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RESTORATION OF THE PRESPA LAKE ECOSYSTEM PROGRESS REPORT

01 January 2017 – 30 June 2017



Photo caption: Wetland restoration activities have progressed considerably: the new system will help retain nutrient-rich water providing enough time for vegetation and microorganism to remove phosphorus and other harmful substances

Project Number: 00083375

Donor: Swiss Agency for Development and Cooperation (SDC)

Total Budget: 5,845,000 CHF

Project dates: 01 July 2012 – 31 December 2017

Reporting Period: 01 January 2017 – 30 June 2017

National counterparts: Municipality of Resen, Ministry of Environment and Physical Planning, Public Enterprise 'Proleter', Public Forest Enterprise 'Makedonski sumi', State High-School Center 'Car Samuil', Resen, farmers associations and other NGOs

PROJECT DESCRIPTION

THE CHALLENGE

The Prespa Lakes Basin is an area of rich biodiversity that has been subject to intense pressures from human activities over the past decades. Unsustainable farming practices, erosion, and the unregulated disposal of untreated waste have reduced the health of the ancient freshwater lake and depleted the habitat of many rare endemic species, endangering a unique ecosystem that has evolved over millions of years.

Comprehensive investigations into the ecological status of the Lake have helped to better identify and quantify the main environmental challenges and their root causes. The findings have revealed that the most acute problem currently facing the ecosystem is eutrophication, a process that accelerates the growth of aquatic biomass and upsets the balance of the entire ecosystem. This has a severe impact on key sectors such as tourism, water and fisheries, negatively affecting the socio-economic wellbeing of the local population.

OBJECTIVES

To tackle these processes of degradation, the 'Restoration of the Prespa Lake Ecosystem' project was launched in July 2012, implemented by UNDP in partnership with the Municipality of Resen and with the financial support of the Swiss Agency for Development and Cooperation.

During the past years, the project has been working to introduce a comprehensive set of measures to improve the overall health and resilience of the Lake and bring the eutrophication processes under control. These measures have been elaborated in the Prespa Lake Watershed Management Plan developed with UNDP's support in 2012—the first plan of its kind in the country designed in accordance with the EU Water Framework Directive.

The project implements practical solutions to reduce the pressures on the vulnerable ecosystem from agriculture, eroded land, polluted rivers, wastewaters and solid waste. The watershed-scale measures include the introduction of sustainable agro-ecological practices, control of human-induced erosion processes, ecological restoration techniques, improving wastewater treatment, upgrading solid waste management systems and introducing a lake and watershed monitoring system.

PROJECT RESULTS

The UNDP-backed component of the programme is entering the final stages of implementation, bringing multiple benefits to the environment and to local communities. The cumulative effects of the multi-year interlinked interventions to reduce pressures from multiple sources and restore wetlands has resulted in reversal of the decades-long degradation trend of Lake Prespa and its contributing water bodies.

A growing number of farmers are shifting toward more environmentally responsible methods of irrigation, fertilizer application, and plant protection. Strengthening the local waste management systems generates direct environmental and economic benefits. New treatment systems are preventing significant adverse effects associated with earlier inflow of wastewater to water bodies. The ongoing wetland restoration activities will help further reduce pressures to the Lake through improved filtering, and will bring additional benefits for the ecosystem and the communities, including restoring the natural values of the Ezerani Nature Park.

The local management capacities are being considerably improved. The size and degree of complexity of management responsibilities taken by the Municipality of Resen is constantly growing. They have already started to independently implement priority interventions funded by SDC. UNDP continues to limit its role in the project implementation, although it seeks for options to further upgrade the results, and support the sustainability of all introduced systems through different projects.

The success of the programme and its multiple achievements are being widely shared at national and international levels. The recently developed documentary movie presenting programme's achievements ("Lake of Apples") turned out to be a unique way of reaching vast and diverse audiences across the world.

