Article 17 biogeographical assessments - Methodology

Methodology of assessments under Article 17 of the EU habitats directive 2019-2024.

Contents

1. Article 17 reporting (Habitats Directive)

Article 17 of the Habitats Directive requires that Member States regularly prepare and submit reports on progress made in implementing the directive, using a format agreed by the Habitats Committee. These include habitats and species which are threatened to disappear in the EU, have a small natural range, or serve as exemplary illustrations of Europe's nine terrestrial biogeographical regions (i.e. Alpine, Atlantic, Black Sea, Boreal, Continental, Macaronesian, Mediterranean, Pannonian, Steppic) and five marine regions (Marine Atlantic, Marine Baltic, Marine Black Sea, Marine Macaronesian, Marine Mediterranean). Concerned species and habitats span the entire territory of the MS, often extending beyond the Natura 2000 network. For the period from 2019 to 2024, explanatory notes and guidelines were published. Relevant material can be found in the reference portal for Art. 17 reporting https://cdr.eionet.europa.eu/help/habitats_art17 . Article 17 reporting by the Member States (MS) serves to gather information and assess the conservation status of these species and habitats within each biogeographical and marine region per MS. Reported data is used to derive conservation status and trends at the EU biogeographical level following the methods detailed in this document.

2. Assessment of Conservation status at EU level

The Habitats Directive reporting requires Member States to inform on the conservation status of habitats and species listed in the Annexes to the Directive. **Conservation status is the overall assessment of the status of a habitat type or a species at the scale of a Member State's biogeographical or marine region**.

2.1. Favourable conservation status

The assessment of the conservation status of a habitat type or species is related to the concept of Favourable conservation status. Favourable conservation status is the overall objective to be reached for all habitat types and species of Community interest (i.e. the habitats and species listed in Annexes I, II, IV and V of the Directive) and it is defined in Article 1 of the Habitats Directive. It can be simply described as **a situation where a habitat type or species is prospering (in both quality and extent/population) and with good prospects to continue to do so in the future**. The conservation status objective of the Directive is defined in positive terms, oriented towards a favourable situation, which needs to be defined, reached and maintained. It is therefore aimed at achieving far more than trying to avoid extinction.

The conservation status of a species in the Habitats Directive (Article 1(i)) will be taken as 'favourable' when:

- *population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats; and*
- *the natural range of the species is neither being reduced nor is likely to be reduced*
- *there is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.*

The conservation status of a habitat in the Habitats Directive (Article 1(e)) will be taken as 'favourable' when:

- *its natural range and areas it covers within that range are stable or increasing; and*
- *the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and*
- *the conservation status of its typical species is favourable as defined in (i);*

The agreed method for the evaluation of conservation status assesses separately each of the parameters of conservation status (Table 2.1), with the aid of an evaluation matrix, which is a part of the report format approved by the Member States, and then combines these assessments to give an overall assessment of conservation status.

Table 2.1 Parameters for the conservation status assessment of species and habitat types

Parameters for the conservation status assessment of species	**Parameters for the conservation status assessment of habitat types**
Range -range area -trend (over last 12 years) -favourable reference range	Range -range area -trend (over last 12 years) -favourable reference range
Population -population size -trend (over last 12 years) -favourable reference population	Area -area size -trend (over last 12 years) -favourable reference area
Habitat for the species -sufficiency and quality -trend (over last 12 years)	Structure and functions -area in good/not good condition -trend of habitat area in good condition (over last 12 years)
Future prospects	Future prospects

Table 2.2 Use of the parameters to assess the overall conservation status at Member State level.

Parameter	**Conservation Status**			
	Favourable ('green')	**Unfavourable – Inadequate ('amber')**	**Unfavourable - Bad ('red')**	***Unknown (insufficient information to make an assessment)***
Overall assessment of CS [15]	All 'green' OR three 'green' and one 'unknown'	One or more 'amber' but no 'red'	One or more 'red'	Two or more 'unknown' combined with green or all "unknown'

2.2. EU level assessment

The EU assessment for habitats and species is carried out by combining Member States' data. For parameters such as range, area and population, it is possible, at least in theory, to sum the Member State values and use the conservation status evaluation matrix. However, this is not possible for qualitative parameters such as future prospects or in cases where data are missing or are incompatible (e.g. population sizes reported using different units). Here, Member States' reports are brought together using an agreed, standardised methodology outlining the different parameters and data sources.

