NORMA CENTER

PROJECT PROGRESS REPORT

Artificial Water Reservoirs as Essential Habitats for Tetrapods

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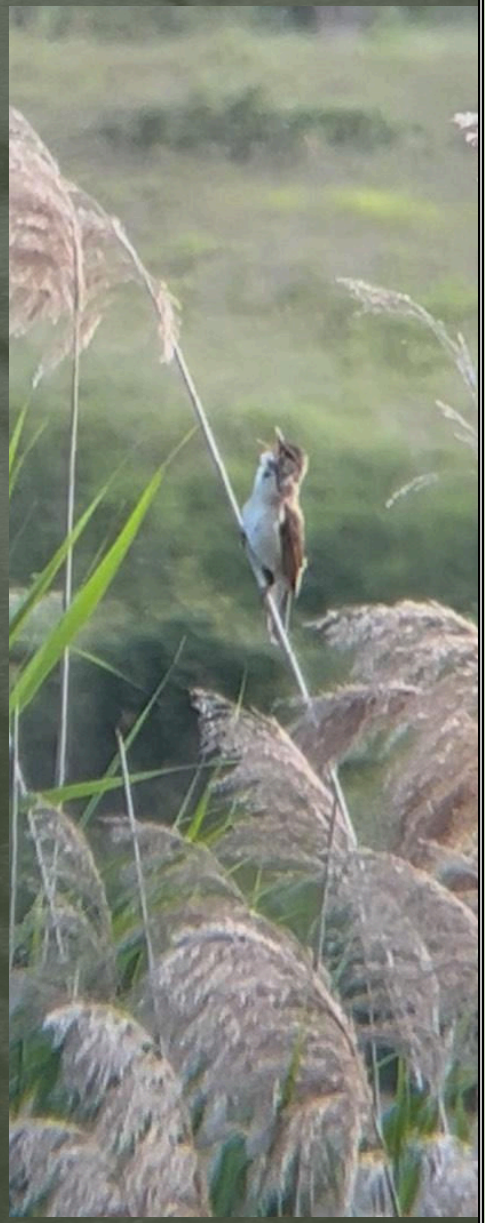
PROJECT AIM



The project aims to assess the biodiversity and habitat quality of Kecve Lake while updating the outdated Strategjia për Territorin e Shijakut (Duraj et al., 2016) published by Shijak Municipality.

Research and monitoring will provide critical data to align with the strategy's vision and objectives. Stakeholder engagement will address human-wildlife conflict, ecosystem services, and pollution, fostering collaboration between locals and public institutions for improved territorial management.

Environmental awareness activities will focus on Red List species in the artificial reservoir, promoting long-term preservation of local biodiversity and key species while enhancing transparency and efficiency in managing natural resources.

COMPLETED ACTIVITIES

ACTIVITY 1: KICK-OFF MEETING

COMPLETION DATE
17 June 2025

The first activity was the Kick-off Meeting of the project, with participation of many stakeholders. This meeting was held with an open invitation to fishermen, farmers, the local community, and special invitations were extended to representatives from various institutions.

Institutional representatives were initially asked to attend a face-to-face meeting. Many of them were first met informally to introduce them to the project, and afterward, they received an official invitation to the formal meeting.

Figure 1: Informal meeting with representative, Kostian Jano, from GIZ Albania.

Figure 2: Informal meeting with representative, Jula Selmani, from Ministry of Tourism and Environment

ACTIVITY 1: KICK-OFF MEETING

COMPLETION DATE
17 June 2025

The meeting had a structured agenda focusing specifically on the Territorial Strategy of Shijak. Opening remarks were delivered by moderator Deart Dervishi. Afterwards, representatives from the Norma Center and Shijak Municipality introduced their organizations, shared their perspectives on habitat preservation work, and discussed the importance of initiatives like this. Specifically, Mr. Aldi Shehu, Executive Director of the Norma Center, and Mr. Elton Arbana, Mayor of Shijak Municipality.

