

## CEPF Final Completion and Impact Report

<b>Organization's Legal Name:</b>	Udruga Dinarica
<b>Project Title:</b>	Establishing Pillars for Conservation of Endemic Freshwater Biodiversity in KBA Livanjsko Polje and Buško Lake
<b>Grant Number:</b>	CEPF-109224
<b>Hotspot:</b>	Mediterranean Basin II
<b>Strategic Direction:</b>	2 Support the sustainable management of water catchments through integrated approaches for the conservation of threatened freshwater biodiversity
<b>Grant Amount:</b>	\$148,405.00
<b>Project Dates:</b>	July 01, 2019 - June 30, 2022
<b>Date of Report:</b>	September 14, 2022

### IMPLEMENTATION PARTNERS

The CSO Platform for the protection of Livanjsko polje was created by Udruga Dinarica during this project. The platform's main aim is to advocate for the protection of Livanjsko polje under category V.a. of the BiH legislation. The Platform unites CSOs currently operating in Livanjsko polje and locals who care about the nature of Livanjsko polje into one group. Viber and google group was created to exchange information among participants of the group.

University of Mostar: Udruga Dinarica signed an MoU with the University of Mostar and faculties provided mentors for PhD researcher Sanja Duranović as well as equipment for the research.

Speleological Society Mijatovi Dvori, Tomislavgrad: A subgrantee of CEPF. In the project, they conducted underground research of caves to specifically look for endemic fish species. The cave system would have been damaged by the planned Hydropower Plant Vrilo if the construction of the plant went as planned. Most of the endemic species were found in cave systems. Speleological Society Mijatovi Dvori is in the Platform for the protection of Livanjsko polje.

EUSR: Anglers Association for in charge of rivers (Sturba, Žabljak and Bistrica) and two accumulations (Lipa and Mandek) in Livno. The anglers from this association actively participated in fieldwork and monitoring. Together with the project team, they engaged with inspections in instances of water pollution or an abundance of dead fish found floating in the waters. EUSR was active in scouting for locations for endemic fish species as preparation for fieldwork. They also participated in the Policy Recommendation document finalization.

OBrEEN: Anglers Company in charge of Buško Lake. This association actively participated in fieldwork and monitoring. They were active in the promotion of endemic fish species in media (Director of OBrEEN especially active), in engaging with inspections, hydropower plant and politicians.

## CONSERVATION IMPACTS

Planned Long-Term Impacts: 3+ years (as stated in the approved proposal)

Impact Description	Impact Summary
By 2030 populations of endemic fish species in KBA Livanjsko Polje and Buško Lake have favourable conservation status due to improved legislation and new water/environmental permits with integrated provisions for biodiversity conservation	With the protection of the field which is imminent, the company/institution in charge of the protection would have a say in any further intervention in nature. If set up well, this institution would improve the legislative framework and field implementation of biodiversity conservation. Our project provided the baseline for hotspots for endemic fish species which would be core zones of importance for endemic fish species. In addition, Hydropower Plant Vrilo was halted, preserving the cave system important for the endemic fish and other species.

Planned Short-Term Impacts: 1 to 3 years (as stated in the approved proposal)

Impact Description	Impact Summary
By end of the project population status of 5 endemic fish species and important hotspots for their conservation in Livanjsko Polje and Busko Jezero are known	During two years research, the population of all endemic species was estimated as declining. One of the 5 species prescribed by the project was not found at all (lat. Phoxinellus alepidotus) in the area prescribed by the project design. The hotspot locations for endemic fish species were determined. Endemic fish species were mainly found in areas intact by hydropower, except for Mandek creek which flows from one accumulation (Mandek) into a bigger one (Buško lake). This means that endemic fish can adapt to artificial conditions. The hydropower intact area with the most endemic fish found is river Jaruga in the northern part of Livanjsko polje. In the currently proposed zonation conducted by UNEP and the Federal Ministry of Tourism and Environment, river Jaruga is not a core or red zone of protection. Due to the fact, the project team has found 4 out of 5 endemic fish species in Jaruga with no predatory species, we propose that part to be a core or red zone of protection. In Buško lake most endemic fish were found close to estuaries of rivers. The probable reason behind that is that fish from Buško lake use estuaries as hiding spot against predators.

