

IS THE REMOVAL OF SÉLUNE DAM ALSO A FAILURE? SOCIAL APPROACH OF ECOLOGICAL RESTORATION

LE DÉMANTÈLEMENT DES BARRAGES DE LA SÉLUNE EST IL AUSSI UN ÉCHEC ? APPROCHE SOCIALE DE LA RESTAURATION ECOLOGIQUE

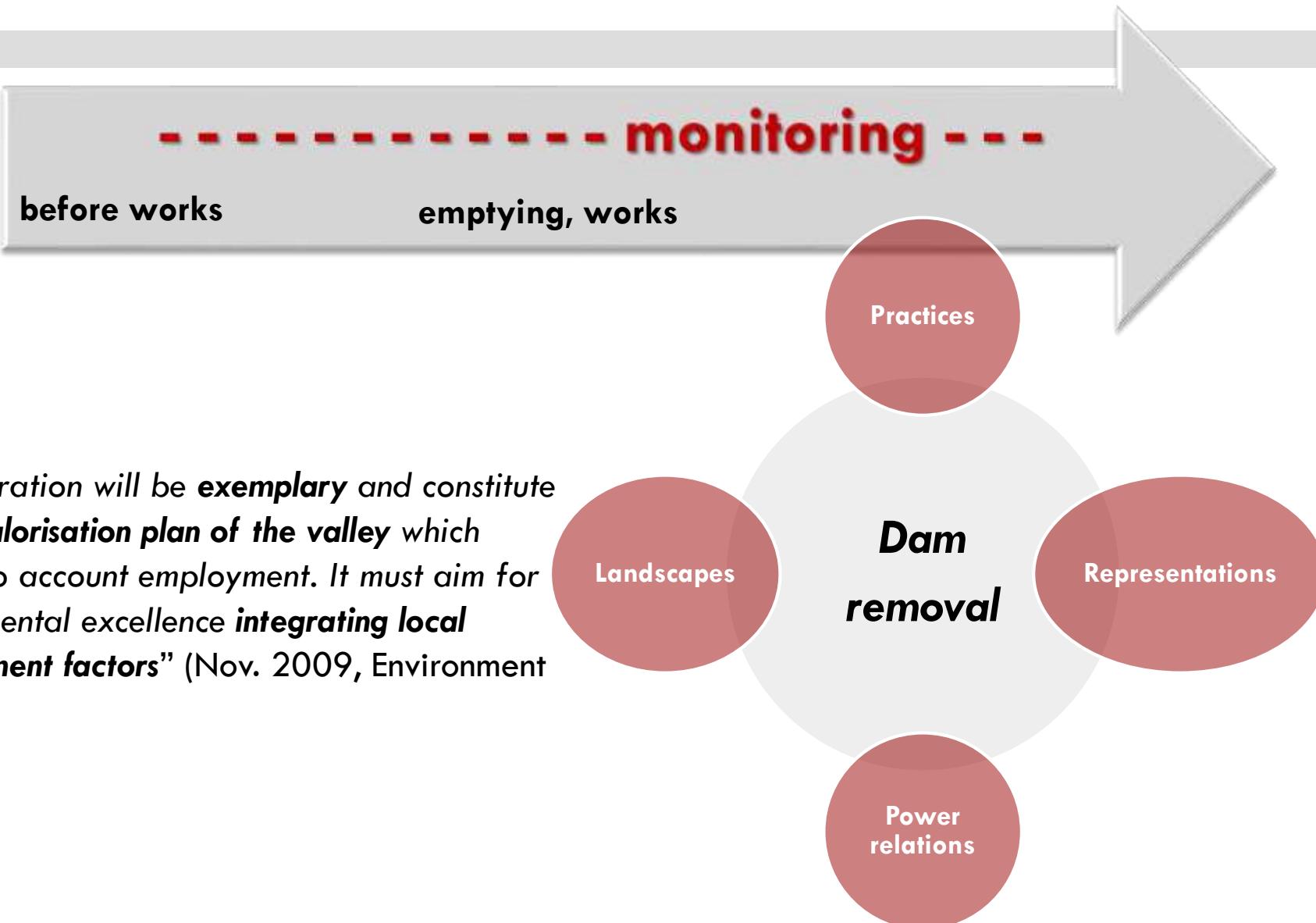


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0. A social approach of river restoration



*"this operation will be **exemplary** and constitute a **true valorisation plan of the valley** which takes into account employment. It must aim for environmental excellence **integrating local development factors**" (Nov. 2009, Environment Ministry)*

0. A social approach of river restoration

2013

Social representations
(values, nature,
landscape, attachment
to place)

2019

**Collectives
reconfiguration**
(local scale ;
european/international
scales)



Micro-politics

(governance, conflicts,
collective construction)



516 fishermen (online questionnaire)
> 150 inhabitants or users interviewed
> 100 riparian residents (questionnaire)

Participant observation
> 60 interviews (local elected, local managers, associations)
> focus group



0. A social approach of river restoration

Team

Ludovic DRAPIER (PhD Comparison US/ France : defence planned 3 December 2019)

+ Yves-François LE LAY, Marie-Jo MENOZZI, Olivier THOMAS, Mathieu VIRY

Internships: Baptiste ROULET, Ronan LECLAIR, Mathilde CARRE, Jean-Loup CHARNAIS, Hélène BALARESQUE, Benoit BERTON

Research blog: <http://selune.hypotheses.org/> (since 2015)

Scientific publications

1. Drapier L., Germaine M.-A., Lespez, L., Magilligan, F., Sneddon, C. (submit) - Upscaling environmental controversies: dam removal conflicts in France and the USA, *Geoforum*.
2. Germaine M.-A., Drapier L., Lespez L., Styler-Barry B. (in press) - How to define and better integrate stakeholders in river restoration projects? The dam removal case, in Cottet M., Morandi B., Piégay H. (dir.), *Social issues in river restoration projects: interdisciplinary perspectives from researchers and practitioners*, Wiley.
3. Thomas O. (in press) – La pêche et le projet de restauration de la rivière Sélune : vers une redéfinition du rapport des pêcheurs à la rivière et aux poissons ?, in Mitroï V. et De La Croix K. (dir.), *Ecologie politique de la pêche*, Presses Universitaires de Nanterre.
4. Germaine M.-A., Drapier L., Lespez L., Menozzi M.-J., Thomas O. (2019), Entre désir de nature et peur de l'abandon : quelles attentes paysagères après l'arasement des barrages hydroélectriques de la Sélune ? Projets de paysage, n° 20 « Paysages de l'eau »,
5. Thomas O., Germaine M.-A., 2018, De l'enjeu de conservation au projet de territoire : Le saumon atlantique au cœur des débats, *Vertigo*, 2018/02
6. Thomas O., Germaine M.-A., 2018, La restauration de la continuité écologique des cours d'eau et la pêche de loisir : héritages, changements et enjeux, *Norois*, vol. 249, p. 43-60
7. Germaine M.-A., Lespez L. (2017) – The failure of the largest project to dismantle hydroelectric dams in Europe? (Sélune River, France, 2009-2017), *Water Alternatives* 10(3): 655-676
8. Sneddon C., Barraud R., Germaine M.-A. (2017) – Dam removals and river restoration in international perspective, *Water Alternatives* 10(3): 648-654
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11. Germaine M.-A., Viry M., Menozzi M.-J., 2016, Construction des lieux et rapports à la nature. Cabanons et pêcheurs des lacs du Sud Manche, *Norois*, 240 | 2016, 77-100.
12. Germaine M.-A., Lespez L., 2014, Le démantèlement des barrages de la Sélune (Manche). Des réseaux d'acteurs au projet de territoire ?, *Développement durable et territoires*, vol. 5, n°3 | décembre 2014.