Figure 3: Opening remarks by the moderator, Deart Dervishi

Figure 4: Opening remarks by the Mayor, Elton Arbana

ACTIVITY 1: KICK-OFF MEETING

COMPLETION DATE

17 June 2025

Figure 5: Project Manager, Fabjola Selmani, and Project Assistant, Doriana Kërtusha, presenting the project and diving into the analysis of the "Territorial Strategy of Shijak"

Later, together with project assistant Doriana Kërtusha, we presented the main findings from my master's thesis and outlined the future direction of this project, focusing on the local territorial strategy. Afterward, a Q&A session was held with invited panelists: Ms. Jonida Goga (Director of Urban Planning – Shijak Municipality), Ms. Hilda Hoti (Representative from the Agency for the Management of Water Resources), and Mr. Zydjon Vorpsi (Project Manager from the Protection and Preservation of Natural Environment Albania).

This segment aimed to gather valuable suggestions from environmental experts and encourage collaborative dialogue.

ACTIVITY 1: KICK-OFF MEETING

KEY RESULTS

1. VALUABLE SUGGESTIONS FROM ENVIRONMENTAL EXPERTS

”

Environmental experts provided valuable suggestions regarding the conservation and management of artificial water reservoirs in order to support wildlife. The discussion panel was opened by the representative from PPNEA, Mr. Joni Vorpsi, who emphasized the importance of finding a wild species in such habitats and the efforts to conserve them, as well as the human-environment relationship, which of course includes local authorities.

Figure 6. Mr. Zydjon Vorpsi - Project Manager PPNEA

"A healthier environment for humans stems from necessarily preserving the conditions for the development of wildlife. First of all, if we identify a wild species in a specific area that has a protected status, it is essential that scientists and field experts determine why these species are there. Then, discussions must begin about habitat protection, especially if it is discovered that the area has the potential for this species to reproduce, or if it is the only place it exists – it is an endemic species – or if it is an important feeding ground. The protection of these species cannot happen at a distance from people, from local communities. The most important thing, in my opinion, and from a managerial standpoint, is that institutions must first convince themselves using all scientific arguments and then involve the local community by explaining that protecting a habitat or a water resource will bring benefits in terms of the natural resource wealth that this community possesses. And how can these species be protected? Certainly, as I mentioned, it starts with granting protected status to these habitats, and the development of action plans for specific species." ”

ACTIVITY 1: KICK-OFF MEETING

KEY RESULTS

Another environmental organization representative, Mr. Olsi Nika from EcoAlbania, stated: "The fact shown by the presentation made by the young lady at the beginning – that there are animals with a certain protection status not only according to the IUCN Red List but also our own national Red List – clearly shows that the ecosystem needs a different approach. It must be looked at with a holistic approach at the ecological level. The sustainability of species in a given habitat must be considered. Today we have 21.7% of the territory as Protected Areas. The identification by the IUCN standard to confirm the presence of certain species – interesting ones, protected by status – means that they can be added and help us reach the targeted 30%. So this can be looked at in the next phase of the project, once these areas are fully identified, and of course in collaboration with the actors who administer these zones, which are generally the municipalities."

Figure 7: Mr. Olsi Nika - CEO EcoAlbania

ACTIVITY 1: KICK-OFF MEETING

KEY RESULTS

2. ACTIVE ENGAGEMENT OF STAKEHOLDERS IN DISCUSSIONS

Several stakeholders were involved in the discussion. Ms. Hilda Hoti from AMBU emphasized the importance of such projects for the purpose of information exchange needed for the creation of the territorial strategy document.

Projects like yours are very important for us because we draft policies and strategies, and we prepare management plans for river basins, which – without being based on concrete data and real-time reflections of the current state of water resources – would just remain words on paper.

Figure 8: Ms. Hilda Hoti, National Agency of Water Resources Management

"As AMBU, we support any project that gives us feedback and provides us with up-to-date information regarding the environmental situation in real time, helping us achieve our main objective – at least in the sector I represent, where we draft policies and strategies – which is informed and evidence-based governance. The institution I represent, and myself personally, will be there to assist you. We have two departments that are closely connected to your work: the Monitoring and Performance Department, which conducts most of the monitoring at this level, and the Water Resources Department, to which the initial invitation was directed."