Impact Description	Impact Summary
Informal network of local grassroots CSOs capable for effective advocacy against biodiversity loss is formed	A network including Centar za životnu sredinu, Naše Ptice, UNEP, Cener21, Euronatur, EUSR, OBrEEN, Stur.ba, Continental Adventures, Tourist Bord of Livno, Forests of Livno are included in this informal CSO group. The focus of the group is the promotion of Livanjsko polje and advocacy for protection. Viber and google groups are formed where information is exchanged. Also, a Facebook webpage used for quick info exchange exists and is administrated by Naše Ptice called karst fields. <a href="https://www.facebook.com/groups/363658577906171">https://www.facebook.com/groups/363658577906171</a>
By June 2022 local and national public is informed on Status of endangered fish fauna in Livanjsko Polje and ways to improve their conservation status	Through media articles, many individual meetings, live workshops and streaming of workshops this was as well as commenting on strategies and legislation on all levels of government this was achieved.
By mid 2021 Policy recommendations report for improving conservation status of threatened endemic fish species in produced and shared with relevant authorities	It is drawn up in terms of an Action Plan/Policy Recommendations document based on the legal analysis conducted and the field research. Our conclusions from the project are used in advocacy and in political discourse regarding Livanjsko polje.

### Unexpected impacts (positive or negative)?

There were no positive or negative unexpected impacts.

## PROJECT RESULTS/DELIVERABLES

### Overall results of the project:

The biggest achievement of the project is halting the hydropower project CHE Vrilo. Hydropower company Elektroprivreda HZHB abandoned the construction of the project once the German Development Bank KfW halted the financing due to interventions of NGOs and Local communities (led by WWF Adria, Udruga Dinarica). The cancellation of the project was announced in August of 2021. The Hydropower project would have irreparably damaged the underground connection from Duvanjsko to Livanjsko polje destroying biodiversity and archeological sites that have still not been fully discovered. During the project, we investigated endemic fish species in the cave system and we found 4 out of 5 species endemic to Livanjsko polje in the underground lakes.

Forming a Platform for the protection of the Livanjsko polje karst field is one of the most evident results which enables the sustainability of the project by advocating for the protection of Livanjsko polje under category V.a. of the national legislation. Group is currently active through the EuroNatur project and activities are constantly ongoing. We initially agreed on this group during Udruga Dinarica organized biodiversity inventarization workshop in Livno and Viber and Google Mailing Lists were organized there. We have regular meetings to coordinate activities, media engagement, workshops, meetings with officials and overall advocacy.

Baseline study for fish research and identification of locations provide foundations for the protection of the endemic fish species, given the current move to protect Livanjsko polje by

category V.a. under the Law on Nature protection of the Federation of BiH. Researcher Sanja Duranović is also in the process of finalizing her PhD studies based on field research conducted in the project. The PhD of Ms. Duranović as well as documents produced in the project will serve as a basis for endemic fish species protection once it is established.

By commenting on Environment Impact Assessment, development strategies and issuance of environment and water permits we also rose awareness and included endemic fish species problems in municipal, cantonal and federal development plans, strategies and legislation.

Media engagement of Udruga Dinarica in the duration of the project produced a lot of reactions both on social media and by direct calls for a meeting. Buško lake's use of water is an especially sensitive issue since a hydropower company from Croatia is using water from Bosnia and Herzegovina in a non-transparent way. During the project rulebooks and legislation for water use by HEP (Croatian Hydropower Companies) were changed. This was not a direct result of the project, but the media presence of the endemic fish research project and calling out HEP helped as argumentation for politicians to make this law pass which will apply from 2023.

