



Interreg NWE Care-Peat

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Report of the workshop on peatland restoration strategies in France

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Table of contents

Introduction
Chapter 1: How to integrate the different decision levels (from local to national) to improve the strategies of peatland restoration ?
1.1: The local level
1.2: The intermediate level
1.3: The national and international level 9
Chapter 2: What kind of economic models for the French peatlands?
2.1: The economical model
2.2: Incentive mechanisms in peatland restoration
2.3: Inventory of priority
2.4: Barriers to overcome to go further
2.4.1 A change in paradigm12
2.4.2. Defining the initial state of the peatland and asymmetry of information
2.4.3. The inventory of French peatlands13

Chapter 3: concluding remarks14

Table of figures

Figure 1: Map of localization of the village of Mignovillard
Figure 2: Localization of the peatland with respect to the village of Mignovillard 6
Figure 3: The global water management at the centre of the territorial politics (scheme
rom https://bassinversant.org/aneb/aneb-association-nationale-des-elus-des-
<u>passins</u>)8

Introduction

On September 28, 2020, an online workshop was held for national, regional and local policy and strategy makers in France. Organized by the University of Orleans, the Bureau de Recherches Géologiques et Minières (BRGM) and the Centre National de La Recherche Scientifique (CNRS), this workshop had the mission to:

- introduce the activities and objectives of the INTERREG NWE Care-Peat project;

- provide an overview of the current policy/strategy and best restoration practices in France;

- explore the gaps and needs in policy/strategy preventing the adoption of peatland restoration approaches;

- Options for driving action;

- Set scene for next steps in engagement process.

During this workshop, around 20-25 participants talk about policy gaps for peatland restoration. The workshop was shared in two sessions, chaired by Francis Muller:

- in the morning

10h-10h30 - Introduction by Sébastien Gogo: Overview on Peatlands and Presentation of the INTERREG NWE CARE-PEAT Project

10h30-12h00 - How to improve the relationship between policy makers of different levels to enhance the strategy on peatland policy ?

- in the afternoon

14h00-15h30 - Which economic models for French Peatlands ?

15h30-16h00 - A conclusion statement synthesising the discussions proposed.

This report summarizes the major points and main ideas that were proposed during the day. The workshop having been recorded, a digital version is also available (<u>https://youtu.be/Gi5Ro6DH1SQ</u>).

Chapter 1: How to integrate the different decision levels (from local to national) to improve the strategies of peatland restoration ?

1.1: The local level

Mr. Florent SERRETTE is the mayor of the village of Mignovillard (Jura department - East of France) and also the President of the SIVOM (Syndicat intercommunal à vocation multiple) of the Plateau du Nozeroy. Mignovillard is a small village (880 inhabitants, 5400 ha) close to the border between the departments of Jura and Doubs (figure 1). Mr. Serrette was invited to the workshop because he manages the "Seigne des Barbouillons", a small peatland located on the territory of his village.



Figure 1: Map of localization of the village of Mignovillard

The 35-hectare peatland is classified as a RNR (Regional Nature Reserve) and a Natura 2000 site, within the framework of an SPA (Special Protection Areas, ZICO in French). It is also included in the ZNIEFF (Zones Naturelles d'Intérêt Écologique, Faunistique et Floristique). In the near future, it should be integrated into the Ramsar site "Bassin du Drugeon".

It is an ecosystem with high biodiversity (about 196 animal species and 120 species of flora are referenced on the site) located in the immediate vicinity of the village (figure 2). This peatland has been protected for 33 years and after the appointment of the RNR managers in 2015, a first management plan was organized for the period 2018-2022. The obtaining of LIFE funding made it possible in 2020 to start the hydrogeological restoration of the area (cutting of spruce trees that contribute to the drying up of the area, installation of dams and wooden palisades to raise the water level).



Figure 2: Localization of the peatland with respect to the village of Mignovillard

To encourage and defend restoration, we must:

- Make the area known and respected;
- Build a discussion from the local to the global level!

In the case of "La Seigne des Barbouillons", an association was formed to provide longterm support for local initiatives on the peatland. The commune of Mignovillard is also fully involved in the project and is the main owner of the site (80%). There is also an awareness of the population and inhabitants that can take several forms: the names of the streets in the town are names of plant species (example: rue de la Drosera), the name of the municipal school is the "Ecole des Barbouillons" and the classrooms have names of plant and animal species. Visits of the site are specifically dedicated to the inhabitants with also the holding of conferences, the projection of films, the distribution of publications. Specific work is also carried out with the users, in particular to adapt agricultural practices.