ACTIVITY 1: KICK-OFF MEETING

KEY RESULTS

Figure 9: Ms. Jonida Goga, Director of Urban Development - Shijak Municipality

In support of this, Ms. Jonida Goga, Director of Urban Planning from Shijak Municipality, stated: "There is definitely a need to improve the plan because, over the years, biodiversity and the nature of development have changed. In this regard, in collaboration with the National Agency of Territorial Planification (AKPT), we are finalizing the plan, and the projects you undertake – projects that you bring to us to be reflected in the plan – are extremely beneficial."

Mr. Joni Vorpsi further emphasized the importance of local authorities in managing ecosystems within their territory: "In this particular case, the biggest challenge will be aligning investments with the maintenance of this basin. For both biodiversity and the local community, the objectives of the local authorities are key. Considering the pressures that water resources face – such as drying, reduced water levels, and pollution – this adds extra costs for local authorities in terms of maintenance. On the other hand, authorities must be aligned and give increased attention to this matter."

ACTIVITY 1: KICK-OFF MEETING

KEY RESULTS

Figure 10: Mr. Elton Arbana - Mayor of Shijak

The Mayor of the municipality, Mr. Elton Arbana also took part in the discussion, highlighting the challenges the municipality faces in managing water basins and stressing the importance of project continuity to ensure proper management of the water reservoir.

"Water is managed by the Ministry of Agriculture, while it is actually the property of Shijak Municipality, intended to serve agriculture. It is even tendered out by the Ministry of Agriculture, despite it not owning it. This is the biggest problem residents in the area face. So, if we want to use the lake for agriculture, we can't – because someone who has rented it from the ministry comes in and doesn't adhere to the conditions for water regulation, irrigation, or serving the citizens. Perhaps they are right, because during drought they don't want to lower the water level due to crops planted there. Your organization shouldn't just complete the project by December or January – the key is continuity and sustainability. Everything we discover in Shijak Municipality's territory should be presented to institutions like AMBU or the line ministry, so that there is sustainability and continuation. It's on our territory, we have the ownership certificate, and we are fully capable of managing everything. Based on citizen requests, we've also addressed the ministry. But when it comes to accountability for maintenance, the municipality is held responsible."

ACTIVITY 1: KICK-OFF MEETING

KEY RESULTS

On the other hand, Ms. Hilda Hoti proposed an action plan for the management of the reservoir to find a joint solution with the Ministry of Agriculture, stating: "Nonetheless, you can have an action plan, a vision of how you want to manage this specific reservoir. The ministry is not something outside our planet – we all serve the same state – so we can find a solution with MPTR (a specific department in the ministry), but it requires a very detailed plan showing how you intend to use this specific reservoir."

The discussion concluded with Mr. Olsi Nika, who supported the argument that the management of a water resource should be in favor of the local community living in the same area and the respective municipality, highlighting the principles of democracy: "What has been mentioned relates strongly to the principles of democratic governance. A basic principle is that the party closest to the resource should be the main beneficiary."

ACTIVITY 1: KICK-OFF MEETING

GALLERY

Figure 11: Moments from Kick-off Meeting with representatives from Norma Center, Municipality of Shijak and workgroup.