PROGRESS TO DATE:

OUTCOME 1

Output 1.1: A solid basis for long-term active management of the lake's eutrophication processes

TARGETS FOR 2017:

STATUS:

Finalization of the eutrophication model

■ **Achieved**

User training on model application

■ **Achieved**

Output 1.2: Control of erosion processes

TARGETS FOR 2017:

Locally implemented forest regeneration activities in priority erosion areas with plant material produced at project-backed the forest nursery

■ **Achieved**

Output 1.3: Reducing adverse impacts of apple farming

TARGETS FOR 2017:

Completion of all three cycles of the grants programme to support agro-ecological farming practices

■ **Achieved**

Finalization of the feasibility study on irrigation options for the Prespa Lake Basin

■ **Achieved**

Output 1.4: Wetland restoration for flood control, filtering of polluted tributaries wastewater treatment upgrades

TARGETS FOR 2017:

Continuation and finalization of wetland restoration activities

■ **Ongoing**

Output 1.5: Upgrade of the agricultural waste management system

TARGETS FOR 2017:

Upgrade of the composting plant in Resen

■ **Achieved**

Output 1.6: Nature based solutions (wetlands, river corridors, buffers)

TARGETS FOR 2017:

Same as Output 1.4

■ **Ongoing**

Output 1.7: Small-scale infrastructure and other community-driven projects**TARGETS FOR 2016:**

Completion of all initiated small-scale environmental / water infrastructure projects

■ Achieved

OUTCOME 2

Output 2.1: Sustainable monitoring and management capacities at local level**TARGETS FOR 2017:**

Continuation of regular monitoring programme by the Lake Monitoring Station

■ Achieved

Output 2.2: Strengthening integrated watershed management capacities**TARGETS FOR 2017:**

Delivery of upgraded/advanced capacity development programme for the representatives of the new Sector on Environment

■ Achieved

Output 2.3: Sharing and replicating lessons learnt and best practices**TARGETS FOR 2017:**

Support exchanges and partnering with the existing relevant professional networks and lake regions

■ Achieved

HIGHLIGHTS

- The “Lake of Apples” documentary is a great success, helping to spread internationally the multiple successes of the programme
- All small-scale infrastructure projects, including the secondary water supply network in the town of Resen were successfully completed, providing multiple benefits to the environment and communities
- In spite of the constant challenges, the wetland restoration activities have progressed significantly. Only about 10% of the work remains to be completed during the next reporting period.

NARRATIVE REPORT

PROGRESS UPDATE AND KEY ACHIEVEMENTS

OUTCOME 1: Water and soil quality in the Prespa Lake watershed are improved

The water quality monitoring data show that the ecosystem health parameters continue to improve. Summary of all documented achievements will be presented in the final report to the Donor, as well as in a special publication describing the key project successes and lessons learnt that’s being prepared by a renowned international expert.

1.1. ESTABLISHING A SOUND BASIS FOR THE LONG-TERM ACTIVE MANAGEMENT OF EUTROPHICATION

The activity is completed.

1.2. CONTROLLING THE EROSION PROCESSES

The activity is completed. The Public Forest Enterprise continues to produce planting material at the native forest nursery that has been established with the project’s support and will continue to improve forest cover. Besides reduced phosphorus loading to the Lake, the forest regeneration activities will have number of ancillary positive long-term effects for the watershed (e.g., improved hydrological regime, habitat for wildlife, support livelihoods of rural communities, etc.).

1.3. REDUCING THE ADVERSE IMPACTS OF APPLE FARMING

Grants programme for agro-ecological farming

The activity is completed.

Feasibility study on irrigation options

The activity is completed. Based on the recommendations of the study, the project is working on a decision support system for irrigation scheduling that will combine the use of the existing agro-meteorological monitoring stations and additional modeling work. The existing SMS and social media-based platforms will be used to timely inform farmers on the time and dosage of applying water to crops.

1.4. WETLAND RESTORATION FOR FLOOD CONTROL AND FILTERING OF POLLUTED TRIBUTARIES

The wetland restoration activities in the Ezerani Nature Park are being implemented at variable speed due to the a set of complex challenges – from land ownership-related issues to politically driven speculations about potential increase of the flood risk that intensified during electoral processes. The mitigation activities taken by the project and the municipality enabled continuation of the works, but there are outstanding issues that still obstruct the completion of the remaining 10% of anticipated works.

