CEPF Final Completion and Impact Report

Organization's Legal Name:	Association Tunisienne de la Vie Sauvage
Project Title:	Conserver la Biodiversité Dulcicole d'Oued Maden en Tunisie à travers une Cogestion Locale
Grant Number:	CEPF-110108
Hotspot:	Mediterranean Basin II
Strategic Direction:	2 Support the sustainable management of water catchments through integrated approaches for the conservation of threatened freshwater biodiversity
Grant Amount:	$107,776.06
Project Dates:	April 01, 2020 - July 31, 2022
Date of Report:	October 26, 2022

IMPLEMENTATION PARTNERS

Laboratoire de Recherche de Diversité, Gestion et Conservation des Systèmes Biologiques à la Faculté des Sciences de Tunis (FST): ATVS signed a partnership convention in the framework of this project, in regard to research and enhancing the knowledge of the Freshwater Biodiversity in Maden River KBA. By the end of the project 1 bachelor's student and 2 PhDs, were part of the project team, and they have done part of their fieldwork and research in the framework of this project and under this convention. The project coordinator was in direct contact with their respective tutors all along the project, and some were included in the fieldwork.

Butterfly Arc - ESAPOLIS: ATVS signed a partnership convention in the framework of this project, for the establishment of a scientific collaboration aiming to expand the invertebrate's inventory work in Maden River KBA. Unfortunately, ESAPOLIS's team wasn't able to come to visit our work site however, they were informed of all the fieldwork, and the exchange of data was established and its fruits are included in the scientific report.

General Forest Direction: A support Letter was signed on the 5th of March 2021, in order to facilitate the project work with both national and local authorities under the General Forest Direction. And this made our fieldwork, workshops, and training with the Local Support management group (which included representatives of the mentioned authorities) went very smoothly and their support and help were approved and supported by their General direction.

CRDA Regional Commission of agricultural development in Beja: A support Letter was signed on the 17th of March 2021, in order to facilitate our exchange and collaboration with the CRDA and its local authorities such CTV 'Territorial cell of Vulgarization'. The

representatives of the mentioned authority were part of most of the project meetings and workshops, with whom we shared the project results step by step.

CONSERVATION IMPACTS

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

Impact Description	Impact Summary
La zone clé pour la biodiversité d'Oued Maden, couvrant 81973ha, est mieux gérée pour la protection de la biodiversité dulçaquicole	The project contributed to the conservation of Maden River KBA (covering 81973ha) started by the creation of a local Support Management Group. This is an important step toward better management of Maden River Key Biodiversity Area, however, in order to know what to do exactly to better manage and preserve the area we had to enhance our knowledge of its biodiversity and to identify threats. After sharing the outcome of the first phase of the project and based on several participative gatherings with local and national stakeholders we received the following notes: - Agricultural authorities will try to include some Bio-indicator species practices in their work with local agricultures in order to facilitate the ecosystem health monitoring (soil and water) - Local NGO will try to use the shared information and communication tools (Videos and Photographic Guide of the area' Biodiversity) in their raising awareness activities - The collected data aligned perfectly with both Agriculture and Environment Ministries. However, in order to achieve this long-term impact, there are a few more steps to apply to ensure the protection of the Freshwater Biodiversity in Maden_River_KBA, such as ensuring continued communication and finding the appropriate tools to improve management.
Les impacts négatifs exercés sur la biodiversité de la zone, notamment en lien avec la gestion des ressources en eau, sont mieux connues et réduits par des mesures appropriées.	A threats evaluation was established based on 2 studies, although these studies couldn't be conducted as planned because they faced a challenge related to the absence of sufficient data on the Biodiversity state earlier the implementation of Barrak's Dam. However, we were able to identify threats on biodiversity through filed work studies and exchange meetings with local stakeholders. Our project was a great occasion to discuss based on participatory apporach the suitable measurments and tools to reduce those threats, however we highlighted the need of a sustainable mecanisme aiming to connect different stakeholders interfeering

Impact Description	Impact Summary
	directly and indirectly in the natural resources management in order to apply the identified solutions.
Les Communautés dans les bassins versants bénéficient de meilleures conditions socioéconomiques de fait de l'adoption de pratiques favorable à la biodiversité, fondées sur la meilleure connaissance des ressources naturelles de la zone et des menaces identifiées lors du projet	This project was a great opportunity to enhance the knowledge of Freshwater Biodiversity in Maden River Key Biodiversity Area and to expand our knowledge of the challenges and threats facing it. Alongside fieldwork, research, meetings, and workshops with the project stakeholders, in the framework of this project, a socioeconomic study was conducted in order to better understand the practices to be implemented in favor of biodiversity preservation.