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www.water-alternatives.org

Germaine, M.-A. and Lespez, L. 2017. The failure of the largest project to dismantle hydroelectric dams in Europe? (Sélune River, France, 2009-2017). Water Alternatives 10(3):

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The Failure of the Largest Project to Dismantle Hydroelectric Dams in Europe? (Sélune River, France, 2009-2017)

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ABSTRACT: The removal of two hydropower dams announced by the French government in November 2009 would have been an unprecedented operation at European scale due to their dimensions (36 and 16 m high). But this project has been strongly criticized at local level by elected officials and users. The Actor Network Theory is used to reconstitute the successive stages of the consultation process, from the first discussions about the future of the dams (2005) to the downgrading of the project (2016), finally leading to a simple draining of the lake and inspection of the dam. The ANT approach and the methodology based on stakeholder interviews and participant observation are fruitful to identify the actors – humans and non-humans like salmon or lakes – and to analyse their position in sociotechnical networks pro or against dam removal. This method aims to reconstruct the whole process of setting up the campaign groups and their trajectory and to understand the shaping of representations and values. It shows the opposite visions developed by the opponents and defenders of the dam concerning salmon and running/standing water. The way the dialogue process was conducted also plays a crucial role. Interrupted and characterized by many uncertainties, it failed in allowing a translation between expertise and local knowledge.

KEYWORDS: Dam removal, Actor Network Theory (ANT), micro-politics, governance, France

INTRODUCTION

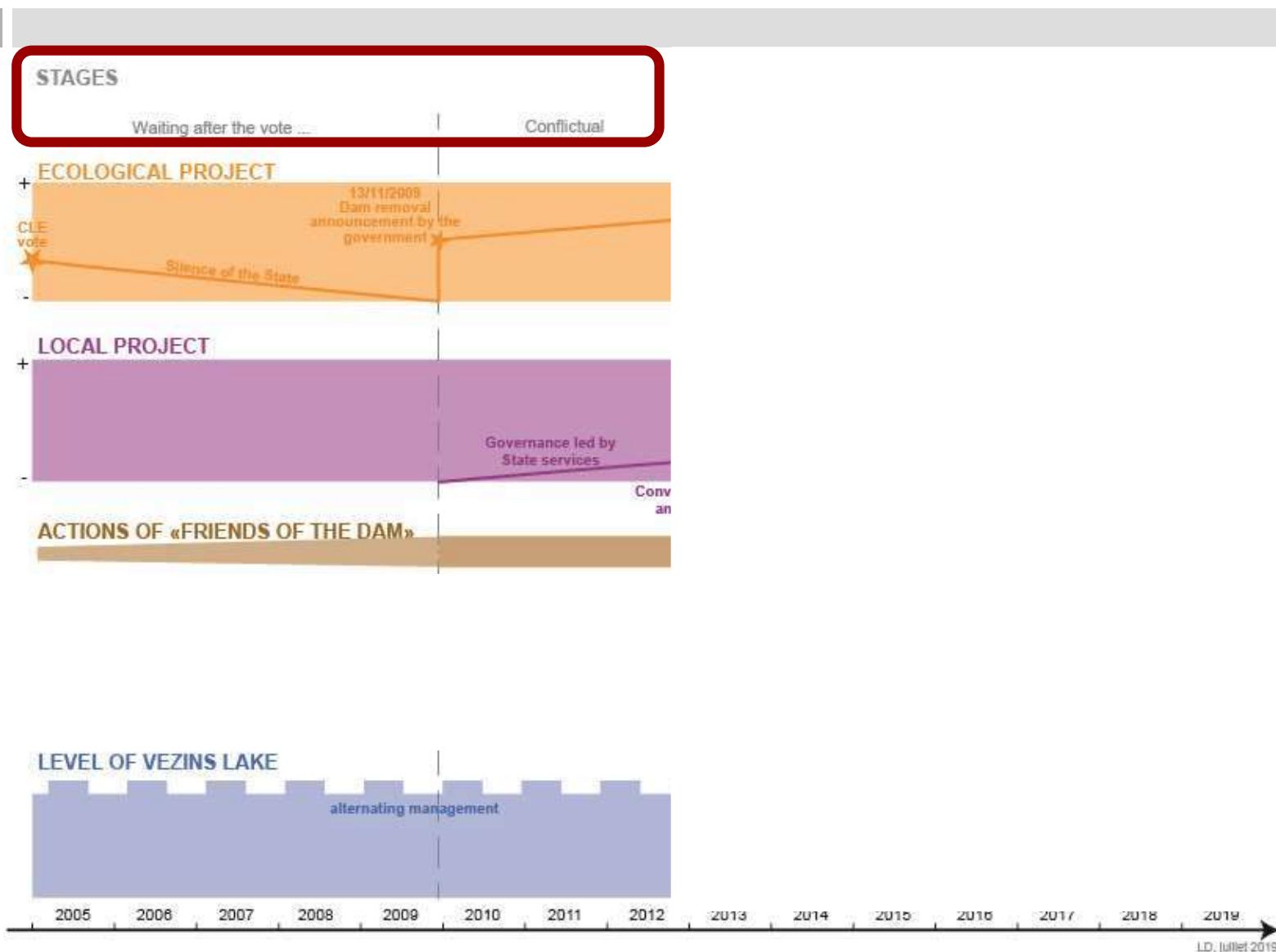
The restoration of ecological continuity is the most symbolic, but also the most conflictual part of the ecological restoration of waterways. It involves removing dams or weirs built across rivers and is aimed at restoring the free movement of migratory fish and sediment. So far, most dam removals have taken place in the United States (Hart et al., 2002; Grant and Lewis, 2015). At the end of 2015, nearly 1,300 dams had been dismantled (O'Connor et al., 2015) at a rate of approximately sixty a year since the end of the 1990s (Service, 2011). Only 29 of them were more than 10 m high, with 4 above 30 m.¹ The best-known case of such big dam removal is probably the Elwha Dam (33 m) in Washington State, dismantled in 2011 (Mapes, 2013; Crane, 2011; Guarino, 2013). Although the dismantling of dams did have the expected ecological restoration outcome, namely the recovery of ecological continuity, the respect of relicensing regulations in accordance with endangered species protection was not the only legal driver. In fact, structural obsolescence of dams and safety regulations were also often decisive factors (Bowman, 2002).

