CEPF FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	GAUSS Institute – Foundation for New Technologies Innovations and Knowledge Transfer
Project Title:	Agricultural Water Stewardship Initiative in Ohrid Lake Basin
Date of Report:	1 Sep 2014 – 31 Aug 2015
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CEPF Region: Mediterranean Basin Biodiversity Hotspot

Strategic Direction: Establish the sustainable management of water catchments and the wise use of water resources with a focus on the priority corridors of the (1) Atlas Mountains, (2) Taurus Mountains, (3) Orontes Valley and Lebanon Mountains and (4) Southwest Balkans

Grant Amount: $13.100,00

Project Dates: 1 Sep 2014 - 31 Aug 2015

Implementation Partners for this Project (please explain the level of involvement for each partner):

GAUSS Institute realised this project in cooperation with other CEPF Small Grants grantee from Macedonia, Environmental Organization “Grashnica” from Ohrid, and National Extension Agency for Agriculture of the Republic of Macedonia. Also, cooperation was established with CEPF Small Grants grantee from Albania, Institute for Environmental Policy- Tirana.

1. GAUSS Institute was mainly responsible for the professional components of the activities (expert analysis, development of manuals, training materials etc.), while EO “Grashnica” communicated these results on the field, with the farmers.

2. Especially, we want to emphasize the support from the National Extension Agency for Agriculture of the Republic of Macedonia and its branch office in Ohrid. They helped us with the organization of field visits among farmers from Ohrid and Struga area and supported our experts during analysis of the current irrigation practices in the Ohrid Lake Basin. Also they helped for distribution of manuals and introducing policy paper among stakeholders and other authorities. Communication with them was smooth, and they show a real interest in the project outcomes and willingness to implement some of the recommendations of the project in their work practices.

3. Cooperation with the CEPF grantee on this call from Albania was established on the our awareness event held in Ohrid (they participated on the event), and later cooperation was mainly electronically through our web site (we developed our website on Albanian too).

Conservation Impacts

Please explain/describe how your project has contributed to the implementation of the CEPF ecosystem profile.

The project mainly contributed to CEPF Strategic Direction 2.4 2.4. Facilitate and support adaptation to climate change via improving water use efficiency in agricultural landscapes and allowing environmental flows for key biodiversity areas

The project:

- Made first ever attempt publicly to present data about pollution of the Ohrid Lake on visual way, understandable to the general public. Also, these are first ever publicly published data in source form about pollution of the Ohrid Lake on the www. These data **revealed influence of the usage of water in agriculture on environmental flows in Ohrid Lake catchment area**.
- Presented the **concept of water stewardship as a tool for allowing environmental flows for key biodiversity areas** in Ohrid Lake Basin**.** Among local stakeholders, farmers, general public and even majority of experts were not familiar with water stewardship approach and regularly water stewardship was confused with irrigation management practices. Today, in developed countries water stewardship is state-of the art approach in water use efficiency in agricultural landscapes. This project enabled transfer of best practices to the stakeholders in Ohrid Lake basin.
- Enabled **better water use efficiency**. Through published manual for on-farm practices for sound water management and training to local stakeholders and farmers were practicaly demonstrated means and techniques for improved water use efficiency in agricultural landscapes
- Proposed policy measures which will facilitate adaptation to climate change via improving water use efficiency. Developed Policy Guidelines are presented and distributed to major national stakeholders which propose/regulate measures for support of the agriculture and environmental protection.

Please summarize the overall results/impact of your project.

Overall results/ impact of the project can be summarized in following three components:

1. Improve knowledge base: present to local authorities, CSOs, educational and research organizations, etc. WHY agricultural water stewardship is needed. We visualised data about pollution of Ohrid Lake from agricultural activites. We published Gudie about water stewardship. Guide was presented to local stakeholders on the workshop in Ohrid.

2. Build stronger support for growers: demonstrate to local farmers and farmers associations HOW agricultural water stewardship is implemented on farm level: We developed Manual for on-farm practices for sound water management and realized capacity building trainings for local stakeholders: farmer associations, experts/ advisors, authorities.

3. Foster smarter regulations: propose to authorities and decision makers WHAT should be done for fostering implementation of agricultural waste stewardship. We developed Policy Guidelines for Implementation of Water Stewardship in Agriculture. This Policy paper was introduced to local stakeholders (farm associations, NGOs) and national authorities responsible for support of agriculture and environmental protection: National Extension for Agriculture of the Republic of Macedonia and Ministry of Environment and Physical Planning.