Where a habitat or species only occurs in one country within a region, the EU assessment for the region is the same as the Member State assessment. Similarly, when each of the Member States in which a species or habitat is present has reported the same evaluation, this value is also assigned to the EU regional assessment. This is the case for approximately half of the habitats and species.

Where it was not possible to use the countries' background data directly, the overall assessment of the conservation status for each biogeographic or marine region is achieved by weighting the different parameters to reflect the status and proportion of the habitat type or species present in each Member State and biogeographical/marine region, while taking into account the data provided by Member States. Where possible, the four parameters are evaluated individually, and then combined to provide a regional assessment using the same method as that used by the countries, based on the assessment matrix in the report format[2]. Table 2.3 below indicates the preferred weighting method for each.

Where a weighting has to be used over the use of countries' data, the final classification for each region is based on thresholds applied in the same way for all the parameters assessed, and in a set order (see Table 2.4). Although these thresholds are arbitrary, trials showed that changing them made little difference to overall conclusions. The different methods are described further in section 2.3 (Aggregation methods for EU assessments) below.

Table 2.3 Weighting of parameters for assessment of overall conservation status

Order of preference	Parameters for habitats status	Parameters for species status
1st	Surface area (from tabular data)	Population (from tabular data)
2nd	Area (from spatial data, 10 km x 10 km grids)	Area (from spatial data, 10 km x 10 km grids)
3rd	Range (from tabular data)	Range (from tabular data)

[2] EC 2022 "Reporting format referred to in Article 17 of Directive 92/43/EEC (Habitats Directive) for the period 2019–2024". Available at https://cdr.eionet.europa.eu/help/habitats_art17/Reporting2025/Art.17%20report%20format%202019-2024.docx/

Table 2.4 Criteria for classification of conservation status of habitats and non-bird species

If…	… the habitat/non-bird species is considered…
The proportion of a habitat/non-bird species reported as 'unfavourable-bad' is greater than or equal to 25%	**Unfavourable-Bad**
The proportion of a habitat/non-bird species reported as 'favourable' is greater than or equal to 75%	**Favourable**
The proportion of a habitat/non-bird species reported as 'unknown' is greater than or equal to 25%	**Unknown**
Any other combination applies	**Unfavourable-Inadequate**

The trend of the overall conservation status allows more subtle changes (improvement or deterioration) of the unfavourable categories to be identified. The reported trend of the overall conservation status by the Member States can be weighted using the same methods as used for the assessments of the biogeographic regions.

[3] Article 17 web tool: https://nature-art17.eionet.europa.eu/article17/reports2012/

2.3. Aggregation methods for EU assessment

Methods to assess conservation status of habitats and species at regional level (biogeographical and marine) were developed for the 2001-2006 report for use where a habitat/species occurs in two or more MS in a region with varying assessments. These were decided after considering several possibilities and having discussed this topic with the Habitats Directive Scientific Working Group in 2007-2008. All methods are based on data and conclusions from the original MSs reports. The same methods were used for the 2013-2018 report. For the period 2019-2024 some automatic filling of EU assessments was implemented. The choice of the assessment method will depend on data availability whereas the automatic filling on the similarity of conclusions among the MS.

Method 0EQ: In some cases, all the MSs within a region may have reported the same conclusion for a parameter. Here, this conclusion will also be the EU conclusion for the parameter.

Method 0MS: In some cases, there is only one MS within the region. The MS assessment will also be the EU assessment.

Method 1: Aggregating data from MS reports for each parameter and using the evaluation matrices (see chapter 2.5 below) from the report format; this can be implemented for the parameters range, population (of a species) and area (of a habitat) and structure and functions, but is often not possible due to data constraints.

Method 2: Calculating the weighted average of the conservation status of individual parameters. Weighting options and thresholds used by the three methods are provided above (tables 2.3 & 2.4 above).

Once the status of each of the 4 parameters has been assessed using methods 0EQ, 1 or 2, the overall status is calculated by using the rules given in the last line of the evaluation matrices (table 2.2 above).

It is probable that in some cases no regional assessment will be possible; these should be noted

as ‘unknown’.

