

The "State of Environment Report - Wallonia 2017" (SOERW 2017) presents an assessment of the environmental situation and performance of Wallonia through a compilation of environmental, socio-economic, administrative and health indicators. This latest publication is part of a series of reports on the state of the Walloon environment that have been published regularly for 35 years¹. The diversity of the data collected, their monitoring over time, their validation, processing, analysis and dissemination make these reports remarkable documents in Wallonia.

A CONCISE OVERVIEW OF COMPLEX PROBLEMS

The reports on the state of the Walloon environment are based on the analysis of indicators that reflect as objectively as possible the reality of a given phenomenon in the form of graphics or maps, based on a set of quantitative or qualitative data which is aggregated into condensed information. These indicators facilitate the understanding, assessment and monitoring of complex phenomena, make it possible to identify the factors at play and they provide, where appropriate, elements which assist in decision-making. The presented assessment is not limited to the state of environmental components. It pertains more broadly to a set of parameters that influence this state (e.g. the use of resources, production methods and consumption patterns) or result from it (e.g. environmental and health impacts, management measures and remedial actions).

Thanks to broad dissemination, the reports on the state of the Walloon environment enable the public to have access to a vast amount of environmental information. In this sense, they are regarded as active elements of information (Art. D.20.16.d of Book 1 of the Environment Code) and help in the implementation of the Aarhus Convention, which is aimed, *inter alia*, at improving access to environmental information.

A KEY TOOL IN THE PROCESS OF CONTINUOUSLY IMPROVING THE STATE OF THE ENVIRONMENT

A procedure for the planning of environmental policies has been implemented in Wallonia since 1994 *via* the Decree of 21/04/1994, which is included in Book 1 of the Environment Code (Art. D.32 to D.36). According to this procedure, reports on the state of the Walloon environment constitute a support for consultations and discussions involving the Economic and Social Council of Wallonia (*Conseil économique et social de Wallonie - CESW*) and the "Environment" pole, a consultative body replacing the Walloon Environment Council for Sustainable Development (*Conseil wallon de l'environnement pour le développement durable - CWEDD*)². These exchanges give rise to the drafting by the "Environment" pole of a summary note and a prospective note, which may include suggestions in terms of preventing and combating

environmental damage. These documents are submitted to the Walloon Parliament, which takes a decision by means of a resolution, on the possible orientations to be taken. The whole process transforms the presented indicators into tools to help assess and monitor the full range of environmental policies, which may also highlight the need to review or implement new measures.

A COMPILATION OF REFERENCE DATA

The structure and content of SOERW 2017 has been developed in such a way that reference data can be supplied to national and international environmental databases and reports, including those of the European Environment Agency (EEA). The choice of indicators presented is therefore largely based on internationally recognised sets of indicators (EEA, EUROSTAT, OECD, WHO, etc.). Other indicators have been added to reflect specific features of the Walloon context.

QUALITY, CONSTRAINTS AND LIMITATIONS

The quality of indicator-based interpretations always depends on the quality of the source data used. In most cases, extra efforts are made each year by data managers and their users to improve the completeness and accuracy of the information provided.

Moreover, the development and calculation of indicators is based on a very large volume of data, some of which can only be used after numerous stages have elapsed (collection, verification, processing, aggregation, validation, etc.). This results in a time lag between the reference dates of data (specified in texts, figures, tables or maps) and the date of publication of the report. The data presented in this edition are generally prior to 31/12/2016. However, the time lag can be several years. This is particularly the case for data based on surveys, taxation and/or reporting forms, data from regional models and inventories, or composite indicators based on multiple data sources. This situation does not always make it possible to report on the most recent developments. It should be noted that, at times, the choice of a common year of comparison requires the use of historical data, even when more recent data are available. This is typically the case if we want to compare the values of an indicator for Wallonia, Belgium and the European Union, while these values are not updated every year.

The holistic approach to information through a limited number of indicators has undeniable advantages, but nevertheless has limitations. No single environmental issue can be reduced to the aspects highlighted by the selected indicators alone. In addition, the spatial and temporal aggregation of the data required to calculate them can mask particular phenomena, such as seasonal or local variations, for example. It would therefore be inappropriate to draw any

^[1] Thematic monographs since 1982. Legal obligation to publish reports on the state of the Walloon environment since 1987. | ^[2] Decree of 16/02/2017.

conclusions other than an overall trend at the regional level. It should be noted that the possible specific limitations of each indicator are specified in the online methodological fact sheets.

