CEPF FINAL PROJECT COMPLETION REPORT

Organization Legal Name:	**Agro-Environmental & Economic Management-Center (AEEM Center)**
Project Title:	**Ecological and economical assessment of ecosystem services in the Karavasta Lagoon“**
Date of Report:	**22 January 2015**
Report Author and Contact Information:	**Aida Bani, project manager** **Prof. Dr. Aida Bani** **Phone : ++355692467488,** **e-mail: aida_alushi@hotmail.com**

CEPF Region: **Mediterranean Basin Biodiversity Hotspot**

Strategic Direction: Strategic Direction 2 Investment Priority (2.2)

Grant Amount: 19. 987 USD

Project Dates: 1 February 2014 to 31 December 2014

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

- **The first project partner was Association for the Protection and Preservation of Natural Environment in Albania (PPNEA). PPNEA is the first NGO created in Albania in 1991 and enjoys long experience through implementing numerous projects. This NGO played an important role in capacity building of AEEM on project management; PPNEA firstly provided training to AEEM project staff and as well acted as supervisor during the project's implementation. PPNEA in the frame of its project organized during 2014 trainings and allocated small grants to support the implementation of small projects, showing real examples of alternative sustainable economic activities. A group of selected stakeholders from Karavasta area joined trainings that PPNEA organized on the above mentioned subject and a group of 20 selected stakeholders from Karavasta carried out field visits to observe live the results of the small projects on sustainable alternative livelihoods, realized under the PPNEA's granted project.**
  In addition the project findings presented to the wide public, the webpage of the project partner PPNEA, social media pages of AEEM and PPNEA, and as well brochures.

- **The organization for the protection of fisheries that administrates the lagoon provided us vehicles, boats, rent facilities etc, and in response we provided them training staff with the adequate methodology for the economical and ecological assessment in order to achieve the expected results.**
- **Agriculture University of Tirana in which we have conducted all the analysis of water, sediment and plants.**
- **Stakeholders that participated in the project results are: (i) Ministry of Environment, with its representatives that took part in the workshops organized during the project.**

- **(ii) Directorate of Forest Services Lushnje, provided assistance with its inspectors in the national park of Divjake – Karavasta, which accompanied us during our work in the field. They were part of the trainings organised by PPNEA, which is a partner of AEEM centre. The head of Directorate of Forest Services Lushnje Mr. Ardian Koci offered its support through directorate inspectors and as well made it possible for our staff to organize meetings and trainings for 'Albanian & International Standards for Managing the Protected Areas'' in the institution offices. (v) Directorate of Agriculture Lushnje,**
- **(vi) Municipality of Divjaka was our main supporter during the project. Thus, the vice chairman Mr. Llazar Vodo was in constant connection with our staff and provided his assistance in the infrastructure part of the project, as well as helped in collecting the data from the other agriculture specialists in the villages nearby.**

ConservationImpacts

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

Please summarize the overall results/impact of your project.

For the first time this project discovered and described the main goods and services in the Lagoon of Karavasta and as well generated data that will help in developing the potential opportunities that this lagoon offers. So, the main Goods of Karavasta Lagoon are: in Fisheries, with a production average of 300 tons per years (Ater, Bass, Eel, Mullet, Koce, Cuttlefish, ect); in Agriculture, with About 4500 hectares of land and know for the cultivation tradition of agriculture products, vegetables, cereal, forage plants, olive oil production and growth of mushrooms; Wildlife: with 25 species of mammals and about 210 species of birds winter; Medicinal plants: like basil, rosemary, crock pine, pine needles, myrtle, laurel ect; Endemic plants: with a large number of endemic ; Water: that is used to extinguish the fire in Divjaka forest.

The main Services of the Karavasta Lagoon are: It supports a range of biological diversity, Water Transport, recreation, Cultural, historical and traditional, Education, Flood and flow control, Supports a productive fishing environment. During the project work the services in the lagoon were categorized based on Millennium Assessment (MA) (2005).

(i) Provisioning services with direct use are fisheries (high level), medicinal plants, agriculture, mineral, wildlife (medium level) and Provisioning services with indirect use are endemic plants (high level), water (Medium level);

(ii) Regulating services with direct use are recreation, education, cultural, historical and traditional services (high level) and with indirect use Flood and Flow control (high level), Hydrological regime, Biological regulation (low level);

(iii) Supporting services with direct use are; Supports a range of biological diversity (high level), and Water Transport (low level) and supporting services with indirect use such as supporting a productive fishing environment (medium level).

Categorizing services orients to use them properly

This project discovered that Locals that live in the area around the Lagoon think it is in good conditions and preserves the biodiversity and rage of natural resources.

Agricultural, Fisheries and **Tourism values were determined from the field research**
Total Economic Value (TEV) of the main economic uses of Karavasta lagoon was also determined.

