Strategic Health and Environment Plan

GOBIERNO DE ESPAÑA

MINISTERIO DE SANIDAD

MINISTERIO PARA LA TRANSICIÓN ECOLÓGICA Y EL RETO DEMOGRÁFICO

Approved by the Public Health Commission of the Interterritorial Council of the National Health System on 22nd September 2022

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GLOSSARY OF ABBREVIATIONS

AACC	Competent Authorities	**ELF**	Extremely Low Frequencies
AEMET	Spanish Meteorological Agency	**FEMP**	Spanish Federation of Municipalities
AUE	Spanish Urban Agenda	**WG**	Working Group
BOE	Spanish Official State Gazette	**AQI**	Air Quality Index
IAQ	Indoor Air Quality	**ICNIRP**	International Commission on Non-Ionising Radiation Protection
CCAA	Autonomous Communities	**IDEA**	Institute for Energy Diversification and Saving
CEDEX	Centre for Public Works Studies and Experimentation	**IMSERSO**	Institute for the Elderly and Social Services
EMF	Electromagnetic Fields	**INE**	National Statistics Institute
CIBERESP	Spanish Biomedical Research Networking Centre	**INSST**	National Institute for Occupational Health and Safety
CIEMAT	Centre for Energy, Environmental and Technological Research	**INTCF**	National Institute of Toxicology and Forensic Sciences
COP	Conference of the Parties	**ISCIII**	Carlos III Health Institute
NMVOC	Non-Methane Volatile Organic Compounds	**LGT**	General Telecommunications Law
CSN	Spanish Nuclear Safety Council	**MAPA**	Spanish Ministry of Agriculture, Fisheries and Food
DGECC	Directorate General Spanish Office for Climate Change	**SNM**	Strategic Noise Maps
DGT	Directorate General of Traffic	**MICINN**	Ministry of Science and Innovation
DSEAR	Purification, Sanitation, Efficiency, Saving and Reuse	**MINCOTUR**	Ministry of Industry, Trade and Tourism
EASP	Andalusian School of Public Health	**MITECO**	Ministry for Ecological Transition and the Demographic Challenge
ECHA	European Chemicals Agency	**MITES**	Ministry of Labour and Social Economy
WWTP	Wastewater Treatment Plant	**MITMA**	Ministry of Transport, Mobility and Urban Agenda
EFSA	European Food Safety Authority	**MSAN**	Ministry of Health
EIA	Environmental Impact Assessment	**OECC**	Spanish Climate Change Office
ENS	National Health School	**WHO**	World Health Organisation
EPSP	Health Promotion and Advocacy Strategy	**ONT**	National Transplant Organisation
FDR	Dose-Response Function	**OSCC**	Health and Climate Change Observatory

NAP	Noise Action Plan	**REE**	Spanish Electricity Grid
PESMA	Strategic Health and Environment Plan	**RF**	Radiofrequency
PFAS	Perfluoroalkylated and Polyfluoroalkylated Substances	**SM**	Social Media
MP	Molecular Particles	**SGALSI**	Sub-Directorate General of Clean Air and Industrial Sustainability
PNA	National Implementation Plan for the Stockholm Convention	**SGEE**	Sub-Directorate General of Energy Efficiency
PNACC	Spanish Climate Change Adaptation Plan	**SGPSP**	Sub-Directorate General for Health Promotion and Prevention
PNCCA	National Air Pollution Control Plan	**SGSASL**	Sub-Directorate General for Environmental and Occupational Health and Safety
PNIEC	Spanish Integrated National Energy and Climate Plan	**SICA**	Basic Information System on Noise Pollution
DRD	Draft Royal Decree	**SINAC**	Drinking Water Information System
WSP	Water Safety Plan	**CNS**	Central Nervous System
RD	Royal Decree	**EU**	European Union
RECS	Spanish Healthy Cities Network	**SZ**	Supply Zones
REDECAN	Spanish Cancer Registries Network	**LEZ**	Low Emission Zone

1. INTRODUCTION

The Strategic Health and Environment Plan (PESMA) 2022-2026 is part of the General Public Health Law 33/2011 of 4th October. In relation to Title I on Rights, duties and obligations regarding public health, it complies with citizens' right to information on public health actions and services, as well as on health conditions and their impact (Articles 4 and 10), while also complies with the obligation of Public Administrations to provide information on the specific risks to human health (Article 10).

Likewise, Title II specifies the public health actions, mentioning the monitoring of environmental risks and their effects on health (Article 12), the promotion of health considering those environmental conditioning factors (Article 16) or the identification, evaluation, management and communication of health risks that may derive from these same factors (Article 30). Furthermore, with regard to protecting human health, the Ministry of Health is responsible for coordinating the State with the public administrations and other competent bodies in actions for the prevention and protection of environmental health risks, as well as acting as the national reference centre for the overall management of these functions (Article 31). This strategic plan contributes to the evaluation of the health impact of other health and non-health policies, facilitating the identification of social inequalities in health in order to improve their actions (Article 35).

Finally, Title III of Law 33/2011 includes the Planning and coordination of public health where the Public Health Strategy establishes the definition of the areas of action on the conditioning factors of health (Article 44), and based on its special incidence, incorporates the priorities in research (Article 49) through Title IV on Research in the development of public health policies.

All the actions described above are also covered by Article 43 of the Constitution, which recognises the right to health protection. This project enables Spain to make progress in fulfilling its commitments to the European Union and the WHO. Furthermore, it responds to various national and international initiatives such as the 7th Environment Action Programme, Directives and Regulations (chemicals, water, etc.) and other European legislation on health and environment, Ostrava Conference, WHO 13th General Programme of Work (2019-2023), Europe 2020, 2030 Agenda for Sustainable Development (2015), the European Green Deal (2019), the Paris Agreement on Climate Change (2015), the EU Sustainability Strategy for Chemicals (2020) and the EU Biodiversity Strategy to 2030 (2020).

The main objective of the Strategic Plan is to reduce the risks to human health derived from environmental factors and their determinants; decreasing the burden of diseases caused by them, identifying new threats and facilitating the development of environmental health policies. This objective is to be achieved through the promotion of healthy environments that help to reduce the risks arising from environmental factors and their determinants, reducing the burden of disease and identifying new threats.

To this end, it establishes general guidelines, subject to a continuous level of evaluation and review. Thus, this Strategic Plan defines the actions aimed at the main determinants of health and identifies synergies with the policies of other departments and administrations. The Plan includes an analysis of the state of environmental health and its determinants, defining actions that seek a more favourable environment for health.

Within this framework, the first two-year Action Programme 2022-2023 is being developed, which proposes initial measures (or actions) on certain environmental factors with the aim of preventing, adapting to and controlling their effects on health.

By carrying out the proposed measures, many of the actions included in the PESMA are implemented in order to achieve its objectives.

2 METHODOLOGY

2.1 Prioritisation Criteria

The Strategic Health and Environment Plan's 1st biennial Action Programme, to be implemented in the period 2022-2023, aims to implement the actions proposed in the PESMA 2022-2026. However, the PESMA includes many actions defined for the different subject areas, some of which have been identified as **priority actions**, and which will be carried out as a priority in this first work programme. This is without prejudice to the other actions envisaged in the PESMA that will be implemented in successive action programmes.

The choice of priority actions to be implemented has been made by a group of experts who have taken into account **6 prioritisation criteria**, measured dichotomously (yes/no). The criteria were as follows:

- **Domino effect (E)**: many of the actions to be carried out are interrelated with each other, so priority is given to those whose execution provides an element that is essential for the development of others.
- **Urgency (U)**: priority is given to actions that contribute to managing a current risk or there is a high likelihood that the risk will materialise during the lifetime of the 1st action programme.
- **Seriousness (G)**: priority is given to actions with the greatest impact on human health.
- **Timeliness (O)**: priority is given to actions in which there is a facilitating factor for the development of the action.
- **Commitment or obligation (C)**: priority is given to actions for which there is a legal obligation, regulatory mandate or institutional commitment in force to which the development of the action responds.
- **Cost-effectiveness (CE):** priority is given to actions whose estimated benefit is very significant in relation to the resources required to carry them out.

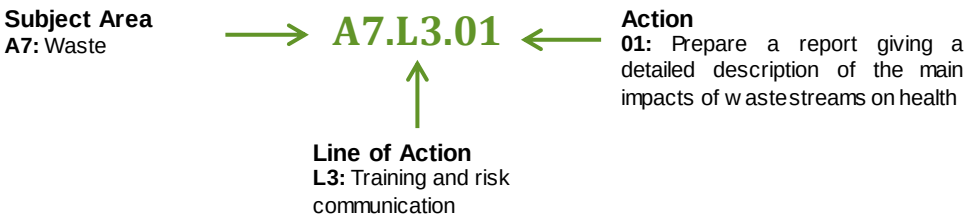
3. ACTION PROGRAMME 2022-2023

In the PESMA's 1st Action Programme 2022-2023, a total of **46 actions** are to be carried out. The implementation of these actions may sometimes imply the tacit fulfilment of other actions set forth in the PESMA.

3.1 Structure of the Action Programme 2022-2023

For each of the actions developed in the Action Programme, a series of elements have been identified that provide relevant information for their execution.

- **Subject area**: Name of the subject area within which the action is framed.
- **Action code**: It establishes a reference to identify the actions to be carried out. The code is made up of different characters that identify the thematic area of the action (A), the line of action (L), and the action's position number within the PESMA.



- **Action**: Title of the action to be carried out.
- **Objective**: Objective to be achieved by carrying out the action described in the PESMA.
- **Description**: Brief description of the action to be carried out.
- **Responsible Party**: Identifies the Ministry/Agency responsible for the implementation and/or development of the action.
- **Collaborators**: Identifies the Ministry/Agency that is secondarily collaborating to carry out the action.
- **Geographical Area**: Provides information on the geographical area in which the action is to be carried out (national, Autonomous Community, local).
- **Compliance indicator:** Specifies the results to be achieved in order for the action to be considered completed.
- **Timeline**: Information on the estimated activities to be carried out during the period of validity of the Action Programme.
- **Financing:** Provides information on the cost of implementing and/or developing the action.
- **Priority:** Assessment of the priority for carrying out the action. This assessment is based on the criteria described in section "3.1 Prioritisation Criteria" (domino effect, urgency, seriousness of risk, timeliness, commitment/obligatory, cost-effectiveness).

- **Related actions:** Name of other actions set forth in the PESMA that would be implemented in the course of the main action.
- **Status:** Provides information on the status of the action at the start of the Action Programme (pending commencement/in development/in operation/completed).
- **Development:** Provides detailed information on how the action will be developed, background, methodology to be used, expected results, as well as any relevant aspect that explains the action to be developed.

3.2. Evaluation and indicators

The evaluation of the PESMA's 1st Action Programme 2022-2023 will be carried out at the end of its implementation period and will be included in the PESMA's annual monitoring report. Furthermore, the degree of progress of the project will be reflected in the annual report that is planned to be carried out through the evolution of the indicators presented. Thus, it responds to what is described in the PESMA, participating in its management and execution indicators.

Each sheet has a compliance indicator, which would indicate whether the action is fully completed. However, as each of the actions is carried out separately, its evaluation can be measured according to the activities proposed in the timeline of these sheets. For example, if an action has a proposed activity for each of the four semesters covered by this Action Programme, the degree of progress can be measured according to the fulfilment of these activities.

To this end, a percentage system is proposed that easily and clearly records the progress of each action, with 100% being the completion of all activities in the schedule and, therefore, the achievement of the compliance indicator, and 0% being the non-execution of any activity in the timeline. For example, in action A2.L1.01 concerning the "National Plan of Preventive Actions on the effects of excess temperature on health" the compliance indicator would be the correct implementation of this Plan (p. 28). Furthermore, in order to scale the progress of this objective, the activities to be carried out are: the study and literature review of thresholds and isoclimatic zones (25%), the development of the methodology and calculation of threshold temperatures for heat impact on health (50%), the implementation of the changes in the operation of the Plan (75%), and the monitoring, evaluation and improvement of the Plan and zoning (100 %).

In any case, each action sheet specifies both the compliance indicator, in case it requires further development, and the activities that have been planned for the period of application of this Action Programme (2022-2023). In this sense, several of the actions in the Subject Areas were already being carried out or commenced at the beginning of 2022, hence the chronogram already indicates actions in the first half of 2022.

3.3 Actions by subject area

A total of **43 actions** will be carried out, divided into the different subject areas that make up the PESMA.

Subject Area	No. of actions
Climate Risks	4
Extreme Temperatures	2
Air Quality	8
Water Quality	9
Vector-Borne Diseases	2
Chemical Products	3
Waste	2
Natural Radioactivity	1
Electromagnetic Fields	5
Noise	4
Indoor Environmental Quality	1
Healthy Cities	2
Total	**43**

Note that some of these actions may involve the creation of subject working groups, which, depending on the case, may be working groups of experts specific to one action or they may be working groups covering several actions together within one or more subject areas.

The following is a schematic description of the actions to be carried out during the 1st Action Programme, each of which can be consulted in detail in the Annex.

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A1.L1.01	Development of human health in the National Plan for Adaptation to Climate Change	MITECO	SGSASL	PNACC indicators	In operation	x	x	x	x	MITECO and MSAN's funds	E, U, C
A1.L1.04	Update of the study on the impacts of climate change on health in Spain and its indicators	SGSASL	ISCIII, OECC, AEMET, MITECO and scientific organisations	Publication of document	Pending commencement		x	x	x	Commissioned (€15,000)	E, U, G
A1.L2.02	Health and Climate Change Observatory	SGSASL, OECC, MICINN	AEMET, MITECO and scientific organisations	Creation of the Observatory	Pending commencement	x	x	x	x	Own funds	E, U, G, O, C
A1.L4.01	Study on the health sector's carbon footprint	MSAN	MITECO, OECC, Autonomous Communities, Health managers	Drafting of report	Pending commencement	x	x	x	x	Commissioned (€15,000)	E
A2.L1.01	National Plan of Preventive Actions on the effects of Excess Temperatures on Health	SGSASL	AEMET, Civil Protection, IMSERSO, ENS – ISCIII, Autonomous Communities, SGPSP	Implementation of improved plan	In operation	x	x	x	x	Own funds	E, G, O
A2.L1.02	National Plan of Preventive Actions for Low Temperatures	SGSASL	AEMET, Civil Protection, IMSERSO, ENS – ISCIII, Autonomous Communities, SGPSP	Implementation of plan	Pending commencement	x	x	x	x	Own funds	E, O, CE
A3.L1.01	Short-term Framework Plan for Action in the event of ambient air pollution incidents	MITECO	SGSASL, AEMET, Autonomous Communities	Implementation of plan	In development	x	x	x	x	MITECO's funds	E, U, G, O

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A3.L1.02	National Air Pollution Control Programme	MITECO	SGSASL, AEMET, Autonomous Communities	Implementation of plan	In operation	x	x	x	x	MITECO's funds	E, O, C
A3.L1.03	Royal Decree regulating Low Emission Zones	MITECO (SGALSI)	DGECC, SGEE, IDEA, MITMA, DGT	Launch of ZBE draft RD	In development	x	x			MITECO's funds	U, C, CE
A3.L1.04	Draft Royal Decree amending Royal Decree 102/2011, of 28th January, on the improvement of air quality	MITECO (SGALSI)	Autonomous Communities, MSAN	Publication of the amendment to Royal Decree 10/2011	In development	x	x	x	x	MITECO's funds	E, O, C
A3.L2.03	Predicted air quality index	MITECO (SGALSI)	AEMET, MSAN	Publication of planned IAQ	In development	x				MITECO's funds	E, O, C
A3.L3.02	A guide to developing environmental projects in school settings	MITECO (SGALSI)	DGECC, ISCIII	Publication of guide	In development	x				MITECO's funds	CE, O
A3.L3.07	Mobile application for visualisation of the National Air Quality Index (AQI)	MITECO (SGALSI)	AEMET, MSAN	Launch of APP	Pending commencement		x			Funding for App development under MITECO's Recovery, Transformation and Resilience funds	E, O
A3.L4.01	Air Quality Morbidity and Mortality Study	ENS – ISCIII	SGSASL, INE, AEMET	Publication of study	In development	x	x	x	x	ISCIII Health Research Project	E, G

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A4.L1.01	Implementation of the DSEAR Plan and measures for the improvement of stormwater management	MITECO	Autonomous Communities, Provincial councils, local authorities, basin organisations	Degree of compliance with the obligations of the Water Directive	In operation	x	x	x	x	MITECO's funds	E, U, G, C, O
A4.L1.05	Approval and implementation of the Third Cycle River Basin Management Plans (2022-2027)	MITECO	Autonomous Communities, Basin organisations	Publication of the RD and legal instruments	In development	x	x	x	x	MITECO's funds	E, O, C
A4.L1.06	Methodological guide for the development of Water Safety Plans and their impact on health	SGSASL	MITECO, Autonomous Communities	Publication of guide	In development	x	x	x	x	Own funds	E, O, C
A4.L1.07	Methodological guidance for risk assessment in catchment areas of water abstraction points for human consumption.	MITECO, Autonomous Communities	SGSASL, Basin organisations	Degree of development of the Methodological Guide	Pending commencement		x	x	x	MITECO's funds	O, C
A4.L1.13	Royal Decree establishing the health requirements for the prevention and control of legionellosis	SGSASL	Autonomous Communities	Degree of progress in the development of the Royal Decree	In development	x	x	x	x	Own funds	E
A4.L2.02	Transparency to citizens about drinking water quality	SGSASL	MITECO, Autonomous Communities and local government	Degree to which SINAC's citizen access is up to date	In development	x	x	x	x	Own funds	E

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A4.L2.05	Wastewater epidemiological monitoring and information system	SGSASL, MITECO	Autonomous Communities, WWTP operators	Degree of implementation of the system	In development	x	x	x	x	Own funds and European funds	E, U, G, O
A4.L2.06	Including public health criteria in integrated watershed management and promoting the use of nature-based solutions where feasible.	MITECO	Autonomous Communities, basin organisations	Reversal of third cycle plans and inclusion of measures including public health criteria	In development	x	x	x	x	MITECO's funds	O, C
A4.L5.01	Annual publication of water safety quality	SGSASL	MITECO, Autonomous Communities, Local Government and Operators	Publication of previous year's report	In operation	x	x	x	x	Own funds	E, C, CE
A5.L1.02	Preparedness and response plan for diseases transmitted by *Aedes* mosquitoes	CCAES	SGSASL, Autonomous Communities, ISCIII, MAPA, MITECO, ONT, SGPSP, AEMET, Groups of entomological experts and Universities	Plan update	In operation			x	x	Own funds	E, O, CE
A5.L1.07	Preparedness and response plan for *Culex* mosquito-borne diseases	CCAES	SGSASL, CCAA, ISCIII, MAPA, MITECO, ONT, SGPSP, AEMET, Groups of entomological experts and Universities	Implementation of plan	Pending commencement	x	x	x	x	Own funds	E, O, CE