**Results for each deliverable:**

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
1.0	Baseline research on endemic fish species of Livanjsko Polje and Busko Lake	1.2	Methodology and timeline for fish research developed, research conducted and report produced by end of 2021	On the 3rd of April 2020, a fish research methodology workshop was conducted with Dr. Jeorg Freyhof where project researcher Sanja Duranović presented the methodology of fish research agreed upon together with Dr. Freyhof. The methodology was subsequently upgraded by more detailed fieldwork timelines agreed upon by mentors from the University of Mostar. A preliminary report was finalized in December 2020 upon which additional fieldwork was conducted in spring and autumn 2021 to control for marked fish. In December 2021 final report was produced as well as a summary of the main findings which were finalized in March 2022. Additionally, PhD researcher is finalizing her PhD thesis which is of a different format and together with her mentors they conducted additional controls of marked fish in 2022.
1.0	Baseline research on endemic fish species of Livanjsko Polje and Busko Lake	1.1	Local fish researcher hired and MoU signed with University	Local fish researcher Sanja Duranović was hired in December 2019. She enrolled in a PhD program at the University of Mostar in February 2020. The memorandum of Understanding with the University of Mostar was signed on 27.7.2020.
3.0	Media work	3.1	Social media profiles (Instagram, Facebook) of the project created and regularly updated	Social media profiles were opened upon hiring a project coordinator and the researcher in 2020. Links to Facebook and Instagram accounts of the project:

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				<p><a href="https://www.facebook.com/Freshwater-Biodiversity-Livanjsko-Polje-Bu%C5%A1ko-Jezero-102188551435061/?ref=pages_you_manage">https://www.facebook.com/Freshwater-Biodiversity-Livanjsko-Polje-Bu%C5%A1ko-Jezero-102188551435061/?ref=pages_you_manage</a></p> <p><a href="https://www.instagram.com/fish_research_bu_sko_lake/?hl=en">https://www.instagram.com/fish_research_bu_sko_lake/?hl=en</a></p> <p>The Facebook account was more commented on so more attention was given to Facebook.</p>
2.0	Stakeholder engagement	2.1	Stakeholder Engagement Plan developed	<p>The project team developed the Stakeholder Engagement Plan in March 2020. The Stakeholder Engagement Plan was the basis for the first meetings and advocacy activities. The platform for the protection of Livanjsko polje – a group comprising of organizations and locals with the aim to proclaim Livanjsko polje protected under category V.a. evolved from this plan but also government meetings and workshops were derived from this initial plan.</p>
2.0	Stakeholder engagement	2.2	Informal grass-root CSO platform "Friends of Polje" initiated, their awareness and knowledge on threats and opportunities of the area increased as demonstrated by meeting minutes, copy of presentations and list of participants	<p>Before the covid pandemic in February 2020 project team attended one workshop in Livno organized by EuroNatur.</p> <p>Fish research methodology workshop in April 2020 was the first one organized online by Udruga Dinarica upon which a series of online workshops ensued: presentation of Legal Analysis, Presentation of Preliminary Report, Attendance and organization of regional Conferences on River Protection. Many individual meetings with stakeholders were organized in this period since it was deemed</p>

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				<p>safer to proceed with individual meetings. The Inventarisation of Biodiversity workshop was organized in October 2021. Around 40 people attended the workshop on which the Platform was created. In April 2022 a presentation on procedures of protection of an area for the government authorities was organized by the Platform. On the link below is a video of an awareness raising workshops organized by the Udruga Dinarica with members of the Platform <a href="https://fb.watch/f5BmHLQOLm/">https://fb.watch/f5BmHLQOLm/</a></p> <p>It was livestreamed and Radio Livno also transmitted the conference. After this workshop project team was invited to the City Assembly of Livno to present the state of waters in Livanjsko polje. The final conference was organized on the 25th of June.</p>
3.0	Media work	3.2	Local and national media are kept informed on project deliverables through media conferences and press releases	<p>Examples of media articles and engagement during the project:</p> <p><a href="https://www.hbz-vijesti.com/projekt-ocuvanju-slatkovodne-bioraznolikosti-livanjskog-polja-i-buskog-jezera/">https://www.hbz-vijesti.com/projekt-ocuvanju-slatkovodne-bioraznolikosti-livanjskog-polja-i-buskog-jezera/</a></p> <p><a href="https://www.jabuka.tv/zastita-autohtonih-ribljih-vrsta-livanjskog-polja/">https://www.jabuka.tv/zastita-autohtonih-ribljih-vrsta-livanjskog-polja/</a></p> <p><a href="https://snagalokalnog.ba/en/meeting-on-the-fish-protection-project-in-livno/">https://snagalokalnog.ba/en/meeting-on-the-fish-protection-project-in-livno/</a></p> <p><a href="https://www.federalna.ba/endemske-ribe-u-bih-fmch">https://www.federalna.ba/endemske-ribe-u-bih-fmch</a></p>

