed measures is estimated higher by about 30%. Thus, the cyclic water-retention capacity is about level 28.000 m^3 . Characteristics of precipitation in the region Ondavka say, that the runoff from intense rainfall occurs five times or more per year. Some of our goals have been exceeded several times. During the project it became clear that small wooden dams are most effective, financially and purpose. So we decided to create them, as many as possible.

Expenditure on the action reached 39.5% of the planned expenditure.

5.1.5 Action C.1: Monitoring and determining the effectiveness of applied measures in entire area and networking with other LIFE+ projects

Expected results of monitoring actions included:

1. Collection of data and documents ready for dissemination to the general public in Slovakia and the wider EU;
2. Information and data to be processed, edited and used for the publication of obligatory reports for LIFE+;
3. Confirmation of stated project outputs such as the retention of 120,000 cubic metres of water;
4. Monthly collection of thermal images presenting the gradual changes in local temperatures. Minimum 6 pictures per site;
5. Total of 48 documents containing monitoring results;
6. New networking partnerships with representatives of previous LIFE+ projects.

The action was completed in a limited extent due to early termination of the project.

Monitoring and determining the effectiveness

Name of this action is Monitoring and determining the effectiveness of applied measures in entire area and networking with other LIFE+ projects. In the monitoring and networking part we had a series of meetings with experts and another LIFE+ team. The first one in the category monitoring took place as a meeting of monitoring experts where was the monitoring method created.

The first series of monitoring missions was conducted from September 2013 to February. 2014. In this period were conducted 14 monitoring missions carried out by two monitoring experts. Monitoring sessions have taken place to observe and document the effectiveness of the implemented measures as well as any immediate changes to the surrounding environment.

Second part of monitoring was conduced from November 2014 to December 2014, it included 16 monitoring missions. Monitoring involved direct field work, meaning that the monitoring team monitored rainwater run-off during and immediately after precipitation. Sedimentation building in the small dams were observed and documented. The immediate results of the implemented measures include less mud/sad building at the bottom of logging roads and agricultural roads. Sedimentation build-up in the dams is also a noticeable difference as the dams capture sedimentation runoff thus slow down water runoff as well.

The result is a database of the measures implemented in the field, map and photo documentation of the measures implemented, which is freely available on the project website *http://www.ludiaavoda.sk/69-sk/aktuality/.*

The database contains the type of measure, its dimensions, information on the presence of water, soil moisture and water retention capacity. All photos, maps and database with implemented measures please find in annex 7.2.6.

When the project proposal was created, we were planning the monitoring with thermal camera. By the pictures from thermal camera we would be able to prove the cooling of the environment (how many degrees) in area where the project was implemented.

Unfortunately, due to problems with co-financing we decided to postpone buying the thermal camera. At the end we did not buy any in order to save money for other field works.

Out of the planned 48 monitoring missions only 30 were carried out because of early termination of the project. This was sufficient for assessing the reached results in the given period of time.

Networking with other LIFE+ projects

Networking with like-minded organizations continues even after termination of the project. Best practices sharing and lessons learned sharing is a key part of networking.

The project team held two meetings with the organization BIOMASA. Both of them took place in BIOMASA organization at Kysucky Lieskovec. First meeting was on 15th April 2013 and the second one was on 26th April 2014. BIOMASA organization has carried out several successful LIFE+ projects. The aim of the meetings was exchanging experience in managing LIFE+ projects, exchanging know-how and also a presentation of the project.

After a working meeting with the association of BIOMASA resulted in an agreement to carry out joint lectures for high school students. In lectures, that are part of the project SMAPUDE_LIFE +, is linking relationship between water, energy and carbon, as the three basic components of photosynthesis, the basis for biomass production. Lectures are faced with great response and on promoting innovative technologies for the development of green infrastructure based on renewable energy sources. While held 18 lectures at 18 secondary schools with more than 600 students.

(see *http://www.ludiaavoda.sk/data/files/105_20140626_biomasa_kravcik.pdf*)

Participation lists please find in annex 7.2.5.

Expenditure on the action reached just 8% of the planned expenditure.

5.1.6 Action D.2: Closing conference outlining the milestones, successes and lessons learned

Expected results included the following:

1. Results and outcomes of project will be presented showcasing the effectiveness of using water for improving the climate and mitigating climate change of a given region;
2. 130+ attendants.

This action has not been started due to early termination of the project; we did not spend any money for this action. However, the results and lessons learned will be shared with interested stakeholders by publishing the Final report of the project on the website and by expert meetings.

5.2 Evaluation

Methodology applied

We estimate that constructed water retaining measures are raising water reserves level in basin to approximately 140.000 m^3. We also estimate that about 2/3 will evaporate through vegetation and 1/3 will replenish subterranean water reserves which will also increase carbon sequestration. Measurements taken in similar project in Slovakia (Levoča mountains region - geological and hydrological conditions similar to Ondavka basin - circa 5.000 m^3 capacity of water retaining measure is capable to produce 1 lps of spring water on average). If this hold also for Ondavka basin, it is possible to assume that realized water retaining measures in Ondavka basin could produce circa 5.6 lps. On the basis of our data we are concluding that this is one of the key reasons why this project is not supported by Slovak Ministry of Environment. Slovak ME orients itself exclusively on high cost water management solutions and any cheaper alternative options could threaten financially demanding investments funded from public finances, it would be hard for state agencies not to accept these alternatives especially if information mentioned above should be obtained by ministry. Despite the fact that exact data concerning the interaction between water retaining measures increase and hydrological regime of the whole basin together with particular outflow areas will not be obtained because the project was prematurely stopped, it is possible to establish that effected measures are highly significant for flood and drought prevention. As a consequence there is another positive outcome in form of heightening of solar energy consumption thanks to water