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A6.L1.01	Advancing the assessment of chemical substances and mixtures	SGSASL, MITECO, MAPA	INTCF, INSST, MINCOTUR	No. of evaluation and inspection reports	In operation	x	x	x	x	Own funds	C
A6.L1.02	Updating the Stockholm Convention National Implementation Plan	MITECO (SGALSI)	Autonomous Communities, Municipalities, Scientific bodies, POPs Technical Group	Updating the Stockholm Convention National Implementation Plan	In development	x	x	x		MITECO's funds	C
A6.L4.02	Implementing human biomonitoring strategies	SGSASL, ISCIII	MICINN	Implementation of strategy	Pending commencement	x	x	x	x	€300,000	E, O
A7.L1.03	Asbestos monitoring and surveillance	MSAN, MITECO, MITES	Autonomous Communities and Town Halls	Census of asbestos-containing installations and sites	In operation	x	x	x	x	Own funds	E, C
A7.L3.01	Report on the impact of waste on health	SGSASL, EASP	DEMAP, MITECO	Publication of report	In development	x	x	x	x	Own funds	E, O
A9.L1.01	Radon Action Plan	SGSASL	MITECO, CSN, MITMA, MITES	Implementation of plan	In development	x	x	x	x	Funds of the organisations involved	E, U, C
A10.L2.02	Interministerial Commission on radio frequencies and health	SGSASL, MINCOTUR	MICINN	Publication of the General Tax Laws' Official State Gazette	In development	x				Own funds	E, O, C, CE
A10.L2.04	Updating Royal Decree 1066/2001	SGSASL, MINCOTUR	MITECO	Publication of the Royal Decrees' Official State Gazette	Pending commencement	x	x	x		Own funds	E, O, C, CE

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A10.L4.02	Inventory of radio frequency and health research projects	SGSASL	MINCOTUR, MICINN, ISCIII, Universities, Research Centres	Preparation of inventory report	Pending commencement	x	x			Own funds	E, O, C, CE
A10.L4.06	Conducting studies on exposure to Extremely Low Frequency EMF (ELF)	SGSASL	MINCOTUR, MITECO, Research Centres, Universities (Castilla-La Mancha), ISCIII (National Centre for Environmental Health and National Centre for Epidemiology), Electromagnetism Institute, REE	Degree to which the pilot study has been carried out	Pending commencement	x	x			Stakeholders' contribution	E, O, C, CE
A10.L4.07	Analysing mortality and incidence rates of CNS tumours and leukaemia	SGSASL	MINCOTUR, MICINN, ISCIII, REDECAN, NSI, Universities, Research Centres	Preparation of the rate trend report	Pending commencement	x	x			Own funds	E, O, C, CE
A12.L1.01	Incorporating the health effects of environmental noise into Strategic Noise Maps and Action Plans	MITECO	SGSASL, ENS – ISCIII, Autonomous Communities	Effective implementation of the measure	Pending commencement			x	x	MITECO's funds	E, G, O, C
A12.L1.04	Simplified methodological framework for the assessment of noise pollution: Revision of Royal Decree 1367/2007.	MITECO, SGSASL	MITMA, Autonomous Communities	Degree of progress of the work on the revision of the Royal Decree	In development	x	x	x	x	MITECO's funds	E, U, G, CE

Action Programme 2022-2023						Timeline*				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
A12.L1.07	Assessing the Health Effects of Environmental Noise in Spain	SGSASL	MITECO, ISCIII, CIBERESP	Publication of study	Pending commencement	x	x	x	x	Commissioned (€15,000)	E, O, C
A12.L2.02	Achieving the maximum degree of compliance of Public Administrations in relation to Environmental Noise.	MITECO	Autonomous Communities, environmental noise authorities, airport managers, major roads, major railways, municipalities responsible for agglomerations, etc.	Degree of compliance with the competent authorities' reporting obligations	In operation	x	x	x	x	MITECO's own funds	E, U, G, C
A13.L2.01	Framework for the development of a technical standard on IAQ	SGSASL	MITECO, MITMA, Autonomous Communities, FEMP, CSN	Publication of report	Pending commencement	x	x	x	x	Own funds	E, CE
A14.L1.01	Developing healthy local environments	SGPSP	FEMP	No. of local authorities adhering to EPSP and RECS	In development	x	x	x	x	Annual agreement between MSAN and FEMP	O, C, CE
A14.L1.04	Promoting healthy lifestyles through the creation or rehabilitation of healthy environments	SGPSP	FEMP	No. of local programmes, agreements and actions	In development	x	x	x	x	Recovery, Transformation and Resilience Plan	O, C, CE

*Several of the actions of the Subject Areas were already underway or started at the beginning of 2022, hence the timeline already indicates actions in the first half of 2022.

3.4 Cross-cutting actions

In addition to the actions by subject area, the PESMA establishes a series of cross-cutting actions that have a direct impact on the different subject areas. In this 1st Action Programme, **3 cross-cutting actions** will be carried out to support and complement those already defined in the different subject areas.

Action Programme 2022-2023						Timeline				Financing	Priority
Action code	Action	Responsible Parties	Collaborators	Compliance indicator	Status	2022 S1	2022 S2	2023 S1	2023 S2		
AT.L1.01	Conceptual framework of Health Impact Assessment (HIA) and methodological and normative developments	SGSASL	MITECO, SGPSP and HIA Working Group	Degree of report development	In development	x	x	x	x	Own funds	E, O, C, CE
AT.L3.01	Informative material on environmental health risks for the general public	SGSASL, MITECO	SGPSP	Development of the material Impact on social media and other means of dissemination	Pending commencement	x	x	x	x	€60,000 for creation and dissemination with own means.	E, CE
AT.L3.02	Training material for professionals on environmental health hazards	SGSASL	SGPSP	Development of the material Dissemination and training actions	Pending commencement	x	x	x	x	€15,000	E, CE

4. Annex

4.1 Actions by Subject Area

Climate Risks

1. CLIMATE RISKS			A1.L1.01
Development of human health in the National Plan for Adaptation to Climate Change			
Objective	Reduce morbidity and mortality due to climate change related events. Protect human health from the adverse effects of climate change.		
Description	The National Climate Change Adaptation Plan (PNACC) 2021-2030 incorporates a specific area of work on human health in which, through different lines of action, the main risks affecting human health due to climate change and adaptation measures are addressed.		
Responsible parties	OECC (MITECO), SGSASL		
Collaborators			
Geographical area	National		
Compliance indicator	Adoption and implementation of the first PNACC Work Programme, with specific actions in the area of human health to be implemented over the period 2021-2025.		
Timeline	**2022 – S1**	Adoption of the PNACC Work Programme 2021-2025	
	2022 – S2	Development and implementation of the Work Programme	
	2023 – S1	Development and implementation of the Work Programme	
	2023 – S2	Development and implementation of the Work Programme	
Financing	MITECO and MSAN's funds		
Priority	Domino effect (E), Commitment or obligation (C)		
Related actions	• Developing a plan to monitor morbidity and mortality associated with climate change and emerging risks. • Identifying the social groups and spaces most vulnerable to different types of climate hazards for better communication. • Developing messages adapted to different groups and situations in order to improve their effectiveness.		

1. CLIMATE RISKS	A1.L1.01
Development of human health in the National Plan for Adaptation to Climate Change	
	• Researching and recording extreme weather events (droughts, torrential rain, heat and cold waves, sea storms, etc.) in order to be able to assess their ultimate impact on human health. • Using quantifiable and validated indicators that evaluate the achievement of the proposed objectives, broken down, if possible, into factors such as gender, age, etc.
Status	In development
Development	The National Plan for Adaptation to Climate Change 2021-2030 is the basic planning instrument to promote coordinated and coherent action against the effects of climate change in Spain. Its main objective is to avoid or reduce present and future damage from climate change and to build a more resilient economy and society. The PNACC incorporates a specific area of work on human health in which, through different lines of action, the main risks affecting human health as a result of climate change and adaptation measures are addressed. In order to develop the PNACC, the 1st Work Programme for the period 2021-2025 is approved, with 257 measures to fulfil the specific objectives and lines of action defined in the PNACC. Human health incorporates a total of 12 measures.

1. CLIMATE RISKS		A1.L1.04
Updating the study on the impacts of climate change on health in Spain and its indicators		
Objective	Reduce morbidity and mortality due to climate change related events. Protect human health from the adverse effects of climate change.	
Description	With the new scientific evidence available, the aim is to update information on the risks of climate change affecting the health of the population in Spain in a more accurate and integrated way and to establish a system of indicators to monitor the situation.	
Responsible parties	SGSASL	
Collaborators	ISCIII, OECC, AEMET, MITECO and scientific organisations	
Geographical area	National	
Compliance indicator	Publication of the document on climate change health risks and indicators	
Timeline	**2022 – S1**	
	2022 – S2	Commissioning of study and determination of health impacts of climate change
	2023 – S1	Updating climate change and health indicators
	2023 – S2	Drafting of the final document with integrated knowledge generated
Financing	Commissioning of the study (€15,000)	
Priority	Domino effect (E), Urgency (U) and Seriousness (G)	
Related actions	• Improving active monitoring of the impact of extreme temperatures throughout the year. • Identifying the social groups and spaces most vulnerable to different types of climate hazards for better communication. • Researching and recording extreme weather events (droughts, torrential rain, heat and cold waves, sea storms, etc.) in order to be able to assess their ultimate impact on human health. • Strengthening food risk monitoring and studies integrating production (including yield and environmental cost), epidemiological and climatic data. • Compiling and analysing environmental and animal health data to assess the impact on ecosystem, biodiversity and human health and developing effective surveillance, prediction and prevention systems to reduce the impact of risk factors on human health and well-being. • Identifying degraded areas susceptible to the establishment and reproduction of	

1. CLIMATE RISKS	A1.L1.04
Updating the study on the impacts of climate change on health in Spain and its indicators	
	disease vectors, in order to restore them. • Using quantifiable and validated indicators that evaluate the achievement of the proposed objectives, broken down, if possible, into factors such as gender, age, etc. • Establishing Integrated Plans for various environmental risks in the urban environment (pollution, heat islands, etc.).
Status	Pending commencement
Development	It is deemed necessary to update the document on the health impacts of climate change published in 2014 by the Ministry of Health in order to determine the true extent of these impacts in light of new scientific evidence, both in the areas considered in the report (water, air, vectors and temperatures) and in other potential risks of environmental origin. Once these factors and impacts are characterised, health and climate change indicators will be updated and monitored to analyse the trend of the impact of climate change on health. These indicators should be broken down, where possible, by gender and age, in order to obtain more information on the most affected population groups. Finally, a conceptual framework will be proposed on the realisation of Integrated Plans to address these risks in a coordinated and synergistic manner, replacing the specific approach to these risks.

1. CLIMATE RISKS			A1.L2.02
Health and Climate Change Observatory			
Objective	Establish management mechanisms that promote the work and coordination of the actions planned among all actors involved, reinforcing the One Health approach.		
Description	Creating the Health and Climate Change Observatory (OSCC) and initiating related actions that depend on it. Establishing management mechanisms to promote the technical work of analysis, diagnosis, evaluation and monitoring of the effects of climate change on public health, as well as a framework for collaboration and advice on health and climate change policies among all actors involved, reinforcing the One Health approach.		
Responsible parties	SGSASL, OECC and MICINN		
Collaborators	AEMET, MITECO and scientific organisations		
Geographical area	National		
Compliance indicator	Establishment of the Health and Climate Change Observatory		
Timeline	**2022 – S1**	Definition of the purpose, structure and competences of the OSCC	
	2022 – S2	Establishment and staffing of the OSCC	
	2023 – S1	OSCC activity	
	2023 – S2	OSCC activity	
Financing	Creation with own funds and activities according to needs		
Priority	Domino effect (E), Urgency (U), Seriousness (G), Timeliness (O) and Commitment-Obligation (C)		
Related actions	• Developing risk maps of factors related to the impact of climate change on health and a proposal for a framework for early and preventive action adapted to the different elements of risk. • Improving active monitoring of the impact of extreme temperatures throughout the year. • Promoting the Health and Climate Change Observatory (General Secretariat for Environmental Health and Occupational Health, AEMET and the Climate Change Office, SGSHAT, SEE and SESA and Universities and reference research centres). • Identifying the social groups and spaces most vulnerable to different types of climate hazards for better communication. • Developing messages adapted to different groups and situations in order to improve their effectiveness. • Researching and recording extreme weather events (droughts, torrential rain, heat and cold waves, sea storms, etc.) in order to be able to assess their ultimate impact		

1. CLIMATE RISKS	A1.L2.02
Health and Climate Change Observatory	
	on human health. • Strengthening food risk monitoring and studies integrating production (including yield and environmental cost), epidemiological and climatic data. • Compiling and analysing environmental and animal health data to assess the impact on ecosystem, biodiversity and human health and developing effective surveillance, prediction and prevention systems to reduce the impact of risk factors on human health and well-being. • Identifying degraded areas susceptible to the establishment and reproduction of disease vectors, in order to restore them. • Researching and characterising the nature and effect of emerging risks in areas where they are having an impact. • Using quantifiable and validated indicators that evaluate the achievement of the proposed objectives, disaggregated, if possible, into factors such as gender, age, etc. • Monitoring risk maps for spatial tracking and proper geographic assessment.
Status	Pending commencement
Development	The Health and Climate Change Observatory (OSCC) is established as a technical advisory body that aims to facilitate the assessment and management of the risk that climate change may have on human health. The OSCC will participate in related actions to help respond to national and international commitments in this regard. Therefore, first of all, its composition must be established with all the agents involved in these actions and their competences in them. In this sense, the OSCC will be led by the Ministry for Ecological Transition and the Demographic Challenge, specifically the Spanish Climate Change Office; the Ministry of Health; and the Ministry of Science and Innovation. It will be assessed whether the OSCC should have its own legal entity and contracting capacity to perform its functions, and it will be evaluated whether it could be supported by the Transversal Programme on Climate Change, Health and Urban Environment that is being developed in the ISCIII. Once the participants and roles of the OSCC have been defined, the OSCC will be established and priority actions will be initiated.

1. CLIMATE RISKS		A1.L4.01
Study on the health sector's carbon footprint		
Objective	Reduce morbidity and mortality due to climate change-related events.	
Description	Conducting a study on the consumption and emissions of healthcare and related facilities to calculate the health sector's carbon footprint. It aims to understand the sector's contribution to greenhouse gas emissions in order to implement a reduction plan that contributes to achieving the goal of climate neutrality, with clear benefits in terms of air quality. The methodology should be evaluated and its implementation promoted through a guide of recommendations for the sector.	
Responsible parties	MSAN	
Collaborators	MITECO, OECC, Competent body of the Autonomous Communities and health managers	
Geographical area	National	
Compliance indicator	Preparation of the study report	
Timeline	**2022 – S1**	
	2022 – S2	Commissioning of study. Literature review of carbon footprint calculation tools applied to the healthcare sector. Conducting a survey on the state of carbon footprint calculation in public and private healthcare centres in the Autonomous Communities.
	2023 – S1	Analysis of results of carbon footprint registers of healthcare facilities, surveys and analysis of measures already implemented to reduce the carbon footprint.
	2023 – S2	First guide to recommendations for calculating and reducing the carbon footprint in the healthcare sector.
Financing	Commissioned (€15,000)	
Priority	Domino effect (E)	
Related actions	• Developing new lines of R&D&I aimed at promoting knowledge on air pollution, its causes and dynamics. • Involving companies and other social agents in the aspects of dissemination, training and commitments to sustainable mobility, air quality, etc. • Incorporating coordination mechanisms with the Air Quality Monitoring Network within the sentinel networks under the health authorities.	
Status	Pending commencement	

1. CLIMATE RISKS	A1.L4.01
Study on the health sector's carbon footprint	
Development	Firstly, a literature review will be carried out on the different carbon footprint calculators with scientific evidence and the tools that have been developed by other administrations and organisations. With the aim of gathering the status of health centres' carbon footprint calculation, a survey will be sent to all centres through their respective autonomous communities. In addition, the carbon footprint calculation files for health and social services activities in the OECC database will be consulted. The result of this survey, along with the bibliographic study, the reports collected from the collaborating organisations, and the carbon footprint calculation files collected by the OECC, will serve as the basis for the elaboration of a harmonised methodological proposal. Next, and taking into account the methodology developed in this respect, information on factors that could influence the calculation of the carbon footprint and are easily quantifiable will be collected from all healthcare centres that have not calculated their carbon footprint, in addition to consulting the data on the type of centre collected in the Healthcare Information System. https://www.sanidad.gob.es/estadEstudios/portada/home.htm In the following years, this register should be strengthened and promoted in order to refine the final calculation and provide a more accurate analysis of the situation. As a final result of the study, a guide of recommendations for the reduction of the carbon footprint in the health sector will be created.

Extreme Temperatures

2. EXTREME TEMPERATURES		A2.L1.01
National Plan of Preventive Actions against the Effects of Extreme Temperatures on Health		
Objective	Reduce mortality attributable to extreme heat and cold events.	
Description	Improving and updating the National Plan of Preventive Actions against the Effects of Excessive Temperatures on Health to the context of climate change.	
Responsible parties	SGSASL	
Collaborators	ISCIII, AEMET, Civil Protection, IMSERSO, SGPSP and competent body of the Autonomous Communities	
Geographical area	National and isothermal zones	
Compliance indicator	Implementation of the Enhanced Plan	
Timeline	**2022 – S1**	Literature study and review of thresholds and isoclimatic zones
	2022 – S2	Development of the methodology and calculation of threshold temperatures for heat impact on health
	2023 – S1	Implementation of changes in the operation of the Plan
	2023 – S2	Monitoring, evaluation and improvement of the Plan and zoning
Financing	Own funds	
Priority	Domino effect (E), Seriousness of risk (G) and Timeliness (O).	
Related actions	• Only activating the Plans when a temperature indicator is exceeded. That is, when the daily maximum or minimum temperature exceeds the calculated mortality trigger temperature. • Improving risk communication to the population and especially to vulnerable groups. • Characterising and assessing Isothermal Regions and unified alerts. • Updating threshold temperatures or mortality trigger temperatures. • Assessing the performance and results of the National Plan of Preventive Actions against the Effects of Extreme Temperatures on Health. • Assessing whether the zoning of threshold temperatures based on the isothermal zones defined by the AEMET entails an improvement in public health in terms of the system of alerts generated. • Building a system of indicators associated with the Plans' operation.	

2. EXTREME TEMPERATURES	A2.L1.01
National Plan of Preventive Actions against the Effects of Extreme Temperatures on Health	
Status	In development
Development	The National Plan of Preventive Actions against the Effects of Extreme Temperatures on Health, in force since 2004, aims to prevent damage to health caused by extreme temperatures. However, the experience gained over the years of operation of the Plan indicates that a number of updates may be required to ensure that the Plan continues to meet its objective and takes into account current scientific evidence as well as possible trends due to the context of climate change. Planned updates include: • Updating mortality trigger temperatures or thresholds. • Modifying the algorithm for calculating temperature alerts. • Zoning in isothermal zones for the whole territory, in conjunction with the provincial level. • Assessing the performance of the National Plan.