STRUCTURE OF THE INFORMATION

The information is presented in the form of fact sheets that each address a different environmental issue, respecting the following general structure:

- context and/or environmental issues;
- summary of the essential elements: state of play and trends, explanatory factors, policies pursued and prospects;
- explanatory notes, legal and bibliographical references, possible references to maps or other fact sheets;
- indicator(s) (graph(s), table(s) or map(s)).

These fact sheets are supplemented by "Focus" sheets, indicated by the pictogram  on the upper banner and identifiable by their acronym. These are intended to present data whose innovative nature or limited scope in time (*ad hoc* studies) or space (sub-regional scale) do not allow them to become indicators in their own right.

SOERW 2017 consists of seven parts. Following the physical, socio-economic and institutional contextual elements that structure the Walloon environment in one way or another (part 1), the analysis focuses on a number of environmental pressures linked to land use planning (part 2), the use of natural resources (part 3) and the production methods and consumption patterns presented by sector

(agriculture, energy, industry, transport, the tertiary sector and households) (part 4). The major components of the environment (air and climate, water and the aquatic environment, soils, fauna, flora and habitats) are then examined (part 5), along with certain links between the environment and health (part 6). Finally, elements of environmental management (monitoring compliance with environmental legislation, transversal and sectoral measures for various objectives, environmental quality management and waste management) are presented (part 7). At the end of the document, an Atlas section (part 8) presents all the maps to which the fact sheets refer, with references from the maps to the sheets in order to facilitate cross-referencing.

Parts 2 to 7 are framed by an introduction and a conclusion, including summary tables presenting the key message of each of the fact sheets and the assessment of the status and trend in question. For a more nuanced analysis, the information provided in these very brief overviews should be supplemented by the information presented in the fact sheets.

ASSESSMENT OF THE STATUS AND TREND

The relevant status and trends observed using the indicators are assessed for their environmental implications using the categories presented in the table below.

LABELLING OF ASSESSMENT CATEGORIES	PICTOGRAM
Favourable status/Trend towards improvement	
Favourable status/Overall stable trend	
Favourable status/Trend towards deterioration	
Favourable status/Assessment of trend not-relevant or not achievable	
Slightly unfavourable status/Trend towards improvement	
Slightly unfavourable status/Overall stable trend	
Slightly unfavourable status/Trend towards deterioration	
Slightly unfavourable status/Assessment of trend not-relevant or not achievable	
Unfavourable status/Trend towards improvement	
Unfavourable status/Overall stable trend	
Unfavourable status/Trend towards deterioration	
Unfavourable status/Assessment of trend not-relevant or not achievable	
Assessment of status not-relevant or not achievable/Trend towards improvement	
Assessment of status not-relevant or not achievable/Overall stable trend	
Assessment of status not-relevant or not achievable/Trend towards deterioration	
Assessment of status not-relevant or not achievable/Assessment of trend not-relevant or not achievable	

The assessment of a given status is based on a comparison of the current situation at a reference level which might be, depending on the issue considered:

- a value not to be exceeded (ceiling, limit value, etc.), as defined in Walloon or European legislation;
- a value to be achieved within a given time (target value, objective, etc.), as defined in Walloon or European legislation, or formulated in guidance documents (Plans, Programmes, Regional Policy Declaration (*Déclaration de politique régionale*), etc.);
- a guide value established by a reference body (WHO, etc.);
- a value referenced in scientific literature, duly documented.

In most cases, it is the proportion of the indicator values (e.g., the proportion of the territory or of all of the monitoring sites) affected by a discrepancy between the current situation and the reference level considered which determines the assessment category to be assigned. If this proportion is close to zero, the status is considered favourable. If it is less than 25%, the status is considered slightly unfavourable. Above 25%, the status is considered unfavourable.

For certain issues, the status is assessed by referring to a dynamic which needs to be achieved. This is typically the case when assessing the eco-efficiency of given sectors, whose situation is judged to be even more favourable since there is a decoupling between the economic activity and the pressures exerted on the environment: an unfavourable situation in the absence of decoupling, a favourable situation in the case of generalised decoupling, and not assessable in the case of decoupling for only part of the pressure indicators.

Where the current status is linked to economic factors rather than to measures taken to improve environmental quality, compliance with the benchmark level is qualified in the supporting commentary. This is the case, for example, when reductions in air emissions are linked to a decline in economic activity.

The assessment of trends is based on a comparison of the current situation with that of previous years, with the number of years taken into account depending on the temporal variability of the data in question. Generally, this is a period of at least 10 years.