evaporation increase into the atmosphere and the reinforcement of carbon sequestration thanks to increased photosynthesis. We can approximate that by increased evaporation the annual consumption of solar energy will be circa 60 GWh, which is highly significant factor in terms of thermoregulation and climate protection. If the project was completed, exact data acquired from the project could be important addition in discussion concerning climate restoration processes solution. Unfor We estimate that constructed water retaining measures are raising water reserves level in basin to approximately 140.000 m^3. We also estimate that about 2/3 will evaporate through vegetation and 1/3 will replenish subterranean water reserves which will also increase carbon sequestration. Measurements taken in similar project in Slovakia (Levočské vrchy region - geological and hydrological conditions similar to Ondavka basin - circa 5.000 m^3 capacity of water retaining measure is capable to produce 1 l/s of spring water on average). If this hold also for Ondavka basin, it is possible to assume that realized water retaining measures in Ondavka basin could produce circa 5.6 l/s. On the basis of our data we are concluding that this is one of the key reasons why this project is not supported by Slovak Ministry of Environment. Slovak ME orients itself exclusively on high cost water management solutions and any cheaper alternative options could threaten financially demanding investments funded from public finances, it would be hard for state agencies not to accept these alternatives especially if information mentioned above should be obtained by ministry. Despite the fact that exact data concerning the interaction between water retaining measures increase and hydrological regime of the whole basin together with particular outflow areas will not be obtained because the project was prematurely stopped, it is possible to establish that effected measures are highly significant for flood and drought prevention. As a consequence there is another positive outcome in form of heightening of solar energy consumption thanks to water evaporation increase into the atmosphere and the reinforcement of carbon sequestration thanks to increased photosynthesis. We can approximate that by increased evaporation the annual consumption of solar energy will be circa 60 GWh, which is highly significant factor in terms of thermoregulation and climate protection. If the project was completed, exact data acquired from the project could be important addition in discussion concerning climate restoration processes solution. Unfortunately this is not the case and we will have to wait until politicians are more generous in their thinking about given problems. In any case, NGO People and Water will continue to search for financial means among those who are showing enough good will in helping to solve problems of water, biodiversity of ecosystems and climate protection.

Task	Foreseen in the revised proposal	Achieved	Evaluation
flow control barriers	150	1,148	765%
rainwater gardens	35	7	20%
old logging roads	7 km	1 km	14%
water retention ponds	20	0	0%
Unemployed local residents will be directly targeted by the project	80	112	140%
Expected retention of water	120 000 m^3	21 299 m^3	Retention 28 000 m^3 for immediate rainwater harvesting during torrential rains and 140 000 m^3 for rainwater harvesting per year

5.3 Analysis of long-term benefits

5.3.1 Environmental benefits

Direct / quantitative environmental benefits

Rainwater harvesting in the country starts the process of restoration of damaged land. The basic principle is that retained water in damaged ecosystems intensifies chemical and biological processes, resulting in a richer vegetation - intensive processes of photosynthesis and the related intense sequestration of carbon in vegetation. Unfortunately, in this case we have to say that is a great pity that they will be not monitored and evaluated specific knowledge of how to revitalize the country. Already during the implementation of the project have experienced extreme torrential rainfall, which already tested implemented water retention meaures very successfully. From the mayor and citizens of the municipalities were very positive feedback. They noticed that in similar heavy rainfall in the past, there was a relatively localized flooding and significant risks erosion.

The assessment shows that the realized water retention measures can keep annually about 140,000 cubic meters of rain. The retained water contributes to the fulfillment of ground water in a ratio of about 1/3 and about 2/3 participates in the evaporates through vegetation and causes a thermoregulatory effect. That means that the implemented measures that can to retain 21.300 m3 of rain water is once retained about 28.000 m3. Every year is about 140 000 m^3 reteined rain water, of which is evaporated, about 93,000 cubic meters, causing a loss in production of about 65 GWh of sensible heat to the atmosphere. This also contributes to the sequestration of carbon in biomass, by the enhanced photosynthesis.

Relevance for environmentally significant issues or policy areas

Project opens up a number of topics with a positive contribution to sectoral policies that enhance the participation of local communities in the implementation of the Water Framework Directive, enhanced landscape management by local communities, which has social, economic and environmental dimensions. The project opened up possibilities for participation of stakeholders in addressing environmental problems, flood prevention, drought and climate change. This is perhaps the most important contribution of the project, which would be useful to develop not only in Slovakia, but all EU countries. This means that the project contributes towards the implementation of the Water Framework Directive, the EU policy on climate protection, soil conservation and biodiversity and develop local economies.

During the implementation of nature-friendly water retention measures it demonstrates, that the principle of agrarian policy should encourage farmers to leave the rainwater directly in agricultural land.

5.3.2 Long-term sustainability

Long-term / qualitative environmental benefits

The greatest environmental benefits, which is already proven is that when torrential rain there is a similar flood risk assessment as it stood before the project implementation. The country now remains more water, thereby significantly increasing the intensity of photosynthesis and thus carbon sequestration in biomass. Also, significant environmental benefits are also eco social change in the communities in implementing the project. Increasing their sense of safety and community perceptions of realized project very positively. The largest expected results already in the near future will be strengthened and the water storage capacity of the country, the unfolding biodiversity and nature protection.

In the long term scarcity of natural resources it threatens sustainable development. It is therefore urgently necessary to start innovative technologies that bring a turn in degenerative trends of loss natural resources and the growth of environmental risks. It is high time to test new innovative technology in green infrastructure and subsequently put into practice, particularly at the community level. The solutions that have been applied in the project have just this character. Another important technological contribution is an innovative methodological approach, which is the opposite of the existing principles of drainage water at the time of the flood, and thereby increasing flood risks, drought to watering ecosystems with active participation of local stakeholders in the management of landscape development.

Long-term / qualitative economic benefits

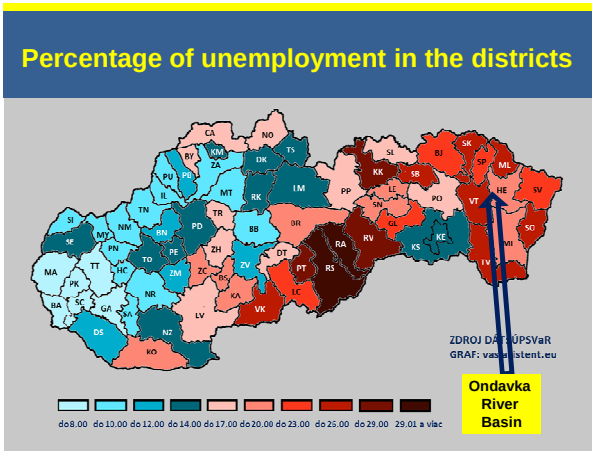
As the process of drying damage to landscape degradation processes by man is running, so it is possible to start the process of recovery of the country. The degradation and therefore the recovery processes is very slow and not spontaneous. We expect that the measures undertaken to achieve the recovery of damaged ecosystems countries within 8-10 years. It is therefore very urgent task these processes researchly observed, that EU Member States have specific experience how these processes in time and space work and how they can be implemented. Although Slovakia is surprisingly large disinterest on the part of national

competent bodies to such solutions, it is urgently necessary that similar projects could be launched in other EU countries, that there are concrete examples of good practice recovery of damaged landscapes and thus tested the impact of holding the rainwater in ecosystems for the recovery process of climate change.

Revitalisation of the damaged landscape has not only the positive environmental impacts but also significantly contributes to regional economic development. Direct engagement of local communicties, as proved by the implemented project, can directly and indirectly reduce the unemployment rate in the rural areas. Preventing the periodical floods either increases security of economic activities and saves both private and public money for repairs of the damaged infrastructure.