2. EXTREME TEMPERATURES		A2.L1.02
National Plan of Preventive Actions for Low Temperatures		
Objective	Reduce mortality attributable to extreme heat and cold events.	
Description	Developing and initiating the National Plan of Preventive Actions for Low Temperatures.	
Responsible parties	SGSASL	
Collaborators	ISCIII, AEMET, Civil Protection, IMSERSO, SGPSP and competent body of the Autonomous Communities	
Geographical area	National	
Compliance indicator	Implementation of the Plan	
Timeline	**2022 – S1**	Developing methodology and calculating threshold temperatures for the impact of cold weather on health
	2022 – S2	Drafting and implementing the Plan
	2023 – S1	Monitoring, evaluation and improvement of the Plan and zoning
	2023 – S2	Monitoring, evaluation and improvement of the Plan and zoning
Financing	Own funds	
Priority	Domino effect (E), Seriousness (G) and Timeliness (O)	
Related actions	• Developing and initiating the National Plan of Preventive Actions for Low Temperatures. • Improving active monitoring of the impact of extreme temperatures throughout the year (Climate Risks). • Only activating the Plans when a temperature indicator is exceeded. That is, when the daily maximum or minimum temperature exceeds the calculated mortality trigger temperature. • Integrating the cold weather plans developed by the Autonomous Communities with the same objective into the National Plan of Preventive Actions for Low Temperatures. • Improving risk communication to the population and especially to vulnerable groups. • Characterising and assessing Isothermal Regions and unified alerts. • Updating threshold temperatures or mortality trigger temperatures. • Establishing a Pilot Plan for cold snaps that aims to analyse, characterise and establish threshold temperatures and create an active monitoring system. • Assessing whether the zoning of threshold temperatures on the basis of isothermal zones defined by AEMET represents an improvement in public health	

2. EXTREME TEMPERATURES	A2.L1.02
National Plan of Preventive Actions for Low Temperatures	
	in terms of the system of alerts generated.
Status	Pending commencement
Development	This Plan is supported by and shares several points with the National Plan for preventive action on the effects of extreme temperatures on health. Thus, the impact of all extreme temperatures can be addressed and monitored throughout the year. This Plan's the structure of the system to inform and alert the competent administrations and the population when there is a risk of extreme temperatures can be used. In addition, the Commission and the Interministerial Working Group on Extreme Temperatures may extend their functions to both Plans in a more integrated manner. However, although they share most of the same elements, a study will be carried out on the impact of low temperatures on the population and the most vulnerable groups to which the measures associated with the Plan will be directed as a priority. Once these points have been studied, the most appropriate and effective methodology will be developed and the National Low Temperature Action Plan will be drafted, starting its implementation for the low temperature season at the end of 2022. Following its implementation, the Plan will be continuously monitored, both in terms of its application and its impact on human health, and possible improvements will be evaluated.

Air Quality

3. AIR QUALITY	A3.L1.01

Short-term Framework Action Plan for ambient air pollution incidents for particulate matter below 10 microns (PM_{10}), particulate matter below 2.5 microns ($PM_{2.5}$), nitrogen dioxide (NO_2), ozone (O_3) and sulphur dioxide (SO_2)

Objective	Reduce mortality and morbidity attributable to exposure to air pollution in line with the objectives of the PNCCA. Ensure the prevention of diseases resulting from air pollution and poor air quality, through the monitoring, analysis and evaluation of instantaneous and accumulated data from pollution meters, and the actions arising therefrom.	
Description	Drafting a short-term Framework Action Plan for high pollution incidents for particulate matter below 10 microns (PM10), particulate matter below 2.5 microns (PM2.5), nitrogen dioxide (NO2), ozone (O3) and sulphur dioxide (SO2). The Plan establishes homogeneous values and actions for all administrations, in such a way that the responses to pollution alert situations and the actions that may be implemented are similar for each of the levels of action, regardless of the geographical scope. The Plan's ultimate goal is to avoid reaching the alert threshold established in the legislation as much as possible and to reduce the number of exceedances of the limit or short-term objective values (daily, hourly or 8-hourly) of the legislation in order to protect human health from poor air quality. The plan introduces a predictive component as a new element.	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	SGSASL, Competent body of the Autonomous Communities, AEMET and local entities that manage their own air quality networks.	
Geographical area	National with regional and local implementation depending on air quality authority.	
Compliance indicator	Publication and implementation of the Prevention Plan for occasional atmospheric pollution incidents.	
Timeline	**2022 – S1**	Processing of the amendment to Royal Decree 102/2011, of 28th January, on the improvement of air quality.
	2022 – S2	Publication of the amendment to Royal Decree 102/2011, of 28th January, on the improvement of air quality to incorporate the provisions of the short-term Framework Action Plan for ambient air pollution incidents due to particles smaller than 10 microns (PM10), particles smaller than 2.5 microns (PM2.5), nitrogen dioxide (NO2), ozone (O3) and sulphur dioxide (SO2).

3. AIR QUALITY		A3.L1.01
Short-term Framework Action Plan for ambient air pollution incidents for particulate matter below 10 microns (PM_{10}), particulate matter below 2.5 microns ($PM_{2.5}$), nitrogen dioxide (NO_2), ozone (O_3) and sulphur dioxide (SO_2)		
	2023 – S1	Monitoring the adaptation of short-term action plans or pollution protocols to the new requirements set forth in the short-term Framework Action Plan for ambient air pollution incidents for particulate matter below 10 microns (PM10), particulate matter below 2.5 microns (PM2.5), nitrogen dioxide (NO2), ozone (O3) and sulphur dioxide (SO2).
	2023 – S2	Monitoring of the adaptation of short-term action plans or pollution protocols and monitoring of their implementation.
Financing	MITECO's own funds	
Priority	High priority as a tool that introduces new pollution thresholds for pollutants with a high impact on health, such as PM10 and PM2.5 particles, homogenises health messages throughout the territory and establishes common guidelines for the different administrations.	
Related actions	• Drawing up a Prevention Plan for occasional contamination situations that clearly establishes a protocol for action by the health authorities in the event of this type of situation.	
Status	In operation. At its meeting on 9th July 2021, the Sectoral Conference on the Environment approved the short-term Framework Action Plan for high pollution incidents for particulate matter below 10 microns (PM10), particulate matter below 2.5 microns (PM2.5), nitrogen dioxide (NO2), ozone (O3) and sulphur dioxide (SO2). The Draft Royal Decree amending Royal Decree 102/2011, of 28th January, on the improvement of air quality is being processed to incorporate the provisions of the Short-term Framework Action Plan approved by the Sectoral Conference on the Environment, which establishes new pollution thresholds that were not included in the aforementioned Royal Decree 102/2011, among other agreed measures.	

3. AIR QUALITY	A3.L1.01
Short-term Framework Action Plan for ambient air pollution incidents for particulate matter below 10 microns (PM_{10}), particulate matter below 2.5 microns ($PM_{2.5}$), nitrogen dioxide (NO_2), ozone (O_3) and sulphur dioxide (SO_2)	
Development	As a first step, at the Sectoral Conference on the Environment held on 9th July 2021, the short-term Framework Action Plan was approved, defining a consensus to establish a common framework of action for the different Public Administrations in the event of high pollution incidents. Administrations that already have short-term action plans and protocols for action in the event of pollution incidents will have a maximum period of 18 months to adapt them to the provisions of this Framework Plan. Once approved at the Sectoral Conference, it will be agreed by Royal Decree with the appropriate regulatory content, currently being processed. The main objective is to protect public health from poor air quality and to avoid pollution peaks, as well as to achieve better control of air pollution by reducing it, especially in large cities with high concentrations of particulate matter and nitrogen dioxide. It also aims to provide citizens with information on pollution alert levels and the actions to be taken at each level of action, regardless of their geographical location. Its ultimate goal is to avoid reaching the alert threshold established in the legislation as much as possible and to reduce the number of exceedances of the limit or short-term objective values (daily, hourly or 8-hourly) of the legislation in order to protect human health from poor air quality.

3. AIR QUALITY			A3.L1.02
National Air Pollution Control Programme			
Objective	Reduce mortality and morbidity attributable to exposure to air pollution in line with the PNCCA's objectives. Ensure the prevention of diseases resulting from air pollution and poor air quality, through the monitoring, analysis and evaluation of instantaneous and accumulated data from pollution meters, and the actions arising therefrom.		
Description	The objective is to significantly reduce pollution levels of compounds and substances that are very harmful to health, in compliance with the commitments established for Spain in the National Emission Ceilings Directive for 2030. The Plan envisages a total of 57 measures targeting all polluting sectors necessary to achieve this goal and protect human and ecosystem health. Therefore, the measures envisaged in the PNCCA will be monitored. The PNCCA defines targets and actions for the fulfilment of the emission reduction commitments of the Ceilings Directive. The measures of this Programme are in line with both the air quality and energy and climate policies of the National Integrated Energy and Climate Plan (PNIEC). It seeks to scale up the actions to be carried out in light of the more ambitious provisions of the Zero Pollution Action Plan and to incorporate them in the 2nd NCCAP to be drafted and submitted to the COM in 2023.		
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability		
Collaborators	SGSASL, AEMET and competent body of the Autonomous Communities		
Geographical area	National		
Compliance indicator	Implementation of the Plan		
Timeline	**2022 – S1**	Monitoring and evaluation measures implemented/to be implemented.	
	2022 – S2	New actions to be implemented.	
	2023 – S1	New actions to be implemented.	
	2023 – S2	Preparation of 2nd PNCCA.	
Financing	MITECO's own funds		
Priority	Domino effect (E), Timeliness (O) and Commitment/obligation (C)		
Related actions	• Strengthening structural measures aimed at reducing average concentrations of pollutants and improving air quality, especially in metropolitan and urban areas, such as modal shift. National Plan for Air Pollution Control.		

Status	In operation. 1st PNCCA completed. Monitoring of the first PNCCA underway. Pending update of the PNCCA in S2 in 2023.
Development	The National Air Pollution Control Programme is an obligation under Directive (EU) 2016/2284 (Ceilings Directive). The Ceilings Directive sets emission reduction commitments for anthropogenic air emissions of sulphur dioxide (SO2), nitrogen oxides (NOX), non-methane volatile organic compounds (NMVOCs), ammonia (NH3), and fine particulate matter (PM2.5) for the period 2020-2029 and further targets from 2030 onwards. These obligations have been incorporated into state regulations through Royal Decree 818/2018, of 6th July, on measures for the reduction of national emissions of certain atmospheric pollutants. The NCAP should follow a common format for submitting information on national air pollution control programmes to the Commission. This common format, adopted by Implementing Decision (EU) 2018/1522, of 11th October 2019, aims to facilitate the review of programmes and allow for greater comparability between them. The 1st PNCCA defines strategic objectives and actions from 2020 onwards, paying particular attention to areas where the population and ecosystems are exposed to higher levels of pollution, and strengthening synergies with the strategic objectives on energy and climate change. To this end, it establishes a series of sectoral and cross-cutting measures, in line not only with national air quality policies, but also with the energy and climate policies defined in the draft National Integrated Energy and Climate Plan 2021-2030 (PNIEC.). The PNCCA was designed in such a way that Spain can achieve its emission reduction commitments, while at the same time contributing to achieving air quality objectives. This will result in positive effects on biodiversity and ecosystems, and improve synergies between air quality policy and other related policies, in particular climate and energy policies. In accordance with the competency framework defined for the area of air quality and atmospheric protection, and in accordance with Royal Decree 818/2018, of 6th July, the Ministry for Ecological Transition and the Demographic Challenge is responsible for drafting it, with the participation of the other Ministries involved, as well as with the different competent Administrations, of the PNCCAs. The 1st Programme was approved by the Council of Ministers on 27th September 2019 and sent to the European Commission. In order to analyse the level of compliance with national emission reduction commitments, two scenarios have been considered: i) one with measures in which the impact of already adopted policies and existing national and European regulation is foreseen (scenario with measures - CM) and ii) a second scenario in which the additional measures and policies envisaged in this PNCCA are incorporated into the scenario with measures (scenario with additional measures - CMA). The CM scenario emission projections foresaw non-compliance for all pollutants. The CMA scenario incorporates the foreseeable impact of the additional policies and measures included in the 1st PNCCA, with this scenario four of the five pollutants would be met. Non-compliance for NMVOC emissions, but a narrow compliance margin for PM 2.5 and NH3. For the 2nd PNCCA, work must be done on monitoring the measures implemented or to be implemented, on the design of new actions to incorporate additional reductions in NMVOCs, PM and NH3 and on the specifications of what the new CM and CMA scenarios will be. Furthermore, it is recommended that this 2nd edition incorporates a section on the cost/benefit of the health effects of the measures. For the elaboration of this new section related to the effects of emission reductions and health effects, MSAN's participation is required.

3. AIR QUALITY		A3.L1.03
Royal Decree regulating Low Emission Zones		
Objective	Reduce mortality and morbidity attributable to exposure to air pollution in line with the objectives of the PNCCA. Ensure the prevention of diseases resulting from air pollution and poor air quality, through monitoring, analysis and evaluation of instantaneous and accumulated data from pollution meters, and actions arising therefrom.	
Description	Drafting and approval of the Royal Decree regulating the Low Emission Zones.	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	Directorate General Spanish Office for Climate Change, Sub-Directorate General for Energy Efficiency, Institute for Energy Diversification and Saving, Ministry of Transport, Mobility and Urban Agenda and Directorate General for Traffic.	
Geographical area	National	
Compliance indicator	Publication of the Royal Decree	
Timeline	**2022 – S1**	Release of draft for public information
	2022 – S2	Publication of Royal Decree on Low Emission Zones
	2023 – S1	
	2023 – S2	
Financing	MITECO's own funds	
Priority	Urgency (U), Cost Effectiveness (CE), Commitment or Obligation (C)	
Related actions	• Monitoring air quality in areas of high vehicle concentration and susceptible environments, especially areas around schools, children and health care facilities. • Strengthen structural measures aimed at reducing average pollutant concentrations and improving air quality, especially in metropolitan and urban areas, such as transport modal shift. National Plan for Air Pollution Control. • Establishing coordination mechanisms with the Autonomous Communities and Cities and City Councils for the development of actions that require their intervention (pedestrian and low-emission zones, reduction of road traffic, public transport, etc.).	
Status	In development. The Royal Decree on Low Emission Zones is currently being revised after having completed the information and public hearing phase.	

3. AIR QUALITY	A3.L1.03
Royal Decree regulating Low Emission Zones	
Development	Article 14 of Law 7/2021, of 20th May, on Climate Change and Energy Transition establishes that when the limit values for pollutants regulated in Royal Decree 102/2011, of 20th January, on the improvement of air quality are exceeded, municipalities in Spain with more than 50,000 inhabitants, island territories and municipalities with more than 20,000 inhabitants must adopt, before 2023, Sustainable Urban Mobility Plans that introduce mitigation measures to reduce emissions from mobility, including, among others, the establishment of **Low Emission Zones**. The Royal Decree on Low Emission Zones will determine the minimum requirements that such Low Emission Zones must meet, with the aim of contributing to improving the air quality and acoustics of our cities, as well as the health of our citizens, mitigating climate change, promoting a modal shift towards more sustainable means of transport and improving the energy efficiency of urban transport.

3. AIR QUALITY		A3.L1.04
Draft Royal Decree amending Royal Decree 102/2011, of 28th January, on the improvement of air quality.		
Objective	Reduce mortality and morbidity attributable to exposure to air pollution in line with the objectives of the PNCCA. Ensure the prevention of diseases resulting from air pollution and poor air quality, through monitoring, analysis and evaluation of instantaneous and accumulated data from pollution meters, and actions arising therefrom.	
Description	The new RD is expected to be approved in the second half of 2022, which will lead to the development of new short-term action plans with a significant impact on health, as new thresholds have been included for critical pollutants such as particulate matter (PM10 and PM2.5) that were not included in RD 102/2011, of 28th January, on the improvement of air quality.	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	Autonomous Communities, Autonomous Cities and some local entities that manage their own air quality networks and the Ministry of Health	
Geographical area	National, with regional and local application depending on the competent authority for air quality.	
Compliance indicator	Publication of the amendment to Royal Decree 10/2011	
Timeline	**2022 – S1**	Processing of Draft RD according to Government Law 50/1997, of 27th November 1997.
	2022 – S2	Publication of the amendment to Royal Decree 102/2011, of 28th January, on the improvement of air quality.
	2023 – S1	Monitoring of the new short-term action plans arising from the new obligations of the RD.
	2023 – S2	Monitoring of the new short-term action plans arising from the new obligations of the RD.
Financing	MITECO's own funds	
Priority	Domino effect (E), Timeliness (O), Commitment (C)	
Related actions	• Drafting a Prevention Plan for episodic contamination scenarios that clearly establishes a protocol for action by the health authorities in the event of this type of situation. • Strengthening structural measures aimed at reducing average concentrations of pollutants and improving air quality, especially in metropolitan and urban areas, such as modal shift. National Air Pollution Control Plan.	
Status	In development	

3. AIR QUALITY	A3.L1.04
Draft Royal Decree amending Royal Decree 102/2011, of 28th January, on the improvement of air quality.	
Development	This Draft Royal Decree aims to: - Incorporate what has been approved in the short-term Framework Action Plan in the event of episodes of high pollution by particles smaller than 10 microns (PM10), particles smaller than 2.5 microns (PM2.5), nitrogen dioxide (NO2), ozone (O3) and sulphur dioxide (SO2) approved by the Sectoral Conference on the Environment, at its meeting on 9th July 2021, which establishes new pollution thresholds that are not included in Royal Decree 102/2011, of 28th January, on the improvement of air quality, among other agreed measures. - Establish a common framework for action by the different public administrations in the event of high pollution incidents. - Protect public health from poor air quality and avoid pollution peaks. - Achieve better air pollution control by reducing air pollution, especially in large cities with high concentrations of particulate matter and nitrogen dioxide. - Provide citizens with information on pollution alert levels and the actions to be taken at each level of action, regardless of the geographical area where they are located. Avoid reaching the alert threshold set forth in legislation to the extent possible and reduce the number of exceedances of the limit or short-term objective values (daily, hourly or 8-hourly) in the legislation to protect human health from poor air quality.

3. AIR QUALITY		A3.L2.03
Predicted air quality index		
Objective	Improve the effectiveness of coordination between MITECO and MSAN in the field of their respective competences.	
Description	The new predictive component of the Predicted National Air Quality Index (**Predicted AQI**"), accessible through the website (https://www.ica.es/), allows users to consult the predicted air quality in Spain for two days, the current day and the next day. This new online service complements the information on the current (real time) air quality status previously provided by the National Air Quality Index.	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	AEMET and Ministry of Health	
Geographical area	National	
Compliance indicator	Publication of the predicted AQI	
Timeline	**2022 – S1**	Publication of the predicted AQI on the National Air Quality Index website.
	2022 – S2	
	2023 – S1	
	2023 – S2	
Financing	MITECO's own funds	
Priority	Domino effect (E), Timeliness (O) and Commitment (C)	
Related actions	• Transferring data from air quality meters to health authorities' analysis sites, as well as integrating public health professionals in the management of air quality.	
Status	In operation.	