Please provide the following information where relevant:

Hectares Protected: 94.303 ha

Species Conserved: N/A

Corridors Created: N/A

Describe the success or challenges of the project toward achieving its short-term and long-term impact objectives.

The biggest success of this project was raising awareness among farmers, experts and decision makers about agricultural water stewardship. Presented were series of new water saving methods as Dry Farming, Farm Ponds for Irrigation, Groundwater Management, Irrigation Management, Keyline Design, Nutrient Management, Recycled Water (Recycled Municipal Water, Reuse of Agricultural Wastewater, Gray Water Use), Soil Management, Water & Energy.

Biggest challenge was to convince local stakeholders that these practices are fully applicable to local farming conditions, not just another expensive solution from developed countries.

Were there any unexpected impacts (positive or negative)?

Here we want to express very positive cooperation of Extension Agency for Agriculture of the Republic of Macedonia. They supported all our activities during whole period of project implementation. Developed outcomes of the project will be included as training materials in the operation of the National Extension Agency for Agriculture.

Project Components

Project Components*: Please report on results by project component. Reporting should reference specific products/deliverables from the approved project design and other relevant information.*

Component 1 Planned: Improve knowledge base.

With this sets of activities we intended to reveal to local decision makers, CSOs and other stakeholders, why agricultural water stewardship is needed in the region, what are principles of its implementation, what are benefits from its implementation etc.

Activity 1.1 Data analysis and visualization: Collect public available data from stakeholders responsible for regular hydrological and environmental monitoring of Ohrid lake basin, data from realized projects, data published in research papers etc. Data will be filtered, analysed and visualized on the project website. These visualized should give clear picture on influence of water use for agriculture on environmental flows and biodiversity in the target region.

Activity 1.2 Revealing the concept of water stewardship and its influence to environmental flows and biodiversity: In this activity we foresee publishing a guide for water stewardship. It will explain general principles of water stewardship and special attention will be devoted on the influence of water stewardship principles on environmental flows and biodiversity. The guide could be used in community-based programmes or projects sponsored by civil society organizations or government agencies, as well as in educational programmes. It will include: introduction to water stewardship, key concepts for water stewardship, influence of water stewardship practices on environmental flows, case studies, etc. The guide will be available to the local stakeholders in limited printed copies and to general public from the project website.

Activity 1.3 Website development: The website aims to provide information to assist in water management decision-making. It will be main hub for distribution information about project, activities and developed tools for effective water stewardship.

Activity 1.4 Public awareness meeting: On order to present obtained results in Activities 1.1 and 1.2 to the local stakeholders, a one day meeting will be organized in Ohrid. On the meeting will be invited local authorities, environmental CSOs, farmers associations etc. as well as other CSOs implementing CEPF projects (Environmental organization “Grashnica” - Ohrid, Macedonia and Institute for Environmental Policy-Albania and). On this event alongside to discussing outputs from Activities 1.1 and 1.2, we intend to discuss about best scenarios for implementing agricultural water stewardship on farm level in the target region, and create synergy among all CEPF projects in Ohrid Lake region.

Component 1 Actual at Completion:

All activities are realized as planed. Following outcomes and outputs are achieved:

Outputs of the Component 1	Outcomes of the Component 1
1.1 Visualized data about influence of water use for agriculture on environmental flows and biodiversity in the target region are published on web portal	1.1 Threats from agricultural water use on the biodiversity in Ohrid Lake are better understood by local stakeholders (one picture is worth thousands words).
1.2 Guide about water stewardship in printed version distributed to local stakeholders and electronic version available for download from project website.	1.2 Better understanding of water stewardship practices as new approach in sustainable water management - unknown to local stakeholders responsible for Ohird lake protection.
1.3 Web portal is operational.	1.3 Project outputs available to the wider community in the region.
1.4 Public awareness meeting was realized in Ohrid on 18th December 2014.	1.4 Relevant local stakeholders are informed about threats of agricultural water use on biodiversity in Ohrid Lake. Agricultural water stewardship initiative is presented to the local stakeholders. Synergy between CEPF projects in the region is established.

Component 2 Planned: Improve Support mechanism for growers.