Mr. Serrette also pointed out that restoration work requires the establishment of forums for dialogue and arbitration (at the regional level). For La Seigne des Barbouillons, an advisory board was set up, including:

- The Vice-President of the Region,
- Local authorities,
- Government services,
- Owners and users,
- Associations for the protection of nature.

The Regional Scientific Council for Natural Heritage (CSRPN) is also involved in the project. The Region authorities also manage the financing of the restoration work (curator and technical staff, studies on flora and animal species...).

Mr. Serrette also stressed that the financing of restoration work must be part of a systemic territorial strategy and that it is necessary to know all the levers that can be used. The Seigne des Barbouillons has been associated since 2014 with the "LIFE Tourbières du Jura" programme. This programme brings a co-financing: Europe (50%), Water Agency (36%), Region and departments of Jura and Doubs. For La Seigne des Barbouillons, it represents 20,000 \in for partial deforestation and 40,000 \in for hydrogeological restoration.

In conclusion, Mr. Serrette reminded participants that a balance must be found between conservation/sanctuarisation and valorisation/promotion. The conservation of peatlands must not be to the detriment of other natural areas. Raising public awareness is also essential to obtain public support. The increase in the budget devoted to the restoration and management of peat bogs is insufficient in view of the stakes and the growing number of nature reserves. **One of the major difficulties is the lack of knowledge of the processes impacting the functioning of peatlands, which implies questions about the relevant strategies for their restoration.**

Mr. Serrette also acknowledges that current national laws are sufficient and does not identify specific gaps from a legal perspective. At his level, he does not find problems with administrative structures even if it is sometimes difficult to have coherence between the administrative and natural levels. In his specific case, the peatland is close to the border between two departments (the Jura and the Doubs) which do not always have the same objectives or the same priorities.

1.2: The intermediate level

Mrs Catherine GREMILLET is the director of the ANEB (Association Nationale des Elus de Bassin). It is an association (law 1901) which gathers local authorities, members of the EPTB (Établissements Publics Territoriaux de Bassin), elected representatives of the regions, departments, CLE (Local Water Commission)... This association benefits from the financial support of the Ministry of Ecology (MTE) but also from that of the departments and regions.

In France, water management is an eminently political issue and a strategic challenge for the regions. The French model of watershed management is a founding principle developed for more than 50 years in France, and is promoted at the European level, and even worldwide. It allows the integration of all territorial characteristics allowing the intersection of water and water issues. It is a prerequisite for sustainable land use.

Mrs. Gremillet stressed the need to develop strong links between water management, land use planning and economic development. In addition, all levels of authorities must be involved in integrated water management. Co-construction between national and local government must be organized in a sustainable way (Figure 3). These territorial approaches require the contribution of all local and global actors, including citizens.





This commitment to sustainable water management involves:

- A better knowledge at basin level: a global expertise must be developed to understand the water flows involving the EPTBs (Etablissements Publics Territoriaux de Bassin), the National Government, the water agencies, CEREMA, scientific researchers, associations.... This expertise concerns both surface water and groundwater.
- A better programming, by combining the issues at stake: objectives of general interest at the basin scale must be shared by the SDAGEs (Schémas Directeurs d'Aménagement et de gestion des eaux), PGRIs (Plan de Gestion des Risques d'Inondation)... Political choices must also answer the question of who wins, who loses, how are financial adjustments defined? This is why the final objectives have to be built in collaboration by all partners
- Coordinated actions: for this, subsidiarity must be developed, i.e. actions on the field must be dealt with at the most immediate (or local) level that is consistent with their resolution. Water issues must be integrated as soon as possible into all public policies so that the resource becomes a force (economic, lifestyle, biodiversity...) and not a constraint. This can only be done if financial compensation is distributed to meet these challenges.

The improvement of "working better together" is based on a clarification of the role of national and local authorities. If national homogeneity is necessary (with global financial support), specific actions must be managed at a local scale (as for the GEMAPI = Gestion des Milieux Aquatiques et Prévention des Inondations) or for the EAU initiative (Eau – Aménagement – Urbanisme).