3. AIR QUALITY	A3.L2.03
Predicted air quality index	
Development	The predicted AQI allows the user to see the predicted air quality index for 48 hours using air quality models. This predicted hourly index is calculated from the post-processed outputs of the MOCAGE aerosol and chemical transport model, operational at the AEMET. The post-processing is carried out with the Hybrid Forecast technique using the data measured at the measuring stations of the different air quality networks of the Autonomous Communities and Local Entities. This methodology has been developed by AEMET within the framework of the SISPAIR agreement between AEMET and the Community of Madrid and its visualisation on the AQI website has been implemented by MITECO services. The categories used by the predicted AQI, as well as their thresholds, coincide with those of the current National Air Quality Index. The predicted index is calculated and displayed only for measuring stations where at least the three pollutants with the main impact on the AQI are measured: ozone, nitrogen dioxide and one of the suspended particulate matter (PM10 or PM2.5). No predictions are shown for air quality stations measuring less than these three pollutants. The criterion adopted for the visualisation of the potential health impact of air quality is to assign the worst AQI category for any of the three pollutants considered in the estimation of the predicted AQI. In case more than one of these three pollutants falls into the worst category of the Index, all health messages up to that maximum of three will be displayed. To differentiate between the predicted AQI and the real-time AQI, the predicted AQI is shown in the geometrical shape of a star (☆) while the real-time AQI is shown, as it has been since its public availability, with a sphere (O). The air quality index is calculated according to the following seasonal average: - For NO2 and SO2: The average concentration from the last hour is used. - For O3: The moving average of the concentrations from the last 8 hours is used. - For PM10 and PM2.5, the moving average of the concentrations from the last 24 hours is used.

3. AIR QUALITY		A3.L3.02
Guide to developing environmental projects in school settings		
Objective	To ensure the prevention of diseases resulting from air pollution and poor air quality, through the monitoring, analysis and evaluation of instantaneous and accumulated data from pollution meters, and the actions arising therefrom.	
Description	Drafting of guides for the development of environmental projects in school environments, establishing common guidelines for the development of projects to address the problems of air quality and noise pollution and to promote awareness and understanding of these problems in the educational community (pupils, families, teachers, etc.).	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	General Directorate of the Spanish Office for Climate Change and the Carlos III Health Institute (ISCIII).	
Geographical area	National	
Compliance indicator	Publication of guides and instructions	
Timeline	**2022 – S1**	Publication of the Guide for the development of environmental projects in schools.
	2022 – S2	
	2023 – S1	
	2023 – S2	
Financing	Ministry for Ecological Transition and the Demographic Challenge's own funds	
Priority	Cost Effectiveness (CE), Timeliness (O).	
Related actions	• Creating easily understandable information on how air pollution can affect human health, especially for groups at risk, and involving environmental and health education groups.	
Status	Completed	
Development	This Guide aims to establish common guidelines for the development of citizen science projects in schools to address the issues of air quality and noise pollution. The ultimate aim is for these projects to raise awareness of these issues. To this end, the Guide provides a simplified description of the objectives, the actors involved and the methodology with which these projects should be approached. The Guide's target audience includes: schools, institutions involved in the projects, and organisations coordinating projects implemented between different schools. With regard to air quality, the Guide's Objectives are:	

3. AIR QUALITY	A3.L3.02
Guide to developing environmental projects in school settings	
	• Improving knowledge about the air quality situation in and around schools and their access routes. • Increasing awareness and education on the problem of air quality and pollutant emissions and their effects on health. • The promotion of sustainable mobility, encouraging a modal shift towards more environmentally friendly modes of transport, such as public transport or active mobility. With regard to noise pollution, the Objectives are: • Explain basic notions about the concept of noise, its measurement and physical characteristics. • Communicate the negative health effects and possible approaches to the problem. • Study the variability and causes of noise in this area. • Discuss possible changes in behaviour and the urban environment to promote better noise quality.

3. AIR QUALITY		A3.L3.07
Mobile application to consult the National Air Quality Index (AQI)		
Objective	Improve public and professional awareness of the effects of poor air quality.	
Description	Developing a new mobile application to complement and disseminate the National Air Quality Index website (http://www.ica.miteco.es/). This new APP will have new functionalities such as geolocation that will allow users to consult air quality data in real time, as well as the predicted AQI for the next 48 hours at the nearest station to which they are located.	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	AEMET and Ministry of Health	
Geographical area	National	
Compliance indicator	Launch of APP	
Timeline	**2022 – S1**	
	2022 – S2	Launch of the mobile APP for Android devices
	2023 – S1	Launch of the mobile APP for iPhone devices
	2023 – S2	
Financing	Funding for App development under MITECO's Recovery, Transformation and Resilience funds	
Priority	Domino effect (E) and Timeliness (O)	
Related actions	• Establishing a procedure to ensure communication to the sensitive population, i.e. ensuring that health centres, educational establishments, nursing homes, etc. are informed of pollution incidents. • Providing the public with access to simple and clear information on air quality to enable them to protect their health. • Transferring data from air quality meters to health authorities' analysis sites, as well as integrating public health professionals in the management of air quality.	
Status	Pending commencement	
Development	Development of a new mobile application to complement and disseminate the National Air Quality Index website (https://www.ica.miteco.es/). This new APP will have new functionalities such as geolocation that will allow users to consult air quality data in real time, as well as the predicted AQI for the next 48 hours	

3. AIR QUALITY	A3.L3.07
Mobile application to consult the National Air Quality Index (AQI)	
	at the nearest station where they are located.

3. AIR QUALITY		A3.L4.01
Air Quality Morbidity and Mortality Study		
Objective	Improve scientific knowledge on the health, economic, social and environmental impacts of air pollution on health.	
Description	Analysing and quantifying the short-term impact attributable to chemical air pollution (PM10, NO2 and O3 concentrations) on daily emergency hospital admissions for different specific causes (cardiovascular, respiratory, endocrine, neurological, anxiety and depression); based on dose response functions (DRF) obtained within the province.	
Responsible parties	ENS - ISCIII	
Collaborators	SGSASL, NSI and AEMET	
Geographical area	National	
Compliance indicator	Publication of study	
Timeline	**2022 – S1**	Commissioning of the study and creation of databases
	2022 – S2	Creation of databases and data analysis
	2023 – S1	Data analysis
	2023 – S2	Data analysis and drafting of papers and dissemination of results
Financing	Intramural Health Strategic Action Funding - ISCIII Health Research Project	
Priority	Domino Effect (E) and Seriousness (G)	
Related actions	• Making an economic and social estimate of the impact of air pollution in Spain. • Analysing the influence that climate change has and will have on air pollution. • Developing new lines of R&D&I aimed at promoting knowledge concerning atmospheric pollution, its causes and dynamics. • Assessing air pollution-related morbidity and mortality, with disaggregated data.	
Status	In development	

3. AIR QUALITY	A3.L4.01
Air Quality Morbidity and Mortality Study	
Development	The general objective is to analyse and quantify the short-term impact attributable to chemical air pollution (PM10, NO2 and O3 concentrations) on daily emergency hospital admissions for different specific causes (cardiovascular, respiratory, endocrine, neurological, anxiety and depression); based on dose response functions (DRF) obtained in the province and to carry out an economic valuation of the same. The methodology to be used is based on a retrospective longitudinal ecological analysis of time series during the period 2009-2018, through uni- and multivariate generalised linear models in which we will control for other meteorological variables (extreme temperatures and relative humidity) and for seasonality, days of the week, autoregressivity, influenza epidemics and average income per person. The number of hospital admissions attributable to each pollutant in each province and the approximate economic cost of the causes of morbidity analysed will be estimated.

Water Quality

4. WATER QUALITY		A4.L1.01
Implementation of the DSEAR Plan and measures for the improvement of stormwater management		
Objective	Protect human health from the adverse effects of any type of water pollution; guaranteeing access, healthiness, quality and cleanliness in each and every one of its uses.	
Description	DSEAR plan and stormwater management improvements	
Responsible parties	MITECO	
Collaborators	Competent body of the Autonomous Communities, Provincial Councils, Local Administrations, River Basin Organisations, regional water administration and competent authorities in each river basin district.	
Geographical area	National	
Compliance indicator	Degree of compliance with the obligations of the Urban Waste Water Directive in urban agglomerations	
Timeline	**2022 – S1**	Coordination of third cycle water plans and DSEAR Plan to include DSEAR Plan measures.
	2022 – S2	Coordination of third cycle water plans and DSEAR Plan to include DSEAR Plan measures.
	2023 – S1	Implementation of DSEAR Plan measures in the framework of the programmes of measures of the hydrological plans.
	2023 – S2	Implementation of DSEAR Plan measures in the framework of the programmes of measures of the hydrological plans.
Financing	MITECO's own funds	
Priority	Urgency (U), Domino Effect (E), Commitment or Obligation (C), Seriousness (G) and Timeliness (O)	
Related actions	• Improving the required drinking water treatment according to the quality of the source water by using at least filtration and disinfection in small supply zones. • Improving wastewater and stormwater management to protect the quality of water for drinking water production and bathing water. • Implementing the most appropriate purification and reclamation systems to improve water quality and make it suitable for further use. • Improving sanitation, purification, reclamation and reuse systems, promoting the installation of separate rainwater networks. • Improving coordination in the management of wastewater, reclaimed water and its reuse.	
Status	In development	

4. WATER QUALITY	A4.L1.01
Implementation of the DSEAR Plan and measures for the improvement of stormwater management	
Development	The National Plan for Purification, Sanitation, Efficiency, Saving and Reuse (DSEAR Plan) is a governance instrument that aims to incorporate improved procedures and working methodologies aligned and focused on the fulfilment of the objectives of water planning, mainly in the areas of purification, sanitation and reuse of reclaimed wastewater, into the third cycle water plans (2022-2027). The governance objectives are as follows: 1) Define criteria for the prioritisation of measures. 2) Strengthen administrative cooperation. 3) Improve the definition of actions that should be considered to be of general interest of the State. 4) Improve the energy and overall efficiency of wastewater treatment and reuse plants. 5) Improve funding mechanisms for measures. 6) Promote wastewater reuse. 7) Foster innovation and technology transfer in the water sector. The second-cycle plans in force, mostly adopted in 2016, include more than 3,500 sanitation, treatment and reuse measures, to be implemented by the three public administrations (local, regional and national). This set of measures requires an investment of around 12.6 billion euros. The approval process for the third cycle hydrological plans is currently underway. Stormwater management measures are not included in the DSEAR Plan, but are included in the hydrological plans' programmes of measures.

4. WATER QUALITY		A4.L1.05
Approval and Implementation of the Third Cycle River Basin Management Plans (2022-2027)		
Objective	Protect human health from the adverse effects of any type of water pollution; guaranteeing access, healthiness, quality and cleanliness in each and every one of its uses	
Description	The general objectives of hydrological planning are to achieve the good status and adequate protection of the public water domain and the waters it covers, the fulfilment of water demands, the balance and harmonisation of regional and sectoral development, increasing the availability of the resource, protecting its quality, economising its use and rationalising its uses in harmony with the environment and other natural resources.* Consequently, the approval of the third cycle hydrological plans, scheduled for 2022, is a fundamental tool for achieving the objectives of preventing water pollution and guaranteeing access, health, quality and cleanliness for all water uses.	
Responsible parties	MITECO	
Collaborators	Competent body of the Autonomous Communities, basin organisations, autonomous water administration and competent authorities in each river basin district.	
Geographical area	National	
Compliance indicator	Publication of the Royal Decree approving the third cycle hydrological plans of the intercommunity basins. Publication of the legal instruments for the approval of the third cycle hydrological plans of the intra-community basins.	
Timeline	**2022 – S1**	Public information on the Draft Royal Decree for the approval of the hydrological plans of the intercommunity river basin districts 2022-2027.
	2022 – S2	Approval of the RD approving the hydrological plans of the intercommunity river basin districts 2022-2027. Approval of the legal instruments approving the intra-community river basin management plans 2022-2027.
	2023 – S1	Implementation of the hydrological plans 2022-2027
	2023 – S2	Implementation of the hydrological plans 2022-2027
Financing	MITECO and involved organisations funds	
Priority	Commitment or obligation (C), Timeliness (O) and Domino Effect (E)	

*Consolidated text of the Water Law, Article 40.

4. WATER QUALITY	A4.L1.05
Approval and Implementation of the Third Cycle River Basin Management Plans (2022-2027)	
Related actions	• Improving installations, avoiding or substituting materials such as lead in distribution networks and interior installations for other innocuous ones, as well as evaluating structural leaks in both supply and sanitation systems and implementing corrective measures to remedy them. • Monitoring massive water use to protect the ecological stability of the territory.
Status	In development
Development	Water plans are fundamental tools for water management and thus for achieving the objectives of preventing water pollution and guaranteeing access, health, quality and cleanliness for all uses. The third cycle plans are currently in the process of being approved, following the end of the public consultation period for the draft plans of the intercommunity basins on 22nd December 2021. The hydrological plans address water status, water quality protection, meeting demands for water use and protection of the public water domain, among other aspects relevant to this strategic plan. With regards to the assessment of structural leakage, a study will be commissioned for the development of an applicable methodology with corresponding indicators.

4. WATER QUALITY		A4.L1.06
Methodological guide for the development of Water Safety Plans and their impact on health		
Objective	Protect people's health from the adverse effects of any type of water pollution; guaranteeing access, healthiness, quality and cleanliness in each and every one of its uses.	
Description	Developing a common methodology for the assessment and management of water risk (Water Safety Plan) and its impact on health, both for supply areas and for bathing water, swimming pools/spas, wastewater and reclaimed water, promoting its application.	
Responsible parties	SGSASL	
Collaborators	MITECO and competent body of the Autonomous Communities	
Geographical area	National	
Compliance indicator	Publication of guide	
Timeline	**2022 – S1**	Production of event sheets in SZ and parameter sheets
	2022 – S2	Final review of event sheets in SZ and description of semi-quantitative methodology
	2023 – S1	Description of quantitative methodology and final review of DWD parameters
	2023 – S2	Review of data sheets for at least 70 authorised pesticides
Financing	Own funds	
Priority	Domino effect (E), Timeliness (O) and Commitment (C)	
Related actions	• Developing a common methodology for the assessment and management of water risk (Water Safety Plan) and its impact on health, both for supply areas and for bathing water, swimming pools/spas, wastewater and reclaimed water, promoting its application. • Promoting risk assessment on the reuse of reclaimed wastewater and on the effectiveness of physical and physico-chemical systems for its treatment. • Including pesticides in the risk assessment which, although their use is prohibited, are slow and/or difficult to eliminate, such as lindane. • Implementing the new European Drinking Water Directive and the European Water and Health Protocol in relation to human health. • Developing indicators related to drinking water, bathing water, reclaimed water and wastewater.	

4. WATER QUALITY	A4.L1.06
Methodological guide for the development of Water Safety Plans and their impact on health	
Status	In development
Development	This action aims to develop Water Safety Plans (WSPs), which present a common methodology for the assessment and management of water risk and its impact on health. This tool can be used for supply zones as well as for bathing water, swimming pools/spas, wastewater and reclaimed water. This WSP is currently being developed and its implementation remains to be promoted. To this end, event sheets will be drawn up for the events occurring in the Supply Zones (SZ) in order to establish a methodology in accordance with the parameters of the European regulations. Once this tool is in place, the previous elements will be reviewed and applied in the future.

4. WATER QUALITY		A4.L1.07
Methodological Guide for Risk Assessment in Catchment Areas of Drinking Water Abstraction Points		
Objective	Protect human health from the adverse effects of any type of water pollution; guaranteeing access, healthiness, quality and cleanliness in each and every one of its uses.	
Description	Developing a common methodology for risk assessment in the catchment areas of water abstraction points for the production of drinking water, in order to be able to comply with Directive (EU) 2020/2184 of the European Parliament and of the Council, of 16th December 2020, on the quality of water intended for human consumption.	
Responsible parties	MITECO and competent body of the Autonomous Communities	
Collaborators	SGSASL, River Basin Organisations and Regional Water Administrations	
Geographical area	National	
Compliance indicator	Development and presentation of the Methodological Guide	
Timeline	**2022 – S1**	
	2022 – S2	Commissioning of the work for the development of the guide
	2023 – S1	Work for the development of the guide
	2023 – S2	First draft available
Financing	Own funds	
Priority	Commitment/obligation (C) and Timeliness (O)	
Related actions	• Developing a common methodology for risk assessment in the catchment areas of water abstraction points for the production of drinking water, and promoting its application. • Implementing the new European Drinking Water Directive and the European Water and Health Protocol in relation to human health. • Conducting risk assessment and risk management of catchment areas of water abstraction points for the production of drinking water; in supply areas and indoor facilities of priority public buildings.	
Status	Pending commencement	

4. WATER QUALITY	A4.L1.07
Methodological Guide for Risk Assessment in Catchment Areas of Drinking Water Abstraction Points	
Development	This action aims to develop a common methodology for risk assessment in the catchment areas of water abstraction points for the production of drinking water. This methodological guide is a basic tool for compliance with Directive (EU) 2020/2184 of the European Parliament and of the Council, of 16th December 2020, on the quality of water intended for human consumption, Article 7 of which establishes the obligation to carry out risk assessment and risk management by July 2027 at the latest, and Article 8 of which establishes the characteristics that this assessment must have. This action has yet to be launched. Work on the development of the methodological guide is due to be contracted.

4. WATER QUALITY		A4.L1.13
Royal Decree establishing the health requirements for the prevention and control of legionellosis		
Objective	Protect human health from the adverse effects of any type of water pollution; guaranteeing access, healthiness, quality and cleanliness in each and every one of its uses.	
Description	This Royal Decree aims to protect human health through the prevention and control of legionellosis by means of the adoption of sanitary measures in installations that use water in their operation and generate or are likely to generate aerosols.	
Responsible parties	SGSASL	
Collaborators	Competent bodies of the Autonomous Communities in the field of environmental health	
Geographical area	National	
Compliance indicator	Degree of progress in the development of the Royal Decree	
Timeline	**2022 – S1**	Publication of Royal Decree establishing health requirements for the prevention and control of legionellosis.
	2022 – S2	Drawing up guidelines in its area of competence on the application of this Royal Decree.
	2023 – S1	Establishing multi-annual monitoring plans, which will be subject to the corresponding monitoring reports.
	2023 – S2	Establishing multi-annual monitoring plans, which will be subject to the corresponding monitoring reports.
Financing	Own funds	
Priority	Domino effect (E)	
Related actions	• Assessing the efficacy and safety of physical, chemical and biological Legionella prevention and control systems. • Promoting research studies on the risks of new installations that can cause legionellosis, on the factors determining the growth and dispersion of Legionella and the infective dose of this micro-organism.	
Status	In development	
Development	The publication of the new Royal Decree, establishing the health requirements for the prevention and control of legionellosis, establishes 2 options as Legionella control plans: - Creation of a Legionella Prevention and Control Plan (PPCL). - Risk assessment by means of a Legionella health plan for the facilities (PSL). Based on risk assessment and based on WHO recommendations. The design and implementation of health plans tailored to each specific facility allows the	

4. WATER QUALITY	A4.L1.13
Royal Decree establishing the health requirements for the prevention and control of legionellosis	
	measures, the parameters to be monitored and the frequency of monitoring to be adapted based on the risk assessment of the facility itself. As part of its official control functions, the health authority may review the documentation corresponding to the facility's PPCL or, where appropriate, the audit of the PSL. As part of the control functions, the health authorities will establish multi-annual control plans which will be subject to monitoring reports. The installations subject to official control are: 1. Domestic water systems. 2. Cooling towers and evaporative condensers. 3. Evaporative cooling equipment. 4. Industrial humidifier plants. 5. Humidifiers. 6. Fire water systems. 7. Heated water systems or water systems with temperatures similar to heated water (≥ 24 ºC) and aerosolisation with/without agitation and with/without recirculation through high speed jets or air injection, multi-purpose pool basins with this type of installation, pool basins with play devices, water play areas, mushroom fountains, curtains, waterfalls, among others. 8. Ornamental fountains with aerosol diffusion and walk-through fountains. 9. Sprinkler irrigation systems in the urban environment or on golf courses or sports fields. 10. Evaporative spray cooling devices using aerosolisation cooling elements. 11. Vehicle washing systems. 12. Watering or street-cleaning machines and street-cleaning vehicles. 13. Any item intended for cooling and/or humidification which is capable of producing aerosols and which is not covered by the other items. 14. Health/therapeutic installations: respiratory therapy equipment; respirators; nebulisers; pressurised water systems for dental treatment; therapeutic baths with pressurised water; obstetric baths for childbirth and installations using water declared to be mineral-medicinal or thermal water. 15. Any other installation which uses water to operate and which produces or is likely to produce aerosols that may pose a risk to human health.

