RESTORATION WILL NOT SAVE NATURE

The idea of restoring nature is a dream with little scientific foundation. The problem is already embedded in the EU Nature Restoration Law, which is built on directives originally designed for entirely different purposes and which are, in some respects, incompatible with one another. More fundamentally, the Law lacks any coherent understanding of how ecosystems actually function. During its preparation, the views of conservation advocates appear to have carried most of the weight.

One of the Law's central instruments is the preparation of national restoration plans and their subsequent implementation. This process is now under way in all EU Member States. In September 2026, Finland published a summary of its draft National Restoration Plan for public consultation. It provides a useful example of the difficulties this approach can create.

Very little is said about what is actually intended, and even that little contains nothing fundamentally new. The Plan does not even set out practical measures in any meaningful detail. Yet it assumes that the state will commit itself to spending billions of euros over several decades, without knowing what those resources will actually achieve on the ground.

I can understand how politicians can be persuaded to support a project that promises almost every conceivable benefit. What surprises me is that researchers do not appear to question how little substance lies behind some of these promises.

Restoration plans and their implementation also create jobs, responsibilities and influence for public officials and environmental campaigners. This obvious institutional incentive receives little or no attention in the document.

Of course, some interventions can be useful. Dams can be removed from rivers and streams; forests can be replanted where they have been destroyed; and non-native tree species can, in some circumstances, be replaced with native ones.

The Finnish draft Plan does not clearly define what forest restoration actually means. It nevertheless calls for an increase in the area of old-growth forest and the amount of deadwood, as well as an end to clear-cutting and an expansion of continuous-cover forestry.

Nature Is Highly Diverse in Europe and Cannot Return to Its Original Settings

But anyone who still believes that the same conservation principles and management practices can be applied throughout Europe has failed to appreciate the extraordinary diversity of European ecosystems.

Consider a simple example. In Finland, prescribed burning of forest stands may be used to create habitat for insects that depend on burned wood. In southern Europe, by contrast, frequent wildfires can devastate forests and threaten local communities. A practice that may benefit biodiversity in one ecological and climatic context can therefore have entirely different consequences in another.

Neither the authors of the EU Nature Restoration Law nor those responsible for Finland's draft National Restoration Plan seem to have taken sufficiently seriously a fundamental fact: **nature is not a machine that can simply be returned to its original status.**

A handful of standardized interventions cannot permanently return an ecosystem to some supposedly "good" state. But what exactly is a "good" state? The documents do not clearly define it for each type of habitat, nor do they explain how such a state is to be achieved.

Which species, or groups of species, are supposed to provide the benchmark?

Birds feature prominently in the Plan. But birds are not ecosystem engineers in the sense implied here; they occupy habitats that meet the requirements of their respective species. So which species should determine whether an ecosystem is in a "good" condition? A rare species? An endangered one?

The problem is obvious. Improving the conditions for one species can worsen them for many others.

What happens when wolves eat wild deer, white-tailed eagles eat common eiders, cormorants eat perch, or roe deer graze on meadow vegetation? Juniper bushes may provide shelter for eider nests, but their spread can also transform and ultimately degrade an open meadow.

An ecosystem is a complex web of interactions among many species and their physical environment. It cannot be managed simply by focusing on one species, or even a handful of so-called key species.

Nature Has No Fixed End Point

The habitats we now want to "restore" have not necessarily existed in the form that we today imagine to be their former "good" or "natural" state.

Their present condition is the outcome of a development that has continued for thousands of years. That development will continue according to the dynamics of nature, even if we try to stop it.

The habitats we see today are merely stages in this long process. They are shaped both by their current species composition and by environmental factors such as topography, climate, temperature, the amount and distribution of precipitation, and exceptional weather events.

Species composition is never fixed. It changes continually, partly under the influence of countless random and unpredictable factors.

The peat layers beneath a modern mire tell their own story.

A mire may have begun as a nutrient-rich, spring-fed fen. It may then have developed into a spruce mire. As the peat layer became thicker, it may have changed into an open fen fed by surface water flowing down from the surrounding hills. As the peat accumulated further, it may eventually have developed into the rain-fed Sphagnum bog we see today.

And what will it become in the future? That will depend, among other things, on how the climate changes.

The same applies to lakes. They accumulate sediment, become shallower, gradually fill in and, over very long periods, eventually develop into marshes, mires or forests.

What birdwatchers describe as a wetland in a “degraded” condition may therefore be, from the perspective of natural succession, an alluvial meadow or marsh that is naturally developing towards a mire or forest. There is nothing inherently “bad” about such a state; it simply does not correspond to the preferences of some birdwatchers.

The spread of reed beds along shorelines is not necessarily caused by eutrophication either. It is also part of the normal succession of shoreline habitats and has often been accelerated by the disappearance of grazing along the shores.

Not Every Change in Biodiversity Is a Habitat-Management Problem

Recent rapid changes in the abundance and distribution of species are often linked to global warming and increasingly erratic weather conditions.

Declines in some bird populations associated with young forests, such as chaffinches and willow warblers, can be linked to cold conditions during the breeding season. The disappearance of some meadow butterflies that overwinter close to the ground can be encouraged by mild winters, when the soil surface repeatedly becomes wet and then freezes.

Such changes cannot necessarily be reversed by manipulating habitats at a local scale.

The very idea that restoration measures can return nature to a “good” state is difficult to defend.

It is equally questionable to assume that most of nature is currently in poor condition and must be brought back to a supposedly “good” state through interventions targeting trees, soils or hydrology.

In protected areas, such interventions raise another fundamental question: **do we trust nature enough to allow it to evolve on its own?**

If every natural change must be corrected so that it conforms to an ideal state defined by a small group of experts or activists, then nature is no longer being allowed to develop autonomously.

Who decides what is “good” for each habitat? And on what scientific basis?

The Real Challenge Is Climate Change

The most serious threat facing ecosystems today is climate change.

Even if we succeeded in returning atmospheric carbon-dioxide concentrations to pre-industrial levels, this would not return living nature to the condition it had before industrialization. Nor would it stop nature from continuing to change.

Nature is not a static system that can be restored to a chosen point in the past.

If billions of euros are to be spent on protecting nature, the essential question should therefore be what those resources can actually achieve. Some of this money could be directed towards tackling climate change rather than towards interventions intended to impose an idealized state on ecosystems.

Climate change cannot be stopped by endlessly intervening in living nature. It requires action on the underlying drivers associated with economic activity and patterns of consumption.

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