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

Impact Description	Impact Summary
Amélioration de l'état de connaissance de la biodiversité dulcicole menacée sur 20000ha d'Oued Maden	The outcome of > 234Km patroled in the KBA, all along 41 Field missions, during which a total of 32 contributors (Experts, Volunteers, and students) collected 8679 ecological data, with the aim of inventorying different taxons. A total of 1088 different species were inventoried; among which we found: 26 threatened species including 1 CR Fish, 2 EN Insects, 12 VU (Birds, Amphibians, Reptiles, and Insects), and 11 NT (Mammal, Birds, Reptile, Insects and Plants) 29 endemic species as follows 5 endemics to Tunisia, 9 endemic to Tunisia and Algeria, 1 endemic to Tunisia and Libya, and 14 endemics to the Maghreb Other surprising results of the mentioned work were the following new records: 1 new species for science 'Porcelio sp' 5 new species for Tunisia (Aporrectodea longa, Dendrodrilus rubidus, Eiseniella tetraedra, Tetragnatha isidis, Cyrtarachne ixoides) 5 new species for the KBA 19 species introduced in Tunisia The outcome of all the established work was highlighted in the following deliverables: 1- Scientific report 2- Photographic catalog 3- Series 'ATVS Discovery' of 5 short videos 4- Procedure manual of bioindicator monitoring 5- Conservation plan for freshwater turtles in the KBA. 6- COBIOM

Impact Description	Impact Summary
Les connaissances sur la biodiversité végétale de la zone clé pour la biodiversité d'Oued Maden sont améliorées suite à la participation de botanistes aux inventaires et suivi.	A botanist was part of the monitoring and inventory work, the outcome of her work will be shared in the scientific report. during the current progress report duration, a research master's student joined the team, Ms. Ibtihel Mhamdi , National Agronomic Institute of Tunisia, 'l'étude ethnobotanique et de la dynamique de cette biodiversité végétale et ses menaces afin d'élaborer un plan de cogestion pour la conservation des taxa patrimoniaux prioritaires'. Her work will be a huge step forward in achieving this impact. PS: the final report will be shared when the final Master report will be ready Maximum December 2022).
Un état des lieux des menaces pesant sur la biodiversité est réalisé, partagé avec les parties prenantes concernées (communautés, municipalités et services de l'Etat).	A couple of studies were conducted in the framework of this project, in a summary, threats evaluation wasn't conducted as planned because of a lack of information on Biodiversity before the implementation of Barrak's Dam. And these pieces of information were needed to evaluate the actual state of biodiversity. However, we tried to have an actual large view of nowadays situations based on the mentioned studies and on participatory meetings with the project stakeholders. In a summary the main threats facing the natural resources of Maden River' KBA are the following: 1- Lack of sustainable participatory management of the natural resources; every authority is managing its own resources (forests, agricultural lands, water…) However, there is a lack of intercommunication and sustainable collaboration, which by the way they are aware of it but due to a lack of tools and resources they weren't able to sustainably work in collaboration and continued communication. 2- Anthropogenic pressures, such as pesticide use, habitat loss in the face of agricultural land expansion, and non-sustainable use of natural resources (forests products…).
Un groupe local d'appui à la gestion est mis en place pour assurer le suivi écologique du site à long terme, sur base d'un plan de suivi validé.	A local support management group is officially created, and a charter was signed on the 27th of October 2021 by 10 stakeholders: 'Arrondissement des Foret Beja' 'Direction du Barrage Sidi El Barrak' 'Cellule Territoriale de Vulgarisation' 'GDA Ouechteta' 'GDA Ouled Salem' 'Association Nefza Biatouna' 'Local Stakeholders'