4. WATER QUALITY		A4.L2.02
Transparency to citizens regarding drinking water quality		
Objective	Improving co-ordination between water management authorities.	
Description	This action aims to provide near real time information on the quality of drinking water in each of the distribution networks of the different supply areas registered in the SINAC. Therefore, the latest reports of the control analysis, full analysis, radioactivity control and health surveillance that have been submitted to the SINAC and whose sampling point is the distribution network will be made available to the public.	
Responsible parties	SGSASL	
Collaborators	MITECO, Competent bodies of the Autonomous Communities and Local Administration	
Geographical area	National	
Compliance indicator	Degree to which the SINAC's citizen access is up to date.	
Timeline	**2022 – S1**	First phase of the SINAC's citizen access update
	2022 – S2	First phase of the SINAC's citizen access update
	2023 – S1	Second phase of the SINAC's citizen access update
	2023 –S2	Second phase of the SINAC's citizen access update
Financing	Own funds	
Priority	Domino effect (E)	
Related actions	• Improving real-time information on the status of bodies of water and water uses. • Improving data reporting to health information systems: SINAC, NAYADE or SILOE. • Developing digital services to report and predict the status of resources in (near) real time.	
Status	In development	
Development	In the first phase of this action, priority is being given to the transparency of the distribution network analysis bulletins notified in the SINAC by the operators so that they are made available to the public. In addition to the provision of the latest distribution network analyses, other useful information will be made available to citizens in the second phase: • Invoice composition	

4. WATER QUALITY	A4.L2.02
Transparency to citizens regarding drinking water quality	
	• Origin of water • Water treatment • Health recommendations • Further information about the operator

4. WATER QUALITY		A4.L2.05
Wastewater epidemiological surveillance and information system		
Objective	Improve co-ordination between water management authorities. Increase knowledge on the potential health impacts of water quality in specific geographic or use areas.	
Description	Developing a new epidemiological surveillance system based on the monitoring of wastewater, whereby different epidemiological parameters of diseases, such as COVID-19, can be identified.	
Responsible parties	SGSASL and MITECO	
Collaborators	Competent Body of the Autonomous Communities and Operators of WWTPs	
Geographical area	National	
Compliance indicator	Degree of implementation of the system. Whether and to what extent the monitoring or reporting system has been developed.	
Timeline	**2022 – S1**	Collection of information on the concentration of SARS-CoV-2 genetic material in wastewater since March 2020, in Excel and by email. Weekly monitoring at 38 WWTP.
	2022 – S2	Collection of information on the concentration of SARS-CoV-2 genetic material in wastewater since March 2020, in Excel and by email. Weekly monitoring at 62 WWTP.
	2023 – S1	Development of the HEBAR information system. Weekly monitoring at 79 WWTP.
	2023 – S2	Development of the HEBAR information system. Weekly monitoring at 79 WWTP.
Financing	European funds: Support to the Member States to establish national systems, local collection points, and digital infrastructure to monitor Covid 19 and its variants in waste waters. HERA incubator (EU). 2.120.641 euros (PARTIAL)	
Priority	Domino effect (E), Urgency (U), Seriousness (G) Timeliness (O) and Commitment (C)	
Related actions	• Improving analytical tools, with real-time results in both microbiological and physico-chemical parameters, promoting method intercomparison exercises. • Improving real-time information on the status of bodies of water and water uses. • Developing a new epidemiological surveillance system based on wastewater monitoring, called HEBAR. • Developing digital services to report and predict the status of resources in (near) real time. • Conducting epidemiological studies on morbidity and mortality, surveillance systems and exposure risks.	

4. WATER QUALITY	A4.L2.05
Wastewater epidemiological surveillance and information system	
Status	In operation
Development	The VATAR project, led by MITECO, has been in operation since July 2020, with 38 WWTPs sampling the material necessary for the detection of disease indicators in wastewater. MSAN will now start with 24 WWTPs as part of the HEBAR project and 17 more in VATAR. It will start with 38 WWTPs and end with 79 WWTPs. Weekly monitoring will be carried out on the same day of the week and at the time of maximum faecal load at the WWTP inlet. While sampling (simple sampling) waste water, ammonium and COD measurements will be taken and the flow rate at the time of sampling will be recorded. In selected laboratories, N1 and one other target (N2) will be analysed by RT qPCR. Besides the determination of the genetic material in gene copies per litre, RT qPCR specific to the known variants will also be performed to determine the proportion of variants in each population. Sequencing will be carried out once a month to identify new variants, if any. All of the foregoing will be presented in an information system with the results obtained for all interested actors and the consequent development of related measures.

4. WATER QUALITY		A4.L2.06
Including public health criteria in integrated watershed management and promoting the use of nature-based solutions where feasible.		
Objective	Improve co-ordination between water management administrations.	
Description	Fostering the inclusion of nature-based solutions among the measures adopted by the third cycle river basin management plans (2022-2027), in order to make the objectives of the Water Framework Directive compatible with those of the Floods Directive and other environmental directives of the European Commission.	
Responsible parties	MITECO	
Collaborators	Competent body of the Autonomous Communities, basin organisations, autonomous water administration and competent authorities in each river basin district.	
Geographical area	National	
Compliance indicator	Investment of third cycle plans related to nature-based solutions and measures including public health criteria.	
Timeline	**2022 – S1**	Public information on the Draft Royal Decree for the approval of the hydrological plans of the intercommunity river basin districts 2022-2027.
	2022 – S2	Approval of the RD approving the hydrological plans of the intercommunity river basin districts 2022-2027. Approval of the legal instruments approving the intra-community river basin management plans 2022-2027.
	2023 – S1	Implementation of nature-based solutions in the framework of the implementation of the programmes of measures of the water plans 2022-2027.
	2023 – S2	Implementation of nature-based solutions in the framework of the implementation of the programmes of measures of the water plans 2022-2027.
Financing	MITECO's own funds	
Priority	Timeliness (O), Commitment or obligation (C)	
Related actions	• Including public health criteria in integrated watershed management and promoting the use of nature-based solutions where feasible. • Enhancing the use of nature-based solutions to improve the quality of water available to the population.	
Status	In development	

4. WATER QUALITY	A4.L2.06
Including public health criteria in integrated watershed management and promoting the use of nature-based solutions where feasible.	
Development	MITECO is developing the National Strategy for River Restoration (ENRR), a set of actions aimed at conserving and restoring Spanish rivers to a good state, minimising the risk of flooding, enhancing their cultural heritage, promoting the rational use of river space and promoting the sustainable development of rural areas. The actions incorporated in the programme of measures of the hydrological plans to tackle these problems are aimed at nature-based solutions, seeking to provide rivers, lakes and wetlands, and our transitional and coastal waters, with their inherent evolutionary space, through restoration measures and recovery of the original morphology, which include the demolition and removal of grey infrastructures, such as dams or weirs, in disuse, the permeabilisation of weirs in use and the improvement of riverbank vegetation. Measures on hydromorphological disturbances are also framed within the National Strategy for Green Infrastructure and Ecological Connectivity and Restoration, whose goals prioritise nature-based solutions. The hydrological plans aim to promote natural water retention measures, river restoration and hydrological-forestry restoration of river basins, the fight against desertification and nature-based solutions that make the objectives of the Water Framework Directive compatible with those of the Floods Directive and other environmental directives of the European Commission.

4. WATER QUALITY		A4.L5.01
Annual publication on water safety quality		
Objective	Ensure compliance with measures to improve water quality	
Description	This action aims to annually inform the administrations (General State, Autonomous and Local), the sector and citizens of the characteristics of water supplies and the quality of drinking water and health inspections carried out annually. To this end, annual reports are prepared in 4 volumes: 1. Technical report 2. List of supply zones and bathing areas and their annual classification 3. Tables with aggregated information 4. National, regional, provincial and municipal maps	
Responsible parties	SGSASL	
Collaborators	MITECO, Competent bodies of the Autonomous Communities, Local authorities and Operators	
Geographical area	National	
Compliance indicator	Publication of the previous year's report	
Timeline	**2022 – S1**	National technical report on bathing water quality. 2021.
	2022 – S2	National technical report on drinking water quality. 2021.
	2023 – S1	National technical report on bathing water quality. 2022.
	2023 – S2	National technical report on drinking water quality. 2022.
Financing	Own funds.	
Priority	Domino effect (E), Commitment-Obligation (C) and Cost Effectiveness (CE)	
Related actions	• Developing indicators related to drinking water, bathing water, reclaimed water and wastewater. • Improving data reporting to health information systems: SINAC, NAYADE or SILOE.	
Status	In operation	

4. WATER QUALITY	A4.L5.01
Annual publication on water safety quality	
Development	These publications on water quality provide data on drinking water and damaged areas and comply with current water quality regulations. These analyses are carried out in coordination with the different regional and local administrations and are entered into the SINAC and NÁYADE information systems, from which these annual reports are produced. Once all of the drinking water sampling bulletins have been notified by 1st March, the information is transferred to the National Health System Repository where the aggregated information by Autonomous Communities or attributes of the information contained in the SINAC is provided, both on the characteristics of the supplies and the analysis bulletins from the previous year, on the catchment areas, catchment intakes, pipelines, treatment plants, tanks, cisterns, distribution network and indoor facilities. This information is presented in tables and maps, with a general explanation provided in the technical report. Once the bathing waters have been classified, the information is transferred to the National Health System Repository, where the aggregated information by Autonomous Communities or attributes of the information contained in NAYADE is provided, both on the characteristics of the beaches and the analysis bulletins of the previous year, both for inland and maritime bathing areas. This information is presented in tables and maps, with a general explanation in the technical section.

Vector-borne diseases

5. VECTOR-BORNE DISEASES		A5.L1.02
***Aedes* mosquito-borne disease preparedness and response plan update**		
Objective	Implement effective systems for prevention and early control of vector-borne disease outbreaks. Improve professional training and public awareness.	
Description	Updating the content of the preparedness and response plan for diseases transmitted by *Aedes* mosquitoes, updating the actions and surveillance to the current presence of the competent vector in Spain.	
Responsible parties	CCAES	
Collaborators	SGSASL, competent body of the Autonomous Communities, ISCIII, MAPA, MITECO, ONT, SGPSP, AEMET, Groups of entomological experts and Universities	
Geographical area	National	
Compliance indicator	*Aedes* mosquito-borne disease preparedness and response plan update	
Timeline	**2022 – S1**	
	2022 – S2	
	2023 – S1	Critical review of 2016 version and identification of current challenges and text
	2023 – S2	Implementation of the updated plan
Financing	Own funds	
Priority	Domino effect (E), Timeliness (O), Cost Effectiveness (CE)	
Related actions	• Reinforcing human, animal and environmental epidemiological monitoring especially in high-risk areas and establishing special vector surveillance zones to avoid outbreaks or resurgences in areas with a traditionally positive vector presence. • Expanding comprehensive, multi-sectoral action plans involving public and private institutions that play a role in disease preparedness and response (National Vector-Borne Disease Preparedness and Response Plan), including, in addition to *Aedes*-borne diseases, those transmitted by the rest of the vectors mentioned above. • Establishing Entomological Surveillance Programmes: Systematic monitoring of the vector population potentially transmitting the pathogen and the entry of new species during growing seasons. • Creating an advisory committee with the participation of entities, institutions and professionals involved in the development of actions based on the One Health axis, e.g. CCAES, MAPA, MITECO, ISCIII, universities, etc.	

5. VECTOR-BORNE DISEASES	A5.L1.02
***Aedes* mosquito-borne disease preparedness and response plan update**	
	• Developing indicators related to vector-borne disease control. • Reporting on the results of the implementation of the Plan on vector populations capable of transmitting diseases. • Evaluating the monitoring network by the number of institutions participating in entomological surveillance exercises for disease transmission vectors.
Status	In operation
Development	The CCAES and stakeholders will determine the prioritisation and coordination of actions required to update the Plan. Limitations of the "*Aedes* mosquito-borne disease preparedness and response plan" version and a review of the current status of entomological surveillance will be shared. Thus, the aim is to achieve a correct identification of the limitations of the current plan and new challenges to be addressed in its updated version. This will help to identify new *Aedes* mosquito monitoring and control challenges that will serve to further the development of the new *Aedes* mosquito-borne disease preparedness and response plan. Once this new plan has been reviewed by stakeholders, it will be disseminated and implemented. This will seek to strengthen the One Health approach and coordination between the actors involved in the surveillance and control of these mosquitoes.

5. VECTOR-BORNE DISEASES		A5.L1.07
***Culex* mosquito-borne disease preparedness and response plan**		
Objective	Implement effective systems for prevention and early control of vector-borne disease outbreaks. Improve professional training and public awareness.	
Description	Updating the content of the preparedness and response plan for diseases transmitted by *Culex* mosquitoes. Preparing this Plan to reduce the transmission of West Nile Virus and Usutu in Spain.	
Responsible parties	CCAES	
Collaborators	SGSASL, competent body of the Autonomous Communities, ISCIII, MAPA, MITECO, ONT, SGPSP, AEMET, Groups of entomological experts and Universities	
Geographical area	National	
Compliance indicator	Implementation of the *Culex* mosquito-borne disease preparedness and response plan.	
Timeline	**2022 – S1**	Meeting with CCAES and stakeholders.
	2022 – S2	Critical review of the current evidence and presence of *Culex* in the different Autonomous Communities.
	2023 – S1	Drafting and review.
	2023 – S2	Implementation.
Financing	Own funds	
Priority	Domino effect (E), Timeliness (O), Cost Effectiveness (CE)	
Related actions	• Reinforcing human, animal and environmental epidemiological monitoring especially in high-risk areas and establishing special vector surveillance zones to avoid outbreaks or resurgences in areas with a traditionally positive vector presence. • Expanding comprehensive, multi-sectoral action plans involving public and private institutions that play a role in disease preparedness and response (National Vector-Borne Disease Preparedness and Response Plan), including, in addition to *Aedes*-borne diseases, those transmitted by the rest of the vectors mentioned above. • Establishing Entomological Surveillance Programmes: Systematic monitoring of the vector population potentially transmitting the pathogen and the entry of new species during growing seasons. • Creating an advisory committee with the participation of entities, institutions and professionals involved in the development of actions based on the One Health axis, e.g. CCAES, MAPA, MITECO, ISCIII, universities, etc. • Developing indicators related to vector-borne disease control. • Reporting on the results of the implementation of the Plan on vector populations capable of transmitting diseases.	

5. VECTOR-BORNE DISEASES	A5.L1.07
***Culex* mosquito-borne disease preparedness and response plan**	
	• Evaluating the monitoring network by the number of institutions participating in entomological surveillance exercises for disease transmission vectors.
Status	Pending commencement
Development	The CCAES and stakeholders will determine the prioritisation and coordination of actions required to update the Plan. Challenges to be addressed for reservoir control and epidemiological surveillance related to West Nile and Usutu virus surveillance will be shared. Among other things, high-risk areas for WNV and Usutu virus transmission will be identified and surveillance and control strategies will be designed. Once this new plan has been reviewed by stakeholders, it will be disseminated and implemented. This will seek to strengthen the One Health approach and coordination between the actors involved in the surveillance and control of these mosquitoes.