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				<p><a href="https://www.bljesak.info/lifestyle/kucni-ljubimci/kakve-vrste-riba-krije-livanjsko-polje/366390">https://www.bljesak.info/lifestyle/kucni-ljubimci/kakve-vrste-riba-krije-livanjsko-polje/366390</a></p> <p><a href="https://fena.ba/article/1241243/istrazivanja-endemskih-vrsta-riba-livanjskog-polja">https://fena.ba/article/1241243/istrazivanja-endemskih-vrsta-riba-livanjskog-polja</a> Following article under the name "are the endemic species of Livanjsko polje disappearing" provoked the most interest and was published across borders of BiH:</p> <p><a href="https://www.livno-online.com/zupanija/37035-nestaju-li-endemske-vrste-riba-na-podrucju-livanjskog-polja">https://www.livno-online.com/zupanija/37035-nestaju-li-endemske-vrste-riba-na-podrucju-livanjskog-polja</a></p> <p><a href="https://www.vecernji.ba/vijesti/nestaju-li-endemske-vrste-riba-na-podrucju-livanjskog-polja-1441637">https://www.vecernji.ba/vijesti/nestaju-li-endemske-vrste-riba-na-podrucju-livanjskog-polja-1441637</a></p> <p><a href="https://www.fena.ba/article/1180345/nestaju-li-endemske-vrste-riba-na-podrucju-livanjskog-polja">https://www.fena.ba/article/1180345/nestaju-li-endemske-vrste-riba-na-podrucju-livanjskog-polja</a></p> <p><a href="https://www.hina.hr/vijest/10504664">https://www.hina.hr/vijest/10504664</a> Interview about the project for HRT HB: <a href="https://www.youtube.com/watch?v=O1aVfG3fJ3s&amp;t=32s">https://www.youtube.com/watch?v=O1aVfG3fJ3s&amp;t=32s</a></p>
4.0	Policy and advocacy	4.1	Report on Status of Endemic Fish Species in KBA Livanjsko Polje and Busko Jezero developed and shared with relevant stakeholders (Federal and Cantonal Ministry of Environment,	The Preliminary Report was produced in December 2020. The Preliminary Report was already shared with stakeholders and government for comments. The Final Report is built up on the Preliminary Report taking into consideration 2021 spring and autumn field research. It was also shared for commenting.



Component		Deliverable		
#	Description	#	Description	Results for Deliverable
			Ramsar focal point, CBD focal point, ...)	The summary report was finalized in March 2022.
4.0	Policy and advocacy	4.2	Policy update recommendation report developed and shared with relevant stakeholders	The Legal Analysis was finalized in November 2020 and presented to stakeholders on an online workshop. Based on the legal analysis the Policy Recommendation brief was made which was shared for commenting with stakeholders. Angling societies were especially involved in production of the Policy Recommendations. The final Policy Recommendation Report was completed in March 2022.
4.0	Policy and advocacy	4.3	Final project conference organised in Livno (report and participant list)	The final conference was organized on the 25th of June with the attendance of 50 people including government officials, local partners and members of the Platform. Conference included canoeing for 30 people, presentation, informal discussion about projects and document stemmed from the project, as well as plans for the future. Pictures from the conference: <a href="https://www.facebook.com/photo/?fbid=561900978805977&amp;set=pcb.561901888805886">https://www.facebook.com/photo/?fbid=561900978805977&amp;set=pcb.561901888805886</a> Video made for promotional purposes: <a href="https://fb.watch/f5C1kx2Aet/">https://fb.watch/f5C1kx2Aet/</a>
5.0	Capacity building and project administration	5.1	CSTT/GTT filled up and sent to CEPF at beginning and end of project	Completed
5.0	Capacity building and project administration	5.2	Final Completion and Impacts Report filled up and	Completed

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
			submitted at the end of the project	
5.0	Capacity building and project administration	5.3	Copy of the presentation from participation to CEPF grantee meetings and exchanges	Presentations and proof of attendance shared with CEPF Program Officer

### **Tools, products or methodologies that resulted from the project or contributed to the results:**

Fish research methodology – developed with Dr. Freyhof on a workshop. It was later extended with an exact timeline of field visits, machines used and a description of work conducted. This is explained in the long version of the Endemic Fish Species of Livanjsko Polje Study.