Impact Description	Impact Summary
	They were represented by a total of 16 participants. The project team tried to implement more local stakeholders (independent agricultures and local NGOs...) and at the end of the project, we reached a total of 21 participants in the meetings, workshops, and field training (divided among 12 men and 9 women). In the framework of the local support management group gatherings, we had a total of : - Over 15 Meetings (Individually and in Groups) - 3 Theoretical workshops (Participatory approach, Data Management, and Fundraising) - 6 Fieldwork training
10 personnes (sélectionnées en tenant compte l'aspect genre) bénéficient d'un renforcement des capacités en suivi écologique et organisation.	10 local stakeholders represented by 16 individuals signed the charter. --> Between November 2021 and June 2022, the Group represented a total of 21 participants divided into 12 men and 9 women. The project implemented: - A Series of 6 Fieldwork practical workshops on ecological monitoring (Herptofauna, invertebrates, Mammals, Flora, Ornithology...) - And 3 Theoretical workshops on Participatory approach, data management, and Fundraising. PS: The number of participants changes from one training to another and mainly the number of women compared to men, and this gender inequality is mainly due to the fact that the project Stakeholders, and the local authorities have more working men than women. However, We tried to integrate more women, in some capacity-building training we succeeded, but in others we failed because they have other priorities (Families, kids...).
La jeune association ATVS est renforcée et reconnue au niveau de la région/pays sur les questions de biodiversité	The result of sharing part of ATVS' work, via an evaluation Meeting of the procedures manual was held on the 10th of March 2022, with the presence of 16 national experts, both academic and governmental ones, representing the Minister of Environment, General Direction of Forest, CRDA of Tu on the 10th of March, strengthened the NGO's network on a national scale, mainly with the Ministry of Environment, and the Ministry of Agriculture. --> A convention was signed with the Ministry of Agriculture in September 2022. --> ATVS was invited to share the COBIOM project in the event 'World Day of Environment 5th of June' launched by the Minister of Environment, on the 6th of June in CITET Tunis.

Impact Description	Impact Summary
	On a regional scale, we noticed that the frequency of involving ATVS in regional events increased after co-organizing'Shitana'. --> A Partnership Convention was signed with a local NGO 'Poney Mogods pour le Tourisme Association' APMT and ATVS, during the closing ceremony on the 22nd of July 2022. --> ATVS was invited by the CRDA of Beja, to be part of the National Walk Day on the 29th of May 2022, where we had the chance to be part of the activities via raising awareness workshops. --> ATVS was invited by the Nefza's Delegation, to be part of World Turtles Day.

Unexpected impacts (positive or negative)?
Comparing to the project proposal, numerous occasions changed during the project implementation due mainly to COVID pandemic. Therefore, few of the originally planned activities were amended, but they were all acheived by the end of July 2022.

PROJECT RESULTS/DELIVERABLES

Overall results of the project:
During the project the implementation team went through successive stages, starting with a scientific aspect through enhancing the knowledge of Freshwater Biodiversity in Maden River KBA. Passing by, trying to identify threats to biodiversity in the area. However, the work went beyond that, with setting up a local support co-management Group and having suitable occasions of communication and exchange with local and national stakeholders through meetings, training, and workshops.
I/ Improving the knowledge of the KBA Biodiversity:

The outcome of > 234Km patroled in the KBA, all along 41 Field missions, during which a total of 32 contributors (Experts, Volunteers, and students) collected 8679 ecological data, with the aim of inventorying different taxons.
--> A total of 1088 different species were inventoried between summer 2020 and Spring 2022; among which we found 26 threatened species including:
1 Critically Endangered (CR) (Fish: Anguilla anguilla)
2 Endangered (EN) (Insects: Calicnemis obesa obesa, Aeshna cyanea)
12 Vulnerable (VU) (5 Birds: Ichthyaetus audouinii, Streptopelia turtur, Lanius meridionalis, Aythya ferina, Marmaronetta angustirostris; 2 Reptiles: Testudo graeca, Caretta caretta; 1 Amphibian: Pleurodeles nebulosus, 4 Insects: Tropidopola cylindrica cylindrica, Gomphus lucasii, Onychogomphus costae, Dorcus musimon)
11 Near-threatened (NT) (1 Mammal: Lutra lutra;5 Birds: Aythya nyroca, Falco vespertinus, Circus macrourus, Anthus pratensis, Vanellus vanellus; 1 Reptile: Emys orbicularis; 3 Insects: Thorectes marginatus, Boyeria irene; 2 Plants: Bellis prostrata, Marrubium vulgare)
PS: Caretta caretta is a marine turtle found in the coast of Zouaraa, part of the KBA.

And 29 endemic species as follows:
5 endemic to Tunisia (1 Reptile: Testudo graeca nabeulensis, 3 Insectes: Anoxia (Mesanoxia) luteipilosa, Geotrogus normandi, Lagria pici, 1 Isopoda: Armadillidium tunisiense)

9 endemic to Tunisia and Algeria (2 Amphibians: Hyla carthagensis, Pleurodeles nebulosus,8 Invertebrates: Potamon algeriense, Lebia thais, Copris pueli, Tentyria (Tentyria) excavata, Gomphus lucasii, Carabus (Eurycarabus) famini lucasi, Polyphylla (Polyphylla) fullo algirana)

1 endemic to Tunisia and Libya (Insect: Pamphagus tunetanus)

