



Environmental health in the work of Igas



Capitalisation report (2013-2022)



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WARNING

This report presents the work of the General Inspectorate of Social Affairs (IGAS) relating to environmental health policy over ten years, between 2013 and 2022. It summarises the findings and recommendations made by the corresponding reports, often drawn up jointly with other general inspectorates. There are no new recommendations.

This report does not constitute an up-to-date statement of the work carried out or of the environmental health policy measures that may have taken place in 2023. However, most of the recommendations contained in this report remain valid unless otherwise stated.

SUMMARY

The main objective of the environmental health policy is to reduce population exposure to pathogens and pollutants

[1] According to the World Health Organisation (WHO), "*environmental health comprises those aspects of human health, including quality of life, that are determined by the physical, chemical, biological, social, psychosocial and aesthetic factors in the environment. It also refers to the theory and practice of assessing, correcting, controlling, and preventing those factors in the environment that can potentially adversely affect the health of present and future generations.*". The notion of environment refers to living environments (home, natural), as well as the professional environment.

[2] One of the main objectives of the environmental health policy is therefore to **reduce population exposure:**

- **to pathogens present in the environment and responsible for infectious diseases** (e.g. legionellosis, salmonellosis, typhoid, cholera, etc.) or transmitted by certain species, such as rats (e.g. plague, leptospirosis, etc.), mosquitoes (e.g. dengue, chikungunya, malaria, etc.) or ticks (e.g. Lyme disease, etc.);
- **toxic substances introduced into the domestic or professional environment, food or consumer products** (e.g. pesticides, lead, asbestos, etc.) that can be responsible for serious or even fatal diseases: cancer, poisoning such as lead poisoning, induced diseases such as asthma, respiratory and cardiovascular diseases, etc. Even *in utero* exposure to certain chemicals, particularly endocrine disruptors, may promote or induce the onset of chronic diseases and cause birth defects;
- **physical risks**, such as noise, which can be responsible for auditory (deafness, tinnitus, etc.) and extra-auditory effects (sleep disorders, cardiovascular diseases, etc.) or electromagnetic waves.

[3] The environmental health policies look into the production methods that induce the development of certain diseases, or work organisations likely to promote the development of psychosocial risks. They are not limited to an approach that may be qualified by some as a hygienist approach, resulting in a set of preventive measures to reduce the risks that the environment can pose to human health.

[4] In France, **environmental health is one of the five major concerns set out in the French Public Health Act of 9 August 2004**. Decree No. 2017-1866 of 29 December 2017 defining the national health strategy (SNS) for the period 2018-2022 includes provisions aimed at "*promoting health-friendly living conditions and controlling environmental risks*". In particular, they envisage "*reducing the population's exposure to external pollution and substances harmful to health*", referring to the concept of **exposome, which refers to the cumulative exposure to environmental factors that an organism undergoes from its conception to its end of life, and which influence its health**.

Environmental health is an area of action for holistic approaches, such as One Health or environmental planning.

[5] **The resolution adopted by the UN General Assembly on 28 July 2022 states that access to a clean, healthy and sustainable environment is a universal human right.** In particular, it considers that *"the consequences of climate change, the non-viable management and use of natural resources, air, soil and water pollution, poor management of chemicals and waste, the resulting depletion of biodiversity and the decline in services provided by ecosystems can compromise this right"*.

[6] This resolution highlights all the relationships between health and the environment and advocates **a comprehensive approach to mitigating climate change, reducing anthropogenic pollution and preserving biodiversity and natural resources.**

[7] In addition, human behaviour, due to its impact on biodiversity and the climate, plays a major role in the source of infectious risks (e.g. antibiotic resistance, vector-borne diseases, emerging zoonotic viral infections, etc.). The Covid-19 health crisis has recalled the close link between human health, animal health and environmental health within the meaning of natural environments, underlining **the importance of a unified approach to public, animal and environmental health around the concept of "One Health"**.