The earlier adjustment of the wetland restoration design (to avoid additional private land) increased the cost of implementation. Thanks to the understanding of the Donor, and the savings that the project was able to make,

sufficient funds were secure to enable completion of the project. In spite of the risks, the project will complete the remaining restoration activities during the second half of the year. The constant communication with the affected communities, helps to remove doubts, helping this pioneering efforts with multiple benefits for the ecosystem and the communities.

1.5. BIODEGRADABLE WASTE MANAGEMENT

The activity is completed. The Municipality of Resen and the Public Enterprise 'Proleter' continue to run the system, sharing at the same time their experiences both nationally and regionally.

1.6. DEVELOPMENT OF AN ENVIRONMENTAL INFRASTRUCTURE

The only outstanding environmental infrastructure project – the construction of the secondary water supply network in the town of Resen – was successfully completed during the reporting period. With over USD 600,000 the municipality has initially completed the reconstruction of the main water supply system, while complementary SDC funds were used to build the secondary network in total length of 5.5 km. These rehabilitation works already help greatly reduce losses/leakages, which besides the more rational use of the resource will also result in a better economic performance of the Public Enterprise 'Proleter'. About 2,500 people from the town of Resen benefit directly from the improved water supply service.

OUTCOME 2: Performance of authorities at national and local level for integrated watershed management is improved

The Municipality of Resen has taken full responsibility over the implementation of the project (specific achievements and processes are defined in a separate report submitted by the municipality to the Donor). With the support of UNDP, the municipality is working on identifying follow-up complementary projects that will ensure continuation of the restoration efforts strengthen ecosystem benefits (e.g., UNDP-implemented EU IPA funded project on Nature Protection/Protected Areas Management). One long-term possibility for funding local conservation action the municipality is actively working on is through the Prespa-Ohrid Nature Trust (PONT) that has expressed interest to build upon the achievements of the Lake Prespa Restoration Programme.

2.1. SUSTAINABLE MONITORING AND MANAGEMENT CAPACITIES AT LOCAL LEVEL

The activity is completed.

2.2. STRENGTHENING CAPACITIES FOR INTEGRATED WATERSHED MANAGEMENT

The activity is completed.

2.3. SHARING AND REPLICATING LESSONS LEARNT AND BEST PRACTICES

The project continues implementing its communication and outreach programmes as planned. The media coverage of the project still remains high, even though the project is in the mature stages of implementation, and the number of ongoing activities is reducing over time. The project actively participates in all relevant national level processes in the specific programmatic areas (e.g., water management, waste management, monitoring, and WFD implementation), presenting project results and experience to different audiences in and outside the country. The documentary film "Lake of Apples" has experienced exceptional national and international success, winning also of many awards. A final report documenting all achievement is in the final process of publishing, while its promotion is planned for the final stages of the project.

CONCLUSION

Over the last several years, the Lake Prespa Restoration Programme has brought many benefits to the environment and local communities in the Prespa Watershed. It has been highly successful in raising awareness about the challenges

in the watershed and provided strong examples of best practices for the future. Both the Municipality of Resen and the Ministry of Environment and Physical Planning are well-positioned to continue to implement key environmental protections.

In the upcoming period will focus on finalization of outstanding activities, putting in place all sustainability elements, documenting and presenting results, and operationalizing the exit strategy. UNDP will continue supporting the municipality and all other local stakeholders to identify different funding possibilities for future complementary projects that will build upon the achievements of the Lake Prespa Restoration Programme.