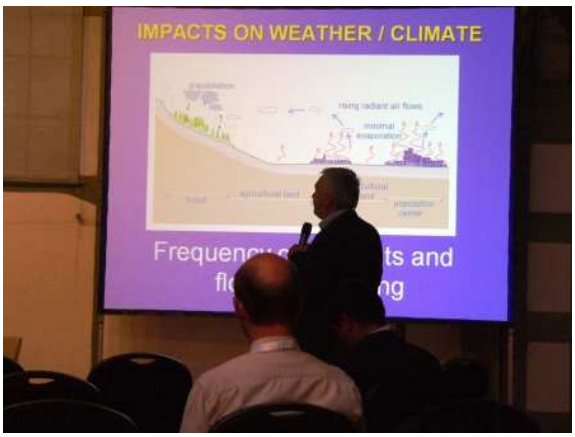
Long-term / qualitative social benefits

Project implementation brought up some topics which could serve as a challenge for quantification of know-how, for logistic adjustment of involvement of people in impoverished regions during damaged land revitalisation even beyond the state borders of Slovakia as one of the key tools for eco-social politics development in EU countries. It is apparent that many EU regions suffer from extensive droughts, floods or extreme temperatures, decrease of biodiversity and numbers of unemployed people, the case from Ondavka could be concrete example how to do it. Even if the project is incomplete, it gives us fairly valuable example that it is possible, above all active involvement of communities in problems solution. Slovak government is pleased with each 10 newly created job opportunities. 58 local, formerly unemployed people worked in field for 11 months on this project which was marginalized by SR government and Ministry of Environment. We want to note that according to analysis done at the beginning of the project, the main reason of emigration from region in discussion is lack of job opportunities. Project proved remarkable fact of significant interest of local citizens to work on damaged land revitalization for minimum wage. Not to mention acquirement of working habits and new skills and knowledge which can help people who are involved to get better chances in labour market. Regular monitoring pointed out significant opportunities as to how to create new job opportunities during green infrastructure development in all EU countries.



5.3.3 Replicability, demonstration, transferability, cooperation

Partial results of the project were presented on number of important forums abroad (Czech Republic – Water in Land - 2013, 2014, USA – Summit of Indigenous People held in South Dakota - 2013, and the team presentation of senator Pavley from California - 2014, Tunisia - Wold Social Forum, South Korea - Green Asia Forum, Portugal - International Water Symposium in Tamera) and were met with great interest. Problems of natural disasters, lack of water, alarming droughts, degradation of soil and biodiversity, environmental emigration anywhere in the world have the same basis: shortage of water. From this perspective it is possible to apply experience acquired in Slovakia to any EU or world countries which are suffering from water shortage or regular floods.



Water Summit Budapest presentation (October 2013)

Norway Water and Energy Directoriat on Ondavka River basin

Representative of NWE on monitoring

Flowers for the Future from France in Ondavka R.B. (oct.1013)

Prof. Mooyung Han from S. Korea in BA (Dec. 2013)

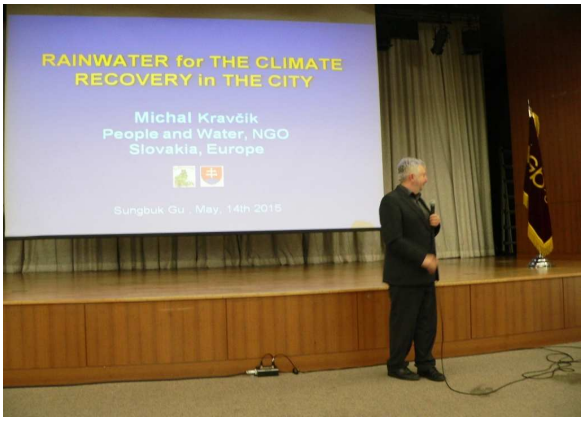
Meeting and presentation with senator Pavley from California (may 2013)

European Parliament Young for Water SK (august 2014)

Presentation on World Social Forum in Tunis (april 2015)

Presentation of Green Asia Forum (may 2015)

Seoul University (may 2015)



Seoul municipality presentation (may 2013)

Kengwon University presentation (may 2015)

The Flow Partnership and Schumacher institute England visited restoration project (may 2015)

Presentation on International Water Symposium in Tamera Portugal (June 2015)

5.3.4 Long term indicators of the project success

Despite adversity and incomprehensible obstructions from the side of competent authorities in Slovakia, subject proposed by the project is prospective. Land water retention will be one of the key themes of solution not only of environmental, but also of social and economic problems of Europe and of the world. It is becoming pressing task in face of mass migration of people from parched regions of Africa as well as of Middle East to Europe. It will become important to restore damaged and parched regions of the world exactly by water retention in all of those places with heavy rains occurrence at least once a year. With all modesty, our project offers an answer to all these problems and we would like to thank European Commission for its support in spite of the risk stemming from the fact that Slovak side did not express enough interest and good will to support the project. This is the reason why NGO People and Water is not giving up this idea and at the moment we are cooperating with several institutions in European countries and USA on spreading results to other parts of the world in global action plan to renew small cycles of water and climate. This year we want to present this plan on number of international forums, above all on Climate Summit in Paris. This is why we are putting all of our efforts to continue the project through our partners abroad so that work which has been done up until now will continue to develop and brings about knowledge concerning community activation in revitalising climate not only in Slovakia but in the whole world. For this reason we have prepared, in cooperation with Ondavka Association, long term indicators which allow us to observe first and foremost the impact on flood prevention (rain falls measurement, water levels monitoring in Ondavka), because the problem of floods is most pressing one in this region. Results of the project are

now transposed to other parts of Slovakia, above all to regions with local floods. On the basis of our experience from Ondavka basin they worked out local floods causes analysis and proposed solutions in village Košeca (Považská Bystrica county), in village Gánovce (Poprad county), in village Skalité (Čadca county), in village Čirč (Stará Ľubovňa county) a preparations are made for projects in Brezno (Brezno county), in microregion of stream Pečovská Nová Ves and in chosen ... of quarter (Kuzmány neighborhood) in Košice. Initiative "Three Rivers One Future" has been born on the backdrop of this project on the first work meeting of "Integral development of Spiš and Šariš Action Plan (*http://www.ludiaavoda.sk/104-sk/posolstvo-z-1-pracovneho-stretnutia/*). Česká Ves in northern Moravia is working out the project and at the moment there is project study development for employment of long term unemployed citizens for village Supikovce in northern Moravia on which we are actively cooperating. Study is funded by the Office of the Government of Czech Republic. Initiative MniWater from Indian reservations in South Dakota (Cheyenne Sioux Reservation) is taking over experiences from Slovakia. Poor Indians followed our example last year and effected nature friendly water retention measures and this year their initiative continues (*http://mniwater.org/2015-camp/*).