14 endemic to the Maghreb (1 Bird: Phoenicurus moussieri, 2 Mammals: Atelerix algirus, Cervus elaphus barbarus, 2 Reptiles: Timon pater, Acanthodactylus maculatus, Luciobarbus callensis, 1 Amphibian: Sclerophrys mauritanica, 7 Insects: Anoxia maldesi, Helops insignis insignis, Derolus mauritanicus, Thymelicus hamza, Bembidion (Sinechostictus) dahlii nordafricanum, Erodius audouini africanus, Clerus mutillarius africanus)

Other surprising results of the mentioned work were the following new records:

1 new species for science: the Terrestrial isopod 'Porcelio sp.', (its article is under preparation)

5 new species for Tunisia: 3 Annelids and 2 Spiders (Aporrectodea longa, Dendrodrilus rubidus, Eiseniella tetraedra, Tetragnatha isidis, Cyrtarachne ixoides)

5 new species for the KBA: 3 plants, 1 algae and 1 coleoptera (Petalophyllum ralfsii, Schistidium helveticum, Serapias lingua,Nitella flexilis, Lagria (Lagria) pici)

19 species introduced in Tunisia: 12 species of plants, 5 species of freshwater fish, and 2 species of Coleoptera (Arctotheca calendula, Acacia dealbata, Acacia karroo, Acacia retinodes, Acacia saligna, Casuarina cunninghamania, Punica granatum, Eucalyptus globulus, Eucalyptus torquata, Avena sativa, Hordeum vulgare, Triticum aestivum, Rhyzobius lophanthae, Phoracantha recurva, Scardinius erythrophthalmus, Rutilus rutilus, Gambusia affinis, Sander lucioperca, Silurus glanis)

Alongside the mentioned work, a Procedure Manual of Bioindicator species in the KBA was shared and rectified with academic and governmental experts.

Special field missions were held in order to analyze the population of freshwater turtles in the KBA, aiming to prepare a conservation action plan for the 2 following species:

The European pond turtle (Emys orbicularis) (NT)

The Iberian pond turtle (Mauremys leprosa), also known as the Mediterranean pond turtle or Mediterranean turtle (LC)

This study highlighted the following notes:

Mauremys leprosa is way more abundant than Emys orbicularis in Oued Maden Key Biodiversity Area.

Both species' populations are declining on a national scale, however, in Oued Maden KBA they are both present in different sampling zones.

--> To enhance the conservation action for both species, it is recommended to:

1- Preserve the species' habitats, which in this case are divided into 3 types:

- Activity areas
- Hibernation areas
- Nesting areas

PS: each specific area has its own way of protection, mentioned in the prepared 'Conservation Action Plan for Freshwater turtles in Oued Maden KBA'.

2- Have to implement a regular monitoring program for both species.

3- Enhance communication and raise awareness about the 2 species and their habitat.

All the mentioned results are detailed and communicated through the following deliverables:

1- Scientific report on inventorying Freshwater Biodiversity in Maden River KBA
2- Photographic catalog
3- Series 'ATVS Discovery' of 5 short videos
4- Procedure manual of bioindicator monitoring
5- Conservation plan for freshwater turtles in the KBA.
6- COBIOM The Documentary

II/ Threats Evaluation:

A couple of studies were conducted in the framework of this project, in a summary, threats evaluation wasn't conducted as planned because of a lack of information on Biodiversity before the implementation of Barrak's Dam. And these pieces of information were needed to evaluate the actual state of biodiversity. However, we tried to have an actual large view of nowadays situations based on the mentioned studies and on participatory meetings with the project stakeholders.

In a summary the main threats facing the natural resources of Maden River' KBA are the following:

1- Lack of sustainable participatory management of the natural resources; every authority is managing its own resources (forests, agricultural lands, water…) However, there is a lack of intercommunication and sustainable collaboration, which by the way they are aware of it but due to a lack of tools and resources they weren't able to sustainably work in collaboration and continued communication.
2- Anthropogenic pressures, such as pesticide use, habitat loss in the face of agricultural land expansion, and non-sustainable use of natural resources (forests products…).

III/ Implementation of Co-Management tools and Capacity Building:

Supporting local Co-management of the natural resources via the creation of a local support management group. It was formed by representatives of local stakeholders who are involved directly and indirectly in the natural resources management in Maden River' KBA. A total of 21 representatives (12 men and 9 women) were part of structured training (series of theoretical workshops and fieldwork training) on the following topics:
Ecological and biological surveys
Patrolling and species monitoring including bioindicator species
Data management and analyses
Fundraising and project design

The mentioned activities were not only capacity-building activities for the local community but also were great opportunities to communicate with each other and to share their vision of challenges facing the area.