According to Mrs. Gremillet, the governmental actions carried out by the Ministries, the Regions, the DDT (Direction Départementale des Territoires) are operational with the implementation of transversality. **But an important work consists in making the link with the local scale (difficulty of making the link between the national and local scales).**

1.3: The national and international level

Ms. Frédérique Tuffnell is a member of the French Parliament and has a special interest in wetlands. She is a deputy for the department of Charente-Maritime (West of France). This department hosts the headquarters of the LPO (Ligue de Protection des Oiseaux), of Ramsar-France and the Conservatoire du littoral. Wetlands are present in many places in this department with the Brouage marshes, the Tasdon and the Marais Poitevin, the river Charente and its marshes.

Mrs. Tuffnell is also the author of a recent report on how to "reverse the trend" in wetland loss in France in application of the biodiversity Recovery Act (<u>http://www.cgedd.developpement-durable.gouv.fr/terres-d-eau-terre-d-avenir-faire-de-nos-zones-a2722.html</u>). This report is part of the Biodiversity Plan (2018), a parliamentary mission dedicated to fieldwork (in the Basses Vallées Angevines, the

Wateringues, the Etang du Lindre, the Marais des Salins de Camargue) in collaboration with Jérôme Bignon (also MP). Their recommendations are widely accepted.

However, she recognizes that biodiversity is a complex issue that is poorly understood by MPs. A lot of work needs to be done to bring the issue up to the same level as climate change. She needs to raise awareness and lobby MPs, ministers and their cabinets on the many benefits of wetlands.

She is also working towards better consideration of wetlands in legislation. To do this, she first created the group of "MP's for Nature": Nature-based solutions (NBS) are finally finding their place in Parliament in collaboration with scientists, NGOs and field workers. She draws attention to the need to integrate restoration projects into territorial approaches, involving ecological, economic and climatic challenges.

However, the road is long and marked by small victories:

- Financial Law Project 2020
- \circ $\,$ Law Project on the creation of OFB with new definition of wetlands
- Law Project 'ASAP' = simplification law
- LPPR (Multi-annual research programming law) with the vote of an amendment which underlines the necessity to have an accurate knowledge of the functioning of these zones (qualitatively and quantitatively) : <u>https://tuffnell.fr/travail-parlementaire/les-dossiersparlementaires/item/1213-adoption-de-mon-amendement-sur-leszones-et-les-solutions-fondees-sur-la-nature</u>
- Law proposition on NBS wetlands and water preservation
- Financial Law Project 2021.

Mrs. Tuffnell concluded by saying that she is actively working to remove an additional tax on peatlands, to promote wetlands as Nature-Based Solutions and to make their study a research priority until 2030, to raise public and political awareness of the virtues of peatlands and the consequences of their over-exploitation.

Mrs. Tuffnell also alerts us to the exploitation of peatlands in France and on a European scale. If their exploitation is to be dealt with on a European scale, national actions are also necessary. Indeed, peatlands are referenced as mines and quarries. Should French peatlands be excluded from this context in order to limit their exploitation?

Finally, Mrs. Tuffnell concluded by stressing the need to modify the PLU (Plan Local d'Urbanisme) on a local scale in order to better identify these areas (on a plot scale) and to better characterize the catchment area and avoid the urbanization of these areas.

Chapter 2: What kind of economic models for the French peatlands?

The afternoon workshop consisted of a presentation by Daniel Gilbert, professor at the University of Bourgogne Franche-Comté. He is an expert in peatland ecology and is preparing a PhD in economics on the carbon economy in the context of peatland restoration. He was accompanied by Christian At, professor at the University of Bourgogne Franche-Comté, a specialist in incentive mechanisms in the context of organic farming.

Daniel Gilbert showed that in order to achieve economically profitable peatland restoration and mitigate climate change, 1) an economic model that sets the cost of the eqCO2 that has been removed from the atmosphere, 2) an incentive procedure, 3) an inventory of priority are needed.

2.1: The economical model

A profit function can be applied to the economy of carbon (C) in the peatland. This function is equal to the gain minus the losses. The gain may consist of subsidies based on the amount of carbon that has been withdrawn from the atmosphere. The losses are the costs of preparing (administration), carrying out and monitoring the effectiveness of the restoration. It is therefore essential to assess which type of peatland should be restored first to maximize the difference between gains and losses

Restoration work varies according to the state of conservation of the peatland (restoration costs per square meter treated can vary by a factor of 30 between slightly and severely degraded peatlands). Moreover, the estimation of the carbon stored thanks to restoration is always delicate: indeed, direct measurements are very expensive which implies the use of indirect measurements using proxies (depth of the water table, remote sensing...) or bibliographical reviews.