[8] **These comprehensive approaches are being developed at all levels.** The WHO adopted a global strategy on health, the environment and climate change in 2019. In Europe, the Green Deal, launched by the European Commission at the end of 2019, aims to achieve carbon neutrality and a toxic-free environment by 2050, with intermediate targets for reducing emissions and air, water and soil pollution by 2030. In France, a new National Plan for Health and the Environment (NPHE) was established in 2021 affirming a "One Health" approach and the ecological planning comprises objectives relating to global warming, biodiversity, resources and pollution that impact health.

[9] **Environmental health is therefore at the heart of these comprehensive approaches.** Taking environmental health determinants into account can be a driver of the ecological transition.

The health issues, which are being progressively identified, are immense

[10] The World Health Organisation (WHO) estimates that **23% of deaths and 25% of chronic diseases** worldwide can be attributed to environmental and behavioural factors (air, water, food quality, lifestyles, etc.). **In Europe, environmental factors are thus responsible for nearly 20% of mortalities** and can contribute to many diseases, often of multifactorial origin: cancers, respiratory diseases, allergies, asthma, cardiovascular diseases, diabetes, obesity, etc.

[11] In France, the 4th National Plan for Health and the Environment (NPHE 4) specifies that:

- Outdoor air pollution, usually considered the leading source of environmental mortality, is estimated to be responsible for 48,000 to 67,000 premature deaths annually;
- Exposure to radon gas is responsible for 3,000 deaths per year in France, a significant proportion of which is linked to co-exposure to other risk factors;

- Exposure to noise, in particular transport noise (road, air traffic, etc.) would be responsible for 10,000 premature deaths per year in Europe;
- In particular, exposure to pesticides poses a risk of developing cancers, neurological diseases or reproductive disorders.

[12] These estimates remain partial. Many chronic environmental health problems will only become apparent later down the line, which poses problems in respect of anticipation, prevention, traceability and accountability. **Research and monitoring efforts remain essential to better estimate the overall impact of the environment on health**, prevent its negative effects and understand its positive effects.

[13] **The stakes are also high in terms of responsibilities and costs, both in terms of repair and prevention.** The coverage of illnesses of environmental origin, insofar as they are recognised, is the responsibility of the health insurance office and the Accidents at work/Occupational diseases (AT-MP) branch with regard to occupational risks. Compensation schemes for victims of asbestos or plant protection products had to be put in place. As a preventive measure, for example, the cost of removing pesticides from water to produce drinking water can be estimated at between 440,000 and 1.48 million euros per day.

In recent years, the General Inspectorate of Social Affairs (IGAS) has increased its investment in environmental health issues

[14] **IGAS invested early on in environmental health issues.** One of the first reports that followed the setting up of the office, in 1967, was dedicated to combating air pollution in the Paris region. In 1973, the annual public report on prevention addressed the issue under the title: "*Environmental health*". A 2003 report was dedicated to the "environmental health" services in the DRASS and DDASS¹, followed in 2011 by a report on the implementation of environmental health missions in the regional health agencies (ARS)².

[15] **IGAS' investment has increased in recent years and many reports have been made in joint inspections with other inspection bodies.** Since 2013, there have been 36 reports whose main field of investigation relates to health and the environment and 30 reports on closely related topics, in particular in a "One Health" approach (e.g. zoonotic diseases, antibiotic resistance, occupational health, etc.). In particular, environmental health concerns are of particular significance overseas and IGAS regularly devotes reports specifically to these territories, in particular in terms of vector control or the presence of chlordecone in Guadeloupe and Martinique.

[16] **This capitalisation report summarises the findings and proposals made in the various reports.**

¹ Regional Directorate of Health and Social Affairs (DRASS) and Departmental Directorate of Health and Social Affairs (DDASS)

² This report was drawn up immediately after the implementation of the regional health agencies (ARS) without sufficient time to mobilise synergies between the different ARS missions.

It transpires from these reports that environmental health remains a poorly defined public policy

[17] The outlines of the environmental health policy appear extremely difficult to define. Environmental determinants refer to a combination of factors of a different nature, which complicate the overall view of the situation.