IV/ Capacity building of ATVS:

One of the most important results of this project is linked to strengthening ATVS' network on a local, national and regional scale. The success of integrating the local community and national authorities resulted in form of invitations to different local and national events, not only linked to nature conservation but also to the sustainable development of the regit

Results for each deliverable:

Component		Deliverable		
#	**Description**	**#**	**Description**	**Results for Deliverable**
1.0	Amélioration des capacités de l'ATVS	1.1	Renforcement de l'équipe par le recrutement de deux personnes : Chargée du projet et un assistant, comme montré par les contrats de travail en bonne et due forme	Syrine Moslah was hired for the position of Project Coordinator. Mr. Aymen Nefla joined the team, starting in June. He was hired for the Project Assistant position replacing Mr. Ahmed Sayadi.
2.0	Amélioration des connaissances sur la biodiversité dulcicole d'Oued El Maden	2.1	Rapport et documentaire vidéo sur la biodiversité dulcicole d'Oued El Maden	The outcome of > 234Km patroled in the KBA, all along 41 Field missions, during which a total of 32 contributors (Experts, Volunteers, and students) collected 8679 ecological data, with the aim of inventorying different taxons. In addition to all the scientific work behind it (Lab work, scientific analysis...) was captured in: 1- Scientific report on inventorying Freshwater Biodiversity in Maden River KBA 2- Photographic catalog 3- Series 'ATVS Discovery' of 5 short videos 4- Procedure manual of bioindicator monitoring 5- Conservation plan for freshwater turtles in the KBA. 6- COBIOM The Documentary
2.0	Amélioration des connaissances sur la biodiversité dulcicole d'Oued El Maden	2.2	Un manuel des procédures pour le monitoring de la biodiversité à long terme	After being evaluated by academic and governmental experts, a final version of the Monitoring Procedures Manual is attached in the previous progress report.

Component		Deliverable		
#	**Description**	**#**	**Description**	**Results for Deliverable**
3.0	Evaluation des menaces sur la biodiversité du site	3.1	Un rapport d'évaluation des menaces liées aux infrastructures du barrage	A study was conducted in the framework of this project, in a summary, threats evaluation wasn't conducted as planned because of a lack of information on Biodiversity before the implementation of Barrak's Dam. And these pieces of information were needed to evaluate the actual state of biodiversity. However, we can divide the findings as follows: - An increase in Humidity in the Dam's surroundings (which affects agriculture and the health of the local population) - Landscape changes due to the Dam infrastructure and its surroundings - All the changes in the river's flow and the river's connectivity it has an impact on the freshwater and terrestrial biodiversity, however unfortunately due to the lack of information mentioned above we weren't able ao evaluate its impact.
3.0	Evaluation des menaces sur la biodiversité du site	3.2	Un rapport d'évaluation des menaces engendrées par les activités anthropiques locales	A study was conducted in the framework of this project, in a summary, threats evaluation wasn't conducted as planned because of a lack of information on Biodiversity before the implementation of Barrak's Dam. And these pieces of information were needed to evaluate the actual state of biodiversity. However, we tried to have an actual large view of nowadays situations based on surveys conducted with the local population and local authorities.

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				In a summary the main threats facing the natural resources of Maden River' KBA are the following: 1- Lack of sustainable participatory management of the natural resources; every authority is managing its own resources (forests, agricultural lands, water…) However, there is a lack of intercommunication and sustainable collaboration, which they are aware of it but due to a lack of tools and resources they weren't able to sustainably work in collaboration and continued communication. 2- Anthropogenic pressures, such as: * Pesticide use, * Habitat loss in the face of agricultural land expansion, * Non-sustainable use of natural resources (forests products…).
3.0	Evaluation des menaces sur la biodiversité du site	3.3	Le groupe local d'appui à la gestion formée et officialisée, comme montré par ses statuts, la liste des membres et les photos des réunions et formations	A local support management group is officially created, and a charter was signed on the 27th of October 2021 by 10 stakeholders: 'Arrondissement des Foret Beja' 'Direction du Barrage Sidi El Barrak' 'Cellule Territoriale de Vulgarisation' 'GDA Ouechteta' 'GDA Ouled Salem' 'Association Nefza Biatouna' 3 representatives of 'Local Stakeholders'

Component		Deliverable		
#	Description	#	Description	Results for Deliverable
				Later on through the project, we integrated a Local NGO: 'Poney Mogod pour le tourisme' and 3 other local stakeholders
4.0	Renforcement des capacités Du Groupe Local d'Appui à la Gestion	4.1	Rapport; photos, vidéos montrant le renforcement des capacités du groupe local d'appui à la gestion	The local management Group was represented by a total of 21 divided into 12 men and 9 women. We had a total of : - 3 Theoretical workshops (Participatory approach, Data Management, and Fundraising) - 6 Fieldwork training on : * Ecological and biological surveys of Herptofauna, invertebrates, Mammals, Flora, and Ornithology; * Patrolling and species monitoring including bioindicator species The capacity building of the Local Management Support Group is justified by the Photos, Videos, Social Media Posts, and documentary (2.1.4) 'COBIOM The Documentary.

Tools, products or methodologies that resulted from the project or contributed to the results:
1- Scientific report on inventorying Freshwater Biodiversity in Maden River KBA:
Highlighting the results of > 234Km patroled in the KBA, all along 41 Field missions, during which a total of 32 contributors (Experts, Volunteers, and students) collected 8679 ecological data, with the aim of inventorying different taxons.
--> A total of 1088 different species were inventoried between summer 2020 and Spring 2022.
This report includes the following information:

Maden River description

Sampling site choices
Different inventorying and monitoring techniques for different taxes
Freshwater biodiversity inventorying analyses
List of the 1088 species
List of endemic species and their distribution
List of Threatened species and their distribution
List of newly recorded species (for Tunisia, Maden River KBA, and for science)
List of introduced species
Scientific and conservation recommendations for better preservation and management of the natural resources in Maden River Key Biodiversity Area.

https://drive.google.com/file/d/1V229WPHV72OYR9SErPhJxICCUGSNwV9I/view?usp=sharing

2- Photographic catalog
BONUS outcome of this work, A Photography Catalogue was prepared by the project team and ATVS' Volunteers. Collecting the photos taken during the various fieldwork all along the 2 years and 4 months duration of the project of the inventoried species in Oued Maden KBA, organized via 6 taxons with very brief information about each species so to be used easily by locals and stakeholders (and whoever might be interested).

https://drive.google.com/file/d/1s0HiLU1-pc625w3E378paWWKllg4oKht/view?usp=sharing

3- Series 'ATVS Discovery' of 5 short videos

ATVS' Discovery' Trailor: https://www.youtube.com/watch?v=nIcsnFvupo8
ATVS Discovery - Episode 1: Nefza & Ouechteta Rivers: https://www.youtube.com/watch?v=P3HxjligA54
ATVS Discovery - Ep 2 : Nefza & Ouechteta Lakes : https://www.youtube.com/watch?v=KBYrnPi9yxQ
ATVS Discovery - Ep 3: Nefza & Ouechteta Forests: https://www.youtube.com/watch?v=SErI4r1Smq8
ATVS Discovery - Ep 4: Nefza & Ouechteta Scrubland: https://www.youtube.com/watch?v=ntm9EUFH_VM
ATVS Discovery - Ep 5: Humans Wildlife Conflict: https://www.youtube.com/watch?v=_VGN8vDB2L8

4- Procedure manual of bioindicator monitoring

https://docs.google.com/document/d/1-Kh8IyH7UoRREJDFyy97LW8NxBvwfDWM/edit?usp=sharing&ouid=101244267398197463739&rtpof=true&sd=true

5- Conservation plan for freshwater turtles in the KBA.

https://drive.google.com/file/d/16IXkhiQlkByuaZbvr7M51bSFb9929ltO/view?usp=sharing

6- COBIOM The Documentary

https://www.youtube.com/watch?v=nj0KT0Ee1OU

All these materials and more can be founded on ATVS' Web site:

https://atvs.org.tn/

and on its Youtube page

https://www.youtube.com/channel/UCWPaI6LXV7KLmoSpZYSYKsg

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			81,973	In the framework of this project, Maden River KBA, covering 81973ha, benefited from a series of activities aiming to enhance the knowledge of its freshwater biodiversity in order to implement and recommend protection tools and measurements. Based on > 234Km patroled, all along 41 Field missions, 8679 ecological data collected data on biodiversity, a total of 1088 different species were inventoried, among which we found 24 threatened species on the IUCN Red

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					List, 29 endemic species, and recorded 1 new species for science, 5 new species for Tunisia, 5 new species for the KBA and 19 introduced species. Also based on analyzing threats facing it, and on participatory approach workshops with the project stakeholders, the project achieved the creation of a local support management group. Structured training and workshops were perfect occasions to exchange different perspectives and strategies on how to better manage the natural resources of the KBA and specifically water resources.
2.2	Number of priority CMZ where community stakeholders (e.g., fishers, farmers, etc.) receive economic benefits from adopting practices with positive impacts on biodiversity			0	In the framework of this project, there were no planned economic benefits from adopting biodiversity-friendly practices for communities in our Catchment Zone.
2.4	Number of Freshwater KBAs in			1	Maden River Key Biodiversity Area was the

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
	priority CMZ with improved information on biodiversity, shared with stakeholders				main KBA our project aimed to enhance the knowledge of its freshwater biodiversity through local co-management with the project stakeholders. > 234Km patroled, all along 41 Field missions, 8679 ecological data collected data on biodiversity, a total of 1088 different species were inventoried, among which we found: 24 threatened species on the IUCN Red List, 29 endemic species, and recorded: 1 new species for science, 5 new species for Tunisia, 5 new species for the KBA and 19 introduced species. Alongside the mentioned work, a Procedure Manual of Bioindicator species in the KBA was shared and rectified with academic and governmental experts. And special field missions were held in order to analyze the population of freshwater turtles in the KBA, aiming to prepare a conservation action plan.

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					The improved information on biodiversity is shared with the project stakeholders and valorized in the following materials: 1- Scientific report on inventorying Freshwater Biodiversity in Maden River KBA 2- Photographic catalog 3- Series 'ATVS Discovery' of 5 short videos 4- Procedure manual of bioindicator monitoring 5- Conservation plan for freshwater turtles in the KBA. 6- COBIOM The Documentary
4.6	Number of KBAs for which information on plants is improved			1	Maden River Key Biodiversity Area, is the only KBA benefiting from enhancing our knowledge of plants improved in the framework of this project. This was achieved through the participation of a botanist in the 4 seasons of fieldwork, in addition to involving a Research Master's Student in the framework of her Master Project intiteled 'l'étude ethnobotanique et de la dynamique de cette

Portfolio Indicator Number	Portfolio Indicator Description	Expected Numerical Contribution	Expected Contribution Description	Actual Numerical Contribution	Actual Contribution Description
					biodiversité végétale et ses menaces afin d'élaborer un plan de cogestion pour la conservation des taxa patrimoniaux prioritaires'.

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
Maden River	TUN41		81,973

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

Benefits to Individuals

- **Structured Training:**

Number of Men Trained	Number of Women Trained	Topics of Training
18		6 Fieldwork practical workshops Ecological Monitoring (Herptofauna, invertebrates, Mammals, Flora, Ornithology...) 3 Theoretical workshops on data management and Fundraising
	21	12 men and 9 women represent the local management group 1 man and 4 women represent students who conducted part of their fieldwork in the framework of the project and were part of the training 5 men and 8 women represent ATVS volunteers who were part of the workshops and practical training

- **Cash Benefits:**

Number of Men – Cash Benefits	Number of Women – Cash Benefits	Description of Benefits

Benefits to Communities

View the **characteristics** column below with the following corresponding codes:	View the **benefits** 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**			

Characteristics of "Other" Communities:

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**

"Other" Topics Addressed by the Policy, Law or Regulation:

No.	Country/ Countries	Date Enacted/ Amended	Expected impact	Action Performed to Achieve the Enactment/ Amendment

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

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
Local Support Management Group	2021	Tunisia	Yes	Exchange different perspectives of challenges facing Biodiversity in Maden River KBA and brainstorm solutions to face them. In the aim of better management of the KBA natural resources.

Name of Network/Partnership	Year Established	Country/ Countries	Established by Project?	Purpose
Partnership Convention ATVS-APMT	2022	Tunisia	Yes	As a very important result/ fruit of co-organizing Shitana, a Partnership Convention was signed with a local NGO 'Poney Mogods pour le Tourisme Association APMT and ATVS, during the closing ceremony on the 22nd of July 2022. This partnership aims to strengthen the collaboration between the two NGOs, focusing on preserving the natural resources of the KBA by raising awareness mainly via the event 'Shitana'.
Partnership Convention with the Tunisian Agriculture Ministry (convention cadre de partenariat)	2022	Tunisia	Yes	This partnership represents a long-term fixed by ATVS, which was achieved earlier than we expected due to the NGO work (COBIOM represent one of the most important projects that showed the capacity of ATVS of conducting conservation work effectively). This partnership represents a new chapter for ATVS to work harder for nature preservation and for a better natural resources management.