The goal was to provide technical assistance to agricultural producers from Ohrid Lake basin. It will be achieved through following activities:

Activity 2.1 Expert analysis of irrigation practices in Ohrid Lake basin. Irrigation experts in cooperation with representatives of stakeholders (mainly National Extension Agency for Agriculture) will visit region of Ohird Lake and identify current irrigation practices. At least 10 visits are foreseen to local farms in the target region (around rivers Sateska and Koselska), and at least 30 farms are planned to be visited. During the visits the experts will also propose alternative more efficient irrigation methods to the farmers. Contact with local farmers will be established through National Extension Agency for Agriculture of the Republic of Macedonia.

Activity 2.2. Proposal for on-farm practices for sound water management. On the basis of analysis in Activity 2.1 alternative practices (customized to local conditions) will be proposed. Each of the proposed practices will include an overview of the practice, the associated water savings or improvements to water quality, additional benefits, applicability in different production scenarios, case studies, and additional resources.

Following practices we intend to elaborate in relations with local conditions in analyzed catchment area: Dry Farming; Farm Ponds for Irrigation; Groundwater Management; Irrigation Management; Keyline Design; Nutrient Management; Recycled Water (Recycled Municipal Water, Reuse of Agricultural Wastewater, Gray Water Use); Soil Management; Water & Energy; Other Agricultural Water Stewardship Practices. Proposed new practices will be compiled in a Manual for on- farm practices for sound water management which will be distributed in printed version and accessible through the project website.

Component 2 Actual at Completion:
All activities are realized as planed. Following outcomes and outputs are achieved:

Outputs	Outcomes
2.1 Visits to local farmers in target region are realized from irrigation expert.	2.1 Weak points in current irrigation practices are identified.
2.2 **Practices for On-Farm Water Stewardship** is published and distributed in hard copy to local stakeholders, while electronic version is available for download from the website.	2.2 New more efficient irrigation practices introduced to local farmers.
2.3 Capacity building meetings in Struga region were realized on 18th and 19th June 2015. New state of the art irrigation practices and policies are demonstrated to local stakeholders.	2.3 Farmers acknowledge that agricultural water stewardship is important for both farm water security and environmental health.

Component 3 Planned: Foster Smarter regulation
A robust and renewed technical and financial investment in agricultural water stewardship is critical for the health of our farms and watersheds, and must be made a state-wide priority.

Activity 3.1 Produce policy paper for support of water stewardship. In order to promote achieved project results and introduce water stewardship to relevant national stakeholders in the country, as well as to discuss necessary state support (financial and technical) to the farmers implementing sound water stewardship practices, a report in the form of policy paper will be produced and distributed to all relevant national and local authorities. The policy paper will be prepared and distributed in coordination with Extension Agency for Agriculture of the Republic of Macedonia.

Component 3 Actual at Completion:
All activities are realized as planed. Following outcomes and outputs are achieved:

Output	Outcome
3.1 Policy Guidelines for Implementation of Agricultural Water Stewardship was developed on the basis of European Commission's Guidance for administrations on making WFD agricultural measures clear and transparent at farm level. The Policy paper was presented to National Extension Agency, Ministry for Environment and Physical Planning and Regional Environmental Center in Skopje. It is available for download from the project website.	3.1 Build awareness and knowledge needed to make effective policy decisions, adequately support growers in taking action, and coordinate policy and regulations to meet local needs.

Were any components unrealized? If so, how has this affected the overall impact of the project?

No, there was not any component, which was unrealized.

Please describe and submit (electronically if possible) any tools, products, or methodologies that resulted from this project or contributed to the results.

Following tools and product resulted from this project

1. Data Visualization about pollution of Ohrid Lage from usage of waters in agriculture: Available online at http://gaussinstitute.org/cepf/?page_id=22808
2. Project website: available online at http://aws.gaussinstitute.org
3. Manual about Water Stewardship – attached to this report
4. Practices for On-farm Water Stewardship – attached to this report
5. Policy Guidelines for Implementation of Agricultural Water Stewardship – attached to this report

Lessons Learned

Describe any lessons learned during the design and implementation of the project, as well as any related to organizational development and capacity building. Consider lessons that would inform projects designed or implemented by your organizationor others, as well as lessons that might be consideredby the global conservation community.