ACTIVITY 1: KICK-OFF MEETING

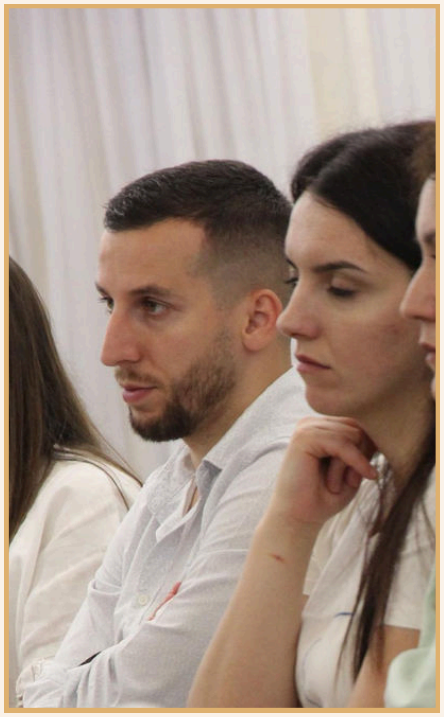
GALLERY

Figure 12: Discussion panel with representatives of Water Resources Management Agency (AMBU), Municipality of Shijak, Protection and Preservation of Natural Environment Albania (PPNEA)

Figure 13: The speech of the Mayor of Municipality of Shijak - Mr. Elton Arbana

ACTIVITY 1: KICK-OFF MEETING

GALLERY



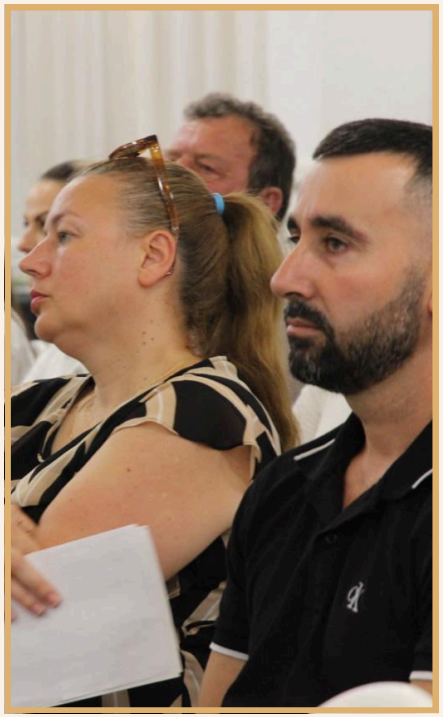


Figure 14: Representatives from The Prefecture of Durres = Mr, Marius Tusha and Ms. Lindita Zeka

Figure 15: Representative from The Regional Environmental Agency - Mr. Ramiz Xhurxhi

ACTIVITY 1: KICK-OFF MEETING

GALLERY

Figure 16: Local Community - hunters, fishermen, specialists, economists, rangers and more

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

COMPLETION DATE

25 May, 29 June, 27 July, 24 August 2025

Four field expeditions were conducted during May – August, early in the morning. All four designated stations were monitored. The monitoring included birdwatching with binoculars, recording calls of birds and amphibians, noting signs of mammal activity such as tracks, audio recordings of amphibians and birds, and assessing water quality using the multiparameter probe.

Figure 17: The projects Working Group during monitoring - Fabjola Selmani, Deart Dervishi and Doriana Kërtusha

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

KEY RESULTS

1. HABITAT DESCRIPTION FOR EACH STATION

Each station was scanned for the vegetation present on each of the expedition. We identified the flora only if it was in its flowering stage to eliminate uncertainties in taxonomy. This lead to having differences in the list of species between expeditions, even though the species might have been present even before but was not blooming at the time.

The terrain was also described, including the relief, sun exposure, algal coverage and water level. Weather conditions were also recorded (temperature, UV Index, wind parameters, cloud coverage and type, precipitation, fog parameters) as well as human activity.