Legal Analysis – at the beginning of the project legal analysis was conducted that was used in initial discussions with stakeholders upon which a summarized version of “policy recommendation” was developed.

Policy Recommendations – plan of measures on how to improve the status of endemic fish species in Livanjsko polje. This document served as a baseline for advocacy activities.

Endemic fish structure, population and locations study – scientific baseline for further research. Researcher Sanja Duranović will also produce a PhD based on this analysis. PhD will be extended to include other taxonomic species other than endemic fish that were found in the same field visits so that she can determine the conditions for species.

## **PORTFOLIO INDICATORS**

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
2.0	Number of KBAs under improved management and number of hectares covered			1,000	By halting CHE Vrilo no further construction works on Duvanjsko polje (building an additional accumulation) and works near caves of river Ričina

<b>Portfolio Indicator Number</b>	<b>Portfolio Indicator Description</b>	<b>Expected Numerical Contribution</b>	<b>Expected Contribution Description</b>	<b>Actual Numerical Contribution</b>	<b>Actual Contribution Description</b>
					will be done. This made around 1000 hectares intact and water management stays as it is under current conditions. CHE Vrilo would have deteriorated 15 kilometers of underground cave system by steering water into a pipe from one accumulation into another. So, the underground system full of biodiversity and archeological sites also remains preserved.
1.1	Number of land-use plans or land use management practices incorporate provisions for biodiversity conservation (e.g., integrated coastal zone management plans, river basin management plans, agricultural development plans, etc.)			2	EUSR Livno Anglers association got educated on locations of endemic fish species and their importance which they will include in their management plans. They particularly plan to try to spawn <i>Aulopyge huegelii</i> as they have recognized the importance of this species through the project activities. Hence, the management on three rivers Sturba, Žabljak and Bistrica with smaller tributary creeks have been improved. Approximate size of rivers under EUSR management is 60 hectares. By halting CHE

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					Vrilo the area where the accumulations of the of the Vrilo hydropower plant were supposed to be are preserved for agriculture, especially in the upper part of Duvanjsko polje where agriculture is more intense.
2.4	Number of Freshwater KBAs in priority CMZ with improved information on biodiversity, shared with stakeholders			1	Udruga Dinarica project in KBA "Livanjsko polje i Buško jezero" through research and promotion of project results increased awareness of locals and wider public of the existence of endemic fish species in Livanjsko polje. Halting of CHE Vrilo was a big success as well as the formation of group to promote protection of Livanjsko polje under category V.a. Media engagement and promotion of endemic fish species closely followed advocacy and research activities.

## GLOBAL INDICATORS

### Protected Areas

Protected areas that have been created and/or expanded as a result of the project. Protected areas may include private or community reserves, municipal or provincial parks, or other designations where biodiversity conservation is an official management goal.

Name of Protected Area	WDPA ID*	Latitude	Longitude	Country	Original Total Size (Hectares) **	New Protected Hectares ***	Year of Legal Declaration or Expansion
------------------------	----------	----------	-----------	---------	--------------------------------------	-------------------------------	--

\*World Database of Protected Areas

\*\*If this is a new protected area, 0 should appear in this column

\*\*\* This column excludes the original total size of the protected area.

## Key Biodiversity Area Management

Key Biodiversity Areas (KBAs) under improved management—where tangible results have been achieved to support conservation—as a result of the project.

KBA Name	KBA Code	Size of KBA	Number of Hectares with Improved Management
Livanjsko polje and Busko lake	BIH03		1,060

## Production Landscapes

Production landscapes with strengthened management of biodiversity as a result of the project.

A production landscape is defined as a site outside a protected area where commercial agriculture, forestry or natural product exploitation occurs.

Name of Production Landscape	Latitude	Longitude	Hectares Strengthened	Intervention
Rivers Sturba, Žabljak and Bistrica with smaller creeks	43.810826	17.002741	60	The EUSR Livno Anglers association got educated on the locations of endemic fish species and their importance which they will include in the fish management plans for the region. They plan to attempt to spawn <i>Aulopyge huegelii</i> as they have recognized the importance of this species through the project activities. Hence, the management of three rivers Sturba, Žabljak and Bistrica has been improved. The approximate size of rivers under EUSR management is 60.