Chemical Products

6. CHEMICAL PRODUCTS			A6.L1.01
Make progress in the assessment of chemical substances and mixtures			
Objective	Protect public health from the risks posed by exposure to chemicals on the market		
Description	Making progress in the evaluation of chemical substances and mixtures, including biocidal and plant protection products, in order to enable appropriate use and prevent certain substances of particular concern such as endocrine disruptors, carcinogens, mutagens and reproductive toxins from being on the market.		
Responsible parties	SGASL, MITECO and MAPA		
Collaborators	INTCF, INSST, MINCOTUR and competent bodies of the Autonomous Communities		
Geographical area	National		
Compliance indicator	Number of evaluation reports and authorisation resolutions for chemicals, biocides and plant protection products. Number of authorisation decisions for biocidal and phytosanitary products. Number of inspection projects carried out in conjunction with the Autonomous Communities. Number of ad-hoc meetings and working groups attended within the scope of the Chemical Sustainability Strategy. Number of substances identified as endocrine disruptors.		
Timeline	**2022 – S1**	Progress in the evaluation of active substances and biocidal products: number of European meetings at which they have been submitted for discussion. Number of reports and authorisation resolutions carried out. Working Groups and meetings attended within the scope of the Chemicals Sustainability Strategy. Start of Inspection Projects with the Autonomous Communities: Training inspectors. Promote Law on Fees and Penalties. Consensus on the first draft Royal Decree on Biocides.	
	2022 – S2	Progress in the evaluation of active substances and biocidal products: number of European meetings at which they have been discussed. Approved substance. Number of authorisation reports and resolutions completed. Chemicals Sustainability Strategy: Progress. Inspection projects with the Autonomous Communities. Reporting on activity. Law on Fees and Penalties: Status. Draft Royal Decree on Biocidal Products: Status of the procedure. Improve coordination with Universities and research organisations to carry out the assessment of the effects of	

6. CHEMICAL PRODUCTS		A6.L1.01
Make progress in the assessment of chemical substances and mixtures		
		endocrine disruptors.
	2023 – S1	Progress in the evaluation of active substances and biocidal products: number of European meetings at which they have been submitted for discussion. Number of reports and authorisation resolutions completed. Chemicals Sustainability Strategy: Progress and results of the meetings. Inspection Projects with the Autonomous Communities: Results. Law on Fees and Penalties: State of processing. Royal Decree on Biocides: Publication.
	2023 – S2	Progress in the evaluation of active substances and biocidal products: number of European meetings at which they have been submitted for discussion. Number of substances evaluated and approved in Europe. Overall outcome as a result of evaluations and their impact on the market due to substances of very high concern, if any. Number of authorisation reports and decisions made. Number of plant protection products and biocidal products withdrawn from the market as a result of their risk assessment and requested use. Substances included in the lists of endocrine disruptors updated on the website www.edlists.org or any other compilation of endocrine disrupting substances developed in the future by the European Commission and its Agencies ECHA, EFSA, etc. Introduction of an early warning mechanism for emerging endocrine disruptors that are not well studied. Developing specific national regulations on endocrine disrupters (possibility of a National Strategy) or including the regulation of endocrine disrupters in the review of existing sectoral regulations. Chemicals Sustainability Strategy: Progress and results of the meetings. Modifications to chemicals regulations as a result of these European agreements. Inspection projects with the Autonomous Communities: Results obtained in Europe. Law on Fees and Penalties: State of processing. Royal Decree on Biocides: Publication.
Financing	Own funds	
Priority	Commitment (C)	
Related actions	• Streamlining the management of registration systems and Classification and Labelling Reports for chemical substances and mixtures. • Promoting the use of non-hazardous or less hazardous products for health and the environment and techniques that minimise the risk of exposure to biocides and phytosanitary products, particularly to promote integrated pest	

6. CHEMICAL PRODUCTS	A6.L1.01
Make progress in the assessment of chemical substances and mixtures	
	management and tools that are scientifically proven to improve productivity. • Improving systems for recording, reporting and monitoring and epidemiological assessment of diseases caused by exposure to chemicals. • Identifying highly hazardous substances that may require specific risk management measures (CMR, DE, PBT, vPvB, respiratory sensitisers) and promoting their substitution. • Promoting the use of low-risk substances and products and reducing the use of candidates for substitution. • Promoting environmentally friendly agricultural practices that minimise the use of hazardous chemicals in food production. • Promoting the reduction of the use of plant protection products and biocides, both qualitatively and quantitatively, and in particular with regard to plant protection products consistent with the 50% reduction target of the EU Farm to Fork and Biodiversity 2030 Strategies. • Promoting and collaborating in the establishment of measures to eliminate the most hazardous chemicals for human health and the environment, such as persistent organic pollutants. • Collecting statistical data to identify trends in the use of plant protection products and biocidal products containing active substances of particular concern and those of low risk. • Improving enforcement and participation in European inspection projects. • Strengthening the inspection by the Autonomous Communities of products imported into the EU and their compliance with EU regulations, REACH, etc. • Providing scientific and technical input to the objectives of the Commission's European Green Deal, in particular the Chemicals for Sustainability Strategy, to promote a toxic-free environment and the goal of "zero pollution". • Improving transparency and communication to the public regarding the safety of everyday chemicals by providing information on best practices for limiting exposure and prioritising most-at-risk populations. • Promoting measures to reduce the presence of endocrine disruptors in consumer products and in the environment and the exposure of the population through appropriate legislative instruments for their regulation.
Status	In operation

6. CHEMICAL PRODUCTS	A6.L1.01
Make progress in the assessment of chemical substances and mixtures	
Development	The development of the action is based on continuing and improving the current evaluation of chemical substances and mixtures, including biocidal and phytosanitary products. To this end, involvement in national and international Working Groups and meetings is essential in order to better assess and issue authorisation reports on these substances. In the regulatory field, the Law on Fees and Penalties and the Royal Decree on Biocides will be promoted to provide a legal basis for this evaluation and authorisation of chemical substances. In terms of training, Inspection Projects will be initiated with the Autonomous Communities, training inspectors to carry out this action uniformly throughout the territory and with greater resources to carry it out. The aim is therefore to: - Make progress on the European Review Programme for Biocidal Products and Plant Protection Products. - Participate in the development of the Chemical Sustainability Strategy. - Participate in the development of the endocrine disruptor lists. - Coordinate the inspection projects of the Autonomous Communities in the field of chemical products. - Promote the Biocides Fees and Penalties Law in compliance with its European Regulation. - Draw up the Draft Royal Decree on Biocides, correcting the legislative obsolescence that are currently in force.

6.6. CHEMICAL PRODUCTS		A6.L1.02
National Implementation Plan Update for the Stockholm Convention		
Objective	Protect human health from the risks caused by exposure to chemicals on the market and to which different human populations are exposed directly (workers or consumers) or indirectly (through the environment).	
Description	Updating the Stockholm Convention National Implementation Plan (NIP), which aims to protect human health and the environment from Persistent Organic Pollutants (POPs). The update will include the new POPs: PFOA, its salts and related compounds and Dicofol.	
Responsible parties	Ministry for Ecological Transition and the Demographic Challenge/Sub-Directorate General for Clean Air and Industrial Sustainability	
Collaborators	Ministry for Ecological Transition and the Demographic Challenge, Autonomous Communities, City Councils, Scientific Organisations, Chemical Industry, NGOs and Associations (POPs Technical Group).	
Geographical area	National	
Compliance indicator	Publication of the National Implementation Plan Update for the Stockholm Convention	
Timeline	**2022 – S1**	Drafting of the National Implementation Plan Update of the Stockholm Convention.
	2022 – S2	Consultation with affected sectors through discussion with the POPs Technical Group and public information.
	2023 – S1	Approval and submission of the Stockholm Convention National Implementation Plan Update to the Convention Secretariat and the European Commission.
	2023 – S2	
Financing	MITECO's own funds	
Priority	Commitment-Obligation (O). The Stockholm Convention National Implementation Plan responds to the obligation to update it to include the new POPs incorporated into the Convention in 2019. It must be submitted to the Secretariat by 31st December 2022.	
Related actions	• Promoting and collaborating in the establishment of measures to eliminate those chemicals most hazardous to human health and the environment, such as persistent organic pollutants. • Promoting the substitution and elimination of "new" hazardous chemicals or group of chemicals that pose a high degree of exposure to the population, such as PFASs.	
Status	In operation	

6.6. CHEMICAL PRODUCTS	A6.L1.02
National Implementation Plan Update for the Stockholm Convention	
Development	- Diagnosis of the national situation regarding new POPs (PFOA and Dicofol), throughout their life cycle. Using the information gathered during the national reporting phase. - Drawing conclusions and developing measures to be included in the NIP. - Consulting with the main sectors affected by the incorporation of the new POPs. - Communicating and discussing the update in the POPs Technical Group and public information. - Approval and forwarding to the Convention Secretariat and the European Commission.

6. CHEMICAL PRODUCTS			A6.L4.02
Implementing human biomonitoring strategies			
Objective	Protect human health from the risks arising from exposure to chemicals. Promote the implementation in Spain of human biomonitoring programmes in the general population or in specific population groups, favouring communication, information and the dissemination of information.		
Description	Implementing human biomonitoring strategies as a tool to monitor the relationship between exposure and potential health effects. By doing so, the national structure for human biomonitoring is developed and initiated through the creation of the Interministerial Commission for Human Biomonitoring.		
Responsible parties	SGSASL and ISCIII		
Collaborators	MICINN		
Geographical area	National		
Compliance indicator	Implementation of strategies		
Timeline	**2022 – S1**	First draft of the Draft Order	
	2022 – S2	Start of processing of the Draft Order	
	2023 – S1	Approval and publication in the Spanish Official State Gazette. Constitution of the Commission.	
	2023 – S2	Approval of the first action plan with prioritisation of high impact substances and population groups.	
Financing	€300,000		
Priority	Domino effect (E) and Timeliness (O)		
Related actions	• Contributing to the improvement of public health by assessing the exposure of the population to chemicals. • Prioritising high impact substances and vulnerable population groups. • Establishing exposure reference values for the study population for the prioritised substances. • Establishing guideline health values for the prioritised substances. • Establishing recommendations for action by the population based on results. • Linking biomonitoring campaigns with other environmental monitoring programmes. • Establishing legislative or preventive measures based on evidence from human biomonitoring studies.		

6. CHEMICAL PRODUCTS	A6.L4.02
Implementing human biomonitoring strategies	
Status	In operation
Development	The Ministry of Health has drawn up the first draft of the Draft Order creating the Interministerial Commission on Human Biomonitoring. It is currently being processed and is awaiting publication in the Official State Gazette for its constitution. This Commission will approve the first Action Plan prioritising high impact substances and population groups. Its role will be to implement human biomonitoring strategies as a tool to monitor the relationship between exposure and potential health effects. By doing so, the National Human Biomonitoring Structure is developed and initiated.

Waste

7. WASTE	A7.L1.03

Asbestos monitoring and surveillance

Objective	Minimise the impacts of waste on global health.	
Description	In order to make progress in the control and monitoring of the presence of asbestos in the environment, the aim is to coordinate and collaborate with the plans already in place. The European objective to remove asbestos is set for 2028; therefore, in this sense, national plans are being drawn up to establish the basis for monitoring and surveillance of the presence of asbestos with the aim of protecting the health of workers and the general population. This activity will be carried out within the framework of PESMA's collaboration with these plans and the intention to develop related actions to progress towards the elimination of asbestos on a national basis.	
Responsible parties	Ministry of Health, Ministry of Labour and Social Economy and Ministry of Ecological Transition and the Demographic Challenge	
Collaborators	Autonomous Communities and City Councils	
Geographical area	National	
Compliance indicator	Census of facilities and sites with asbestos including schedules planning their removal.	
Timeline	**2022 – S1**	Publication of Law 7/2022, of 8th April, on waste and contaminated soil for a circular economy.
	2022 – S2	Drawing up a census of installations and sites with asbestos, including a schedule for its removal.
	2023 – S1	Knowing the status of the census.
	2023 – S2	Inspections by the competent authorities of the Autonomous Communities (health, environmental and labour), checking that asbestos has been removed and sent to an authorised manager. Collaboration with the Integral Health Surveillance Programme for Workers Exposed to Asbestos.
Financing	Own funds	
Priority	Domino effect (E) and Commitment-Obligation (C)	
Related actions	• Strengthening the proper management of asbestos waste. • Creating action plans for the safe and comprehensive removal of asbestos by 2028. • Collaborating with the Integrated Programme for the Health Surveillance of Workers Exposed to Asbestos.	

7. WASTE	A7.L1.03
Asbestos monitoring and surveillance	
Status	In operation
Development	The problem of asbestos in buildings and construction sites is a matter of public health, occupational health and environmental impact. Concern over decommissioning is high, which is why the new waste law (Law 7/2022) establishes that each municipality must draw up a census of facilities and sites with asbestos by 10th April 2023 and establish a schedule for its removal. Since 2013, the Evaluation of the Integrated Health Surveillance Programme for Workers Exposed to Asbestos (PIVISTEA) has been published periodically. Since 2014, this evaluation has been carried out every 2 years by the Ministry of Health. On the other hand, great progress has been made in the methodological development for the identification of asbestos in infrastructures and the assessment of its hazardousness. It is hoped that these actions will provide very useful data for the Ministry of Health in terms of surveillance, which will enable the monitoring and coordination of the efforts of the Autonomous Communities and local councils to remove asbestos from the environment. This will be aimed at assessing structures and installations where asbestos is present and assessing exposure. Once these results have been obtained, they can form the basis for safe removal strategies. The aim of this section is therefore to establish the basis for health risk management by understanding and extending the health effects of exposure to asbestos waste. This will enable the development of its priority actions to be approached on a solid foundation and health knowledge.

7. WASTE		A7.L3.01
Monograph on the impact of waste on health		
Objective	Highlight the interest and importance of the main effects that exposure to certain waste can generate and provide information, raise awareness and make the population responsible for the correct management of waste.	
Description	Drafting a specific document on the health impacts of exposure to waste and possible improvements.	
Responsible parties	SGSASL and EASP	
Collaborators	DEMAP and MITECO	
Geographical area	National	
Compliance indicator	Publication of the monograph	
Timeline	**2022 – S1**	Bibliographic research, information gathering, document writing, review and publication.
	2022 – S2	Development of workshops and specific training for professionals.
	2023 – S1	Proposal of dissemination strategies (videos, infographics, talks, etc.) aimed at raising awareness among the general population.
	2023 – S2	Evaluation of outreach strategies to the general population.
Financing	Own funds	
Priority	Domino effect (E), Opportunity (O) and Cost Effectiveness (CE)	
Related actions	• Improving epidemiological surveillance and characterisation of the effects of residues on human health. • Drafting a monograph providing a detailed description of the main impacts of waste streams on health. • Developing informative materials on health risks related to household waste or common waste, aimed at the general population, as well as training and awareness-raising actions channelled through health structures (Health Centres, Health Councils) and community structures (associations). • Identifying preclinical health effects related to contaminants in waste, and creating a register of morbidity and mortality cases more specifically related, according to scientific evidence, to toxic compounds present in different types of waste. • Identifying a list of priority diseases related to exposure to waste and waste management facilities.	
Status	In development	

7. WASTE	A7.L3.01
Monograph on the impact of waste on health	
Development	This monograph is a specific report on the different impacts that exposure to certain waste, as well as their streams and management, can have on human health. It requires a thorough literature review of all related studies and vast knowledge of the state of the art. Once the necessary information is available, a document will be drafted that will include this knowledge, any possible improvements and how to progress with regard to this issue. This report should be reviewed by the agents involved and the different experts on the subject, for its enrichment and correct publication. Following publication of the monograph, a comprehensive public understanding of the state of the impact of waste on the Spanish population will be made publicly available and will serve as a basis for better risk assessment and risk communication to enable the proper development of other related actions. The top priorities to be implemented include: - Developing workshops and specific training for health professionals. - Proposing dissemination strategies (videos, infographics, talks, etc.) aimed at raising awareness among the general population. - Evaluating outreach strategies in terms of their effect on raising public awareness.

Natural Radioactivity

9. NATURAL RADIOACTIVITY		A9.L1.01
Radon Action Plan		
Objective	Reduce exposure to naturally occurring radioactivity from avoidable sources.	
Description	Implementing the Radon Action Plan in response to Directive 2013/59/Euratom to reduce radon exposure in many areas (building, occupational sector, environmental health, etc.).	
Responsible parties	SGSASL	
Collaborators	MITECO, CSN, MITMA and MITES	
Geographical area	National	
Compliance indicator	Implementation of the plan.	
Timeline	**2022 – S1**	Meeting of the Interministerial Working Group and review of the Plan by all stakeholders.
	2022 – S2	Implementation and development of the Plan.
	2023 – S1	Development of the Plan's actions.
	2023 – S2	Development of the Plan's actions.
Financing	Funds of the organisations involved	
Priority	Domino effect (E), Urgency (U), Seriousness of risk (G), Commitment/obligation (C)	
Related actions	• Assessing environmental exposure in the population and its impact on human health. • Appointing a reference group made up of all the competent administrations and research bodies (CSN, MITECO, Industry, CIEMAT, etc.) to advise the Ministry of Health's Environmental Health Commission. • Establishing coordination mechanisms with the Autonomous Communities and Cities and Municipalities, especially in the geographical areas most affected by radon. • Providing information and raising awareness in this area among the local administration and interest groups, and designing a general risk communication strategy, establishing the messages, channels and recipients in such a way that it is clear and credible. • Conducting advocacy campaigns on radon gas measures in priority areas. • Providing information and raising public awareness about natural radon radioactivity and establishing radon-related outreach campaigns, educational and	

9. NATURAL RADIOACTIVITY	A9.L1.01
Radon Action Plan	
	health centres, community networks, etc. • Linking radon risk communication and smoking prevention strategies. • Assessing the health risk geographically and its impact on the population.
Status	In development
Development	There is abundant scientific evidence demonstrating the association between indoor radon exposure and lung cancer. Radon is recognised as a category 1 human carcinogen, which, combined with the fact that a significant number of the current building stock has high radon concentrations, means that radon exposure is considered a public health concern. In this regard, it should be noted that the effects of radon exposure are markedly increased in smokers due to the synergistic effect of radon and tobacco. Council Directive 2013/59/Euratom, of 5th December 2013, establishing basic safety standards for protection against the dangers arising from exposure to ionising radiation, and in particular calls on Member States to develop action plans with the ultimate aim of reducing the risk of lung cancer attributable to radon exposure. In order to comply with Directive 2013/59/Euratom, the Radon Action Plan is being developed to reduce the health effects of indoor exposure to this gas. In its development and implementation, the document aims to understand the magnitude of the problem, reduce exposure and enhance research in indoor environments by estimating radon concentration in indoor environments, mapping, developing a risk assessment to establish reference levels, and consequently establishing corrective and preventive measures, as well as testing and validation measures, and developing a guide for the public. For this purpose, basic information on radon and its health risks is gathered and an analysis of the situation in Spain is presented, including the available information on exposure to the gas.

Electromagnetic Fields

10. ELECTROMAGNETIC FIELDS		A10.L2.02
Creation of the Interministerial Radio Frequencies and Health Commission		
Objective	Creation of the Interministerial Radio Frequencies and Health Commission	
Description	Publishing the new text of the General Telecommunications Law (LGT) has provided for the creation of the Radio Frequencies and Health Commission, whose mission will be to gather scientific information and inform the public.	
Responsible parties	MSAN and MINCOTUR	
Collaborators	MICINN	
Geographical area	National	
Compliance indicator	Publication in the Spanish Official State Gazette of the new text of the LGT.	
Timeline	**2022 – S1**	Coordination with Ministry of Industry, Trade and Tourism
	2022 – S2	
	2023 – S1	
	2023 – S2	
Financing	Current own resources of the Ministries involved	
Priority	Domino effect (E), Timeliness (O), Commitment (C) and Cost Effectiveness (CE)	
Related actions	• Updating RD1066/2001 to include the new ICNIRP guidelines (2020). Developing specific legislation on the level of exposure of the population to ELF EMF that respects EU, WHO and ICNIRP recommendations. • Creating the Interministerial Commission foreseen in the LGT in coordination with the Ministry of Industry.	
Status	In operation	
Development	The Ministry of Health has made proposals on the objectives, composition and functioning of the Interministerial Radio Frequencies and Health Commission. The draft of the new law is subject to parliamentary procedure to discuss the amendments of the parliamentary groups.	

10. ELECTROMAGNETIC FIELDS		A10.L2.04
Update of Royal Decree 1066/2001		
Objective	Improve the management and coordination of the competent administrations in EMF prevention and health protection.	
Description	Publishing the new ICNIRP(2020) guidelines and the need to establish exposure levels for low frequency EMF requires an update of RD 1066/2001 approving the Regulation establishing conditions for the protection of the public radio domain, restrictions on radioelectric emissions and health protection measures against radioelectric emissions.	
Responsible parties	MSAN and MINCOTUR	
Collaborators	MITECO	
Geographical area	National	
Compliance indicator	Publication in the Spanish Official State Gazette of the new text of Royal Decree 1066/2001.	
Timeline	**2022 – S1**	Coordination with the Ministry of Industry, Trade and Tourism and MITECO to agree on the scope and reach of the update of RD 1066/2001.
	2022 – S2	Drafting and initiation of the processing of the Draft RD.
	2023 – S1	Processing and publication of the Royal Decree.
	2023 – S2	
Financing	Current own resources of the Ministries involved.	
Priority	Domino effect (E), Opportunity (O), Commitment (C) and Cost Effectiveness (CE)	
Related actions	• Updating RD1066/2001 to include the new ICNIRP guidelines (2020). Developing specific legislation on the level of exposure of the population to ELF EMF that respects EU, WHO and ICNIRP recommendations. • Creating the Interministerial Commission foreseen in the LGT in coordination with the Ministry of Industry.	
Status	Pending commencement	
Development	The Ministry of Health has made proposals on the objectives, composition and functioning of the Interministerial Radio Frequencies and Health Commission. The draft of the new law is subject to parliamentary procedure to discuss the amendments of the parliamentary groups.	