5.4 Dissemination issues

The project aimed to revitalize the climate through an integrated rainwater retention ecosystemsy in Ondavka basin using various methods and techniques. Building small dams, reclamation of forest roads, building rainwater gardens, ponds for prevention of rainwater run-off with positive effect of preventing floods, droughts, erosion and mitigate the negative impacts of climate change.

Dissemination of project approaches and results should support replication of similar water retention measures in other endangered regions in Slovakia and internationally as well as increase interest of all stakeholders in environment and climate protection, and contribute to sustainable regional development.

5.4.1 Dissemination: overview per activity

5.4.1.1 Action D.1: Development and publication of a manual titled "Revitalizing the climate in my region"

Expected results included the following:

1. Manual entitled "Revitalizing the climate in my region" made available in 1500 copies presenting the possible options on improving the climate of a region;

This action even has not been started; we did not spend any money for this action. However, we share the results and approaches of the project both with general public and experts by other means (website, contributions in media, meetings and excursions to the implementation sites).

5.4.1.3 Action D.3: Development of press release, webpage, layman´s report and information board

Expected results include the following:

1. 1500 copies of 6-10 page layman's report available in both English and Slovak (total 3000 copies combined);
2. 8 newspaper articles published in regional newspaper over a 4 year time span;
3. 16 information boards outlining the project details (2 per municipality);
4. Inception report within 9 months of project start;
5. Active website within the first quarter of project start date.

One of the important parts of the project is the dissemination of information about the project. The action was completed in a limited extent but there was a wide information campaign both at national and international level.

Press releases, media outlets and dissemination of information

- Press release published on 21st March 2013 provided general information about the project *http://www.ludiaavoda.sk/data/files/49_tlacova_sprava_lav_21mar2012.pdf*
- Press release published on 15th May 2013 provided about opening conference *http://www.ludiaavoda.sk/data/files/115_tlacova_sprava_lav_16maj2013.pdf*

- Press release published on 19th December 2013 provided about progress in project *http://www.ludiaavoda.sk/data/files/117_tlacova_sprava_lav_19dec2013_mk.pdf*
- Press release published on 27th December 2013 provided about progress in project *http://www.ludiaavoda.sk/data/files/118_tlacova_sprava_lav_27okt2014-1.pdf*
- General info about the project on EcoWeb *http://www.ecoweb.info/1501_revitalisation-climate-driedout-communities-eastern-slovakia-hydroclimate-recovery*
- Masaryk Democratic Academy organized on 23rd September 2013 seminar entitled "Retention of water in the country" (*http://www.masarykovaakademie.cz/index.php/poradane-akce/947-retence-vody-v-krajine*), where the skills with concrete solutions of recovery the climate including solutions applied in this project were presented (*http://www.ludiaavoda.sk/data/files/108_20140923_praha_spidla_kravcik.pdf*).
- Norwegian State Water Management Company (NVE) visited from 14th to 18th October 2013 some localities in Slovakia where the water retention measures were implemented. On 15th October 2013, they visited directly the localities of project implementation. The visit was to observe the constructed measures and to carry out the interviews with people working directly on the action as well as it included a joint meeting with the mayors. The results of the visit are presented in a report NVE. *http://webby.nve.no/publikasjoner/rapport/2014/rapport2014_28.pdf*
- Part of the visit was also France producers from the company "Flowers for the Future". The reason was preparing journalistic movie about experience of climate recovery in Slovakia.
- Movie is not completed yet.
- NGO People and Water in collaboration with the NPOA and the Centre for the Development of Public Administration organized on 17th October 2013 a conference entitled "Recovery of the landscape and current opportunities for rural and urban areas", where the pilot experience of towns and villages in the recovery of damaged landscape was presented. *http://www.npoa.sk/uploads/File/pdf-doc/konferencia_levoca_pozvankaaprogram.pdf*
- At the conference, the first results of the LIFE+ project were presented by Mrs. Valeria Melnikova, Head of the Association of Ondavka Municipalities.
- NGO People and Water NGO in collaboration with the NPOA organized on 5th October 2013 an expert seminar about "Korea and Central European experience with water

retention in the country" *http://www.npoa.sk/uploads/File/pdf-doc/pozvanka_seminar_20131105.pdf*

- The seminar was intended for representatives of the government and responsible staff posts responsible for the environment. The seminar exchanged experiences from the Czech Republic, Germany, Slovakia and South Korea. We presented the results of the LIFE+ project.
- From 7th to 10th October 2014 the World Water Summit was held in Budapest. In the section Civil Society Forum on the topic Good water Governance *http://www.budapestwatersummit.hu/budapest-water-summit/civil-society-forum/draft-programme-schedule-of-the-civil-society-forum-292/?param[search]=kravcik* we presented the experience with water retention measures also implemented in the LIFE+ project. 700 pieces of leaflet about general information about the project was distributed there.
- In March 2014, the Ministry of Environment prepared a governmental program of adaptation to climate change, approved by the Government. The government document includes a reference to the measures realized by our LIFE+ project. *http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=23364*
- Documentary movie about LIFE+ project *https://www.youtube.com/watch?v=mBUT8jY3qZc* *was* broadcasted 79 times in regional Zemplin Television.

Web page

In this action we made a functional web page that is mirroring the progress of our project. This page is the part of our NGO home page – *www.ludiaavoda.sk*. The direct address to the project part is *www.ludiaavoda.sk/51-sk/projekt-life/*.

The project part of webpage is bilingual, in Slovak language and also in English. You can find there the main information about the project (project framework, implementation area, budget and EU contribution, project team, project goals, main activities and expected and reached results).

Also you can find there the schedule of project realisation, project proposal, links to web pages of the municipalities involved in the project, the photo gallery and information about progress of the project.

Information board and leaflet

Information boards were created and placed at municipal offices and at our office. You can find the new design of information boards in annex 7.3.1. Information boards contain project name, reference number, duration of the project, and implementation area. There is also direct and clear information about EU contribution, with LIFE+ logo, People and Water logo, and signs of municipalities involved the project. The total number is 16 as foreseen.
Leaflet was created in 1500 copies in Slovak language and in 1500 copies in English language. The leaflet on 2 pages briefly describes general information about the project. Leaflet is used to present the project on the conferences, seminars, etc. Design of the leaflet is provided in annex 7.3.1. For the presentation of the project we also designed the pen and notepad with LIFE+ logo. Also the working equipment and the protective aids were labelled by LIFE+ logo. Design of the promotional items is documented in annex 7.3.1.