Method 3: Calculating the weighted average of MS overall conservation status assessments. This method should only be used when no other method is possible.

Table 2.5 below gives a detailed explanation of each method code used in the tool and when each should be used (in terms of data availability and feature type).

Table 2.5 Codes & explanations used for assessment methodologies in the tool.

Code	Meaning
0EQ	Conclusions for a parameter are the same for all MS within the region
0MS	The habitat or species only occurs in one MS within the region so, unless there are good reasons, the MS assessment is also the EU regional assessment
1	Parameter assessed using the evaluation matrix after summing the MS data. This should only be used for range, population (species) and area (habitat).
2	Parameter weighted and all three different versions of weighting conclude on the same conservation status assessment. This is used only in case of prefilled conclusions.
2XA	Parameter weighted by area of the coverage from XML data (habitats only)
2XP	Parameter weighted by population from XML data (species only)
2GD	Parameter weighted by area of distribution from GIS data
2XR	Parameter weighted by range from XML data
3XA	Overall conclusion weighted by area from XML data (habitats only)
3XP	Overall conclusion weighted by population from XML data (species only)
3GD	Overall conclusion weighted by area of distribution from GIS data
3XR	Overall conclusion weighted by range from XML data
MTX	Overall conclusion assessed from assessments using methods 1 or 2 of the 4 parameters, using the last row of the evaluation matrix (only used for overall Conservation Status)

To note: Within Methods 2 & 3 there are multiple possibilities based on the data available. However, only one of these possible choices can be used within a single assessment e.g. it is not possible to mix methods 2XA and 2XR when evaluating one habitat type in one region (i.e. one assessment line).

For the period 2019-2024 a prefilling of EU biogeographical assessments was implemented based on specific criteria:

- conclusions of parameters where data only from one MS is available (Method 0MS)
- conclusions of parameters where all MS have the same conclusion (Method 0EQ)
- conclusion of parameters where the three weighting versions of method 2 (Methods 2XA,

2XP, 2GD, 2XR) give the same conservation status. Where this prefilling is done, the method indicated will be simply Metod 2 (no indication of version)

- the overall conservation status, where feasible, based on method MTX

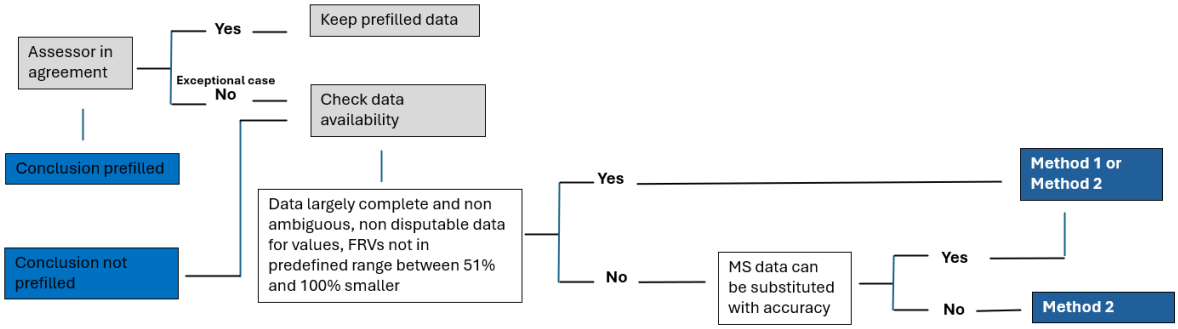
In these cases the assessors scrutinised the results and either accepted them or, in restricted cases, rejected and performed the assessments using a different method.

The choices of the assessors and any deviation from the methods above should be described under the 'Audit trail' button above the assessments.

2.4. Choice of the aggregation method

The choice of the assessment method (apart from method 0) will depend on data availability. Figure 2.1 provides steps for selecting the broad assessment method.

Figure 2.1 Steps for selecting the broad assessment method.



2.5. Evaluation matrix

The following matrices for species and habitats are the extended version of that seen in Table 2.2 above. These matrices are used by the Member State to evaluate each parameter for an overall conclusion for that parameter. This process in turn leads to the conclusion of the overall Conservation Status.

