

Combating *diffuse pollution* to preserve biodiversity

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Unlike point source pollution, non-point source pollution is insidious and stems from a multitude of dispersed sources: transportation, industrial activity, agriculture, and household use. These contaminants (pesticides, drug residues, microplastics, etc.) accumulate silently and create a toxic “cocktail” effect that now exceeds the self-purification capacities of ecosystems.

More than mere degradation, this pollution disrupts the very mechanics of life. Chemical contamination disrupts fundamental balances: “dead soils” lose their filtering power, insecticides disorient pollinators—the guardians of our food security—and endocrine disruptors block fish reproduction. It is not only human health that is threatened, but nature’s ability to regenerate.

This widespread contamination knows no borders. The traditional “silo” approach—treating air, water, and soil separately—has become obsolete in the face of the reality of cross-media transfer: today, there are 140 tons of pesticides in the clouds (study by Clermont Auvergne University/CNRS/ Météo-France, 2025), which then fall into rivers, themselves

contaminated by pharmaceutical residues or heavy metals, for example. Faced with this pervasive pollution, remedial solutions (decontamination) are often impractical and very costly. The most effective solutions involve prevention and reduction at the source. In this regard, investment is too low: society spends €46 billion annually to combat pollution, while indirect costs (health, biodiversity) exceed €200 billion (Ministry of Ecological Transition, 2021). In other words, the costs incurred far exceed the investment made.

Yet, when proactive, public action proves its effectiveness. The improvement in air quality in the Île-de-France region over the past twenty years is a striking example: standards and investments have reduced the number of deaths linked to fine particulate matter from 10,350 to 6,220 per year between 2010 and 2019 (Airparif/ORS). This type of success can serve as a real guide for preserving and promoting the widespread presence of biodiversity.

So how can we combat diffuse pollution?

140
tons

of pesticides are found each year in the clouds over France

Study by the University of Clermont Auvergne, CNRS, and Météo-France, 2025

200
billion €

It is the indirect cost to health and biodiversity caused by non-point source pollution

Ministry of Ecological Transition, 2021

Four key areas for combating *non-point source pollution* and preserving biodiversity

1 UNIFYING KNOWLEDGE: A UNIFIED APPROACH TO RESEARCH ON NON-POINT SOURCE POLLUTION

How?

→ By assigning the National Agency for Food, Environmental and Occupational Health & Safety (ANSES) the role of coordinator, with a “diffuse pollution” division tasked with coordinating research (air, water, and soil), and by creating a single national platform to consolidate all available data.

Why?

→ To address the current fragmentation of data, which prevents a comprehensive understanding of the cumulative effects (“cocktail effects”) on biodiversity.

2 PREVENTION: A 10-YEAR PERFORMANCE-BASED OBLIGATION FOR MAJOR POLLUTION INCIDENTS

How?

→ By establishing a regulatory “ratchet” mechanism: any action plan to address major pollution must include a mandatory target to be achieved within 10 years. If the reduction target is not met by the deadline, the substance is automatically and immediately banned. This enforcement mechanism is complemented by a major national education campaign on “invisible actions” (medications, household products).

Why?

→ To move beyond the ineffectiveness of non-binding commitments by providing industry with clear guidance on how to adjust their production, while making society as a whole more accountable for the impact of its daily habits.

3 EMPOWERING STAKEHOLDERS: EXPANDING THE “NON-POINT SOURCE POLLUTION” FEE TO INCLUDE NEW POLLUTANTS

How?

→ By applying the “polluter pays” principle to manufacturers of emerging pollutants starting in 2027, and by redirecting a portion of CAP subsidies toward supporting the agroecological transition.

Why?

→ To ensure sustainable financing for the transition and tax equity: the cost of addressing pollution should not fall solely on water service users, but should be shared with the polluters.

4 LEVERAGING NATURE: SCALING UP THE RESTORATION OF FILTERING ECOSYSTEMS

How?

→ By directing funding toward Nature-based Solutions (NbS): replanting hedgerows, restoring wetlands, and preserving soil quality.

Why?

→ Because it is impossible to completely clean up natural environments using technology alone, particularly for budgetary reasons. Vegetation is the most efficient and least expensive filtration system for limiting the transfer of pollutants.

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