- Different entries are possible - by type of induced diseases (e.g. cancers), by type of risk (e.g. chemicals, noise, etc.), by type of exposure medium (e.g. water, air, etc.) by socio-demographic characteristics (e.g. age, sex, habitat, income). Thus, **at least thirty-two strategies, plans or action programmes, promoted by the public authorities, can be considered in relation to the NPHE 4;**
- Environmental health concerns are constantly expanding due to the more or less rapid advancement, depending on the resources committed to them, of knowledge on the risks. **Health effects can be related to intensive exposures, but also to lower repeated exposures to low doses of pollutants that manifest themselves as chronic diseases. They are therefore potentially deferred and multifactorial;**
- The terminology used or the purposes may vary significantly depending on whether a public health approach or an environmental approach within the meaning of sustainable development or the ecological transition is preferred;
- Infectious risk, occupational health and social factors should be included in environmental risk factors, as part of the exposome, but the stakeholders and areas for action are different, which complicates the coordination of the associated policies;

[18] In 2022, an inter-inspection report carried out a complex definition exercise by listing and prioritising environmental factors having an impact on human health, and recommended **defining the scope of environmental factors to be taken into account** as part of public health preservation and improvement policies. The WHO has also defined the priority issues that could **structure the environmental health policy**.

Recurrent weaknesses are described in the various reports

[19] **Over the past four years, a series of reports considered that public health and environment policy was not performing well in terms of the issues at stake.**

[20] **The National Plans for Health and the Environment (NPHE) have led to progress, but they have not been sufficient to develop a comprehensive, strategic and shared vision.** In particular, the NPHE 3 assessment report underlined that it unevenly represented the field outlined by the French Public Health Code, without the themes being represented or not according to explicit choices. In terms of objectives, the priorities were not very clear and very few actions were aimed at reducing exposure to harmful factors. Most actions were not quantified, either in terms of issues or objectives, and the means of action were not defined. An NPHE assessment report published by the High Council on Public Health (HCSP) and a report by the Economic, Social and Environmental Council (ESEC) come to similar conclusions. The publication in 2022 of the NPHE 4 does not correct these gaps in the absence of a baseline diagnosis and defined objectives.

[21] At national level, **the annual environmental health expenditure of the various stakeholders is slightly higher than €6 billion³**, including:

- around 66% to be borne by local authorities, in particular the communal sectors;
- a little less than 30% to be borne by the State. These appropriations, divided into 28 budget programmes, would represent, in a reduced manner (taking account of the difficulties of census) around 0.3% of the expenditure of the general budget. The Agriculture, Research and Ecology missions represent more than 80% of the funding attributable to environmental health and the Health mission 6% (excluding personnel expenses);
- around 3% financed by social security (expenditure on the prevention of occupational diseases, financing of certain health security agencies and the regional ARS intervention fund). The environmental health budgets of the ARS covered by the regional intervention fund (FIR) are estimated at €40 million in 2021, i.e. less than 5% of its budget reserved for prevention expenditure (€784 million).

[22] The Health mission's lack of financial resources devoted to environmental health also questions the ability of the Ministry of Health to play a role in interministerial discussions and lead the Senate in particular to recommend increasing its participation in the ANSES budget and to recognise in the law its role as a leader in strategic supervision.

[23] **This fragmentation of funding illustrates the complexity of governance. There are many public stakeholders** (ministries, operators, independent authorities, European Commission and agencies, etc.) and, apart from ANSES, they only cover part of the field of environmental health. However, the **essential interministerial management is lacking**, in a context where interests may differ. **The intertwining of responsibilities between national or territorial public stakeholders**, particularly between State services or with local authorities, raises the question of the transparency of public action as well as its effectiveness. Such fragmentation is also reflected by **the difficulties in matching data from the many sectoral surveillance systems**. In this respect, it should be noted that 30% of the missions carried out by IGAS in environmental health mainly concerned issues of service organisation or governance.

[24] **The current risk assessment system, although it has improved, at European and national level, probably leads to an underestimation** of the risks, both in terms of quantity and severity. The effects of environmental exposures on health are complex and poorly understood: long time between exposure and impacts, cocktail effects, intergenerational⁴ effects, etc. Monitoring systems are not adapted to weak signals or chronic exposures. Human and social sciences often don't receive much attention in this work.