¹ www.americanrivers.org/threats-solutions/restoring-damaged-rivers/dam-removal-map/

Should we talk of a failure?

1. Stakeholders interactions and governance process
2. Place of local people and territory in the project
3. Micropolitics

1. Stakeholder's interactions and governance



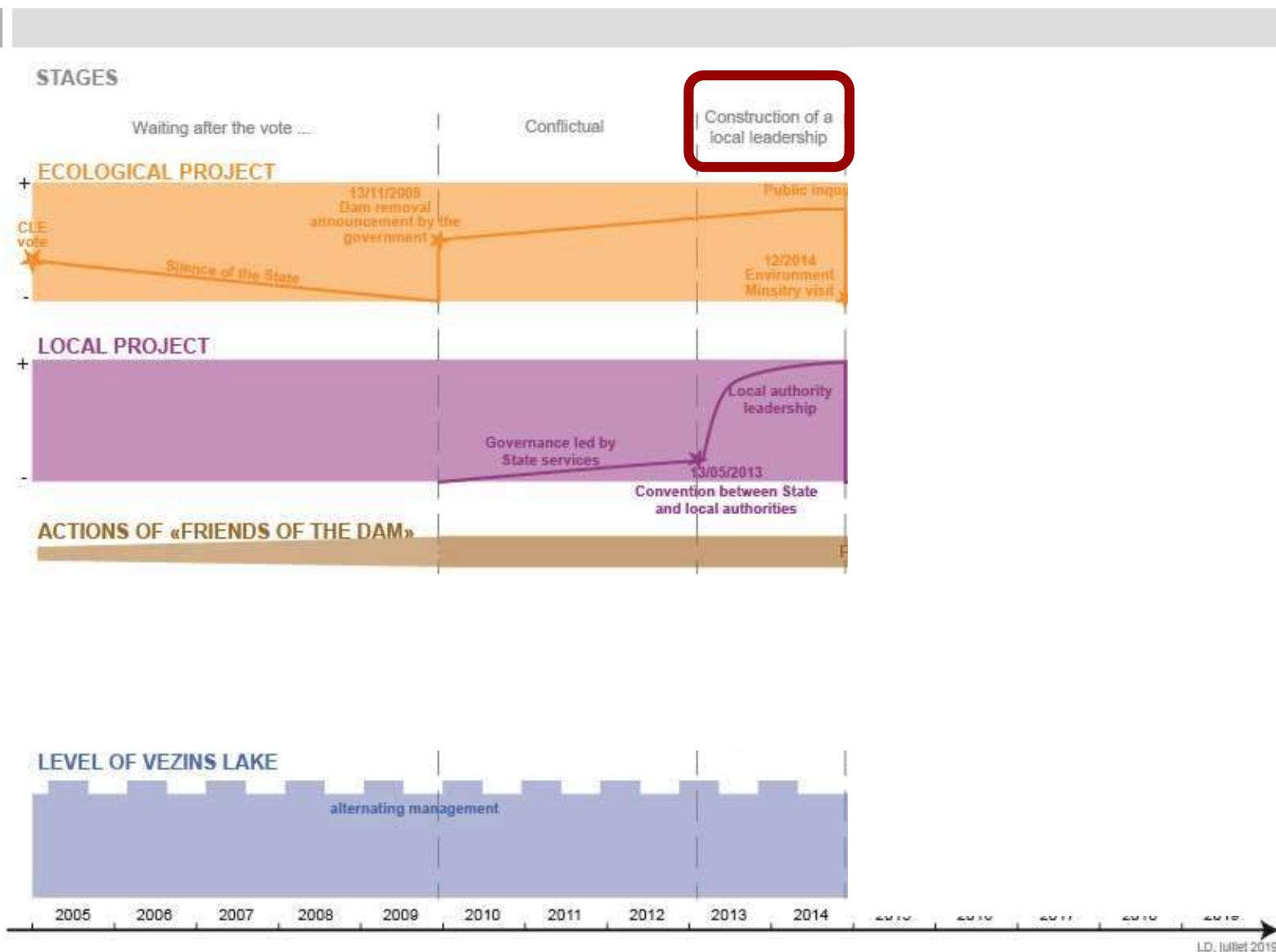
1. Stakeholder's interactions and governance