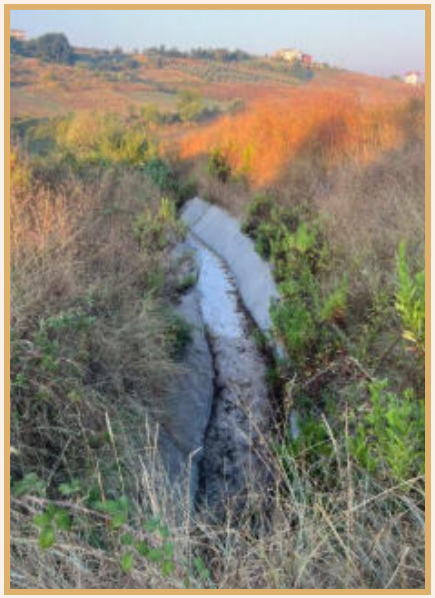


Figure 18: Monitoring Station 1

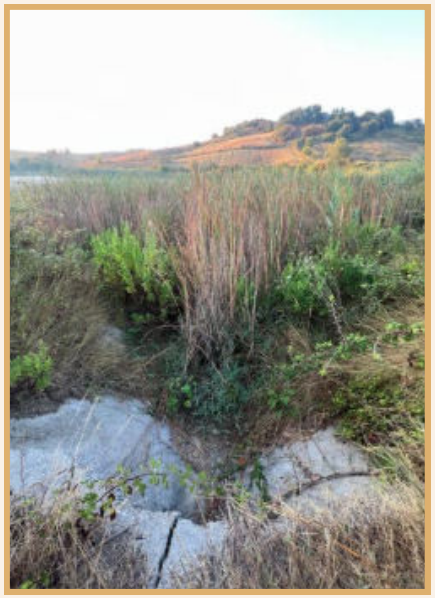


Figure 19: Monitoring Station 2

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

KEY RESULTS

Figure 20: Monitoring Station 3

Figure 21: Monitoring Station 4

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

KEY RESULTS

2. NATURAL INVENTORY FOR ALL TETRAPOD GROUPS

Species	Stations			
	S1	S2	S3	S4
Pelophylax shqipericus		+	+	+
Pelophylax kurtmuelleri		+	+	+
Emys orbicularis		+	+	
Mauremys rivulata		+	+	
Ardeola ralloides		+		+
Ardea cinerea				+
Egretta garzetta			+	
Nycticorax nycticorax				+
Phalacrocorax carbo				+
Chroicocephalus ridibundus			+	
Acrocephalus arundinaceus		+	+	+
Circus aeruginosus				+
Buteo buteo			+	
Natrix sp		+		
Lutra lutra		+		

Table 1: Species list and the station from which they were observed.

3. WATER QUALITY ASSESSMENT

Stations	Months	Water parameters				
		DO	pH	Conductivity	Temperature	ORP
S1	-	-	-	-	-	-
S2	*May*	-	-	-	-	-
	June	3.7mg/L	8.07	629µS	23°C	147mV
	July	4.67mg/L	8.5	645µS	26.8°C	245mV
	August	4.8mg/L	8.74	601µS	21.9°C	221mV
S3	*May*	-	-	-	-	-
	June	-	-	-	-	-
	July	-	-	-	-	-
	August	4.86mg/L	8.68	601µS	23.5°C	300mV
S4	*May*	-	-	-	-	-
	June	-	-	-	-	-
	July	5.51mg/L	8.6	594µS	28.6°C	328mV
	August	6.36mg/L	8.9	584µS	23.8°C	350mV

Table 2: Water quality parameters throughout the months so far and for the station where sampling was possible.

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

KEY RESULTS

4. IDENTIFICATION OF POLLUTION SOURCES

Figure 22: Organic waste near the irrigation canal on station two.

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

GALLERY

Figure 23: Mauremys rivulata

Figure 24: Chroicocephalus ridibundus

ACTIVITY 2: FIELD EXPEDITIONS (MONITORING)

GALLERY

Figure 25: Ardeola ralloides

Figure 26: Argiope sp.

Figure 27: Pelophylax sp.

Figure 28: Acrocephalus arundinaceus

ACTIVITY 3: ONLINE PROMOTIONAL CAMPAIGN

COMPLETION DATES

Active since May

Preparation of materials that have been posted in the description and photographs taken in the field. A Post/StoryMatrix for Instagram posts was created with 5 – 7 posts per week, including posts and stories. At the initial stage of the project implementation, we recruited volunteers to engage them in the project and introduce them to the environmental field. An open call for volunteers was first published on Instagram for anyone interested, and then we conducted interviews to determine who was most suitable for managing the project postings.