Part of the objectives of the action was met at 100%, except for the number of press releases. Only four press releases were published out of 8 planned due to early termination of the project.
Expenditure on the action reached 39.5% of the planned expenditure

5.4.2 Layman's report

Summary of project scope and objectives

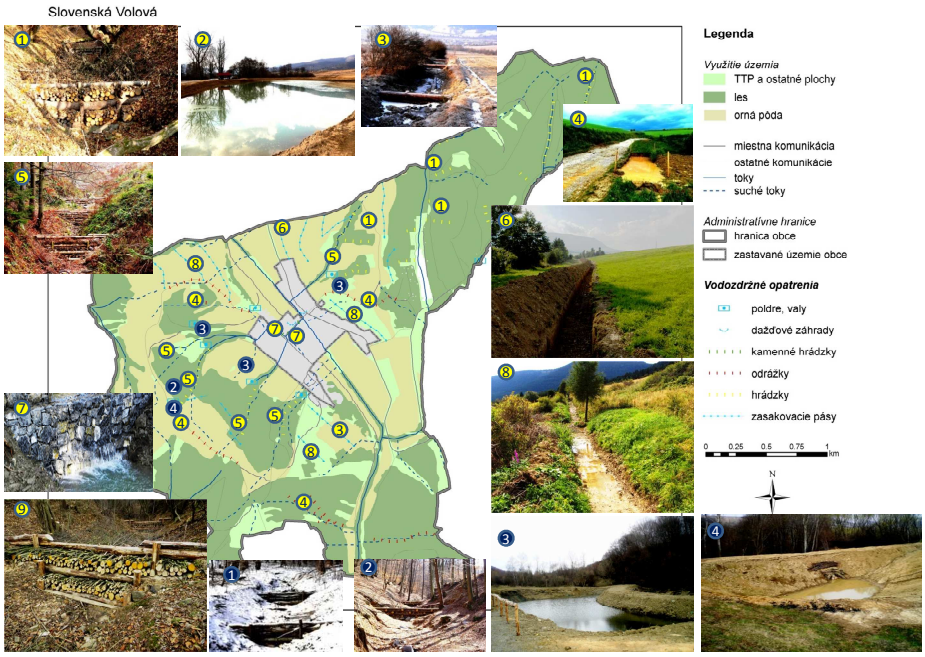
Aim of this project rests on realization of innovative and demonstrative project of climate revitalization trough rain water retention in Ondavka basin. Integrated protection of water measures in Ondavka basin involved those types of measures which will reinforce the rain water retention in damaged parts of the forest and agricultural as well as urban areas trough water retention elements. Water retention elements are able to cyclically retain and slow down outflow of rain water from forest, agricultural and urban areas and thereby reduce flood and erosion risks as well as risks of drought and climate change. Necessity of water and its decrease in damaged structures of land is serious handicap to sustainable development, regions and whole states with serious degradation of the whole chain of environmental functions of ecosystems. Negative impacts of land industrialization could be reduced thanks to measures which could proof to be significant contribution in integration of local

communities into building of water retention measures in damaged land structures for flood, drought and climate change prevention.

It was a significant aim of the project to increase public involvement in damaged land revitalization. Interconnecting of environmentally and socially innovative solutions is providing us with opportunity to contribute more actively, more effectively and more integrally to environmental risks elimination and at the same time to reinforce environmental and economic interests of villages with local economic support on the basis of green infrastructure. Green infrastructure construction right at the level of communities can be much more effective in solving floods and droughts prevention than contemporary technical and engineering solutions. Green infrastructure can be an important contribution to environmental safety and social justice. In time of heavy rains green infrastructure is able absorb surplus water and to release this water during droughts. This involves whole series of measurements – starting from water meadows, water retention elements in forest and agricultural lands damaged by floods to new technological solutions of rain water collecting and it's recycling in urban areas of cities and villages.

Description of the techniques/methodology implemented and the results achieved

There are three types of measures effectuated in the process of project realization. First type of measures is for the most part built up in forest ecosystems. Next are measures implemented in agricultural countries and lastly measures which are implemented in urban areas of towns. In forest ecosystems mainly small wooden dams were built inside ravines and erosion furrows. These kinds of measures have highest gross retention capacity and are most prevalent. In agricultural land mainly indents on roads were built to disperse outflow of water to undergrowth in forest ecosystems and to grassy vegetation in agricultural land. In urban areas of towns activity was focused on creating rainfall gardens for collecting rain water from roofs and reinforced surfaces and enabling rain water to percolate and evaporate. Thanks to this project a systematic method was developed concerning evaluation of damaged land, how to quantify damaged land influence on outflow creation and formation of flood risks and risks of droughts as well as how to effectuate renewal of damaged land by way of water retaining capacities.

