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**Evaluation of the 2011-2020 Emerald Network
workplan
Proposal of a post-2020 workplan**

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Summary

This report analyses the progress in the implementation of the Emerald Network 2011-2020 work-plan and proposes draft elements for the post-2020 work-plan. The overall target for 2020 that “Emerald Network is fully operational to guarantee the long-term survival of all species and habitats of European interest” has not been reached. Due to the absence of measurable indicators in the 2011-2020 work-plan, it was problematic to assess progress of certain activities. Nevertheless, the current performance indicators were compared with corresponding indicators from the Natura 2000 network constitution process. Such collation informed that there is some considerable progress in many countries, especially as regards to the coverage of proposed Emerald Network sites. On the negative side, 9 countries (out of 24 in total) have not started the network constitution. The report also proposes changes to the post-2021 Emerald Network workplan, compared to 2011-2020 structure, including the introduction of measurable targets and associated indicators. Setting numeric targets is postponed until the European Commission provides interpretive guidance on EU’s 2030 commitment to protect 30% of the land and marine territory. It should also await the adoption of the global biodiversity targets by the upcoming CBD COP in May 2021.

1. Introduction

The 2011-2020 Emerald Network workplan (often called calendar) was developed and approved in 2010 by the Standing Committee to the Bern Convention. The progress in the Emerald Network development during 2011-2020 has been briefly evaluated annually and the plan was also amended and updated in 2015 after a mid-term assessment. The workplan¹ appears as a spreadsheet table which indicates all planned activities which are grouped by timing (usually bi-annum starting from 2011-2012) and according to the Emerald Network constitution Phases. The annual evaluation was usually limited to attributing each activity a categories: green (e.g. achievement – activity concluded), red (outstanding action) and yellow (ongoing activity) and to providing additional comments about problems encountered.

During the past decade there is overall progress in the development of the Emerald Network, in particular recognising 3,260 Emerald Network sites, representing on average 14% of the national territory of participating countries. Yet the situation merits deeper analysis and thus this paper has two main objectives: (1) to perform a detailed evaluation of 2011-2020 Emerald Network workplan and (2) to use the findings of this evaluation to identify avenues for the 2021 – 2030 strategic plan for the Emerald Network. It is also expected that the new workplan should be aligned with the new EU Biodiversity Strategy (2020) and ongoing update of the zero draft of the post-2020 global biodiversity framework which will be adopted at the CBD COP 15, which is postponed due to the Coronavirus-19 pandemic, probably to the beginning of 2021.

Although this evaluation attempts to take into account various factors, it is primarily elaborated **from the conservation biology** point of view. We have not systematically analysed, for example, legal implications, administrative-strategic approaches, socio-economic benefits or financial costs linked with the Emerald Network establishment. It should be highlighted that in parallel there is also another study ongoing which is focusing on the legal aspects of various Emerald site stages (i.e. proposed, candidate, adopted and designated). Another very relevant ongoing work is a development of a proposal for a monitoring framework to evaluate the progress of the Emerald Network implementation. Some of the elements from this work are already used in this paper.

This paper includes the following chapters which reflects the work-stages undertaken:

1. Progress review 2020
2. Outstanding activities
3. Proposed elements for the post-2020 work-plan

For this study we used Emerald Network related documents prepared by the Bern Convention Secretariat, the Emerald Network site database, the Emerald Network consolidated sufficiency conclusions, the Natura 2000 network documentation archived by the European Environment Agency (EEA) and other miscellaneous references which are acknowledged where appropriate.

¹ <https://rm.coe.int/progress-in-the-enforcement-of-the-revised-calendar-for-the-implemента/168097e1c7>

It is intended that this paper will be discussed at the Group of Experts on Protected Areas and Ecological Networks in October 2020 and eventually presented at the 40th Standing Committee's meeting in December 2020.

2. Progress review 2020

The last annual evaluation of the Emerald Network workplan (calendar) was performed in December 2019. In this work we updated the calendar with the information available by the end of August 2020, and the Table 1 represents a slightly transformed version of the workplan which enables to record various comments.

Overall, out of 41 activities listed in the revised 2011-2020 workplan in the 2019 progress assessment, 35% were considered as completed, 20% as ongoing and 45% as outstanding. The 2011-2020 workplan did not contain any numeric targets. Thus it was difficult to evaluate the progress of each activity, especially if it was categorised as “ongoing”. The overall goal for 2020 was defined as “the Emerald Network of Areas of Special Conservation Interest is fully operational to guarantee the long-term survival of all species and habitats of European Interest”. It is evident that this goal has not been achieved.

Yet the above observation is only general and actual progress should be assessed also at the level of countries and at the level of each Phase of the Emerald Network constitution².