At times, the assessment of a status or trend is not feasible because of lack of a reference level, a lack of information, a change in the methodology, interruptions to the time series, or because various factors evolve in two different directions and it is not possible to make an unequivocal judgement on the environmental implications. In some cases, it is not relevant to the extent that the indicators currently available are not directly interpretable in terms of the state of the environment, its improvement or deterioration. The

indicators relating to the monitoring of compliance with environmental legislation, for example, are a case in point: the number of administrative acts carried out only indirectly reflects actual violations of environmental legislation.

DESIGNED FOR TRANSVERSAL READING

So that it remains concise and fulfils its function as a statistical data reporting tool, SOERW 2017 inevitably presents information in a segmented structure. Although the document is used to facilitate more in-depth analyses of the environmental situation in Wallonia or serve as a decision-making tool, it is necessary to read all of the fact sheets transversally, which cover a given issue. Reading in this way is facilitated by cross-referencing between fact sheets and, to a certain extent, by the links that the introductions and conclusions of each section make it possible to highlight. Such cross-reading makes it possible to integrate into the analysis certain elements of the responses which have been implemented to limit the environmental impacts of situations judged unfavourable from an environmental perspective. This is all the more justified if the indicators relate to fixed situations, which are highly unlikely to change due to characteristics which are specific to Wallonia (climate, nature of the soils, topography, etc.) and irreversible structural or societal factors (heavy industrial past, increasing population density, high fragmentation of the territory, very busy transit area in the heart of Europe, etc.).

For example, if we wish to analyse the environmental impacts of agricultural activities, it is necessary to put into perspective certain damage associated with the intensification of the agricultural sector (e.g. nitrate content in groundwater: fact sheet WATER 13; pesticides in groundwater: fact sheet WATER 14, etc.) with other aspects which indicate a favourable evolution (development of organic farming: fact sheet AGRI 4; reduction of inputs: fact sheet AGRI 5, AGRI 6 and AGRI 7, etc.) or report on measures taken (increasing participation in agri-environmental programmes: fact sheet AGRI 10; the management of effluents and compliance with soil binding rate: fact sheets AGRI 8 and AGRI 9; the cross-compliance of agricultural aids: fact sheet CONTROL 4, etc.). In another area, a summary analysis of the state and evolution of water resources may lead us to conclude that the situation is favourable if we limit ourselves to quantitative aspects (water abstractions that do not induce water stress: fact sheets RES 2 and RES 3) whereas the findings are more mixed if qualitative aspects are included in the analysis (the significant proportion of water bodies in a bad status: fact sheet WATER 3; liabilities in terms of sediment management: fact sheet WASTE 9).

CHANGES COMPARED TO EOW 2014

The "Environmental Outlook for Wallonia-Digest 2014" (EOW 2014)³ included 90 fact sheets and 33 maps. The more extensive SOERW 2017 includes 164 fact sheets and 60 maps. Its structure and format are similar to the "Environmental Outlook for Wallonia-Digest 2010" (TBE 2010)⁴. The introductions and conclusions offer more detailed analysis than in EOW 2014. The title "State of Environment Report - Wallonia" (SOERW) was chosen for its consistency with the legal obligations of the Environment Code and the Aarhus Convention (environmental information).

From one edition to another, the indicators relating to certain issues may undergo evolutions or modifications which hinder a strict comparison with the previously presented indicators. It should be noted that these changes do not prevent the monitoring of phenomena over time, since they are applied to all data in order to provide a new and complete time series in the fact sheets in question.

In most cases, these changes are intended to improve the quality of the information or its presentation. Sometimes, changes are made necessary by the evolution of European indicators or by new legal provisions. In some cases, the indicators cannot be updated due to a lack of available

data (collection of data on a multi-annual basis for slowly-evolving phenomena, a lack of financial resources for updating them, loss of expertise in managing databases, etc.).

THE STATE OF THE WALLOON ENVIRONMENT ONLINE

In addition to SOERW 2017, all the reports on the state of the Walloon environment and the associated documents (source data, figures, maps, case studies and study reports, methodological sheets) can be consulted online and downloaded at:

<http://etat.environnement.wallonie.be>

In the near future, the online dissemination of information on the state of the Walloon environment will be significantly enhanced, in order to allow the continuous publication of indicators calculated on the basis of the most recent available data. This change will go hand in hand with a transition to a more interactive mode of communication.

^[3] SPW - DG03 - DEMNA, 2015 | ^[4] SPW - DG03 - DEMNA, 2011