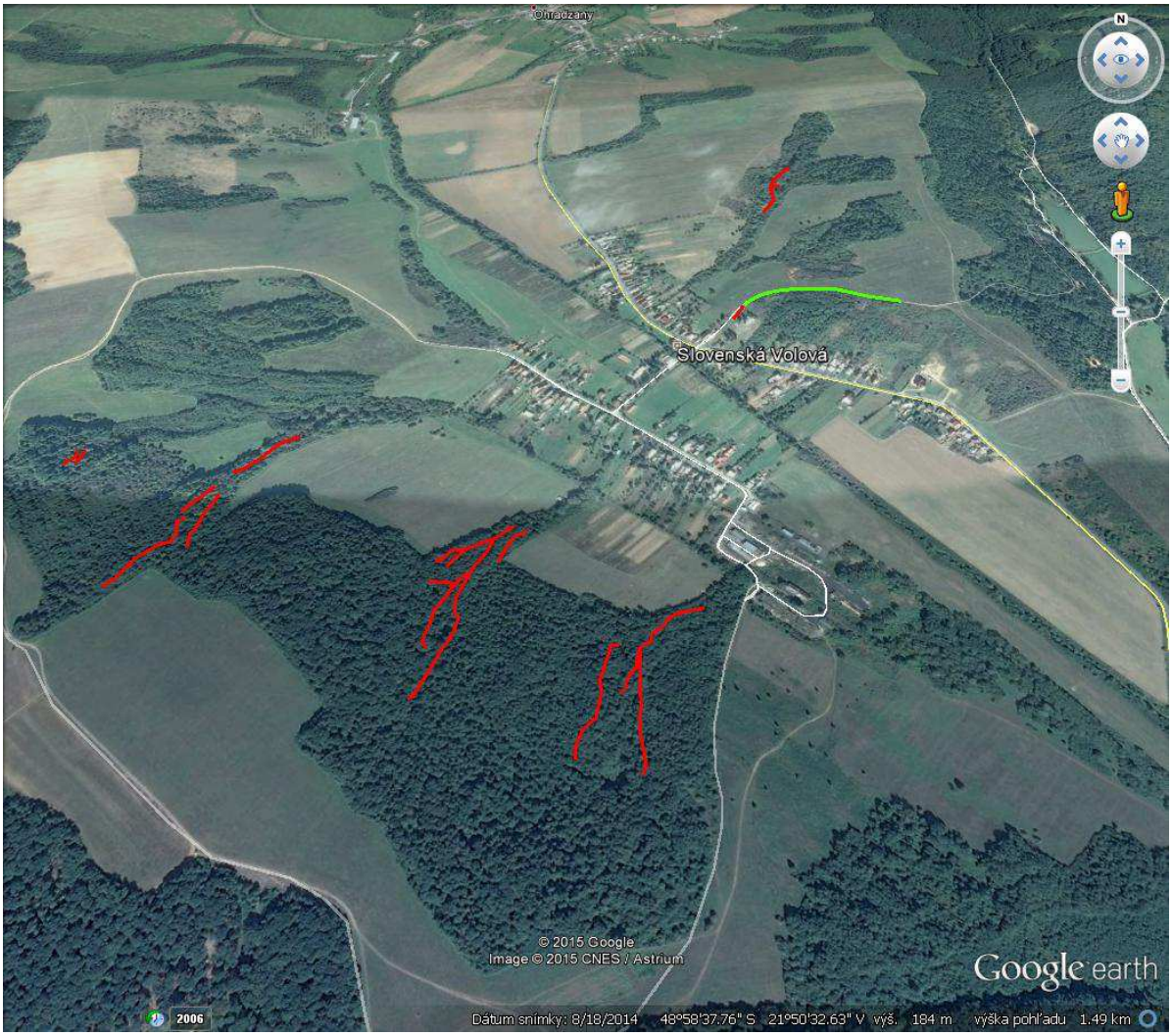


Based on this principle analysis of state of damaged land was performed in first part of project realization followed by preparation of technical, capacitive and logistic conditions for realization of particular water retaining elements and subsequently by realization of measures on the ground. Structure of responsibility based on this logic was developed relating to individual parts of the project and resulting structure of people looks like this:

1. Water ambassador – person responsible for environment analysis, solution proposal, and definition of labour logistic of fieldwork and monitoring of work performed - on the whole there were 4 water ambassadors in the project.
2. Water foremen – person responsible for fieldwork realization and for the quality of performed work - on the whole there was 5 water foramens in the project
3. Water worker – person responsible for manually carrying out measures in field – on the whole there was 114 water workers in 8 villages of Ondavka basin.

Above mentioned structure of people has provided the project with realization of 1,187 water retaining measures - in ravines, on forest roads or in urban areas of towns, which are able to disposably and cyclically retain more than 28 thousand m^3 of rain water and by this way to return more than 140 thousand m^3 of water into small water cycles, from which 2/3 will be used on water evaporation, this also reduces perceptible heat production into atmosphere through vegetation and approximately one third will contribute in replenishing soil and subterranean water reserves inside land structures. Other activities were parts of aims related to fulfilment of the project.

Google maps show those places which were provided by water retaining measures. All the objects where localized in the system of coordinates of given municipality register. Register of the village Slovenská Volová demonstrates land structures provided with water retaining measures. Red lines designate places with indents in ravines. Green lines designate revitalized roads.



Each of the water retaining measure was detected in GPS system in field and is available in Google maps. The same was done for the whole region. We are stating individual measures right in the map as they were monitored and detected in GPS system into Google maps as well as summary number of measures as they were realized in 2013 in the whole area.

Assessment of the benefit and impact

Rain water retention launches chemical and biological ecosystemic renewal processes and reinforces photosynthesis intensity. Thanks to this the vegetation in nearby zones which were provided with measures is secured with enough water to avoid water stress (water shortage). Approximate annual growth of water in small water cycles thanks to water retaining measures is circa 140 thousand m^3. These renewal processes effectuated by realized measures have positive influence but were never measured. It was proved by research during similar nature renewal project where forest ecosystems in Tatra National Park (2014) were damaged by wind disaster that water retaining measures positively influence vegetation diversity and vitality of small animals in ecosystems.

We presuppose that water retaining measures in Ondavka basin have similar effects. However this can be proven only by serious research which did not took place. Inasmuch as it is not possible to continue with project it is not possible to attain the exact results. It is nevertheless necessary to work on it from long term perspective.

Cost-benefit discussion on the results

Most significant contribution of the project is active participation of local communities on water retention measures realization. Creation of job opportunities during green infrastructure realization is bringing along number of social and environmental opportunities but also economic benefits. Premature halting of the project prevented us to quantify some parameters but even now it is evident that rain water retention in lands damaged ecosystems is dealing not only with local floods prevention but also contributes to water reserves creation, reinforcement of photosynthesis and trough this to carbon sequestration in biomass, water evaporation increase through vegetation, natural thermoregulatory processes. Simply put, land with reduced presence of extremes is becoming more attractive, safer, more competitive and socially more interesting.

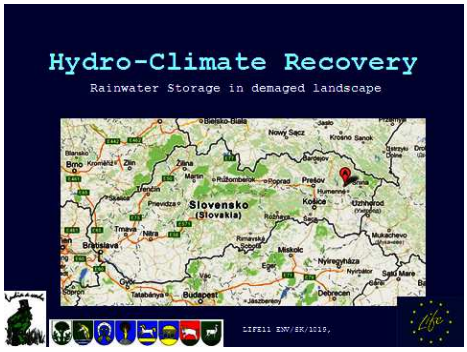
Transferability of project results

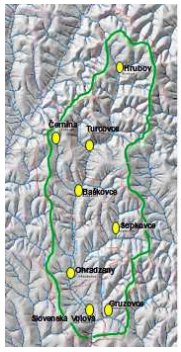
Partially accomplished project is informing us about the fact that rural regions of Slovakia and EU offer a possibility to realize ecosystemic protection of waters thanks to active participation of communities in protection, revitalization of waters and of whole ecosystems. This can contribute to climate change adaptation. Our analyses are telling us that it is quite possible to create nationwide programs of employment of long term unemployed by integrating them in damaged land revitalization. By this we can promptly and effectively solve floods and droughts prevention, climate change impacts reduction as well as biodiversity and natural resources protection. Slovakia already had this kind of program which was approved by government in October 2010 and subsequently put in execution. Unfortunately Slovak government light-heartedly gave up this program. Contemporary problems with water, droughts, and climate change as well as social unrest in Europe and the world presents us with challenge to utilize these experiences abroad. Our knowledge was presented at Water summit of disadvantaged people in South Dakota (May 2013), at Water summit in Budapest (October 2013), at workshop with Californian senator Pavley and his team (May 2014), at Summer University in Paris (August 2014), at seminary organized for mayors of Czech region of Jeseníky (December 2014), at Water in cities conference in

Třeboň, Czech Republic (March 2015), at World Social Summit in Tunisia (March 2015), at Green Asia Forum (May 2015) or at International Water Symposium in Tamera, Portugal (June 2015). Thanks to the project which was partially realized by NGO People and Water community of people who are sensitive to potential options for climate revitalization by water is beginning is extending. It turns out that it is easier for people to understand how to be actively involved in climate revitalization while they work in their community, region or river basin. From this it is evident that ecosystemic protection of waters revitalization by rain water retention in damaged parts of the land will become one of top priorities not only for floods, droughts and climate change protection, but also for local economic development, conservation and environmental safety everywhere in the world. Therefore we feel sorry to see very weak support of our project from the side of Slovak Ministry of Environment as well as criminalization of the project by those who are not in favour of land revitalization and want to take advantage of public finances. It is impossible to continue in project realization and therefore to obtain exact information concerning know-how, how to mobilize local community for water protection and climate revitalization and it is not at all easy to obtain such information. Team involved in the project as well as local communities are not able to understand why they cannot carry on with project and why is this project overlooked by state environmental politics but instead there are various obstructions made against a continuation of the project.

