

Supplementary Information

S1 – Table of stakeholders participating in the workshop.

ID	Position	Organisation
1	Ecologist Gelderse Poort region; team leader Staatsbosbeheer	Staatsbosbeheer
2	Local ecologist, monitoring data officer	Staatsbosbeheer
3	Former Bureau Stroming, ARK, Rewilding Europe	Retired/ZZP
4	Lives in Gelderse Poort for 30 years, also connections with WWF	Bureau Stroming
5	Director FREE, large grazer management Gelderse Poort	FREE Nature
6	Former SOVON, lives in Gelderse Poort for >30 years	Retired
7	Former ARK, lives in Gelderse Poort for 30 years	Retired
8	Involved in Interreg program Gelderse Poort-Germany?	ARK
9	Construction company clay mining Gelderse Poort; involved in Room for the River program; different project like Gendtse Waard, Bemmelse Waard, Erfkamerlingschap, ooijsse Graaf etc.	K3
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11	Ecologist, involved in Gelderse Poort project	Kurstjens Ecologisch Adviesbureau
12	Ecologist, involved in Gelderse Poort project	Bureau Stroming

S2 – Workshop session on Visions & Narratives: Key Discussion Topics

The following key topics were explored during this session to develop a comprehensive understanding of how Gelderse Poort was established, along with its key enablers and constraints.

1. Motivation

- Why was rewilding initiated in Gelderse Poort? Was it triggered by the flooding of the 1990s?
- What was the primary goal—flood protection, biodiversity conservation, or both?
- How does this compare to other regions in the EU that experience flooding but do not pursue rewilding?
- What criteria were used to select areas for rewilding? Was it based on clay mining opportunities, or were there alternative options?

2. Vision and Leadership

- Was there a clear, long-term vision from the start, or did the project evolve through a series of "chain events"?
- Was the vision driven by a few individuals or a broader community and expertise? Which key organizations or stakeholders were involved?
- What was the role of clay mining in delivering ecological benefits? Why was this chosen over other land-use options, such as nature-friendly agriculture?
- What is the expected lifespan of the project?

3. Funding

- How was funding secured to implement the project?
- How did potential funders respond to the vision, and how were they approached?
- Who were/are the winners and losers in the Gelderse Poort project?

4. Consolidation

- Once Millingerwaard was established, how did the project expand to other areas?
- How could the initiative link with Germany, and why would this expansion be pursued?

5. Gelderse Poort as a role model

- How does Gelderse Poort fit within existing nature management structures, such as Staatsbosbeheer and Natuurmonumenten?
- Has it inspired a "new wave" of nature management and conservation approaches in other organizations?
- Given that Gelderse Poort was central to the "Plan Ooievaar," "Room for the River," and "Living Rivers," did these frameworks support innovation, or did they impose constraints?

- Has the model been scalable within the Netherlands and internationally? Have there been inquiries or interest from other regions seeking to replicate it?
- What are the next steps for scaling or evolving the project? (Note: This overlaps with Ravi's group discussion.)

6. Conflicts and Barriers

- Did the project face strong opposition? If so, from which key organizations or individuals?
- What was the response from municipalities and local residents living near or within Gelderse Poort?
- How significant was funding as a barrier for (i) daily management and (ii) expansion and consolidation?

7. Policy Considerations

- Was the project supported by existing policies, or did it drive new policy development?
- Why was Gelderse Poort selected for this initiative, and why was a similar approach not pursued elsewhere?

S3 – Calculation rewilding score – Input values and explanation of changes. Indicators based on Torres et al. (2018) and Roos (2023). Changes specific to the Millingerwaard area, the oldest part of in Gelderse Poort. The scores for “Avalanche or rock slide regimes” in Torres et al. 2018 were modified to account for free shifting riverbanks and dunes present in Millingerwaard.