Table 2.6 Extended evaluation matrix for species (per biogeographical/marine region within a MS)

Parameter	Conservation Status			
	Favourable ('green')	**Unfavourable-Inadequate ('amber')**	**Unfavourable-Bad ('red')**	***Unknown (insufficient information to make an assessment)***

Range (within the biogeographical region concerned)	Stable (loss and expansion in balance) or increasing AND not smaller than the 'favourable reference range'	Any other combination	Large decline: Equivalent to a loss of more than 1% per year within period specified by MS OR more than 10% below favourable reference range	*No or insufficient reliable information available*
Population	Population(s) not lower than 'favourable reference population' AND reproduction, mortality and age structure not deviating from normal (if data available)	Any other combination	Large decline: Equivalent to a loss of more than 1% per year (indicative value MS may deviate from if duly justified) within period specified by MS AND below 'favourable reference population' OR More than 25% below favourable reference population OR Reproduction, mortality and age structure strongly deviating from normal (if data available)	*No or insufficient reliable information available*
Habitat for the species	Area of habitat is sufficiently large (and stable or increasing) AND habitat quality is suitable for the long-term survival of the species	Any other combination	Area of habitat is clearly not sufficiently large to ensure the long-term survival of the species OR Habitat quality is bad, clearly not allowing long-term survival of the species	*No or insufficient reliable information available*
Future prospects (as regards to population, range and habitat availability)	Main pressures and threats to the species not significant; species will remain viable on the long-term	Any other combination	Severe influence of pressures and threats to the species; very bad prospects for its future, long-term viability at risk.	*No or insufficient reliable information available*

Parameter	Conservation Status			
	Favourable ('green')	**Unfavourable-Inadequate ('amber')**	**Unfavourable-Bad ('red')**	***Unknown (insufficient information to make an assessment)***
Overall assessment of CS	All 'green' OR three 'green' and one 'unknown'	One or more 'amber' but no 'red'	One or more 'red'	Two or more 'unknown' combined with green or all "unknown"

Table 2.7: Extended evaluation matrix for habitats (per biogeographical/marine region within a MS)

Parameter	Conservation Status			
	Favourable ('green')	**Unfavourable – Inadequate ('amber')**	**Unfavourable - Bad ('red')**	***Unknown (insufficient information to make an assessment)***
Range (within the biogeographical/marine region concerned)	Stable (loss and expansion in balance) or increasing AND not smaller than the 'favourable reference range'	Any other combination	Large decrease: Equivalent to a loss of more than 1% per year within period specified by MS OR More than 10% below 'favourable reference range'	*No or insufficient reliable information available*
Area covered by habitat type within range[1]	Stable (loss and expansion in balance) or increasing AND not smaller than the 'favourable reference area' AND without significant changes in distribution pattern within range (if data available)	Any other combination	Large decrease in surface area: Equivalent to a loss of more than 1% per year (indicative value MS may deviate from if duly justified) within period specified by MS OR With major losses in distribution pattern within range OR More than 10% below 'favourable reference area'	*No or insufficient reliable information available*
Specific structure and functions (including typical species[2])	Structures and functions (including typical species) in good condition and no significant deteriorations / pressures	Any other combination	More than 25% of the area is unfavourable as regards its specific structures and functions (including typical species)[3]	*No or insufficient reliable information available*
Future prospects (as regards range, area covered and specific structures and functions)	The habitats prospects for its future are excellent / good, no significant impact from threats expected; long-term viability assured	Any other combination	The habitats prospects are bad, severe impact from threats expected; long-term viability not assured.	*No or insufficient reliable information available*

[1] There may be situations where the habitat area has decreased as a result of management measures to restore another Annex I habitat or habitat of an Annex II species. The habitat could still be considered to be at 'Favourable Conservation Status' but in such cases give details in the Complementary Information section ('Other relevant information') of Part D

[2] See definition of typical species in the Explanatory Notes and Guidelines

[3] E.g. by discontinuation of former management, or is under pressure from significant adverse influences, e.g. critical loads of pollution exceeded