The project was implemented in in the northeastern part of Slovakia in Presov region(50 km from the Ukrainian border and 30 km from the Poland border) in the district Humenné and river basin Ondavka, in the 8 municipalities (see map). It is a micro-region, which is in the deep recession. Analysis of the demographic curve is that the region is dying. It is characterized by strong emigration, so it was great that the project was implemented here. Of the many interviews it was obvious, that the first time people realized that enjoyed a rare nature and their prospects in the region depends on it, how will care about nature.

The Layman's report please find in annex 7.3.3.





5.4.3 After-LIFE Communication plan

Non-governmental organization People and water in cooperation with Association of Municipalities of Ondavka will be looking for options to continue the project. Current political situation in Slovakia is not favourable to our aims because political culture is not generally supportive of alternative and integrated solutions. Unfortunately only sectional approaches are getting green lights and this holds for environmental protection. It is apparent from number of international presentations that solutions implemented in Ondavka basin are of very high interest. Documentary movie is being prepared in France about water, which was filmed in Ondavka basin too. NGO People and Water is not giving up on this project and that is why we are making arrangements for international campaign to spread information not only about project alone but also about solutions which are helpful in returning water to the land. We assume that Slovakian state institutions will understand that they cannot marginalize cheap, effective and eco-friendly solutions which could provide people in impoverished regions not only with jobs, but also with dignified life in peripheral parts of European Union. Partial results will be presented this year on international forums (England in August, USA in October and Climate summit in Paris). We assume that there will be enough enthusiastic people interested in our project who will understand that climate revitalization by water is possible simply by rain water retention in damaged ecosystems and that this will provide environmental safety, social justice, economic evaluation and cultural maturity in communities where water retention projects will be effectuated. Our preliminary information tells us that by ecosystemic land water revitalization it is possible to “produce” water more than 10 times cheaper than by dams and simultaneously to systematically tackle the problem of flood protection in regions, reinforcing biodiversity, glamorizing nature and increasing its competitiveness. For this reason we made an agreement with municipality administrations in Ondavka basin that we will return and carry on with the project once the political climate in Slovakia changes which will provide a support for active involvement of citizens in responsible behaviour towards their environment. Currently the project LIFE+ and the whole conception of rain water retention in land together with acquired information have set up this aims:

1. Project results will be presented at the “Ordinary People Revitalizing Small Water Cicles and Climate - Slovak contribution to Climate summit in Paris” in Bratislava, September 2015

2. People and water is involved in the consortium of two research projects for Horizon2020, which proceeded into final preparation and Ondavka locality will be part of the research concerning revitalization projects influence on lands revitalization processes. If these projects are to be successful, Ondavka basin will become research project case study for climate revitalization - project is being worked out and concrete activities in region will be known at the end of the August. Project submission deadline is set for September.

3. In cooperation with Theflowpartnership England we are working to spread information about land water revitalization through World Water Peace Walk initiative. We will present our knowledge from the project on 15.-16. August, 2015 (*http://www.theflowpartnership.org/water-walks/*)

4. In August 2015 we will be involved in LIFE+ project initiation according to example set by project in Ondavka basin in Czech region Jesenická which was affected by disastrous floods in 1998.

5. People and Water in cooperation with partners from USA is working on revitalization of small water cycles and climate Global Action Plan, which will be published during October in Boston as a contribution for Climate Summit in Paris (*http://bio4climate.org/conferences/conferences-2015/tufts-2015-restoring-water-cycles/*)

6. Our participation at Climate Summit in Paris and spreading the information about how to revitalize climate faster, cheaper and more effectively by water thanks to knowledge acquired during project realization.

6. Comments on the financial report

6.1. Costs incurred

PROJECT COSTS INCURRED				
	Cost category	Total cost according to the Commission's decision	Costs incurred from the start date to 19/04/2015	%
1.	Personnel	€925 670,00	€416 452,61	44,99
2.	Travel	€58 650,00	€35 284,22	60,16
3.	External assistance	€133 600,00	€13 688,59	10,25
4.	Durables: total non-depreciated cost	€102 000,00	€9 540,74	9,35
	- *Infrastructure sub-tot.*	-	-	-
	- *Equipment sub-tot.*	€102 000,00	€9 540,74	9,35
	- *Prototypes sub-tot.*	-	-	-
5.	Consumables	€99 500,00	€29 346,88	29,49
6.	Other costs	€ 21 800,00	€6 171,22	28,31
7.	Overheads	€ 90 315,00	€35 100,00	38,86
	SUM TOTAL	**€1 431 535,00**	€ **545 584,26**	**38,11**

Total incurred costs are almost 39% from the approved project budget. The advance payment from the EC was 276 107 €

We were able to get funding from the Foundation for Civil Society Development of 22 465,83 €, which was contribution of Associated beneficiary - Regional Association of Ondavka Municipalities. NGO People & water contribution is 21 382,65 €.

Also we were able to get funding from the Labour Office 228 988,65 €, which was 80% amount of worker salaries.

The funding from ministry of labour were composed in proportion 80% from European social fond and 20% from state budget. It means 183 190,92 € from ESF and 45 797,73 from state budget.

For personnel costs, it was incurred almost 45%. Due to the problems with co-financing, we have not employed the full number of the planned staff.

Staff costs were incurred primarily to project staff and management. Workers have a minimum wage, since they were paid through the Labor Office.

Workers had entered into fixed-term contracts. For workers was conducted attendance records, payroll reports, payments of cash, respectively transfer.

Workers were employed full-time, temporary contract. Each employee had an employment contract of one of the communities involved in the project. The number of workers differ depending on the size of the municipality and compliant workers.

80% of the salary of each worker was covered by the finance Labor Office. These funds receive a municipalities at their own bank account from the Labor Office as a refund. Since most of the salary was paid by the Labor Office, workers had to meet several conditions. They had to be known by the unemployed for longer than three months, and had to be older than 54 years or younger than 30 years. Such a group of candidates is considered to be disadvantaged in the labor market, for this reason the state supports recruitment by municipalities.