10. ELECTROMAGNETIC FIELDS		A10.L4.02
Inventory of research projects		
Objective	Promote research and dissemination of the effects of public exposure to RF EMF and ELF in order to maintain reasonable exposure levels.	
Description	In order to base preventive actions on the best scientific evidence, the research centres and units in Spain must be identified in order to have access to their experience and results. Prevention recommendations should use the available information on exposure levels and their effects on health.	
Responsible parties	SGSASL	
Collaborators	MINCOTUR, MICINN, ISCIII, Universities and Research Centres	
Geographical area	National	
Compliance indicator	Preparation of the technical report on the inventory of research activities and results in Spain that are relevant for decision-making.	
Timeline	**2022 – S1**	Preparation of a questionnaire, referral to research centres and units and data collection.
	2022 – S2	Data analysis and interpretation. Drafting of final report.
	2023 – S1	
	2023 – S2	
Financing	Current own resources of the Ministries involved	
Priority	Domino effect (E), Timeliness (O), Commitment (C) and Cost Effectiveness (CE)	
Related actions	• Making an inventory of the research projects underway in Spain and the results obtained. • Identifying and promoting the coordination of existing research centres to use their results for the implementation of effective prevention and information measures on appropriate use of telecommunications products and technologies. • Developing a comprehensive database of related articles published in indexed journals in the field. • Disseminating research results to health professionals, researchers and the general public. • Promoting the creation of a Centre for Biomedical Research in EMF Research Network (CIBER).	
Status	Pending commencement	

10. ELECTROMAGNETIC FIELDS	A10.L4.02
Inventory of research projects	
Development	The Ministry of Health will draw up a specific questionnaire to identify the main research centres and units in Spain on EMF exposure and health effects. Knowledge of the research projects and the results obtained will facilitate the adoption of other actions related to prevention and health protection.

10. ELECTROMAGNETIC FIELDS		A10.L4.06
Conducting studies of exposure to extremely low frequency EMFs (ELF)		
Objective	Promote research and dissemination of the effects of population exposure to ELF EMF in order to maintain reasonable exposure levels.	
Description	Pilot study of ELF EMF exposure levels at selected sites and installations as a preliminary step towards a broader nationwide study of the actual exposure levels of the Spanish population.	
Responsible parties	SGSASL	
Collaborators	MINCOTUR, MITECO, Research Centres, Universities (Castilla-La Mancha), Carlos III Health Institute (National Environmental Health Centre and National Epidemiology Centre), Electromagnetism Institute and REE.	
Geographical area	Selection of a sample of the most appropriate locations and sites	
Compliance indicator	Degree of completion of the pilot study	
Timeline	**2022 – S1**	Identification of the parties involved and meetings to draw up a protocol.
	2022 – S2	Execution of the pilot study and drafting of the technical report.
	2023 – S1	
	2023 – S2	
Financing	Stakeholders' contribution	
Priority	Domino effect (E), timeliness (O), commitment/obligation (C) and cost effectiveness (CE)	
Related actions	• Developing a risk assessment guide on EMF from LF (power transmission lines) to be used as a reference for environmental health reporting on the measurement of exposure levels of the population. • Identifying and promoting the coordination of existing research centres to use their results for the implementation of effective prevention and information measures on appropriate use of telecommunications products and technologies. • Disseminating research results to health professionals, researchers and the general public. • Conducting specific studies on the levels of exposure to 5G-based networks and their health impacts, with data broken down by gender. Conducting studies of exposure to ELF EMFs.	
Status	Pending commencement	

10. ELECTROMAGNETIC FIELDS	A10.L4.06
Conducting studies of exposure to extremely low frequency EMFs (ELF)	
Development	The Ministry of Health will identify and coordinate with the centres and research units in Spain that have experience in the evaluation and measurement of EMF exposure. A Working Group (WG) will be set up to draw up the technical protocol for obtaining exposure data in representative locations and environments. This WG will draft a technical report on the results obtained.

10. ELECTROMAGNETIC FIELDS		A10.L4.07
Analysis of trends in mortality, prevalence and incidence rates for CNS tumours and leukaemia		
Objective	Promote research and dissemination of the effects of public exposure to RF EMF and ELF in order to maintain reasonable exposure levels.	
Description	Proxy indicators such as mortality rates, morbidity and incidence of exposure-related diseases can be used to assess the health impact of EMF exposure. International agencies and committees recommend monitoring trends in CNS tumours and mobile phone use to assess the relationship between them. If a causal relationship exists, incidence rates should show an increasing trend. The same is true for the relationship between leukaemia and exposure to low-frequency EMF.	
Responsible parties	SGSASL	
Collaborators	MINCOTUR, MICINN, ISCIII, REDECAN, INE, Universities and Research Centres	
Geographical area	National	
Compliance indicator	Preparation of the technical report that studies and analyses the evolution of mortality, morbidity and incidence rates of CNS tumours and leukaemia over the last 30 years.	
Timeline	**2022 – S1**	Establishing contacts with the institutions and centres responsible and competent for the collection, analysis and interpretation of data on CNS tumours and leukaemia.
	2022 – S2	Data analysis and interpretation. Drafting of the final report.
	2023 – S1	
	2023 – S2	
Financing	Current own funds of the Ministries involved	
Priority	Domino effect (E), Timeliness (O), Commitment (C) and Cost Effectiveness (CE)	
Related actions	• Monitoring morbidity and mortality rates of NHS tumours and leukaemia, with data broken down by gender. • Studying and analysing the updated prevalence and incidence rates of CNS tumours and leukaemia. Monitoring of the evolution of trends in these rates in the Spanish population with data broken down by age and gender. • Disseminating research results to health professionals, researchers and the general public.	
Status	Pending commencement	

10. ELECTROMAGNETIC FIELDS	A10.L4.07
Analysis of trends in mortality, prevalence and incidence rates for CNS tumours and leukaemia	
Development	In order to complete a correct analysis of the trends in the possible impacts on human health of electromagnetic fields (EMF), such as central nervous system (CNS) tumours or leukaemia, the focus will be on coordination with the institutions and centres responsible and competent for the collection, analysis and interpretation of these data. Finally, these data will be analysed and presented in a report in such a way as to contribute to observing the trend of these impacts and to see if there is any possible correlation with the population's EMF exposure. This will pave the way for progress in this field based on the data and scientific evidence available.

Noise

12. NOISE		A12.L1.01
Integrating the health effects of environmental noise into Strategic Noise Maps and Action Plans		
Objective	Analyse and quantify the impact of noise pollution on morbidity and mortality in Spain and its economic valuation.	
Description	Carrying out tasks, by MITECO, to facilitate the Competent Authorities in the preparation of Strategic Noise Maps and Noise Action Plans the proper application of the dose-effect relationships of different types of environmental noise on health, when assessing the effectiveness of the measures proposed to reduce exposure to noise in the Action Plans of the fourth phase of implementation of the Directive on Environmental Noise Assessment and Management.	
Responsible parties	MITECO	
Collaborators	SGSASL, ENS – ISCIII and the competent body of the Autonomous Communities	
Geographical area	National	
Compliance indicator	Effective implementation of the measure	
Timeline	**2022 – S1**	
	2022 – S2	
	2023 – S1	Development of tasks by MITECO to facilitate the application of dose-effect relations by Competent Authorities.
	2023 – S2	Dissemination of the results of previous work to the competent authorities.
Financing	MITECO's own funds	
Priority	Domino effect (E), seriousness of risk (G), timeliness (O) and commitment/obligation (C)	
Related actions	• Transforming Noise Action Plans into useful tools for improving the noise environment. • Properly integrating the consideration of the health effects of environmental noise into environmental noise assessment and management tools, especially Strategic Noise Maps (SNM) and Action Plans (NAP), by developing guidelines and technical documents. • Achieving the maximum degree of compliance with the obligations of public administrations to assess environmental noise and take action to improve sound quality, through the development of SNMs and NAPs	

12. NOISE	A12.L1.01
Integrating the health effects of environmental noise into Strategic Noise Maps and Action Plans	
Status	Pending commencement
Development	In the timetable established for the development of the fourth phase of implementation of the Noise Directive (END, Directive 2002/49/EC of the European Parliament and of the Council, of 25th June 2002, on the assessment and management of environmental noise), during 2022 the Strategic Noise Maps (SNM) must be drawn up, communicated and reported, and during 2024 the Action Plans (NAP), to be carried out on the basis of the former and taking into account the methodologies established for the dose-effect relationships In Europe (Annex III of the END and RD1513/2005). The tasks to be developed will be carried out in such a way that their results will be useful to the Competent Authorities in the preparation of the Noise Action Plans, within the times established by the schedule indicated.

12. NOISE	A12.L1.04

Simplified methodological framework for the assessment of noise pollution: Revision of Royal Decree 1367/2007 (noise zoning, quality objectives and noise emissions)

Objective	Reduce the population exposed to environmental noise and identify and preserve quiet areas in cities with more than 50,000 inhabitants. Analyse and quantify the impact of noise pollution on morbidity and mortality in Spain and its economic valuation.	
Description	Revising Royal Decree 1367/2007, of 19th October, which implements Law 37/2003, of 17th November, on Noise, with regard to acoustic zoning, quality objectives and noise emissions. This regulates important issues for the protection of citizens' health in relation to noise, including: • Those relating to noise zoning, and the noise quality objectives to be pursued therein, and their enforcement. • Determinations for noise easement zones associated with different noise emitters. • Certain determinations to be considered by urban planning with regard to noise. • Noise emission limit values for specific noise emitters and noise immission limit values for infrastructures. • Certain limitations on the vibrations that can be transmitted by certain acoustic emitters. • Provisions concerning the assessment and calculation of noise indicators for which limitations are established. The work would allow a possible modification of the current royal decree to incorporate the positive aspects derived from the scientific and technical advances made since the approval of the text. Given that this is an area in which different autonomous administrations have extensive experience and development regulations in their territories, which go beyond what is established in the basic regulation, the work will be supported by an ad-hoc Working Group established with these administrations.	
Responsible parties	MITECO and SGSASL	
Collaborators	MITMA and the competent body of the Autonomous Communities	
Geographical area	National	
Compliance indicator	Degree of progress of the work on the revision of the Royal Decree within the Working Group set up for such purpose.	
Timeline	**2022 – S1**	Working Group meetings and work on the revision of Royal Decree 1367. Prior Consultation Period open to the public.

12. NOISE		A12.L1.04
Simplified methodological framework for the assessment of noise pollution: Revision of Royal Decree 1367/2007 (noise zoning, quality objectives and noise emissions)		
	2022 – S2	Working Group meetings and work on the revision of Royal Decree 1367
	2023 – S1	Working Group meetings and work on the revision of Royal Decree 1367
	2023 – S2	Working Group proposals in relation to the possible amendment of Royal Decree 1367/2007.
Financing	MITECO's own funds	
Priority	Domino effect (E), urgency (U), seriousness of risk (G), cost effectiveness (CE).	
Related actions	• Establishing a simplified methodological framework for the assessment of noise pollution and the identification of quiet zones in cities of 50,000 to 100,000 inhabitants. • Adapting the methodologies for calculating the health effects of environmental noise to the reality of Spain, based on detailed studies in the country. • Achieving the maximum degree of compliance with the obligations of public administrations to assess environmental noise and take action to improve sound quality, through the development of SNMs and NAPs.	
Status	Commenced. Until 10/03/2022, Prior Consultation period. MITECO - CAAC Working Group established by the end of 2021.	
Development	The preparation of the possible modifications to be made will be based on serious work and supported by the best scientific and technical evidence and progress. The open period of prior consultations will allow us to determine which aspects are considered of interest to review by different actors from civil society, academia and any other institution not included in the working group, which will contribute to the work undertaken. Similarly, the working group's first meeting has enabled it to identify the issues to be addressed. It is expected that in 2022 and 2023 this work will be continued and progress can be made on the content of possible amendments to the regulation.	

12. NOISE		A12.L1.07
Assessment of the health effects of environmental noise in Spain		
Objective	Improve existing knowledge about noise and its health effects. Reduce the population exposed to environmental noise and identify and preserve quiet areas in cities with more than 50,000 inhabitants. Analyse and quantify the impact of noise pollution on morbidity and mortality in Spain and its economic valuation.	
Description	The evaluation formulas included in Annex III of the END do not adjust to reality in Spain, in particular in relation to the degree of annoyance, as it depends on cultural and social factors. Therefore, there is a margin for adapting these formulations to reality in Spain. To this end, other aspects linked to the effect of noise on health, such as the significance on sleep and night-time rest of noise insulation measures in buildings or the effect on health of noise levels over short periods of time, should be studied in greater depth.	
Responsible parties	SGSASL	
Collaborators	ISCIII, CIBERESP and MITECO	
Geographical area	National	
Compliance indicator	Publication of the study	
Timeline	**2022 – S1**	
	2022 – S2	
	2023 – S1	Commissioning of the study
	2023 – S2	
Financing	Commissioning of the study (€15,000)	
Priority	Domino effect (E), timeliness (O) and commitment/obligation (C).	
Related actions	• Adapting the methodologies for calculating the health effects of environmental noise to the reality of Spain. • Establishing a Working Group on Noise Pollution and Health between MSAN and MITECO. • Analysing and quantifying the effect of noise on morbidity and mortality in Spain according to different age groups, gender and risk groups, depending on the sources of noise. • Analysing the effect of nocturnal noise pollution on sleep. • Estimating the short- and long-term health and economic impact of noise pollution in Spain.	

12. NOISE	A12.L1.07
Assessment of the health effects of environmental noise in Spain	
Status	Pending commencement
Development	The assessment formulae included in Annex III of the END (Environmental Noise Directive) have been developed using information from research conducted in Central and Northern Europe. However, part of the response to noise, particularly in relation to the degree of annoyance, depends on cultural and social factors. There is scope for adapting these formulations to reality in Spain. To do this, first of all, the impacts of short and long-term exposure to noise pollution on the Spanish population's health must be identified, taking into account all the factors involved. In order to make progress in these areas, a Working Group on Noise and Health has been set up between the Ministry of Health and the Ministry for Ecological Transition and the Demographic Challenge. One of the aims of this group is, once the impact of noise on the Spanish population is known, to make a proposal to adapt the formulas of the directive to the reality of the country.

12. NOISE		A12.L2.02
Achieving the maximum degree of compliance of Public Administrations in relation to Environmental Noise		
Objective	Establish links between MSAN and MITECO in relation to noise pollution.	
Description	The objective is to contribute to the reduction of the population exposed to noise by ensuring that the Competent Authorities in Environmental Noise Assessment and Management comply with their obligations to prepare and implement Strategic Noise Maps (SNM) and Action Plans (NAP), which are the main instruments available to those responsible for large transport infrastructures and urban agglomerations to diagnose and intervene in these problems. The use of these instruments, and the real and efficient implementation of the measures to be designed in the Action Plans should, over time, contribute to reducing the noise problems suffered by the population.	
Responsible parties	MITECO	
Collaborators	Competent body of the Autonomous Communities, competent authorities on environmental noise, airport managers, major roads, major railways and town councils responsible for agglomerations.	
Geographical area	National	
Compliance indicator	Degree of compliance with the Autonomous Communities' obligations to report information.	
Timeline	**2022 – S1**	New communication of the declaration of strategic noise mapping units (DF1_5), according to the new European data model.
	2022 – S2	Communication and timely reporting of the results of the Strategic Noise Maps prepared (DF4_8).
	2023 – S1	Communication and timely reporting of the results of the Strategic Noise Maps prepared (DF4_8). Dissemination in the SICA.
	2023 – S2	Communication and timely reporting of the results of the Strategic Noise Maps prepared (DF4_8). Dissemination in the SICA.
Financing	MITECO's own funds	
Priority	Domino effect (E), urgency (U), seriousness of risk (G) and commitment/obligation (C)	
Related actions	• Achieving the maximum degree of compliance with the obligations of public administrations to assess environmental noise and take action to improve sound quality, through the development of SNMs and NAPs. • Enforcing and ensuring compliance with legislation on noise pollution.	
Status	In development.	

12. NOISE	A12.L2.02
Achieving the maximum degree of compliance of Public Administrations in relation to Environmental Noise	
Development	Development is gradual as the commitment of the Autonomous Communities progresses. The task is to encourage, facilitate and improve the way in which the different administrations (municipalities, infrastructure managers and Autonomous Communities responsible for supra-municipal agglomerations) fulfil their obligations to draw up SNMs and NAPs and to develop the actions designed in the latter instruments. For this work, MITECO relies on the professionalism and experience of CEDEX, as well as on the existing tool for the compilation and dissemination of SNMs and NAPs, the Basic Information System on Noise Pollution (SICA), which depends on this Department.

Indoor Environmental Quality

13. INDOOR ENVIRONMENTAL QUALITY		A13.L2.01
Framework for the development of a technical standard on Indoor Air Quality (IAQ)		
Objective	Establish a general regulatory and organisational framework for indoor environmental quality management.	
Description	Developing the key concepts to generate a framework for the methodological development of legislation that establishes the foundations for the assessment and management of indoor air quality.	
Responsible parties	SGSASL	
Collaborators	MITECO, MITMA, competent body of the Autonomous Communities, FEMP and CSN	
Geographical area	National	
Compliance indicator	Publication of the report with the framework for the development of the regulation	
Timeline	**2022 – S1**	Creation of the WG on Indoor Air Quality and Health
	2022 – S2	WG and IAQ expert meetings
	2023 – S1	Establishing the steps to be taken in the development of a technical standard in IAQ
	2023 – S2	Publication of the report with this development framework
Financing	Establishment with own funds	
Priority	Domino effect (E), cost effectiveness (CE)	

13. INDOOR ENVIRONMENTAL QUALITY	A13.L2.01
Framework for the development of a technical standard on Indoor Air Quality (IAQ)	
Related actions	• Developing specific national legislation for indoor environments for the IAQ obligation of buildings. • Evaluating priority pollutants and methods of analysis for inclusion in regulation. • Conducting pre-normative or methodological research to determine other pollutants in indoor air that also affect health. • Establishing reference methods or use those that have been demonstrated to be equivalent for the analysis of contaminants. • Establishing reference values for the health of the general population for the major chemical compounds. • Establishing ventilation criteria for indoor public spaces, both for buildings with natural and mechanical ventilation. • Developing an Indoor Environment Quality surveillance system with MSAN, MITECO, MITMA, competent bodies in the Autonomous Communities and other agents involved to monitor progress and needs in IAQ.
Status	In development
Development	The main objective of the action should be to identify the key concepts and responsible bodies that form part of the conceptual framework of Indoor Air Quality and are fundamental for the correct development of a standard. To this end, a Working Group on Air Quality and Health will be set up with the objectives of determining the development framework to be followed. Key concepts should be defined on what to implement and state legislation should be developed to serve as a framework for the development of legislation on indoor air quality. In order to achieve the correct development of this framework and the subsequent regulation, some points to be studied are proposed, which will be evaluated and expanded by the Working Group: a) Establish reference values for the main pollutants in the indoor environment. b) Determine ventilation criteria necessary to ensure a good indoor environment quality. c) Coordinate an indoor air quality monitoring system with the actors involved. d) Establish working partnerships between different stakeholders to secure funding opportunities so that indoor air quality standards can be implemented effectively. e) Public health experts should ensure mentoring to facilitate evidence-based policy development. f) Expand the availability of bibliography and references in Spanish.