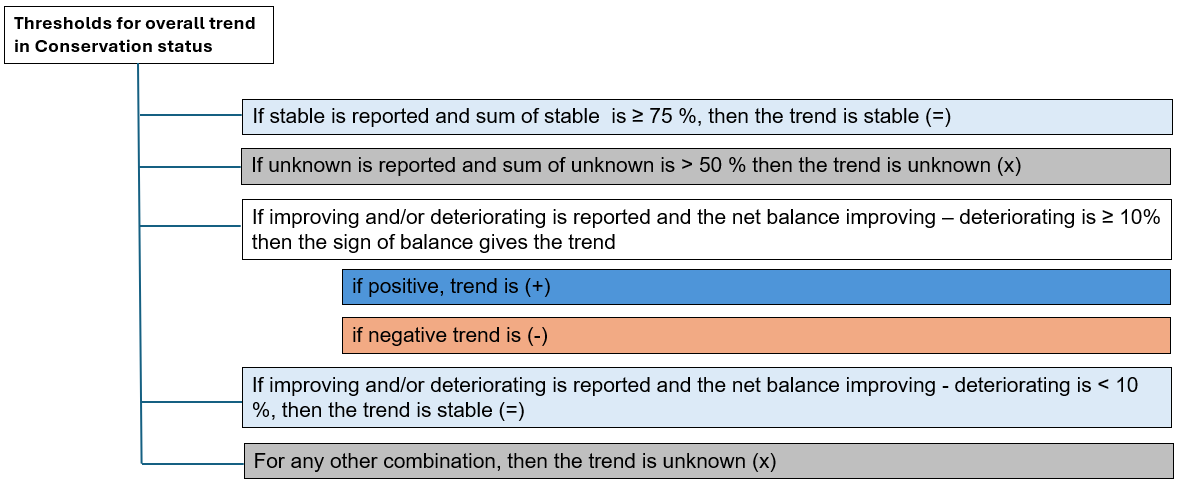
Parameter	Conservation Status			
	Favourable ('green')	**Unfavourable-Inadequate ('amber')**	**Unfavourable-Bad ('red')**	***Unknown (insufficient information to make an assessment)***
(including typical species[6])	deteriorations / pressures			

3. Assessment of Conservation Status trend

Given the definition of 'favourable conservation status' in the Habitats Directive, changes in the overall conservation status, for example from unfavourable to favourable or, from unfavourable bad to inadequate - require relatively major changes in the individual conservation status parameters to be noted. The use of trends of the overall conservation status allows more subtle changes (improvement or deterioration) of the categories to be identified.

The EU biogeographical trends are estimated as a part of the EU assessment of status detailed above. The trend should be estimated for habitats and species in favourable, unfavourable-inadequate and unfavourable-bad status; this information is mostly not relevant for unknown status. For assessing the EU conservation status trend the MS trends are weighted using the same methods as used for the assessment of parameters (see chapter 2.1). Once the proportion at EU biogeographical scale for each trend category (improving, deteriorating, stable, unknown) is estimated, the resulting EU trend is assessed applying the following thresholds

Figure 3.1 The thresholds to determine the overall trends in conservation status.



4. Assessment of nature of change

Changes in conservation status between reporting periods may be due to a variety of reasons

other than genuine change, for example changes in methodology, better data now available, etc. In order to identify which changes are genuine rather than artefacts, the reason for change in both Conservation Status and trend in Conservation Status were requested.

The Article 17 web tool displays the previous (reporting period 2013-2018) conservation status and trend in conservation status for both Member States and EU biogeographical assessment. This information compared to current status and trends (for the period 2019 - 2024) and reported reason for change feeds into evaluation of nature of change in EU status and trend. However, the change at EU level is evaluated versus the previous status and trends and there may be no change even if Member States report a change.

The nature of change in EU biogeographical status or trend will not only result from the change of assessments from Member States but also of other changes, like changes of values for weighting parameters or changing the methods for EU assessment.

Below are the reasons for change that are reported by the Member State and how they are grouped into categories for assessment purposes. For cases where a feature – region combination is reported for the first time the main reason for change of status and trend makes no sense. For these cases, the data from MS are replaced in the web tool with the indication 'First time reported'.

Table 4.1 Reasons for change grouped into categories for the biogeographical assessment.

reported reason for change	**codes used in the Automatic calculations in the assessment tool**
there is no difference	**No change (nc)**
genuine change	**genuine change (yes)***
improved knowledge/more accurate data	**non-genuine change (no)**
use of different method	
nature of change is unknown	
due to other reasons	
no reason reported	**NA**
first time reported (where no reason for change is requested)	

*In the EU biogeographical assessments part of the web tool this is shown as 'gen'