In France, peatland management is mainly focused on the conservation and promotion of biodiversity. To this end, restoration actions have been undertaken in sites that already contain interesting biodiversity. These sites are generally little degraded or impacted by human activities. These sites probably still function as carbon sinks and any further action on these sites will only store a very small fraction of carbon. The gain, in terms of additional carbon stored, obtained by the restoration of these sites will be small. Thus, undertaking conservation and restoration as we have done to date will not be cost-effective. Daniel Gilbert has shown us that, from a carbon economics point of view, we should now focus on the restoration of degraded peatlands and/or the rehabilitation of much degraded sites (which are not even registered as peatlands at present). Since most of these sites probably function as carbon sources, investing in relatively low-cost restoration actions, such as blocking drains, should be costeffective because carbon storage in such systems is more likely than in non-degraded sites. As Daniel Gilbert mentioned, this is a paradigm shift in peatland restoration.

2.2: Incentive mechanisms in peatland restoration

Firstly, the characterization of the state of conservation of the peatland is very difficult to estimate. However, Daniel Gilbert stated that it is not economically viable to assess the effectiveness of restoration by conducting field measurements. The costs of materials and the functioning of these stations and equipment are very high.

Thus, to build a sustainable economic model for peatland restoration, one must **aim for an obligation of means, rather than an obligation of results**.

To do this, incentive mechanisms should be promoted. On the basis of the bibliography, it can be estimated that restoration actions can allow the storage of a certain amount of C. Then, it is assumed that these actions are effective on average for the storage of C and that a restoration action should be granted.

The procedure that can be set up should consist in

- A person owns a peatland to restore
- An expert assesses the initial state of the site
- The owner applies for a subsidies to implement a restoration work
- The regulator grants the subsidies
- A control of the works is done (obligation of means)

2.3: Inventory of priority

First of all, the inventory of French peatlands needs to be updated. An atlas of French peatlands was produced in 1949 by BRGM. Then a recent inventory was added, but knowledge of the total surface area of peatlands is still incomplete, especially since many sites of interest (much degraded peatlands) are no longer considered as peatlands (e.g. pastures). A project to fill these gaps has been submitted to the French Biodiversity Organization (OFB). To be complete, this inventory must include the C stock of sites, their state of degradation, land use and ownership.

Then, the priority will be to decide where to act and at what cost.

2.4: Barriers to overcome to go further

2.4.1 A change in paradigm

Changing the restoration strategy with a focus on degraded and highly degraded peatlands can be an obstacle as it may take some time for managers as well as landowners and farmers to change direction and mindset.

This problem can be solved by working on communication to site managers and landowners. However, for the most degraded sites used for agriculture, the implementation of a political decision and an economic programme is a prerequisite. For example, these subsidies should compensate for losses due to a change in land use from grazing land to restored peatlands. Without combined action between progress in in situ ecological restoration and policy on peatlands (and wetlands in general), this communication effort will be useless.

2.4.2. Defining the initial state of the peatland and asymmetry of information

In order to evaluate the potential C stored by a restoration action, and therefore the money earned by subsidies, the initial state of the peatland must be defined. In an incentive programme, this should be based on the information provided by the landowner. There is a potential asymmetry of information between the declarant and the administration that grants the subsidies. A neutral external expert can be appointed, with the addition of a second layer of information asymmetry.

Beyond the willingness to organize a C economy in the context of peatland restoration, there is again the administrative and political obstacle to organizing an incentive programme that, on the one hand, can contribute to climate change mitigation and, on the other hand, can be economically advantageous for the farmers who own the most degraded peatlands.

2.4.3. The inventory of French peatlands

Following what was presented and the paradigm shift that is needed, it is necessary to know more precisely the surface area of peatlands in France. The existing inventory should be improved to include sites that are no longer considered as peatlands anymore, but which can regain a carbon sink function if restoration work is carried out.

Chapter 3: concluding remarks

At the conclusion of this workshop, Jean-Pierre Thibault, from the Ministry of Ecological Transition, summarized the main themes discussed during the day:

- We are now in a phase of peatland restoration. The lack of knowledge is a pretext for inaction. We now have pragmatic elements (with scientific information) and the capacity to restore these wetlands. It is not very expensive compared to the stored C but each peatland is unique.
- The local and the global: the main difficulty in France is the (very) small size of the peatlands that need to be restored by local authorities. And there is always a gap between local and national authorities. The role of national and European policies is essential (new laws, regulation/banning of the peat market...).
- The useful and the pleasant: if a peat bog is not pretty, are we able to mobilize to save it? If it is pretty, it will be easier to involve the population in the project and obtain public support.