## Benefits to Individuals

- **Structured Training:**

<b>Number of Men Trained</b>	<b>Number of Women Trained</b>	<b>Topics of Training</b>
70	15	Biodiversity inventarisation Fish research methodology Protected areas management

- **Cash Benefits:**

<b>Number of Men – Cash Benefits</b>	<b>Number of Women – Cash Benefits</b>	<b>Description of Benefits</b>

## Benefits to Communities

View the <b>characteristics</b> column below with the following corresponding codes:	View the <b>benefits</b> column below with the following corresponding codes:
1- Small Landowners	a. Increased Access to Clean Water
2- Subsistence Economy	b. Increased Food Security
3- Indigenous/ Ethnic Peoples	c. Increased Access to Energy
4- Pastoralists / Nomadic Peoples	d. Increased Access to Public Services
5- Recent Migrants	e. Increased Resilience to Climate Change
6- Urban Communities	f. Improved Land Tenure
7- Other	g. Improved Use of Traditional Knowledge
	h. Improved Decision-Making
	i. Improved Access to Ecosystem Services

Community Name	Community Characteristics							Type of Benefit									Country	Number of Males Benefitting	Number of Females Benefitting
	1	2	3	4	5	6	7	a	b	c	d	e	f	g	h	i			
Local community and fishermen of Livno	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bosnia and Herzegovina	120	30
Local community of Tomislavgrad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Bosnia and Herzegovina	30	20

### Characteristics of "Other" Communities:

- Local community and fishermen of Livno: Community of fishermen in Livno
- Local community of Tomislavgrad: Local community of Tomislavgrad with emphasis of people included in speleology, nature protection and archeology.

## Policies, Laws and Regulations

View the **topics** column below with the following corresponding codes:



A- Agriculture	E- Energy	I- Planning/Zoning	M- Tourism
B- Climate	F- Fisheries	J- Pollution	N- Transportation
C- Ecosystem Management	G- Forestry	K- Protected Areas	O- Wildlife Trade
D- Education	H- Mining and Quarrying	L- Species Protection	P- Other

No.	Name of Law	Scope	Topics															
			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Environment Impact Assesment CHE Vrilo (not avaiailable online, comments provided in attachment)	National	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Development Strategy of Herzeg Bosnian Canton	Local	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Water permit for operation of Crpna Stanica Buško Blato (not available online, attached to report, number 04-1/45-1-196-1/22)	National	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**“Other” Topics Addressed by the Policy, Law or Regulation:**

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment
1	Bosnia and Herzegovina	January 22, 2020	Halting the construction of hydropower company	Commented on Environment Impact Study, hired experts, contacts with financial institution to block the financing of the project, lawsuit with a verdict on 03.12.2019 in attachment.

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment
2	Bosnia and Herzegovina	April 22, 2021	Changed awareness of environmental issues in Canton and some comments taken into consideration	Commenting on the development strategy some environmental comments were taken into consideration <a href="https://www.vladahbz.com/sadrzaj/slike/objave/2021/07/Strategija-razvoja-HBZ-2021-2027-Prijedlog-310522021-FINAL-kraca-verzija-za-Skupstinu-objava-2.pdf">https://www.vladahbz.com/sadrzaj/slike/objave/2021/07/Strategija-razvoja-HBZ-2021-2027-Prijedlog-310522021-FINAL-kraca-verzija-za-Skupstinu-objava-2.pdf</a>
3	Bosnia and Herzegovina	March 29, 2022	Agency for Adriatic Watershed and Federal Ministry of Environment and Tourism imposing stricter rules on Croatian Hydropower Plant regarding fish restocking and management of endemic fish species.	Commented on water and environment permit (reissuance) for the work of Crpna Stanica Buško Blato. Outdated plan of fish restocking is taken out of the water permit and new rules were imposed. Now Angler Societies have a basis for further action on fish restocking. The Federal Ministry of Environment and Tourism has still not sent the requested reissued Environment Permit.

### Companies Adopting Biodiversity-friendly Practices

A company is defined as a for-profit business entity. A biodiversity-friendly practice is one that conserves or uses natural resources in a sustainable manner.