« Friends of the dam » association

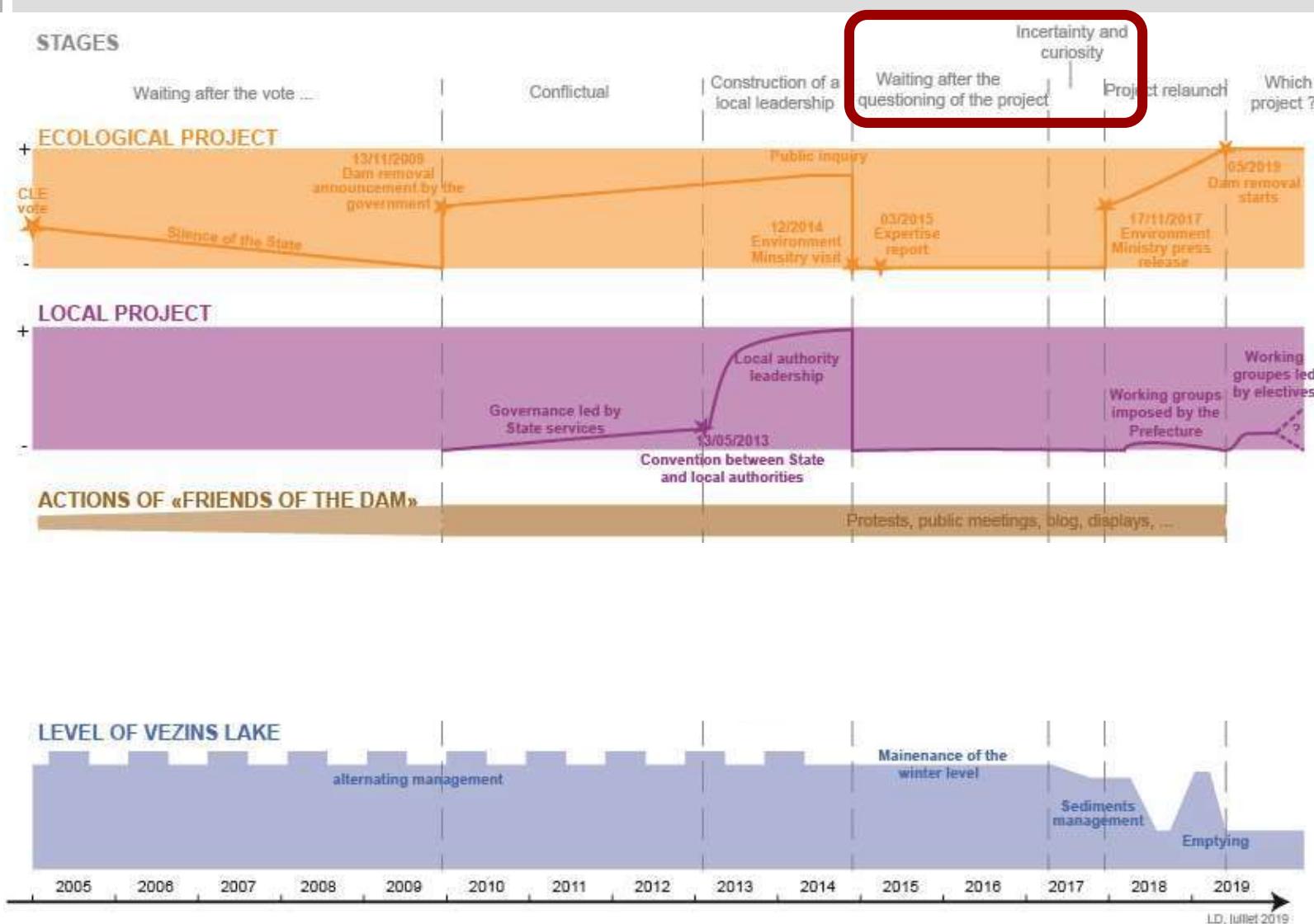


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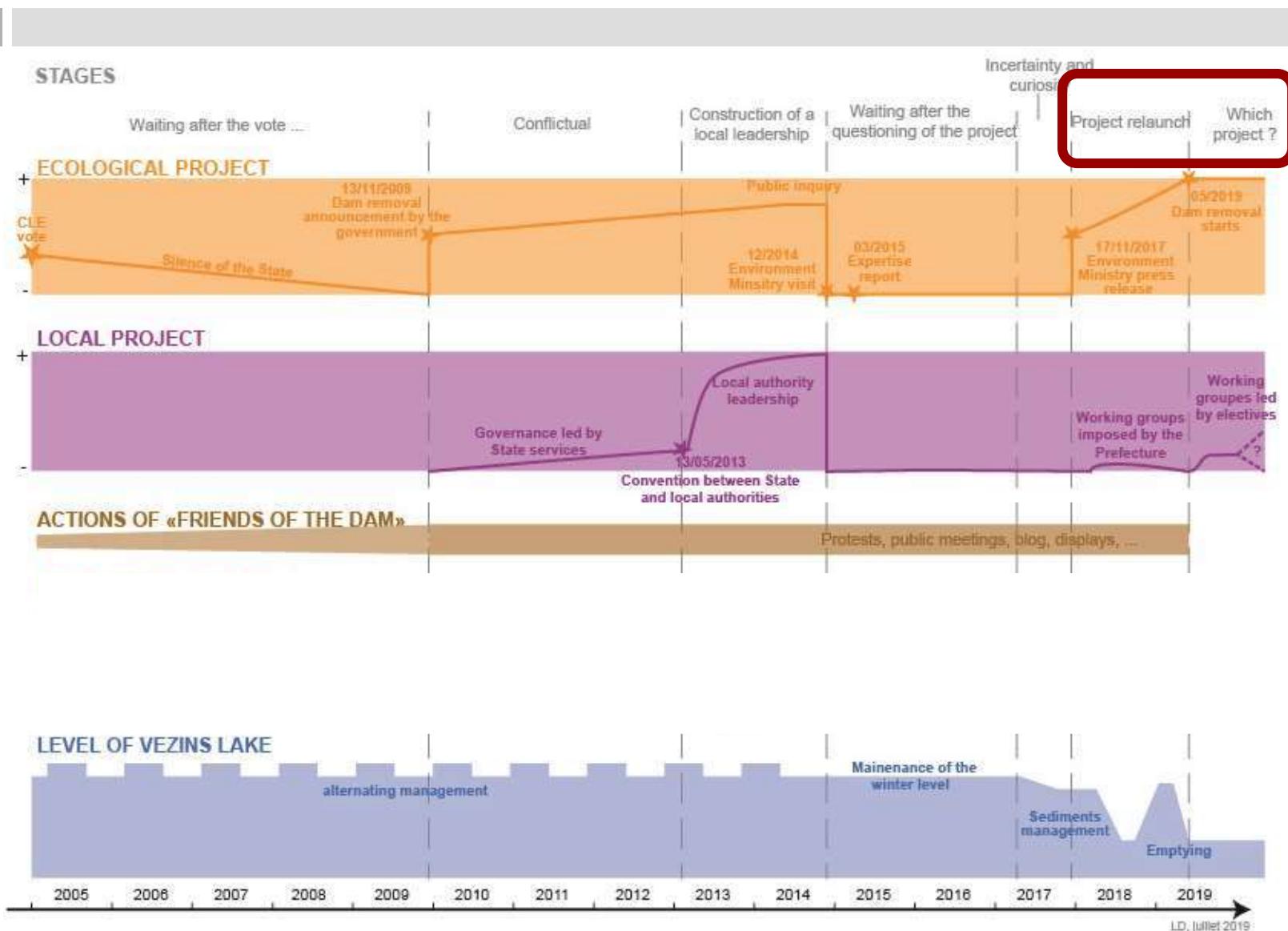
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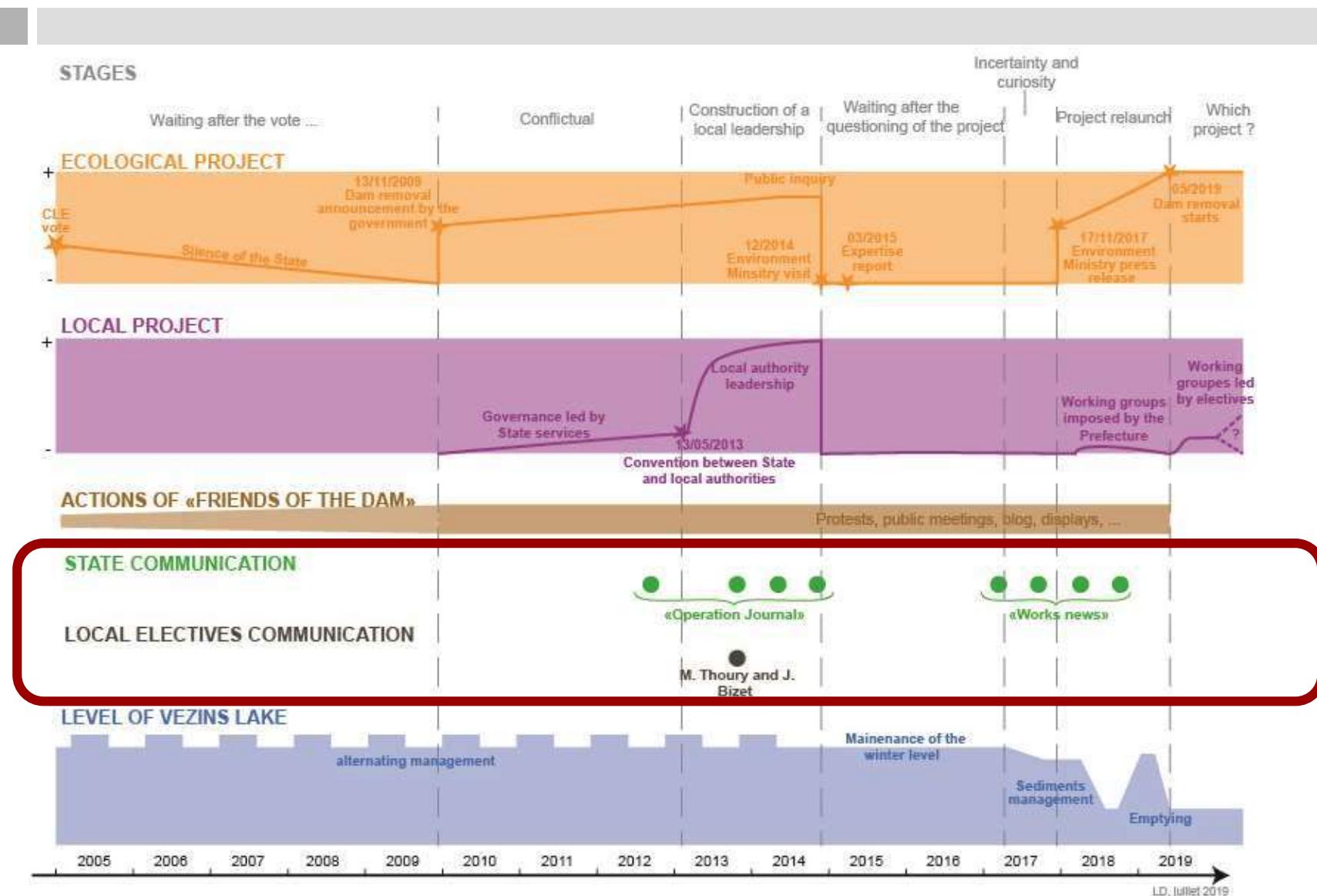
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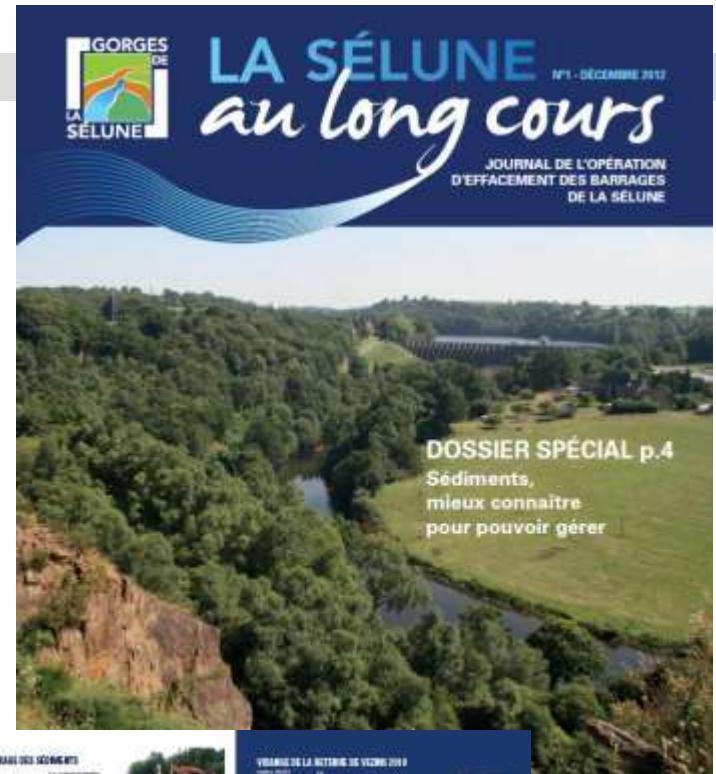