FINANCIAL REPORT:

Project: Restoration of Prespa Lake Ecosystem
Donor: 00232 Government of Switzerland
Source of Fund: 30000 Programme Cost Sharing
Currency: USD

Financial status – 31.06.2017 (in U.S. Dollars)

<u>Income:</u>		<u>Expenditures*:</u>	
Date/Period	Amount	Date/Period	Amount
Opening Balance:	0,00	01.07.2012	0,00
Advance Received (30.07.2012)	553,765.54	31.12.2012	549.846,87
Advance Received (28.02.2013)	537.403,00	31.12.2013	1,894,954.62
Advance Received (31.07.2013)	1,394,101.88		
Advance Received (28.02.2014)	1,135,203.00	31.12.2014	2.004.277,07
Advance Received (31.08.2014)	523,615.00		
Advance received (28.02.2015)	533,561.00	31.12.2015	1,049,612.58
Advance received (03.12.2015)	491,380.69		
Advance received (28.12.2015)	404,578.21		
		30.06.2016	126.615,86
Advance received (16.12.2016)	363.886,70	01.07.2016 – 31.12.2016	449.351,88
		01.01.2017 – 30.06.2017	57.964.23
Total Budget 01.07.2012 – 31.12.2016	5,937.495,12	Expenditures	6.132.623,11
Current Value of Active Assets 30.06.2017			24.637.71
		Balance:	-219.765,70*

* Expenditures include the amount of fixed assets.

Financial status as of 30.06.2017 (in U.S. Dollars)
 Amounts without assets, as per the final annual CDR

<u>Income:</u>		<u>Expenses:</u>	
Date/Period	Amount	Date/Period	Amount
Advance Received (30.07.2012):	553,765.54	31.12.2012	408,491.18*
Advance Received (28.02.2013):	537.403,00	31.12.2013	1,785,988.05*
Advance Received (31.07.2013)	1,394,101.88		
Advance Received (28.02.2014)	1,135,203.00	31.12.2014	1,971,143.62*
Advance Received (31.08.2014)	523,615.00		
Advance Received (28.02.2015)	533,561.00	31.12.2015	1,019,877.43*
Advance Received (03.12.2015)	491,380.69		
Advance Received (28.12.2015)	404,578.21		
Advance Received (16.12.2016)	363.886,70		
		01.01.2016- 30.06.2016	126.615,86*

		01.07.2016-31.12.2016	449.351,88*
		01.01.2017-30.06.2017	57.964,23*
Total Budget 01.07.2012 – 30.06.2017	5,937.495,12	Expenditures	5.819.432,25*
		Balance:	118.062,87*

*The amounts do not include active assets.

Detailed Expenditures for the period 01.01.2017-30.06.2017

Expenditures by Sub-line:		
Description	CMBL	Exp.
Activity 1		
Service to project	64300	186.96
Local Consult.-Sht Term-Tech	71300	0
Service Contracts-Individuals	71400	3,156.07
Travel – Other	71600	0
Svc Co-Construction & Engineer	72100	7,919.98
Machinery	72200	0
Connectivity Charges	72400	-50.68
Stationery & other Office	72500	133.04
Maint, Oper of Transport E	73400	0
Other media costs	74200	0
Direct Project Costs	74500	0
Facilities & Admin – Implement	75100	794.18
Realized Loss	76125	0
Gain	76135	0
SUBTOTAL:		12,139.55
Activity 2		
Learning Costs	64300	1,413.65
Local cons	71300	227.35
Contractual Services – Individ	71400	15,555.33
Travel – Other	71600	11,076.07
Svc Co-Construction & Engineer	72100	7,369.75
Connectivity Charges	72400	1,176.45
Stationery & other Office	72500	150.11
Acq of Comp Hardware	72800	0
Maint. Transport Equipment	73400	0
Printing and Publications	74200	0
Sundry	74500	686.91
Other LTSH	74700	0
Facilities & Admin	75100	2,878.76
Learning cost	75700	3,469.67
Realized Loss	76125	2.56
Realized Gain	76135	0
SUBTOTAL:		44,006.61

Facilities & Admin – Implement	75105	118.93
Foreign Exch. Translation Loss	76110	0
Dep Exp. Owned –Vehicle	77660	1699.14
SUBTOTAL:		1,818.07
TOTAL Expenditures: 01.01.2017-30.06.2017		57,964.23
Undepreciated Fixed Assets (purchased till 30.06. 2017)		2,4637.71
Total Expenditures + Fixed Assets		82,601.94