Figure 29: Meeting with the volunteers.

ACTIVITY 3: ONLINE PROMOTIONAL CAMPAIGN

KEY RESULTS

1. ENGAGEMENT OF VOLUNTEERS IN MANAGING SOCIAL MEDIA TO INVOLVE THEM IN THE PROJECT

A content matrix was created to guide the development and scheduling of Instagram posts and stories throughout the project. As part of the process, the tasks were divided among the volunteers, with each one assigned to focus on a specific theme: wildlife, habitat and its components, and the people involved in the project. A weekly content rhythm was defined: each week highlighted a different aspect of the project. For instance, one week featured posts about wildlife, the following week explored the characteristics of the habitat and its plant life, and another week focused on the stakeholders and law. This structure allowed for balanced and engaging storytelling, while ensuring coverage of all key components of the initiative. The posts and stories continue being posted almost daily on Instagram.

2. CREATION AND SHARING ON INSTAGRAM OF 29 POSTS AND 48 STORIES

Figure 30: Example of posts about the fauna discovered

Figure 31: Example of posts about the flora discovered

Figure 32: Example of posts about the people involved with the project

ACTIVITY 3: ONLINE PROMOTIONAL CAMPAIGN

KEY RESULTS

Figure 33: Example of stories about fauna discovered

Figure 34: Example of stories about flora discovered

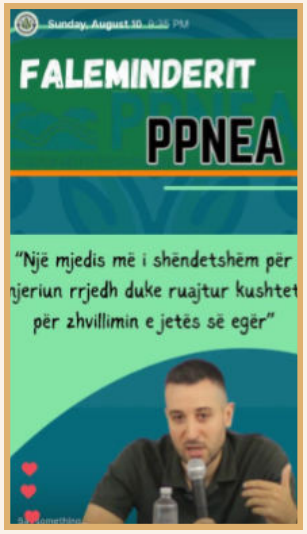


Figure 35: Example of stories about people involved with the project

ACTIVITY 4: WORKSHOP - PICNIC BY KECVE LAKE

COMPLETION DATES

29 June 2025

An on-site visit was organized with the organization's volunteers to closely observe the habitat where the study is being conducted. Introduction and familiarization with the tetrapod species present in the lake, their way of life, monitoring methods, and necessary tools. Open talks happened after the picnic to discuss what had piqued the volunteers interests, and it served as well as a networking opportunity among themselves.

Figure 36: Workshop at the Kecve Lake

ACTIVITY 4: WORKSHOP - PICNIC BY KECVE LAKE

KEY RESULTS

1. VOLUNTEERS GAINED NEW KNOWLEDGE ABOUT THE IMPORTANCE OF SUCH AQUATIC BODIES

They were introduced to the working methodology and necessary equipment for conducting such a study. They became familiar with the multiparameter sonde and binoculars. We discussed the importance of appropriate clothing in the field, proper behavior in areas with species of conservation concern, and being mindful of the ecological footprint we leave in the environments we visit. We used non-formal education techniques, such as interactive games to find the camera trap and more. The volunteers were able to observe in the field species as Ardeola ralloides, Buteo buteo, Tachybaptus rufficollis, and Testudo hermanni. Furthermore, this activity also served as an opportunity for socializing, allowing the volunteers to get to know each other better, as well as the project's working group.

Figure 37: Traveling with the volunteers for the workshop

Figure 38: Group picture by Kecve Lake

ACTIVITY 4: WORKSHOP - PICNIC BY KECVE LAKE

GALLERY

Figure 39: Fabjola Selmani explaining trap cameras and tracks of Lutra lutra

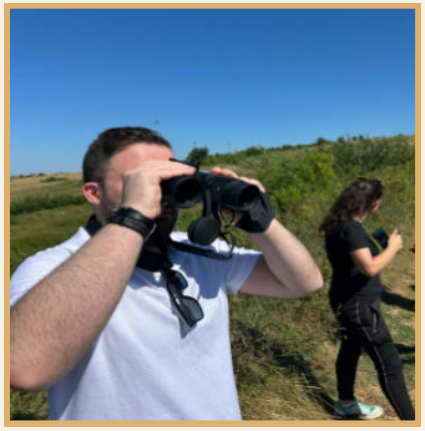


Figure 40: Volunteer observing Ardeola ralloides with binoculars

Figure 41: Deart Dervishi explaining water quality assessment with the multiparametric sonde