1. Stakeholder's interactions and governance



1. Stakeholder's interactions and governance

A lack of communication



1. Stakeholder's interactions and governance

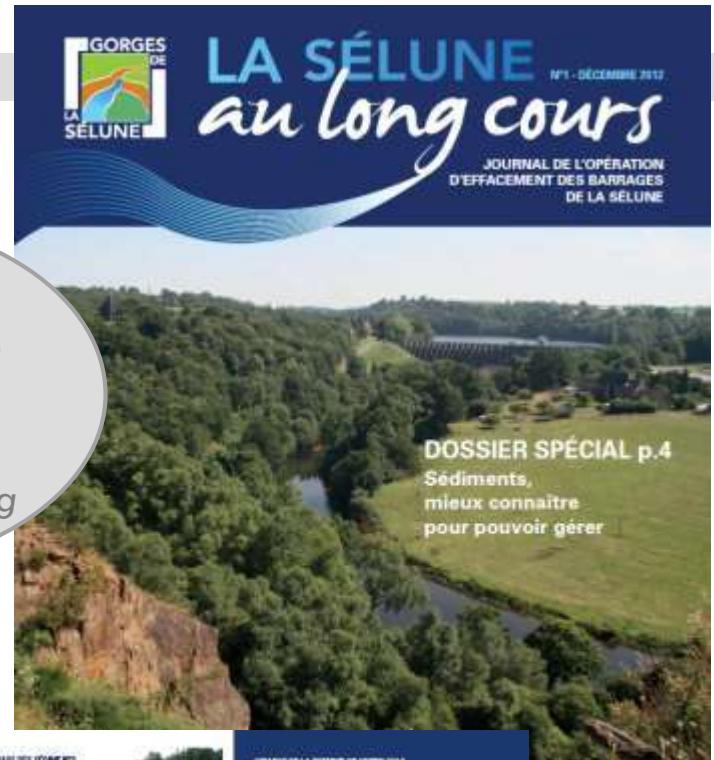
□ A lack of communication

At the beginning I didn't have a determinated opinion, pro or against, but the further it goes, the more ridiculous I think it is

This is people far away from here who tell how the valley must be. Us, we are not aware of anything

The collage includes:

- A large document titled "INFO travaux" with sections like "VIDANGE ET GESTION SÉDIMENTAIRE DE LA RETENUE DU BARRAGE DE VEZINS". It features a map of the river course and several small images showing construction and dredging activities.
- A photograph of a steep, rocky cliff face overlooking a valley.
- A photograph of a bridge spanning a wide valley.
- A photograph of a dredging vessel operating in a river.
- A graph titled "VÉRIFICATION DE LA RETENTION DE VEZINS 2018" showing water level fluctuations over time.
- A small inset image of a person working in a river.
- A logo for "Département - Département BRETAGNE FRANÇAISE" with the text "SÉDIMENTATION DE LA MANCHE".