Project Design Process:(aspects of the project design that contributed o its success/ shortcomings)

Consultation with agricultural experts, especially experts for irrigation, as well as experts in hydrobiology contributed to design of feasible project.

Project Implementation: (aspects of the project execution that contributed to its success/ shortcomings)

Cooperation with local stakeholders: farmers associations, environmental NGOs as well as relevant authorities gave added value on the project execution. It enabled developed outcomes of the project to find their way among stakeholders, thus enabled to reach planet outputs.

Other lessons learned relevant to conservation community:

Additional Funding

Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.

Donor	Type of Funding*	Amount	Notes

Additional funding should be reported using the following categories:
A) Project co-financing (Other donors contribute to the direct costs of this CEPF project)
B) Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)
C) Regional/ Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successesrelatedto thisproject.)

N/A – No additional donors supported this project, except in kind contribution of the implemtator of the project GAUSS Institute

Sustainability/ Replicability

Summarize the success or challenge in achieving planned sustainability or replicability of project componentsor results.

Sustainability and reliability of this proposal are one of its key advantages, because realized activities enable:

a) Direct, out of project replication of the project outcomes. The outcomes are publicly available through the website http://aws.gaussinstitute.org/and easily replicable elsewhere.

b) Developed website is available in Macedonian, English and Albanian so easily replicable on the Albanian side of the Ohrid Lake too, as well as elsewhere.

c) Long-term availability of the outputs. No extra funding is required (they are hosted on the web servers of Gauss Institute) for management of the website except regular webserver maintenance.

Summarize any unplanned sustainability or replicability achieved.

Excellent cooperation with National Extension Agency for Agriculture enabled developed outputs (guide, practices, policy paper) to be accepted as training material to be used by the advisors of the Agency in their daily work.

Safeguard Policy Assessment

Provide a summary of the implementation of any required action toward the environmental and social safe guard policies within the project.

N/A

Additional Comments/ Recommendations

None

Information Sharing and CEPF Policy

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned, and results. Final project completion reports are made available on our Website,www.cepf.net, and publicized in our newsletter and other communications.

Please include your full contact details below:

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Performance Tracking Report Addendum

CEPF Global Targets

(Enter Grant Term)

Provide a numerical amount and brief description of the results achieved by your grant.
Please respond to only those questions that are relevant to your project.

Project Results	Is this question relevant?	If yes, provide your numerical response for results achieved during the annual period.	Provide your numerical response for project from inception of CEPF support to date.	Describe the principal results achieved from July 1, 2013 to June 30, 2014. (Attach annexes if necessary)
1. Did your project strengthen management of a protected area guided by a sustainable management plan? Please indicate number of hectares improved.	NO			Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one.
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	NO	94.303 ha	94.303 ha	Please also include name of the protected area. If more than one, please include the number of hectares strengthened for each one.
3. Did your project strengthen biodiversity conservation and/or natural resources management inside a key biodiversity area identified in the CEPF ecosystem profile? If so, please indicate how many hectares.	YES	94.303 ha	94.303 ha	
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	YES	94.303 ha	94.303 ha	
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	YES			

If you answered yes to question 5, please complete the following table

Table 1. Socioeconomic Benefits to Target Communities

Please complete this table if your project provided concrete socioeconomic benefits to local communities. List the name of each community in column one. In the subsequent columns under Community Characteristics and Nature of Socioeconomic Benefit, place an X in all relevant boxes. In the bottom row, provide the totals of the Xs for each column.

Name of Community	Community Characteristics								Nature of Socioeconomic Benefit												
									Increased Income due to:												
	Small landowners	Subsistence economy	Indigenous/ ethnic peoples	Pastoralists/nomadic peoples	Recent migrants	Urban communities	Communities falling below the poverty rate	Other	Adoption of sustainable natural resources management practices	Ecotourism revenues	Park management activities	Payment for environmental services	Increased food security due to the adoption of sustainable fishing, hunting, or agricultural practices	More secure access to water resources	Improved tenure in land or other natural resource due to titling, reduction of colonization, etc.	Reduced risk of natural disasters (fires, landslides, flooding, etc)	More secure sources of energy	Increased access to public services, such as education, health, or credit	Improved use of traditional knowledge for environmental management	More participatory decision-making due to strengthened civil society and governance	Other
Farmers	X								X					X		X			X		
Total																					

If you marked "Other", please provide detail on the nature of the Community Characteristic and Socioeconomic Benefit: