

Comprehensive environmental-territorial diagnosis of polje's watershed systems in western Bosnia-Herzegovina

Which environmental status or labels for an efficient and relevant protection of poljes in BiH? Identify management plan elements for the protection and sustainable development of the territory.

Synthetic proposal

1. The ISEE training module

The "International Strategic Environmental Evaluation" study and training module is part of the Specialized Master's program (Post MsC) "Forest, Nature, and Society – International Management" (SM FNS-IM). The program is offered by AgroParisTech, the *Paris Institute of Technology for Life, Food and the Environment* and led by the "Environmental Management" research and training unit (UFR G-ENV)¹. This training module is a key component of the cursus, where students operationalize from fieldwork the methods and the environmental management frameworks they have previously learned in other modules. The module and its collective project approach aims at (1) introduce students to the conduct of an operational research project (including analysis, preparation, implementation of and reporting); (2) bringing a practical experience about biophysical and social reality in a specific local situation. In terms of scientific and operational objectives, this "collective integrated project" is co-developed with a conservation organization partner.

2. AIDA partnership

AIDA (*Association Internationale pour le Développement de l'AgroEnvironnement*) is an NGO mainly focused on agro environmental issues. Fieldwork and projects are located especially in the Western Balkans Countries. AIDA is already carrying out a partnership with CZZS (Bosnian environmental NGO) on two municipalities of BiH (Sanski Most and Merkonik) which aim is to provide complementary elements (contextual and territorial approaches) to the defence of the environment. This perspective materializes in "learning areas" for researchers, knowledge and action brokers and local actors and territorial authorities. The challenge is to increase the efficiency of the action, knowledge gathering and strategic management in a multi-scale, multi-purpose, and multi-actors' perspective.

3. Coordination with the « Sustainable Future for the freshwater ecosystem Livansko polje in Bosnia and Herzegovina » project

The project "Sustainable Future for the freshwater ecosystem Livansko polje in Bosnia and Herzegovina" is supported by the *Bosnian Center for Environment (CZZS)*, *EuroNatur Foundation* (Germany) and the ornithological society "*Naše ptice*" (BiH). The project is funded by the DIMFE (*Donors' Initiative for Mediterranean Freshwater Ecosystems*)² for a 3-year duration (2022-2025) and focus on the implementation of restoration measures to improve water management and restore peat mines... The project targets 5 main specific goals as follows: 1) Enabling long term sustainable protection of Livanjsko Polje and surrounding karst poljes as an important freshwater ecosystem in BiH; 2) Conservation and restoration of freshwater ecosystems and its biodiversity in Livanjsko Polje through fostering and improving of environmentally beneficial land use practices; 3) Reduction of illegal and harmful activities to the freshwater ecosystem of Livanjsko Polje; 4) Strengthening local initiatives that contribute to nature conservation and sustainable management of the freshwater ecosystem of Livanjsko Polje and surrounding karst poljes; 5) Increased awareness and knowledge in the general public about the natural and cultural values of karst poljes.

4. Objectives of the study

The objective of this collective field study is to produce the elements needed to build an accurate and efficient protection strategy that could benefits the polje watershed systems in BiH. For this it is necessary to gather data and produce an accurate territorial diagnosis from which a specific protection strategy will be defined in regards with socio-economic characteristics of the study site and a sustainable development perspective. The central objective is decline in three operational specific objectives as follow:

1 Website of the partners: www.genv-agroparistech.fr; <http://www.courrierdelaplanete.org/en/>; <https://czzs.org>; www.euronatur.org; www.ptice.ba.

2 Initiative created in 2021 by the Prince Albert II of Monaco Foundation, the MAVA Foundation & Aage V. Hensen Charity Foundation.

- SO1/ Developing a benchmark of different types of status, labels and networks of protection using inventory and comparison methods aiming at biodiversity conservation, landscape protection or sustainable development of the territory.
- SO2/ Designing a territorial diagnosis based on participatory methodologies of Livanjsko and surrounding poljes.
- SO3/ Propose elements of protection and sustainable development management strategy for the territory.

The methodology developed for a relevant management strategy are thus specifically designed with the objective to provide new data (as a baseline) and new analytical results on a specific targeted landscape in order to support the partner’s actions, conservation strategy and research interests.

5 Expected Results

- Specifics **workshops** with local partners and stakeholders
- A collective **study report** (in English) detailing the research method, the analytical framework, work hypotheses and field results and analyses; and including the benchmarking of protection status and network (SO1) and the territorial diagnosis (SO2)
- A **policy brief** addressed to our partners in BiH and other stakeholders and authorities possibly interested in the country and abroad.

6 Calendar and methodology

13 th to 24 th of February 2023	Montpellier (France): Field preparation, bibliographic synthesis, methodological framework, field action plan
27 th of February to 17 th of March 2023	Fieldwork in Livno areas (BiH) 1. Introduction and meeting with local partners (CZZS, local stakeholders, other universities) 2. Applied fieldwork’s methodology and objectives. 3. Data collection (semi-structured interviews, map analyses, biodiversity inventory, transects and field observations etc.) 4. Initial data analysis, 2 nd wave of targeted data collection and interviews. 5. survey results, analysis, drafting, additional ad hoc surveys 6. End-of-field meeting / Study results presentation to all partners and local stakeholders.
20 th to 31 st of March 2023	Montpellier (France): Finalisation of the study report + policy brief

7 Team

Student team

AgroParisTech (14)

BRICAULT Pauline: holds a Master of Arts with Honours in Economics & Business Management

DARAS SIFFAIT DE MONCOURT Bertille: holds a Master in Rural Law

DHALLUIN Anna: holds a Master AlterEurope in Geopolitics

DURAND Théo: holds an engineering diploma in Applied Sciences

FRESEL Lucie: holds an engineering diploma in Energy and Environment

LEGAY Jean: holds an engineering diploma in Risk Management

FIEVET Augustin: holds an engineering diploma in Telecom Physics

MONTILLOT Gaël: holds an engineering diploma in Energy and Transportation

NAUDIN Adélaïde: holds an engineering diploma in Industrial Risk Management

PIECHON Camille: holds a Master in Urban Policies and Territorial Governance

PIEDIGROSSI Léa: holds an engineering diploma in Agriculture

POUTHE Guillaume: holds a Master in Environmental Management

PRETESACQUE Juliette: holds a Master in Management

SANCHEZ Bernardo: holds a Master in Environmental Policy

HEC (2)

DEBONO Santiago and KOUAHO Hermelan: finishing a MSc in Sustainability and Social Innovation in HEC (Paris)

+ a group of students from Bosnian University (to be defined).

Supervising team

- Dr. Orianne Crouteix (AgroParisTech) – Lecturer in Geography; orianne.crouteix@agroparistech.fr;

- Jérémy Vendé (AgroParisTech) – Head of the FNS-IM program; jeremy.vende@agroparistech.fr;

- Dr. Coralie Calvet (AgroParisTech) – Lecturer in Economics; coralie.calvet@agroparistech.fr;

- Dr. François Lerin (AIDA) – Social scientist; francois.lerin@posteo.net