Healthy Cities

14. HEALTHY CITIES		A14.L1.01
Developing healthy local environments		
Objective	Encourage, in the field of urban and rural planning, taking into account the necessary elements to improve the health and welfare conditions of citizens while combating climate change; favouring active life, coexistence, equal opportunities and equity. Enable environmentally more sustainable, socially more inclusive, economically more competitive and healthier environments.	
Description	Strengthening the local implementation of the Health Promotion and Prevention Strategy (EPSP) and the Spanish Network of Healthy Cities (RECS), promoting: a) The adhesion of the Local Entities in Spain to the EPSP, with the subsequent constitution of an intersectoral coordination table and the identification and visibility in the Ministry of Health's 'LOCALIZA salud' application of the community resources/assets available to improve the health and well-being of their citizens. b) The adhesion of Local Bodies in Spain to the RECS. c) Technical support to implement a healthy local environment approach in local authorities.	
Responsible parties	Sub-Directorate General for Health Promotion and Prevention	
Collaborators	Spanish Federation of Municipalities and Provinces (FEMP) and SGSASL	
Geographical area	Local	
Compliance indicator	a. Number of Local Entities adhered to the EPSP with intersectoral coordination table and community resources in the application *'LOCALIZA salud'*. b. Number of Local Entities adhering to the RECS.	
Timeline	**2022 – S1**	a. Technical support to Local Entities in their adhesion to the RECS and the EPSP (and in the constitution of an intersectoral coordination table, and in the identification and visibility of community resources/assets in 'LOCALIZA salud'). b. Maintenance of the 'LOCALIZA salud' application. c. Convention 2022 between the Ministry of Health and the Spanish Federation of Municipalities and Provinces (FEMP) for the promotion of the RECS and the Local Implementation of the EPSP.
	2022 – S2	a. Technical support to Local Entities in their adhesion to the RECS and the EPSP (and in the constitution of an intersectoral coordination table, and in the identification and visibility of community resources/assets in 'LOCALIZA salud'). b. Maintenance of the 'LOCALIZA salud' application. c. Development of actions within the framework of the Convention.
	2023 – S1	a. Technical support to Local Entities in their adhesion to the RECS and the EPSP (and in the constitution of an intersectoral coordination table, and in the identification and visibility of community resources/assets in 'LOCALIZA salud').

14. HEALTHY CITIES		A14.L1.01
Developing healthy local environments		
		b. Maintenance of the 'LOCALIZA salud' application. c. Convention 2023 between the Ministry of Health and the Spanish Federation of Municipalities and Provinces (FEMP) for the promotion of the RECS and the Local Implementation of the EPSP. d. Development of actions within the framework of the Convention.
	2023 – S2	a. Technical support to Local Entities in their adhesion to the RECS and the EPSP (and in the constitution of an intersectoral coordination table, and in the identification and visibility of community resources/assets in 'LOCALIZA salud'). b. Maintenance of the 'LOCALIZA salud' application. c. Development of actions within the framework of the Convention.
Financing	Annual convention between the Ministry of Health and the Spanish Federation of Municipalities and Provinces (FEMP) for the promotion of the Spanish Network of Healthy Cities and the Local Implementation of the Strategy for Health Promotion and Prevention.	
Priority	Timeliness (O), Commitment (C) and Cost Effectiveness (CE).	
Related actions	• Applying the principle of "Health in All Policies" by strengthening intersectoral work and developing health impact assessments ( ) of projects, plans and programmes on urban planning, mobility, housing, etc. with a focus on equity. • Promoting public space allocation measures to allow more space for safe cycling and pedestrian traffic. • Establishing coordination mechanisms with the Autonomous Communities and city councils for the development of actions such as the creation of pedestrian and low-emission zones, traffic reduction, public transport, etc.	
Status	In development	

14. HEALTHY CITIES	A14.L1.01
Developing healthy local environments	
Development	Urban and territorial planning is key to quality of life. With regard to urban planning, different aspects such as mobility, shaded urban spaces, green spaces, air quality, etc., determine the environment and the well-being of its inhabitants. Urban planning and design is therefore of great relevance to health, both in terms of the environment's ability to influence people's choices about healthier lifestyles, and in terms of policies to reduce pollution and mitigate the impact of climate change and its consequences. Health and sustainability therefore share common objectives in the urban environment. The Ministry of Health carries out measures in this respect, in coordination with the Spanish Federation of Municipalities and Provinces (FEMP), both through the Spanish Network of Healthy Cities (RECS), which since its constitution in 1988 has focused its activity on the promotion and protection of citizens' health, in accordance with the principles of action corresponding to the World Health Organisation's "Healthy Cities" project, and through the Strategy for Health Promotion and Prevention of the National Health System (EPSP). This establishes different priority environments for action, including the local environment, in which a local implementation of the Strategy has been established, specifically addressing different actions such as political commitment, intersectoral work to improve health and the identification, visibility and empowerment of community resources that exist in the municipality that can help citizens to improve their health. The local implementation of the Strategy involves the implementation and development of two key actions that must be preceded by the Local Entity's Adhesion to the Strategy, namely: • Establishment of an intersectoral coordination table in the Local Entity, which is established as an instrument or structure to gain health through intersectoral collaboration, and to specify the actions of the Strategy. • Identification of resources for health promotion and prevention in the Local Entity (resource mapping). In order to facilitate the visibility of these resources by citizens, the Ministry of Health provides Local Bodies adhered to the EPSP with a web application called 'LOCALIZA salud'. In order to promote both projects (the RECS and the local implementation of the EPSP), an annual Convention is signed between the Ministry of Health and the Spanish Federation of Municipalities and Provinces (FEMP) for the promotion of the Spanish Network of Healthy Cities and the Local Implementation of the Strategy for Health Promotion and Prevention.

14. HEALTHY CITIES		A14.L1.04
Promoting healthy lifestyles through the creation or rehabilitation of healthy environments		
Objective	Encourage, in the field of urban and rural planning, taking into account the necessary elements to improve the health and welfare conditions of citizens while combating climate change; favouring active life, coexistence, equal opportunities and equity. Enable environmentally more sustainable, socially more inclusive, economically more competitive and healthier environments.	
Description	Creating or rehabilitating healthy environments, within the framework of the Recovery, Transformation and Resilience Plan.	
Responsible parties	SGPSP	
Collaborators	FEMP and SGSASL	
Geographical area	Local	
Compliance indicator	• Annual convention-programmes. • Number of actions carried out in the local environment.	
Timeline	**2022 – S1**	Convention-programme 2022. Implementation of actions by FEMP under the 2021 Convention programme.
	2022 – S2	Implementation of actions by FEMP.
	2023 – S1	Convention-programme 2023. Implementation of actions by FEMP.
	2023 – S2	Implementation of actions by FEMP.
Financing	18,400,000 (Recovery, Transformation and Resilience Plan)	
Priority	Timeliness (O), Commitment (C) and Cost Effectiveness (CE)	
Related actions	• Promoting sustainable multimodal mobility as an alternative to the private car and forms of active mobility (walking and cycling). • Developing and implementing the objectives of the Spanish Urban Agenda (AUE) and fulfilling the commitments made by Spain in relation to the 2030 Agenda that contributes to the achievement of the SDG 3 targets on health and well-being and SDG 11 on sustainable cities and communities. • Establishing coordination mechanisms with the Autonomous Communities and city councils for the development of actions such as the creation of pedestrian and low-emission zones, traffic reduction, public transport, etc.	
Status	In development	

14. HEALTHY CITIES	A14.L1.04
Promoting healthy lifestyles through the creation or rehabilitation of healthy environments	
Development	Under the Recovery, Transformation and Resilience Plan, Component 18 (C18) on renewing and expanding the capacities of the national health system foresees addressing challenges such as vulnerability to the global health crisis or health system transformation in the face of an ageing population and includes among its key objectives "actively promoting health and well-being and preventing illness and dependency throughout our lifetimes". Investment 2 (C18.I2) aimed at "Actions to reinforce prevention and health promotion" aims to reinforce preventive care, particularly focusing on the **promotion of healthy lifestyles and environments.** In this context, the development of actions for the creation or rehabilitation of healthy spaces is proposed. The development of this action has been articulated through the direct award of a grant to the Spanish Federation of Municipalities and Provinces, to reinforce the promotion of healthy lifestyles through the creation or rehabilitation of healthy environments.

4.2 Cross-Cutting Actions

CROSS-CUTTING ACTIONS		AT.L1.01
Conceptual framework of Health Impact Assessment (HIA) and methodological and normative developments		
Objective	Review current assessment procedures and methodologies and develop a Health Impact Assessment protocol to ensure the correct assessment and management of factors that may imply a risk to health in future interventions.	
Description	Developing key concepts to generate a conceptual, legislative and methodological framework in which to apply a Health Impact Assessment in a systematised way, differentiating between urban and rural environments.	
Responsible parties	SGSASL	
Collaborators	MITECO, SGPSP and HIA Working Group	
Geographical area	National	
Compliance indicator	Degree of development of the HIA draft legislative report.	
Timeline	**2022 – S1**	Health Impact Assessment and prioritisation of activities WG meeting
	2022 – S2	Developing the legislative framework for Health Impact Assessment
	2023 – S1	Determination of needs for the elaboration of methodological guidelines
	2023 – S2	Implementation of guidance and training for non-health professionals
Financing	Own funds	
Priority	Domino effect (E), Timeliness (O), Commitment (C), Cost Effectiveness (CE)	
Related actions	• Managing land uses taking into account the interactions between residential areas and certain industrial activities and including them in the HIA. • Applying the principle of "Health in All Policies" by strengthening intersectoral work and developing health impact assessments (HIAs) of projects, plans and programmes on issues such as urban planning, mobility, housing, etc. with an equity approach.	
Status	In development	

CROSS-CUTTING ACTIONS	AT.L1.01
Conceptual framework of Health Impact Assessment (HIA) and methodological and normative developments	
Development	The main objective of the action should be to identify the key concepts and responsible bodies that form part of the HIA conceptual framework and are fundamental for its correct implementation. To this end, the working group of experts and stakeholders led by the Ministry of Health will meet to determine the prioritisation of activities related to the correct implementation of the Health Impact Assessment. Key concepts must be defined on what to implement and state legislation must be developed to serve as a framework for the development of Health Impact Assessment. This will also facilitate cooperation and funding for the development of a methodological guide that systematises the application in plans, programmes and policies. In order to achieve the correct implementation of the Health Impact Assessment a number of tasks are proposed to be accomplished. These include: a) Designing a Health Impact Assessment, generating sufficient resources and organisational commitment to ensure correct and systematic implementation. b) Incorporating Health Impact Assessment into the current legislative framework of Environmental Impact Assessment. Incorporating its debate within the political-institutional agendas with an intersectoral approach. c) Establishing partnerships between different stakeholders to secure funding opportunities so that the Health Impact Assessment process can be effectively implemented. d) Public Health experts should ensure mentoring to facilitate the implementation of Health Impact Assessments by non-health Professionals. e) Expanding the availability of bibliography and references in Spanish. f) Designing training programmes to support the development of the necessary skills for the development of Health Impact Assessments.

CROSS-CUTTING ACTIONS		AT.L3.01
Informative material on environmental health risks for the general public		
Objective	Promote research, training and risk communication on adverse health effects of environmental factors.	
Description	Creating and disseminating informative material on all the thematic areas that make up the PESMA to raise awareness among the general public of the environmental risks to their health and the measures they can take.	
Responsible parties	SGSASL, MITECO	
Collaborators	SGPSP	
Geographical area	National	
Compliance indicator	Development of material and impact on social media and other means of dissemination	
Timeline	**2022 – S1**	Selection of priority messages and elements to disseminate in each thematic area
	2022 – S2	Creation of informative material and dissemination strategies
	2023 – S1	Dissemination of informative material
	2023 – S2	Dissemination of informative material and impact assessment
Financing	€60,000 in creativity and dissemination through own means	
Priority	Domino Effect (E) and Cost Effectiveness (CE)	
Related actions	This measure responds to the actions included in the transversal intervention line of Risk Communication.	
Status	Pending commencement	
Development	In order to carry out a successful campaign to raise awareness of the risk that the environmental factors included in the PESMA have on human health, the key points that can be most effective in achieving this objective and protecting people's health will be identified. To this end, a joint communication strategy will be implemented so that the synergy between the messages is greater than the individual dissemination of each issue. The target audience for the informative material to be created will be the general Spanish population and will include both the most relevant factors that can affect their health and the actions they can take to reduce the risk, either individually or by contributing to the improvement of the environmental situation.	

	Once this series of informative material has been developed with this approach, the best strategy for its dissemination will be established in order to achieve the proposed objective. This includes the media, registration, timing and all the elements to be taken into account for effective communication. Finally, with the means of the Ministry of Health, this material will be disseminated as planned. Another very important point following this action is the evaluation of the impact and effectiveness of this communication strategy. This will be measured with specific communication indicators, but also through the PESMA outcome indicators to monitor its impact on the health of the population. On the other hand, the PESMA tool is intended to provide support and backing for dissemination actions carried out by other administrations. For example, in the case of chemical products, risk communication actions will be carried out jointly with MITECO. These include: - Raising public awareness of the risks associated with exposure to chemicals. The development of this action includes the production of a collection of infographics aimed at the general public to communicate and raise awareness of the risks associated with exposure to chemicals, proposing actions to reduce this exposure. The dissemination of these infographics will be promoted through online resources: through the websites of public institutions, environmental organisations, consumer associations, etc.; dissemination will also take place through the social networks of these organisations. Communication will be tailored to each identified audience, both in its content and in the channels used to disseminate it. Finally, the action includes the dissemination of knowledge on sustainable chemistry, through a section on the MITECO website. - Information and awareness-raising on mercury. Following the ratification of the Minamata Convention at the end of 2021, Spain must create and communicate informative content on mercury: brochures, publications on MITECO's social networks, presentations, etc. - Information and awareness-raising on POPs/PFAS. Development of informative content on POPs/PFAS (brochures, publications in MITECO's social networks, presentations, etc.). There will be specific materials for industry on substances belonging to PFASs that will be regulated by the Stockholm Convention in the future: PFHxS and long-chain PFCAs. - Information and awareness-raising on the impact of waste on health. - Information and awareness-raising on the different risks within the framework of the Summer Plan. The development of this action contemplates the production of different informative material in which all the possible risks associated with the framework of the Summer Plan are included. The different campaigns to be carried out will include informative content on the effects of extreme temperatures on health, protection against solar radiation, prevention of accidents in the aquatic environment, precaution against jellyfish stings, prevention of excessive temperatures at work, poisoning in summer, among

	others. The informative actions will include the production of different infographics, publications on social networks, etc., as well as the dissemination through the Ministry of Health's website of the National Plan of preventive actions on the effects of excessive temperatures on health. - Campaigns on swimming pool risks. - Information and awareness-raising on the health synergies of radon and tobacco exposure. Due to the association between radon and tobacco, developing a joint communication strategy to inform and raise awareness of the synergistic effects of radon and tobacco on the development of lung cancer is considered to be a cost-effective and efficient opportunity. Thus, both within the National Radon Action Plan and the Comprehensive Plan for Smoking Prevention and Control 2022-2025, a coordinated communication/information action to be developed between the SGSASL and the SGPSP consists of the design of simple materials (infographics, information leaflets, etc.) on how to protect your family from radon and how dangerous smoking combined with radon exposure is. The idea is to disseminate these materials to the Autonomous Communities and municipalities at special risk in order to provide information and to serve as support material for small informative talks. Furthermore, it is proposed to carry out a publicity campaign throughout 2023 at the level of the Ministry of Health, which will jointly address the problem of radon and tobacco consumption, and which will be useful in raising awareness among the target population to stop smoking.

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Training material for professionals on environmental health hazards		
Objective	Promote research, training and risk communication on adverse health effects of environmental factors.	
Description	Creating and disseminating training material on all the subject areas that make up the PESMA to instruct professionals on the environmental risks in which they are involved and the measures they can adopt in the performance of their work activity.	
Responsible parties	SGSASL	
Collaborators	SGPSP	
Geographical area	National	
Compliance indicator	Creation of material and dissemination and training actions	
Timeline	**2022 – S1**	Selecting priority messages and elements to be addressed in each subject area
	2022 – S2	Creating training material and teaching strategies
	2023 – S1	Conducting trainings and dissemination of training material
	2023 – S2	Conducting trainings, dissemination of training material and evaluation
Financing	€15,000	
Priority	Domino Effect (E) and Cost Effectiveness (CE)	
Related actions	This measure responds to the actions included in the cross-cutting line of action on training and risk communication.	
Status	Pending commencement	
Development	In order to properly train related professionals on the environmental factors included in the PESMA which pose a risk to human health, the key points that may be most effective or have priority to achieve this objective and protect the health of people and workers will be identified. To this end, a joint training strategy will be implemented so that the synergy between them is greater than separate training. The training material to be created will be aimed at professionals related to the topics covered in the PESMA and will include the most relevant factors that can affect their health in the performance of their activity, the health of the general population and the actions they can take to reduce this risk, either by reducing exposure to the risk or by contributing to the improvement of the	

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Training material for professionals on environmental health hazards	
	environmental situation. Once this series of training material has been developed, the best strategy for achieving the proposed objective will be established. At this point, different ways of training will be assessed, whether they are courses, conferences, credits, etc. and all the elements to be taken into account for effective training. Finally, using the Ministry of Health's resources, these training sessions will be carried out as planned. Another very important point following this action is the evaluation of the impact and effectiveness of this training strategy. This will be measured by the assessment of the professionals participating in them, but also through the PESMA outcome indicators in order to monitor their impact on human health. As with the previous action, this one constitutes a framework under which training actions will be developed in collaboration with other administrations. For example, with MITECO, training material will be prepared on: - Professional training on water risk assessment and management strategies. Over the next few years, the aim is to provide extensive professional training in the field in order to establish a solid foundation on which to develop the rest of the related actions. With the water risk assessment and management strategies correctly established in the Water Safety Plans (WSP), training will be provided, both face-to-face and telematically, to health authority professionals and operators. Participants can be from the central and regional administrations or from the private sector. - Awareness-raising and training on the risks associated with exposure to chemicals. Information days will be organised for the general public and the media on this issue. - Information and awareness-raising on mercury After the ratification of the Minamata Convention at the end of 2021, Spain must hold an information day with all the agents involved (Administration, private sector, NGOs, scientists...) informing them about potential sources of mercury and the presence of mercury in the environment. - Information and awareness-raising on POPs/PFAS Awareness-raising days and webinars/training days will be organised.