Our study and research nowadays provides huge advantages to the local representatives. By providing them our results, they now know better the potential opportunities that the area offers and as well how to plan their main activities. The study on tourism approved that this area provides opportunity to develop more based on the revenues that come from tourism activities. This project showed that the mixture of guesthouses with the biodiversity and its natural beauty is a good hint to develop the tourism in this area.

In the ecological evaluation, the following steps were put in practice:

-Assessment of vegetation, categorizing
=Generating information for the level of pollution in the lagoon, sediments and plant (this step will help the company in charge for the administration of the lagoon to take decisions in order to protect the lagoon from pollution. Our project provided information on the origin of the pollution, polluting sources and guided the staff in charge on how to reduce the pollution)

Please provide the following information where relevant:

Hectares Protected: surface of watershed 5.800 ha.

Species Conserved: Flora and vegetation around the lagoon

- **From our studies we have come to the conclusion that flora of Karavasta is rich. We have identified approximately 112 plants, which belong to 38 families. This is a considerable resource, if we take in consideration this small extent of the undertaken studied area. Based on the Red book (Vangjeli etj, 1996) and new electronic variant (2006) we identified 10 species as Rare and threatened plants, mainly of sandy dunes, as well as on aluvional forests, costal wetlands *Pancratium maritimum* L., *Matthiola tricuspidata* (L.)R.Br., *Quercus ilex* L., *Ammophila arenaria* L., *Hypericum perforatum* L., *Origanum vulgare* L., *Lotus cytisoides* L., *Colchicum autumnale* L., *Stachys maritima* Gouan, *Quercus robur* L.**

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

Providing information to the forest inspectors about goods and services in the lagoon was a step forward for the directorate of the forest services in Lushnje, since they are strongly working on how to improve the goods and services in the lagoon. In addition, publishing the results of our economic study to the local residents that live in the villages nearby the lagoon, improved their efforts to cultivate and trade their products. Last but not least, making available the results about the level of pollution in the lagoon encouraged the fishing company to work more on preventing pollution and as well taking preventive actions as for the emissions in the lagoon. In perspective, the expected results of the project will be as following:

- **An increase in the usage goods and services that the lagoon provides**
- **An increase in the number of visitors of the park**
- **The establishment of a center for public reception in the park**
- **An increase in the production of agricultural products**
- **The decline of the heavy metals in the lagoon.**
- **Preservation and restoration of in dangerous species**

Were there any unexpected impacts (positive or negative)?

Promoting Guest house tourism as a coordination of natural values of the area with the touristic ones.

Component 1 Planned: Identification of Ecological Assets, Ecosystem Services and Goods
-a detailed report containing information on the ecosystem goods and services of the Karavasta Lagoon area
-Brochure on "Ecosystem services of the Karavasta Lagoon
Component 1 Actual at Completion:
- Report on "Environmental and ecological assessment of ecosystem services in Karavasta lagoon."
-Brochure on "Ecosystem services of the Karavasta Lagoon
Component 2 Planned: Economical assessment of Ecosystem Services
-Detailed report on economical assessment of ecosystem services
-Brochure on "Economic values of ecosystem services of Karavasta Lagoon area".
-Scientific paper in scientific journal; Albanian Journal of Agricultural Sciences
Component 2 Actual at Completion:
-Detailed report on economical assessment of ecosystem services
-Brochure on "Economic values of ecosystem services of Karavasta Lagoon area".
-Scientific paper in scientific journal; Albanian Journal of Agricultural Sciences –in press
Component 3 Planned: Ecological assessment of ecosystem services of the Lagoon of Karavasta
-Detailed report on the ecological state of the ecosystem services of the Lagoon of Karavasta.
- Informative article on Albanian daily journal or periodic environmental journal
- One Scientific article that will be published in scientific journal; in Fresenius Environmental Bulletin.
Component 3 Actual at Completion:
-Detailed report on the ecological state of the ecosystem services of the Lagoon of Karavasta.
- Informative article on Albanian daily journal or periodic environmental journal –published in Mjedisi sot
- One Scientific article that will be published in scientific journal; in Fresenius Environmental Bulletin published
Romina Koto, Aida Bani, Teuta Topi and Mirjan Topi 2015, WATER QUALITY AND HEAVY METALS CONTENT OF KARAVASTA LAGOON IN ALBANIA, Fresenius Environmental Bulletin. Factor impact 0.7. In press.

ROMINA KOTO, **AIDA BANI,** NAJADA SKUKA **(2014)**Physico-chemical characteristics and heavy metal contents of water from Karavasta lagoon, Albania. **Albanian j. agric. sci. 2014;13 (3): 55-60ISSN: 2218-2020**

Romina Koto, *Aida Bani****. Assessment of heavy metal contamination in sediments of the Karavasta Lagoon, Albania XX CONGRESS OF THE CARPATHIAN BALKAN GEOLOGICAL ASSOCIATION, TIRANA, ALBANIA, 24-26 SEPTEMBER 2014***

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.***

Were any components unrealized? If so, how has this affected the overall impact of the Project?
All the components were realized

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

-Brochure on "Economic values of ecosystem services of Karavasta Lagoon area". Comes as an innovation for the Albanian reality. For the first time, the brochure provides information on the revenues that come from agriculture, tourism and fishing.