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
Calicnemis	latreillei		EN	Calicnemis obesa (or latreillei): species monitoring; improve knowledge about distribution and population trends.	Unknown
Streptopelia	turtur	European Turtle Dove	VU	Species monitoring, Improve knowledge about distribution and population trends.	Unknown
Lanius	meridionalis	Southern Grey Shrike	VU	Species monitoring, Improve knowledge about distribution and population trends.	Decreasing
Aythya	ferina	Northern Pochard	VU	Species monitoring, Improve knowledge about distribution and population trends.	Decreasing
Marmaronetta	angustirostris	Marbled Duck	VU	Species monitoring, Improve knowledge about distribution and population trends.	Stable
Testudo	graeca	Greek Tortoise	VU	Species monitoring, Improve knowledge about distribution and population trends.	Stable
Caretta	caretta	Loggerhead Turtle	VU	species habitat protection, we only found a dead specimen on the coast of Zouaraa, so we tried to be part of a local event (during international turtle day) about raising awareness about the importance of the protection of the site and these species (as a nesting site for the species).	Decreasing
Pleurodeles	nebulosus	Algerian Ribbed Newt	VU	Species monitoring, Improve knowledge about distribution and population trends.	Decreasing
Gomphus	lucasii		VU	Species monitoring, Improve knowledge about distribution and population trends.	Unknown
Dorcus	musimon		VU	Species monitoring, Improve knowledge about distribution and population trends.	Unknown
Anguilla	anguilla	European eel	CR	Improve knowledge about distribution and population trends.	Decreasing
Larus	audouinii	Audouin's Gull	VU	Improve monitoring, discover species presence on site - implying possible conservation in the future.	Unknown

LESSONS LEARNED

One of the most important lessons that we learned is: never giving up, even against COVID, just have to apply the measurement for the sake of the team and follow the wind, in our case follow the COVID waves. It was hard, but it wasn't impossible! We learned to analyze the situation globally and locally so we can achieve the project objectives.

Second, never take others' opinions for granted, it is fundamental to listen to the previous project teams and learn from their experience, however, when it comes to building trust with locals have to have your own perspective so you wouldn't be influenced by their opinions and build your own link with them.
PS: in an earlier phase of the project we heard a lot of 'Locals in Nefza are very tough to deal with, it is not easy to work with them', but at the end of the project we heard a lot of 'how did you earn their trust and build such a bond with them, they are not as tough as we know eventually'.
In the end, we noticed that listening to previous experiences is a key step toward finding the right implementation tools for the project, but to reach our project goal we had to find our own way to build trust with stakeholders.

Third, in order to implement an integrated co-management tool, having an opening meeting with all the stakeholders and linking the project goals to the site's challenges without giving false hopes or nonclear requested impact, is the first key step toward achieving the project purpose. Listening to the challenges facing the KBA before introducing the project activities and goals is another strong key to strengthening their engagement with the long-term project impact.

Involving students in the fieldwork and in project activities, in general, was a very valuable success. It ensures capacity building, networking and knowledge spread to future naturalists/ experts. Integrating students (Bachelor, Master's, or PhD) in such projects is an important tool to engage more people in nature conservation work and to facilitate the encouragement of academic organisms to be more engaged in linking research to conservation.

Being involved in the organization or even 'when possible' in financial supporting local events with civil society is a noble way to show the local community that the project and the NGO work with what they can afford on the sustainable development of the area with their own perspective. In our case, it made the local community more curious about discovering our way of working and the tools for protecting the site. It was also a perfect step to be more engaged in the structured training planned in advance in the framework of the project.

SUSTAINABILITY/REPLICATION

Since the beginning of the project, ATVS was looking for a local NGO that had the basics to ensure sustainability in conservation action in the area. The project team was honored to meet a local NGO 'Association Poney Mogod pour le Tourisme', with whom we shared the same goal of protecting in a sustainable way the site with all its living creatures. Even though we had different approaches, we tried to accumulate our energy and resources in order to valorize and raise awareness about the importance and richness of the site via a 2 days Local Event 'Shitana', where for the first time there was an ecovillage gathering the

main cultural heritage representatives, promoting local products and knowledge; and a series of environmental raising awareness activities.
The success of Shitana's organization was the motivation for singing a partnership convention between the 2 NGOs 'ATVS' and 'APMT' on the 22nd of July 2022.
This convention aims to work in collaboration for the conservation of Oued Maden KBA.

However, one of the main challenges that we are facing toward achieving our ultimate goal is linked to providing funds and making other donors interested in this area.

ENVIRONMENTAL AND SOCIAL SAFEGUARDS/STANDARDS

None

ADDITIONAL COMMENTS/RECOMMENDATIONS

ADDITIONAL FUNDING

Total Amount of Additional Funding Actually Secured (USD)	$0.00
Breakdown of Additional Funding	

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.

Association Tunisienne de la Vie Sauvage (ATVS);
assoctunisiennedelaviesauvage@gmail.com