The remaining 20% of their salary during the first three months was covered by the contribution of NPOA. Another of these 8 months was 20% of the salary covered by the workers of the contribution LIFE + from the EC.

Management was employed through agency contracts rarely agreement on work activity. The management was handed over timesheets and invoices, payments were made by bank transfer. All members of the People and the water most of the time working on the project LIFE +. Organization of the People and Water has only five members, so it was necessary to use our full capacity to manage so challenging project.

All types of employed contract and payment of salaries documents please find in annex 7.4.2.

The costs of travel and subsistence reached nearly 60,16% of the planned amount. Since we are already in the second half of the project, the use of these funds goes according to the plan.

Travel expenses were paid management and water professionals under the agency contract through invoicing and Annex (billing of travel expenses).

Workers were transported to the place of work by car ensured by village. Expenses were paid to the municipality according the internal directive, which was to 0.15 euros per kilometer traveled.

The cost of auto allocated to the project were paid the internal directive, see Annex 7.4.3.

The costs of external assistance reached almost 10,25% of the planned amount. The main foreseen component of the external assistance was a rent of heavy machinery. We did not rent it due to the co-financing problems.

To external assistance, we have also included safety training and training haw to use chainsaws, although it was not included in the project proposal. Therefore, these trainings are required by law of Slovak Republic. To offset the balance of the budget, instead of the planned 5 workshop trainers, we have used only the 4.

Selection of suppliers of external services was implemented on the basis of market research and three price quotations. Won always offer the lowest price.

The costs of the equipment reached only 9,35% of the planned amount due to the problems with co-financing. From planned equipment - thermal imaging camera and software, geodesy GPS device/software and bussines car - we bought just bussines car.

T he car was important to transfer management to the local implementation of the project. The method of recording and method of depreciation of the passenger car please find in annex 7.4.4.

Thermal imaging camera and GPS device was planned for monitoring project. Unfortunately thermal camera we could not buy because of problems with co-financing, but were used for monitoring the GPS device held in private ownership of monitoring experts.

Within consumables costs, there are mainly tools for workers and construction material. Tools have already been purchased, the construction material was bought as appropriate, and therefore the spent amount is around 29,49%.

Selection of suppliers was carried out under the bid. Suppliers were for three commodities: motor saws and accessories footwear, clothing, protective equipment, tools and iron goods.

For each commodity were invited at least three suppliers with the specification of the goods and the delivery of the price quotations we were chosen three companies:

Ivanov style, Nad Topľou - chainsaws and accessories

JURTEX, Košice - footwear, clothing, protective equipment,

Ing. Ivan Trnovský, Iron N55 - Tools and Iron goods.

We were committed to purchase the wood for the construction of water retention measures from local foresters, for this, we have received permission from the forest managers implmentovať projket on forest land. Thanks to this, we eliminated spending on transport of building materials.

Other costs reached the amount of 28,31%. Other cost consist primarily of bank charges, car insurance and maintanace, rent a hall for opening conference and training workshop, and consultation and oponency for study.

Overhead costs were spent in the amount of 38,36% of the planned, but 7% of total spent expenditure.

6.2. Accounting system

As the accounting system we use double-entry bookkeeping. We use separate center named by the reference number 1- 6 LIFE+. It set up a bank account solely for the purpose of this project. Account number for this project is 1350254507/3100. Account shall be kept at Vollksbank Slovakia OJSC. From 15th of February 2013 the bank operates under the brand Sberbank Slovakia OJSC.

Timesheet for management and water professionals was used model timesheet recommended by EC. Timesheets for worker we used model timesheet recommended by Labour office. Type of timesheets please find in annex 7.4.1.

On all invoices indicated on the basis of how contracts are issued. It is up to them indicated the name of the LIFE + project "Recovery of the Climate in dry areas of Slovakia by hydro-climate recovery. Cash documents are stamped "Hydro-climate recovery LIFE11 ENV/SK/1019"

6.3. Partnership arrangements

Partnership agreement was signed at 23. April 2013 by NGO People & Water, represented by Jaroslava Pajtinková (statutory), and by Regional association of Ondavka represented by Valéria Melníková (chairman). Partnership agreement follow the LIFE template. Copy of signed partnership agreement was send to European Commission at 30th of April 2013 in annex 7.1 of Inception report.

Based on the requirements associated beneficiary - Regional Association of Ondávka Municipalities, the funds were sent to the account of the Association Ondavka. The founds were used for salaries, meal vouchers and overheads.

6.4. Auditor's report/declaration

The audit reports was held in two period. First period was taken from 1st of August 2012 to 31st of December 2013. And second period was taken from 1st of January 2014 to 19th of April 2015. Audit reports was made by KOŠICE Audit s.r.o., SKAu Licence No.43, responsible auditor Jozef Škultéty, PhD., SKAu licence No.130.

In auditors opinion, the financial statements of NGO People & Water of project LIFE11 ENV/SK/1019 " Revitalisation of the climate in dried-out communities in Eastern Slovakia via hydro-climate recover" for the periods August 1, 2012 to December 31, 2013, and January 1, 2014 to April 19, 2015 are prepared, in all material respect, in accordance with the financial reporting provisions of the contract and the Slovak national legislation and accounting rules.

7. Annexes

7.1 Administrative annexes

7.1.1 Partnership agreement - already sent to EC with Inception report on 30th April 2013 as annex 7.1

7.1.2 Partnership agreement between steering committee members - already sent to EC with Inception report on 30th April 2013 as annex 7.3.3

7.1.3 First statement of the Goverment office

7.1.4 Second statement of the Goverment office

7.1.5 Statement of the Ministry of Envirnoment

7.2 Technical annexes

7.2.1 Study "Water for adaptation to climate change" - already sent to EC with Inception report on 30th April 2013 as annex 7.2.1.

7.2.2 List of participants and photos from Opening conference - already sent to EC with Progress report on 31st October 2014 as annex 7.2.1

7.2.3 Lists of participants and photos from Workshop - already sent to EC with Progress report on 31st October 2014 as annex 7.2.2

7.2.4 Lists of participants from SC meetings

7.2.5 Lists of participants and photos from Networking - already sent to EC with Progress report on 31st October 2014 as annex 7.2.4.

7.2.6 Photos, maps and database of implemented measures

7.3 Dissemination annexes

7.3.1 CD with dissemination products

7.3.2 Publication list

7.3.3 Layman's report

7.4 Financial annexes

7.4.1 Timesheets of employeess

7.4.2 Employed contract and payment of salaries documents

7.4.3 Internal directive for business car

7.4.4 Method of depreciation of the passenger

7.4.5 Audit repor

7.5 VAT status of Ondavka

7.5 Indicators tables

7.5 Financial statements