Axis	Variable type	Indicator	1990 (adjusted from Torres et al. 2018)^a	2017 (adjusted from Torres et al. 2018)^a	2023 (adjusted from Roos 2023)
H	Inputs and outputs	Supplementary feeding to wildlife (>5kg in size)	1	0.1	0.5
H	Inputs and outputs	Population reinforcement	1	0.1	0
H	Inputs and outputs	Farmland production	0.1	0	0
H	Inputs and outputs	Forestry production	0	0	0
H	Inputs and outputs	Grasslands production	0.425	0	0
H	Inputs and outputs	Mining	0.09	0.05	0
H	Inputs and outputs	Harvesting of terrestrial wildlife	1	0.5	0.5
H	Inputs and outputs	Harvesting of aquatic wildlife	0.5	0.1	0.2
H	Inputs and outputs	Carrion removal	1	0.8	0.5
H	Inputs and outputs	Deadwood removal	1	1	0
E	Natural disturbances	Avalanche or rock slide regimes, dune and riverbank shifts	0	1	1

E	Natural disturbances	Fire regimes	NA	NA	NA
E	Natural disturbances	Hydrological regimes	0	0.5	0.5
E	Natural disturbances	Natural pest and mortality regimes	1	0	0.5
E	Connectivity	Terrestrial landscape connectivity	1	1	1
E	Connectivity	Aquatic connectivity	0.5	0.9	1 1
E	Connectivity	Spontaneous vegetation dynamics	0.055	0.115	0.5
E	Connectivity	Invasive species	1	1	0.5
E	Trophic	Large species	0.075	0.334	0.5
H average			0.612	0.265	0.170
E disturbance average			0.333	0.500	0.667
E connectivity average			0.639	0.754	0.750
E trophic average			0.075	0.334	0.500
E geometric mean			0.252	0.501	0.630
R			0.098	0.368	0.523

Description of changes 2018 to 2023 to current study:

1. Supplementary feeding to wildlife (>5kg in size)

Cattle and horse must be supplementary fed by law. In practice, supplementary feeding has not been needed yet.

2. Mining

Mining of sand and clay was finished in Millingerwaard.

3. Harvesting of aquatic wildlife

There is both professional and recreational fishing. The value of 0.2 in 2023 reflects that in a large rewilding area like Millingerwaard, a small section of the river is occasionally visited by recreational fisherman catching and re-releasing common fish. Value of 0.2 is based upon example provided in Supplementary Materials of Torres et al. (2018) on fishing.

4. Carrion removal

Now only removal of carcasses of cattle and horse by law, not deer.

5. Deadwood removal

Cessation of deadwood removal in the area

6. Avalanche or rock slide regimes

Riverbanks and dunes are allowed to shift, which would fall under this indicator in this type of biome. Torres et al. 2018 assigned an NA value to “*avalanche and rock slide regimes*”, but in retrospective, free riverbanks and dune dynamics in Millingerwaard are equivalent to avalanches and rockslides regimes in other systems (e.g. mountain ranges), so the scores of Torres et al. 2018 for this indicator have been modified to the value of 0 in 1990 (baseline of highly regulated river dynamics) and the value of 1 in 2018.

7. Natural pest and mortality regimes

Some pests have entered the system that have to be managed by law.

8. Terrestrial landscape connectivity

At the level of Millingerwaard, there is full connectivity. Since the rewilding score is only tracking Millingerwaard at three time intervals (and not the whole of Gelderse Poort area), then the indicator value is 1, just like in Torres et al. (2018).

9. Aquatic connectivity

With finalization of mining, aquatic connectivity is fully achieved.

10. Spontaneous vegetation dynamics

Successional dynamics are mostly unmanaged and have developed over time.

11. Invasive species

Invasive species are present, primarily Japanese knotweed, Himalayan blackberry and Giant hogweed. Under development of the area, these are less of an issue and partly managed by the herbivores.

12. Large species

Since 2018, when Torres et al. last provided an indication for this value, some large species (>5kg) have arrived to the area, including one breeding pair of white-tailed eagles that now nests regularly on Millingerwaard.