Name of Company	Description of Biodiversity-Friendly Practice	Country/Countries where Practice was Adopted
EUSR	Endemic fish species spawning and improved management of endemic fish stock.	Bosnia and Herzegovina
Stur.ba	Information on endemic fish species on birdwatching and canoeing tours of Livanjsko polje.	Bosnia and Herzegovina
Continental Adventures	Information on endemic fish species on tours of Livanjsko polje and in their offer.	Bosnia and Herzegovina

## Networks and Partnerships

Networks/partnerships should have some lasting benefit beyond immediate project implementation. Informal networks/partnerships are acceptable.

Name of Network/Partnership	Year Established	Country/Countries	Established by Project?	Purpose
Livanjsko polje - Krš i lom	2021	Bosnia and Herzegovina	Yes	<p>Promotion of the protection of Livanjsko polje under category V.a. of the Law of Nature Protection of FBiH. Members:</p> <p>Centar za životnu sredinu: Actively participated in advocacy activities with Udruga Dinarica, currently leads the platform for the protection of Livanjsko polje, which Udruga Dinarica formed in this CEPF project.</p> <p>Naše ptice: Actively participated in all activities, presented in front of city councils with Udruga Dinarica, and are part of the platform for the protection of Livanjsko polje.</p>

Name of Network/Partnership	Year Established	Country/Countries	Established by Project?	Purpose
				<p>UNEP: As the previous leader organization in the project to produce documents for the protection of Livanjsko polje (law and baseline study) they actively participated in activities and workshops.</p> <p>Cener21: Organization that produced the documents for the protection of Livanjsko polje (law and baseline study). They actively participated in workshops and are part of the Platform. They are also bound by contract to present documents regarding the protection of Livanjsko polje to interested groups.</p> <p>USAID Tourism Project: They are part of the platform for the protection of Livanjsko polje, and Udruga Dinarica/WWF Adria has a memorandum of collaboration signed with them on the protection of areas in BiH. They actively participated in workshops bringing experts and speakers.</p> <p>Stur.ba Canoeing and Birdwatching, Livno: They are entrepreneurs who work in sustainable tourism, birdwatching, and canoeing, who were very active in the work of the project, participated as mediators in the project, and as speakers. They announced workshops organized by Udruga Dinarica in local media and attended meetings with</p>

Name of Network/Partnership	Year Established	Country/ Countries	Established by Project?	Purpose
				<p>government officials organized by Dinarica. They are part of the platform.</p> <p>Continental Adventures, Livno: Entrepreneurs, a tourist agency working on sustainable tourism and promotion of Livanjsko polje. It is also a production company working on movies and promotional videos. They are a part of the platform and Udruga Dinarica collaborated with them on all events (organized one workshop for cantonal and municipal authorities), they attended meetings, etc.</p> <p>Speleological Society Mijatovi Dvori, Tomislav: A subgrantee of CEPF. In the project, they conducted underground research of caves to specifically look for endemic fish species. The cave system would have been damaged by the planned Hydropower Plant Vrilo if the construction of the plant went as planned. Most of the endemic species were found in cave systems. Speleological Society Mijatovi Dvori is in the Platform for the protection of Livanjsko polje.</p> <p>EUSR: Anglers Association for in charge of rivers (Sturba, Žabljak and Bistrica) and two accumulations (Lipa and Mandek) in Livno.</p>

## Sustainable Financing

Sustainable financing mechanisms generate funding for the long-term (generally five or more years). These include, but are not limited to, conservation trust funds, debt-for-nature swaps, payment for ecosystem services (PES) schemes, and other revenue, fee or tax schemes that generate long-term funding for conservation.

Name of Mechanism	Purpose	Date Established	Description	Country/Countries	Project Intervention	Delivery of Funds?
-------------------	---------	------------------	-------------	-------------------	----------------------	--------------------

### Globally Threatened Species

Globally threatened species (CR, EN, VU) on the IUCN Red List of Threatened Species, benefitting from the project.