CHALLENGES & DIFFICULTIES

CHALLENGE 1

The planned project implementation was supposed to start in March, but funding was delayed. As a result, the Kick-Off Meeting and spring field expeditions were postponed.

SOLUTION 1

Once the funds were transfered, we rescheduled the Kick-Off Meeting at the earliest possible date and ordered all necessary work tools. In May—before the Kick-Off—we carried out a field expedition to gather at least one month's worth of spring-season data.

CHALLENGE 2

The organization encountered delays in procurement due to banking issues related to the debit card. These included complications with account types (in both ALL and EUR) and the payment method for tools.

SOLUTION 2

Some items were purchased in Albania, like the binoculars which were paramount for the identification of birds. While others arrived at a later stage since there was no Albanian market for the specific products we were looking for.

CHALLENGE 3

The changes in vegetation that have interfered with monitoring and the drainage canal. Difficulties in placing one of the camera traps in the drainage channel due to dense vegetation, which has rendered the area inaccessible.

SOLUTION 3

We contacted the municipality, and in cooperation with the owner of the lake, pathways were opened to facilitate us approaching the lake and collecting water samples. This help however came in August which was a bit late and we had to improvise until then. Due to the overgrown vegetation, we created a glass bottle attached to a rope in order to collect water. In the case of stations 3 and 4, the shrubs and reeds were so dense and widespread that we could not collect the water sample even with the glass bottle. In that case we collected water samples at a different point in front of station 4, in order to compensate. From August onwards we will be able to collect samples from station 3. The water level has dropped very low during the summer season and there is no water in station 1, which is the drainage canal. We expect this to change during the rainy upcoming seasons.

CHALLENGE 4

One trap camera stolen.

SOLUTION 4

We are trying to contact the local community that uses the water reservoir for irrigation, fishing or hunting. We were testing the first trap camera when it disappeared. We are currently discussing the possibility of installing a GPS on the second camera after our second meeting with the municipality, where the ‘owner’ of the lake will also be invited. The issue will be specifically addressed during that meeting.

CHALLENGE 5

The direct dumping of organic manure into the water reservoir which has caused serious environmental concerns.

SOLUTION 5

We have contacted the municipality and have told them that we've only been able to collect water samples from the lake at one station, near the irrigation canal, due to dense vegetation. A significant amount of organic waste, mainly fertilizer, has been deposited near the irrigation canal, visible to the naked eye and we questioned the purpose of this, as it might be a management practice but is environmentally damaging. The fertilizer has blocked the irrigation canal, eliminating one of our monitoring stations, which is vital for studying the otter. Water analysis has shown low dissolved oxygen, low redox potential, and rising conductivity, indicating organic pollution and the lake's inability to self-purify. We explained that these indicators are crucial for the flora and fauna we're studying. We are also trying to get in touch with the person who is currently renting the lake.

CHALLENGE 6

The biodiversity photography. The distance from the shore, the animals' sensitivity when we approach them, and the inadequate equipment have resulted in some not-so-good quality materials.

SOLUTION 6

Our spontaneous collaboration with ProArtShoot continued after the Kick-Off meeting, and they provided more professional equipment for photography and video. While not perfect, the new equipment is definitely better, and with their editing programs, they’ve been able to clean and improve the quality even further. The discussions are ongoing about involving them in this line of projects, and we hope to invest in better equipment moving forward, since we had a case where a bird was observed but not identified because of the lighting, the difference of reflection from the plumage of the bird and the distance from the monitoring station.

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