1. Stakeholder's interactions and governance

□ The salmon, a specie who crystallizes the controversy



The quality price ratio must be reasonable. We can't use 53 millions € to help fishes to pass (2014, Environment Minister)



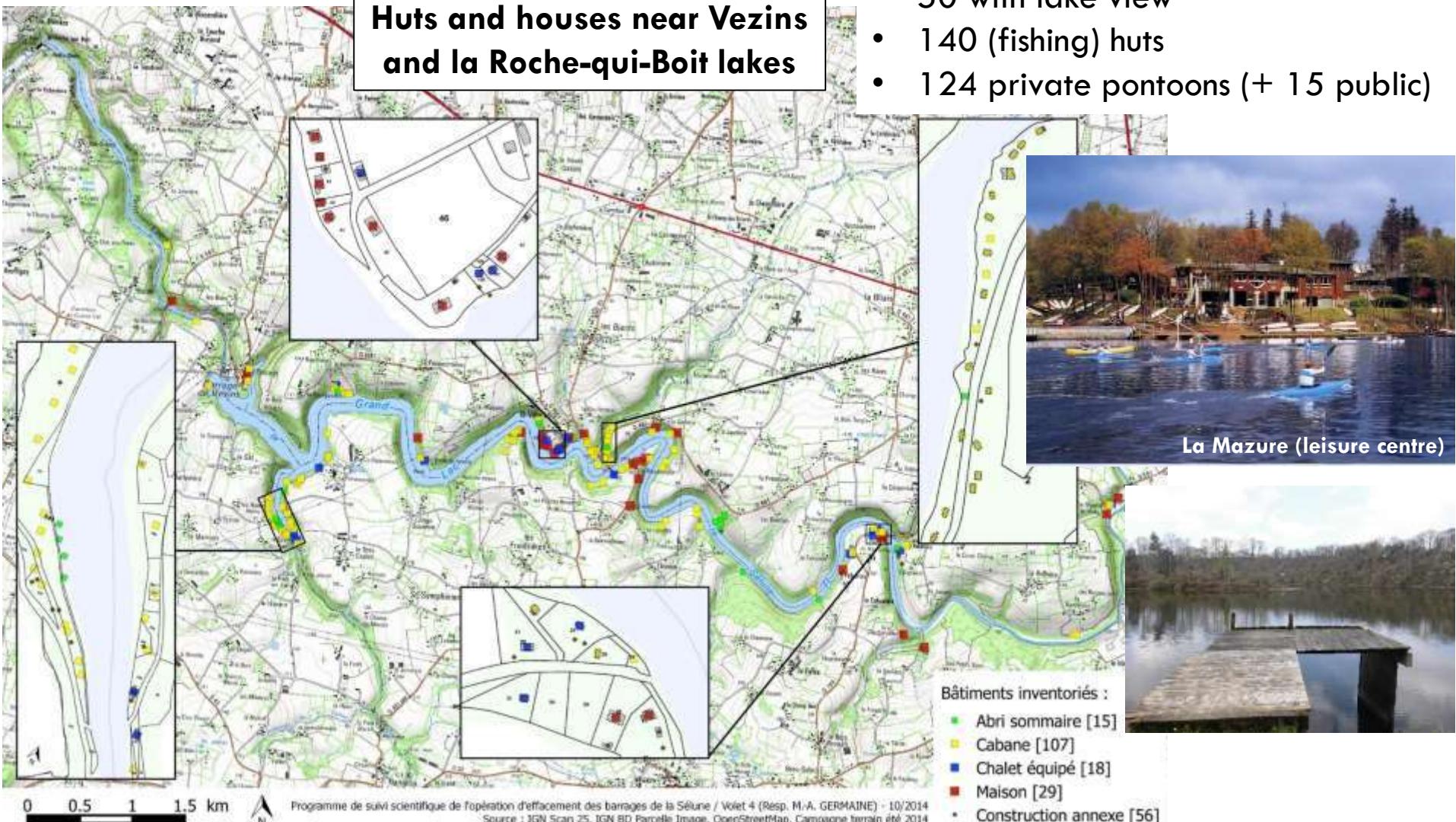
The salmon is the reason of dam removal so if you want to put the salmon as exclusive we will not agree. We need a shared river

- The salmon, biodiversity symbol or ecological interference symbol?
- « ordinary » biodiversity neglected



2. The place of inhabitants in the project

- 187 houses (<500m from lakes) – half met (questionnaire)
- 50 with lake view
- 140 (fishing) huts
- 124 private pontoons (+ 15 public)





2. The place of inhabitants in the project

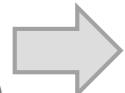
□ A non linear relation between inhabitants and lakes

1930

1993

Golden age of the lakes

Guinguettes
Boating
Fishing
Spectacles
Huts
Leisure base (Mazure)
...



Sleepiness

Lake grabbing from
fishermen + Leisure base
closed to inhabitants
+ Pollution



Route des Lacs
du Sud-Manche

Itinéraire de découverte

Tu es nouveau dans ton territoire ?
Découvre cette belle route
les lacs du Sud Manche - détente et
croisière assurée dans un environnement
apaisant. Entre les rives de l'Avremanche

AUTOUR DE LA MER DE MANCHE

ALAIN PICHOT

2. The place of inhabitants in the project

- The removal, an overturning ...
- Nature as a processus for removal advocates
 - Return to a equilibrium, functions found, Self-purification, Free flow, Sedimentary transit,...
 - = Dam removal will resolve all issues
 - A future without any reference to the recent past
 - Legitimacy based on the past (state reference)



Bel exemple de lutte contre la pression hydroélectrique, la « délivrance »
de la Sélune.

Effacement des barrages de Vezins et la Roche-qui-Boit :
Une porte s'ouvre enfin pour la renaissance de la vallée.



**La Sélune
débarrassée
de ses
barrages**

2. The place of inhabitants in the project

- The removal, an overturning ...
- For dam removal opponents

- Unalterable landscape
- Perturbations, risks of pollutant transerts, flood, invasive species, ...
- = Dams as stability factors (regulators, decanters)