Genus	Species	Common Name (English)	Status	Intervention	Population Trend at Site
Squalius	tenellus	Livno chub	EN	Preparation of a conservation action plan, monitoring, patrolling, inclusion in local and national protection strategies, identifying hotspots in Livanjsko polje.	Decreasing
Telestes	turskyi	Cikola riffle dace	CR	Preparation of a conservation action plan, monitoring, patrolling, inclusion in local and national protection strategies, identifying hotspots in Livanjsko polje.	Decreasing
Phoxinellus	alepidotus	Naked minnow	EN	Preparation of a conservation action plan, monitoring, patrolling, inclusion in local and national protection strategies, identifying hotspots in Livanjsko polje.	Decreasing
Aulopyge	huegelii	Dalmatian barbel-gudgeon	EN	Preparation of a conservation action plan, monitoring, patrolling, inclusion in local and national protection strategies, identifying hotspots in Livanjsko polje.	Decreasing
Chondrostoma	phoxinus	Minnow nase	EN	Preparation of a conservation action plan, monitoring, patrolling, inclusion in local and national protection strategies, identifying hotspots in Livanjsko polje.	Decreasing

## LESSONS LEARNED

What we have learned in this project is that: however well the project is initially designed many new revelations or circumstances can change the course of the project. One has to be patient, diligent and respect the bureaucratic procedures to change the design of activities or even objectives so that the project can be implemented with the most effective result. What we also learned is that projects never end. This is why it is of utmost importance to ensure the continuity of activities through partnerships and engagement with stakeholders. As the Udruga Dinarica project was mostly research-oriented, we proposed and advocated for measures based on field research. The project should be continued by concrete field interventions or legislative changes as proposed by Policy Recommendations and Fish Study documents. Through the formation of the platform of CSOs, cooperation with government authorities, and further fundraising the proposed measures are to be implemented. The interest of the local community in the project was to our surprise immense. People care about their environment but are not against the development of infrastructure. We learned through our work that if endemic species are presented as local patriotic heritage, as something special or specific for the region that the locals can be proud of, it is easier to engage with people and make local communities involved in biodiversity conservation more easily. Religious leaders can also be great allies in the conservation of nature. The main goal of the project was to investigate the status of endemic fish species to have arguments for halting the Hydropower Plant Vrilo. In Summer 2021 it was officially communicated that the Vrilo Hydropower plant was finished. However, in the fieldwork, many other opportunities to better the management of endemic fish species and improve their management arose so again sustainability of activities is key. We had adversarial meetings with government officials and contractors of the hydropower company. The lesson learned from this is to try to avoid conflict and be cooperative as much as possible. Resolving conflicts peacefully is the best option, since if the conflict escalates nothing is going to be done. In a democratic society sometimes things resolve themselves better on their own through mass pressure. Media engagement and soft power is the best way to act in these situations.

## SUSTAINABILITY/REPLICATION

The University of Mostar has shown interest in the independent continuation of research on Livanjsko polje and expanding research in Livanjsko polje from ichthyofauna to other taxonomic species. Currently PhD of Ms. Duranović, the project researcher deals with this and she has undertaken more field visits to account for other species and determine the conditions of habitat. University of Mostar staff is preparing EU projects on Livanjsko polje.

The platform of CSOs to protect Livanjsko polje which was founded on Udruga Dinarica organized workshop continues to operate. The coordinator is currently Centar za životnu sredinu as it continues to have an advocacy project in Livanjsko polje financed by EuroNatur.

"Sanation" of lakes and accumulations if conducted can be replicated in other areas. We proposed that this is done by fishing out invasive species, specifically for Prussian carp, to make small lagunes in the shallow waters. Prussian carp likes warmer shallow water it would come to those areas and then it would be easy for it to be disposed.

Spawning of endemic fish species artificial spawning of endemic fish species needs to be researched. Society EUSR showed interest in attempting to spawn Dalmatian barbelgulike (lat. Aulopyge huegelli) instead of invasive predatory species.

## **ENVIRONMENTAL AND SOCIAL SAFEGUARDS/STANDARDS**

No safeguard were triggered.

## **ADDITIONAL COMMENTS/RECOMMENDATIONS**

### **ADDITIONAL FUNDING**

<b>Total Amount of Additional Funding Actually Secured (USD)</b>	\$10,400.00
<b>Breakdown of Additional Funding</b>	10,050.00 WWF Netherlands  WWF Adria Protected Areas for People and Nature bought binoculars for our Angler Organization partners for poaching prevention - around 350 dollars Naše Ptice and USAID participated financially in some workshops organized by Udruga Dinarica by bringing and paying speakers.

## **INFORMATION SHARING AND CEPF POLICY**

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. For more information about this project, you may contact the organization and/or individual listed below.

Vedran Kordic vkordic@wwfadria.org