The Brochure on "Ecosystem services of the Karavasta Lagoon as well bring an innovation for the Albanian reality since it uses the new method MA 2005 on the evaluation of the conditions of the Karavasta Lagoon. The methodology used on the ecological evaluation of the lagoon is as well an innovation since is the first time that his type of study is done about the Karavasta lagoon and will help different researchers in their particular studies.

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 organization or others, aswell as lessons that might be consideredby the global conservation community.

Projec tDesign Process:(aspects of the project design that contributed to it ssuccess/shortcomings)

Project Implementation:(aspectsof the project execution that contributed to its success/ Shortcomings)

Other lessons learned relevant to conservation community:
An important lesson we got from this project is that cooperation, teamwork, relationships with the community have a strong impact towards success.

The PPNEA collaboration with local organizations expands our organization. We benefited from their experience during training and ongoing consultations. It also helped our organization in its structuring.

One other very important lesson learned during the implementation of the project is to work on site, contact with people is crucial in succeeding.
Designing the project around four specific components, with great importance for the preservation and conservation of the flora, was an important pre-requisite for the successful Implementation of the project in collaboration with local stakeholders and support from PPNEA to make sure everything went according to plan.

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

***Additionalfundingshouldbe reportedusingthe followingcategories:**
A) Project co-financing (Otherdonors contributeto the direct costsof thisCEPFproject)
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 successes related to this project.)

Note: There were no donator that provided cash for the project, but only support from the municipality of Divjaka and the directorate of forest services, which provided assistance on reunion rooms, halls and workshop.
Furthermore the firms that manage the lagoon provided us vehicles, boat, rent facilities etc,
The Agricultural University of Tirana made it possible that the staff of AEEM centre would personally work on chemical analysis of the water, sediments and the vegetation in the lagoon.

Sustainability/Replicability

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

1. **Relied on the meetings, publications of results, reports and brochures, the project increased Stakeholders' awareness and capacities on socio-economical benefits coming from sustainable use of ecosystem services, encourage by the project achievements the policy makers have risen their attention and development policies towards sustainable livelihood which will have an important positive impact on the preservation of Lagoon natural environment. The publications and the brochures of this project are now available for the stakeholders and the public, so the orientation on how to deal with the lagoon will continue.**
2. **The unique results of this project were done by specialist on this field of science and will serve as reference for further studies.**
3. **AEEM centre encouraged by this project supported by CEPF is planning to undertake another project in this area.**

Summarizeany unplanned sustainability or replicability achieved.

Safeguard Policy Assessment

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

The main aim of our work was to maintain a stable protection on the environmental values of the area. Thus, we managed to enter the lagoon when it was allowed and the island of pelicans was observed in the allowed distance. The observation of flora was carefully done, taking in consideration that no plant species was harmed.

Additional Comments/Recommendations

The staff of AEEM- center is grateful and appreciates CEPF for the possibility to implement this successful project in the area of Karavasta. This project was a unique experience for us and as well a unique opportunity for this area based on its results.

Information Sharing and CEPF Policy

CEPF is committed to transparent operations and 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 news letter and other communications.

Please include your full contactdetailsbelow:

Organisation Name: Ecological and economical assessment of ecosystem services in the Karavasta Lagoon
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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.	yes	5.800 ha	5.800 ha	Please also include name of the protected area(s). If more than one, please include the number of hectares strengthened for each one Divjak-Karavasta national Park .
2. How many hectares of new and/or expanded protected areas did your project help establish through a legal declaration or community agreement?	no			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	5.800 ha	5.800 ha	sensitization and planted the new 10,000 pine seedlings in the forest of Divjakes with support from the community in the context of tourism development and preservation possibility of fires -monitoring island of the pelicanit prohibition of hunting in the park
4. Did your project effectively introduce or strengthen biodiversity conservation in management practices outside protected areas? If so, please indicate how many hectares.	no			
5. If your project promotes the sustainable use of natural resources, how many local communities accrued tangible socioeconomic benefits? Please complete Table 1below.	yes	4		Collaboration and Training of forest inspectors about goods and services in the lagoon Traininig of guest house families for sustenable use of the park Training of fishermen

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												
	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
Forest inspectors									x	x	x			x	x	x		x	x	x	
Guest house owner	x	x				x				x									x		
Fishermen									x	x	x		x	x							
Community	x	x							x	x						x					
Farmers	x								x							x			x	x	
Tourist agents		x								x		x							x		
Total	3	3				1			4	5	2	1	1	2	1	3		X1	4	2	

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