If we remove dams, we will have a ordinary valley

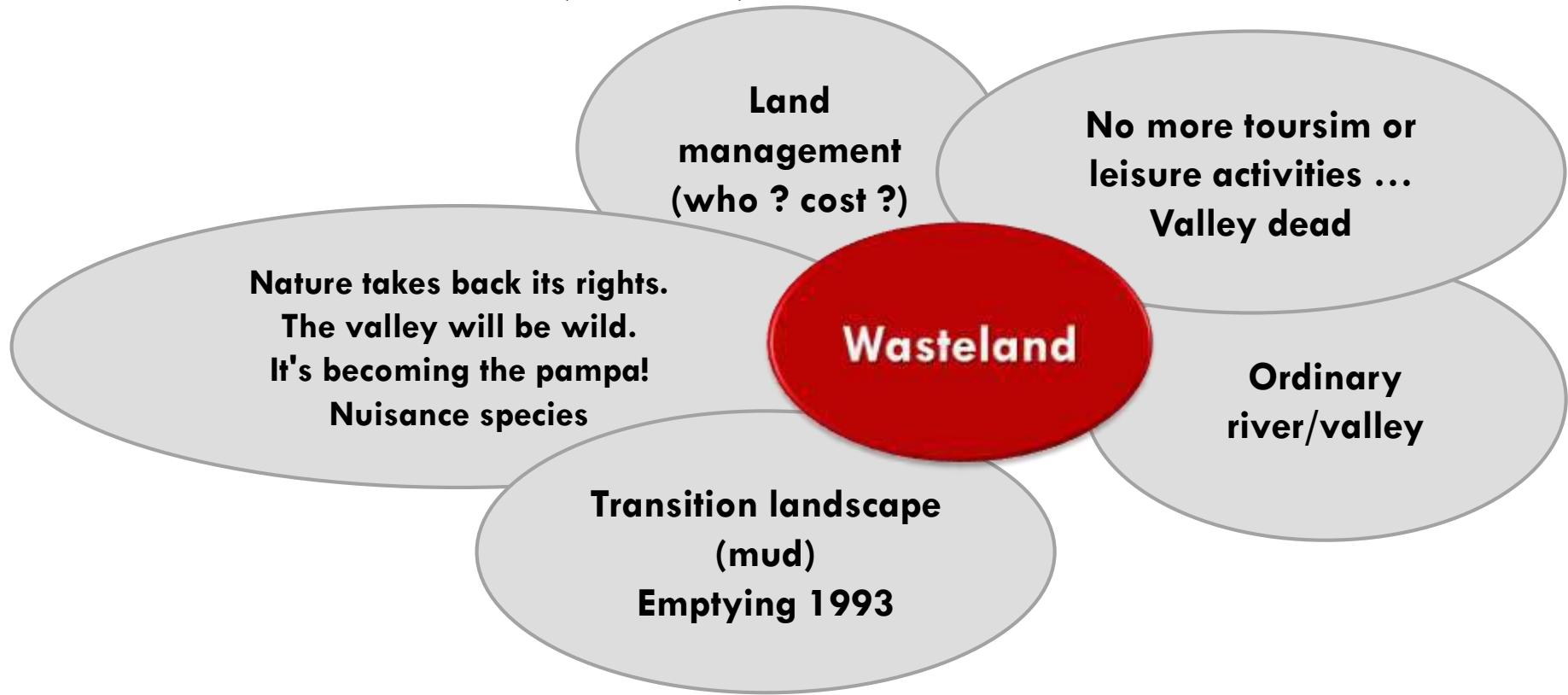
If we remove dams, we will have nothing left. Even if they tell us that we will build a beautiful valley, because we can find not far from here other beautiful valleys. But great lakes like those ones, we don't find everywhere



2. The place of inhabitants in the project

- The removal, an overturning ...
- Fear of wasteland and abondonment: a dead valley

« if the valley is emptied and we have not any solution ... It could be a catastroph. We could have a 30 km long wasteland, which will be disastrous » (local elective)



2. The place of inhabitants in the project

... to the organisation of cleaning operations



Ouest-France
Mardi 10 mars 2015

Les Biards

Amis du Barrage : 62 bénévoles nettoient la nature

Les Amis du barrage ont mobilisé les bénévoles pour cette action de grand nettoyage pour redonner de la valeur aux sites.

Samedi, 62 volontaires ont répondu à l'appel des Amis du barrage à la réunion publique organisée une dizaine de jours plus tôt, à la demande de l'association. « Depuis 8 h 30, tous ces bénévoles ont démonté toute leur énergie et leur enthousiasme pour cette opération », explique le président et vice-président, Gérard et Daniel Lévy, qui ont mis à disposition deux camions pour évacuer les déchets ramassés. « Nous avons également mis à disposition un camion de la mairie de Vezins pour évacuer les déchets », précise Daniel Lévy. « Nous avons également mis à disposition un camion de la mairie de Vezins pour évacuer les déchets », précise Daniel Lévy. « Nous avons également mis à disposition un camion de la mairie de Vezins pour évacuer les déchets », précise Daniel Lévy.

ces travailleurs du jour se sont répartis par équipes dans divers sites : le pont de la République, le pont des Biards, le chemin de la Mazure, la route des Biards près de l'Auberge du lac, le Petit-Bois de Vezins, l'entrée du site d'EDF du barrage. « Mais aussi la vue sur le déversoir, peu connue, point magnifique à 200 m en-dessous du barrage, ainsi que la remise en état du petit ruisseau au pont de Dorière. Nous déplorons le nombre de sacs de détritus que nous avons ramassés. C'est une honte pour nous de voir autant de bouteilles abandonnées au pont des Biards, c'est notre mauvaise surprise du jour. Nous n'incriminons nullement les pêcheurs, mais les incivilités générales. »

2. The place of inhabitants in the project

□ A non linear relation between inhabitants and lakes

1930

1993

2009

Dam removal
announcement

Golden age of the lakes

« Guinguettes »

Boating

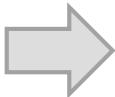
Fishing

Spectacles

Huts

Leisure base (Mazure)

...



Sleepiness

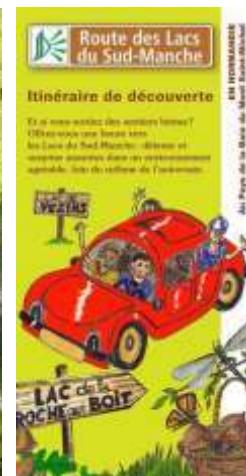
Lake grabbing from
fishermen

+ Leisure centre
relies on the reception of
groups + Pollution

Green
Tourism

Awakening

Water celebrations
Cleaning works



2. The place of inhabitants in the project

Which landscape/nature tomorrow?

- Expert « nature » ... not so much natural
- A controlled « nature » asked by inhabitants



Yvrande
(Sélune tributary)



Jean Pierre Hamon
Admin · Hier, à 00:58

Le delta de L'yvrande au pont des Biards, hier et aujourd'hui.

Photo 1: mars 2017

Photo 2 : juillet 2019



75

25 commentaires 39 partages

3. Micropolitics

We are « guinea pigs » of the Europe
(local elective, 2010)

The feeling to be « guinea pig »

- In a jar?
- Experts/ Scientists as stakeholders of the ecological project

Which people legitimate to decide on the future of the valley?