[25] **European legislation suffers from serious shortcomings, particularly in the evaluation and authorisation procedures for chemicals**, reflecting the difficulties in reconciling public health objectives and the competitiveness objectives of the industrial or agricultural economy.

³ Excluding health expenses related to the management of persons exposed to environmental determinants

⁴ This term refers to the effects that can affect human health when exposed to several chemicals simultaneously.

The resulting national regulations are widespread and dispersed, particularly as a result of the fragmentation of responsibilities and the lack of a comprehensive strategy.

[26] **The rise in citizen concerns about environmental issues calls for a new responsibility on the part of the public authorities.** However, environmental health issues are difficult to understand, given their complexity and the uncertainties associated with these issues, and regularly give rise to scientific controversies that attract attention. The increasing media coverage of environmental health alerts (e.g. clusters of unknown origin, environmental contamination and contamination produced by chemical products or endocrine disruptors, etc.) is also a source of concern and misunderstanding. In this context, strengthening trust in environmental health requires transparency and education, both in terms of expertise and public decision-making. However, **health democracy and information systems are not meeting expectations.**

Recommendations aimed at putting environmental health at the heart of public policies

[27] The recommendations made in the various reports are broadly consistent and aim to structure the environmental health policy to adapt it to health issues and societal requirements:

- **The implementation of a national health-environment strategy or One Health** which sets priorities, sets multi-annual objectives, manages their implementation and ensures coordination with European regulations and the many related policies (health, agriculture, ecology, research, consumption and fraud control, industry, town and country planning, and even development aid, etc.), as well as strategies specific to them (national health strategies, research, etc.);
- **The structuring of the NPHE or One Health Plan** to make it the tool for implementing this national strategy, subject to making it more operational, equipping it with impact indicators and improving its coordination with the National Health Strategy (SNS) and sectoral plans. The regional plans for environmental health (PRSE) should, on the other hand, be better coordinated with regional health projects (PRS) and territorial planning tools (e.g. State-Region planning contracts);
- **Strengthening governance** around a dedicated interministerial steering structure (which could be the general secretariat for ecological planning in order to facilitate the inclusion of the “One Health” approach in ecological⁵ planning and thus take a comprehensive view of the environmental issue), based on the interministerial health committee;
- **The deployment of initiatives aimed at better informing populations about risks and integrating them into decision-making processes** (e.g. training, communication and educational actions, publication of data and research results, etc.). In this respect, the creation of a “one health” National Council, transforming the Environmental Health Group (EHS), is recommended in several reports to provide a genuine body of guidance and consultation representative of stakeholders;

⁵ The Secretariat-General for Ecological Planning (SGPE), attached to the Prime Minister's office, is responsible for coordinating the development of national climate, energy, biodiversity and circular economy strategies.

- **Better structuring of topics and establishment of a nomenclature of expenditure** in the field of environmental health to make public action more visible and to better consolidate associated financing;
- **The evolution of risk assessment methods at European level** and the strengthening of the resources of health agencies and their links with research. In particular, it is necessary to better take into account the combined effects and multi-exposure effects in the assessment of health risks and to limit product authorisations to essential use only. An advocacy strategy could be developed to exert greater influence on European regulations;
- **Accelerating the linkage of environmental and health data** to facilitate studies aimed at identifying causal links between exposure and the health status of populations, as well as improving the detection of emerging risks;
- **Clarification of the responsibilities between** the State's departments and operators on the one hand and with the local authorities on the other hand for the various environmental health topics, in particular for housing hygiene and cleanliness missions. The aim is to limit the dispersion and intertwining of responsibilities that weakens the conduct of environmental health policies;
- **Particular attention must be paid to overseas environmental health issues**, taking into account their specific characteristics, but also with a view to anticipating risks likely to affect national territory in the context of climate change (e.g. epidemics of vector diseases, access to drinking water, etc.).

[28] The risks related in particular to climate change and new technologies that are spreading at high speed are in fact systemic risks and characterised by a high level of scientific uncertainty. Consequently, the traditional pollutant-by-pollutant approach to environmental health is probably outdated. We probably need to change our perspective and put overall risk prevention at the heart of public policy.