- Public inquiry procedure open to all
- vs local consultation

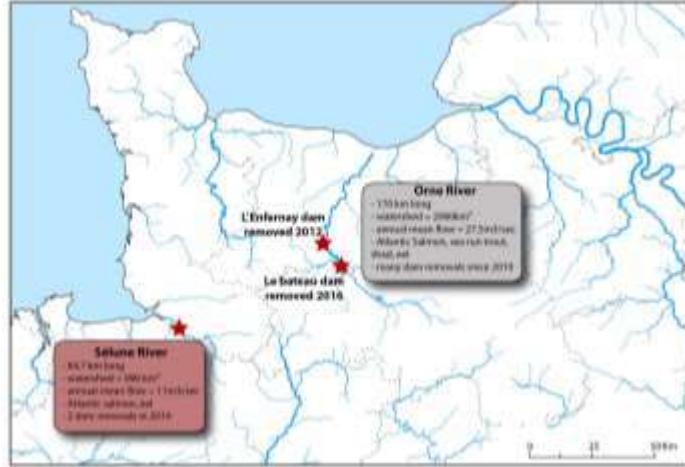
Public inquiry
(2014)

	Pro	Against
Postal mail	3%	97%
In situ	0,7%	99,3%
E-mails	84,5%	15,5%
Total (4565 p)	53%	47%



Public consultation organized by Friends of the dam
19 276 votes ; 98,89% against dam removal

3. Micropolitics



4 non-conflictual case studies

- Musconetcong River (NJ: 2 dams)
- Wood-Pawcatuck River (RI: 2 dams)
- Orne River (2 dams)

2 conflictual case studies

- Mousam River (Maine)
- Sélune River (2 dams)

□ Comparison with NE US

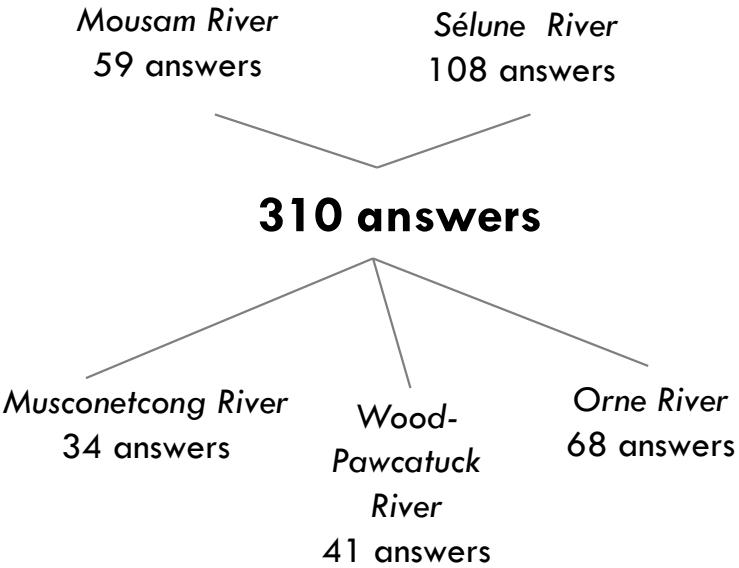
- Conflictual and non-conflictual case studies
- Collaboration with US research team
- Field work : interviews & surveys



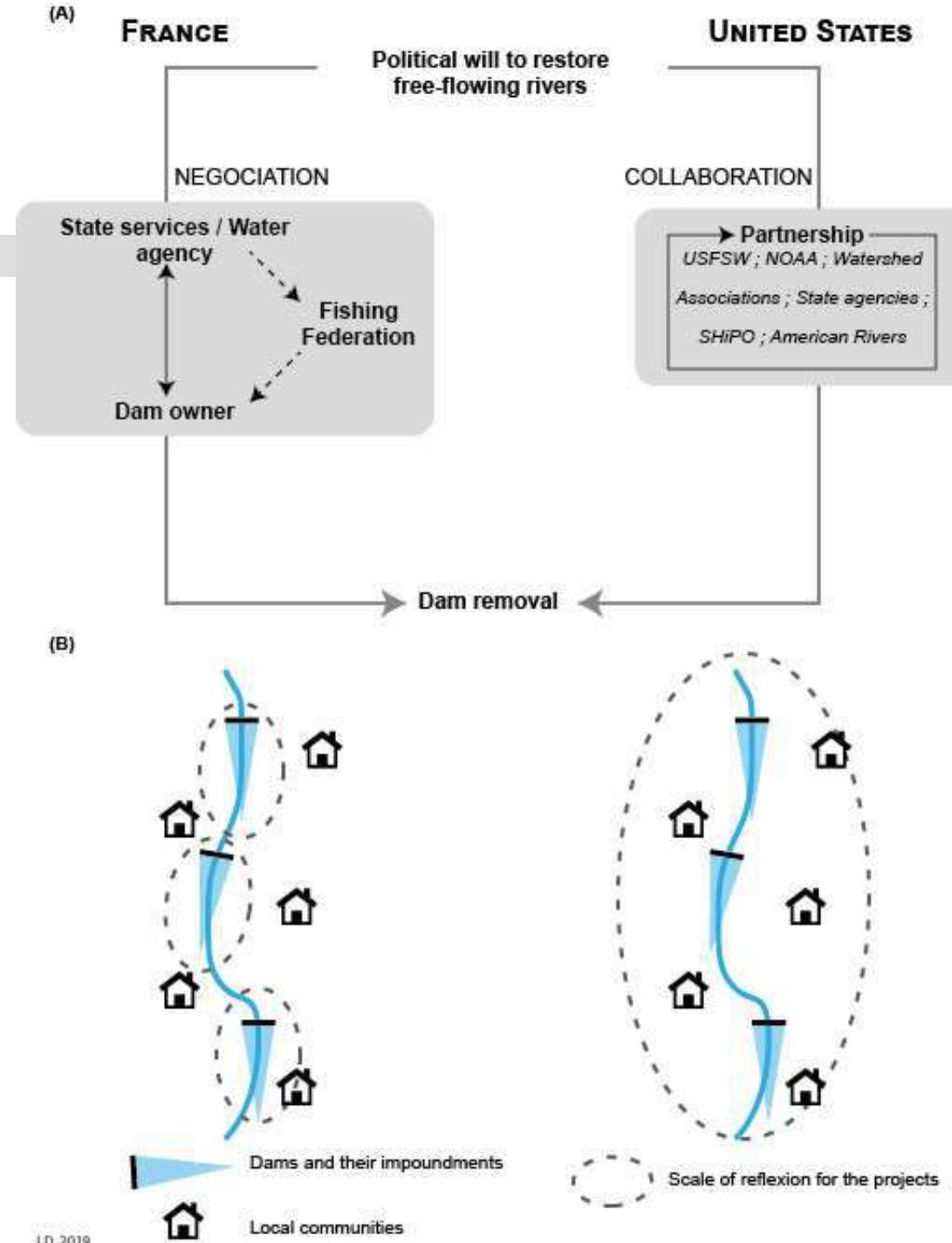
3. Micropolitics

Residents in dam removal projects

Conflictual cases



Non-conflictual cases



4. Conclusion

❑ What lessons ?

- Deepen the social approach of river restoration
- Stakeholders: not only well identified users ...
- Improve concernment to develop to consultation
- To be more ambitious in education, communication, for sharing knowledge (from science to local people & from local people to science and experts)

❑ And now in the Selune project?

- Analyze the ongoing landscape changes and their perceptions
- Follow the territory project building
- Transformation and involvement of collectives (new?) at local, regional and international scales => impacts on the project

Thanks you for your attention



Barrage de Vezins (36 m de haut). Février 2019.



Barrage de la Roche-qui-Boit (16m de haut). Février 2019.