Table 1. Activities listed in the Emerald Network workplan 2011-2020 and revised in 2015. Status as in the end-2019 progress assessment.

Timing	Type	Activity description	Status	Comments
2011-2012	Strategic	Update Res. No. 6 (1998) and Res. No. 4 (1996); Submission to the Standing Committee at its 31st and 32nd meeting (2011-2012), according to timely presented proposals.	Ongoing	In practice this activity can be considered as “done”. This is a recurrent activity and the need for subsequent updates can appear regularly and unpredictably.
	Strategic	Collection of background information on presence and distribution of species and habitats in collaboration with the EEA.	Done	In practice, this is also a recurrent activity when new information becomes available (see task below)
	Strategic	Development of guidelines on management, monitoring and reporting tools in line with existing Natura 2000's tools.	Ongoing	This activity for the evaluation period can be considered as “done” considering several important documents already delivered. For example, guidance for the management of Emerald Network sites ³ (2014), format and guidelines of the reporting under Res. No. 8 (2012) reporting format.
	Phase I	Negotiation of a Pilot project for Tunisia.	Outstanding	
	Phase I	Implementation of a second pilot project for Morocco.	Outstanding	
	Phase I	Feasibility analysis for a second pilot project in Turkey and/or possible planning for completion of Phase I.	Outstanding	
	Phase I	Negotiation of completion of Phase I in Bosnia-Herzegovina	Done	In practice, such negotiation never came to a concrete action. Phase I, is

² The Emerald Network: A Network of Areas of Special Conservation Interest for Europe. Explanatory document and compilation of relevant texts. URL: <https://rm.coe.int/168074669d>

³ TOWARDS MANAGEMENT OF EMERALD SITES: GUIDANCE DOCUMENT. URL: https://pjp-eu.coe.int/emerald-network/images/pa08e_2014_management_emerald_sites_final.pdf

Timing	Type	Activity description	Status	Comments
				still continuing and will so until there is a need for additional sites to be added to the database.
	Phase I	Completion of Phase I for Armenia, Azerbaijan, Georgia and the Republic of Moldova through the project in the Eastern Partnership region project by the end of 2011	Done	In practice, Phase I is still continuing and will so until there is a need for additional sites to be added to the database.
	Phase I	Fulfilment of 80 % of Phase I for Ukraine	Done	Same as above. The expression of using percentage of the network is not used anymore because before the bio-geographical seminars nobody can define how much is 100%, thus any reference to percentage does not make sense.
	Phase I	Fulfilment of at least 50 % of Phase I for Belarus and the European part of the Russian Federation	Done	Same as above.
	Phase I	Completion of Phase I for Switzerland, Norway and Iceland	Done	Iceland has not even started Phase I.
	Phase I	Negotiations for the identification of sites in the countries which have not been participating in the pilot project's programme: Andorra, Liechtenstein, Monaco, Kazakhstan (European part).	Outstanding	Done for Andorra.
	Phase II	Assessment of proposed Emerald Network sites in 6 West-Balkan countries: Albania, Bosnia-Herzegovina, Croatia, Montenegro, North Macedonia and Serbia; gap analysis.	Done	Assessment was done, but with a lot of insufficiencies. Phases I and II are not finished.
	Phase II	Negotiation with West-Balkan countries concerning possible designation of new ASCIs.	Outstanding	
	Phase II	Start of assessment of proposed Emerald Network sites for Armenia, Azerbaijan, Georgia and the Republic of Moldova (2012).	Done	
	Phase II	Start pre-evaluation of the first set of proposed Emerald Network sites for countries asking for it (Switzerland, Norway).	Done	
2013-2014	Strategic	Finalisation of collection of background information on species and habitats of European interest.	Ongoing	In practice this activity can be considered as "done" for the evaluation period. This is a recurrent activity.
	Strategic	Drafting and adoption of monitoring tools and management plans, based on international guidelines; setting-up of a coherent Pan-European Ecological Network.	Ongoing	As written, this can be attributed to Phase III. Indeed "ongoing" at discretion of each country individually.

Timing	Type	Activity description	Status	Comments
	Phase I	Continuation of the pilot project in Tunisia.	Outstanding	The word “continuation” is not precise, provided that it has not even started.
	Phase I	Completion of the Emerald Network in Morocco.	Outstanding	As above.
	Phase I	Implementation of a full Emerald Network project in Turkey.	Outstanding	As above.
	Phase I	Completion of Phase I for Belarus, the European part of the Russian Federation and Ukraine.	Done	Phase I is not entirely finished. See also above.
	Phase I	Development of principles of the establishment of the Emerald Network (as Core Areas of the PEEN) in Asian parts of the Russian Federation and Kazakhstan, in Kirghizistan, Tadjikistan, Turkmenistan, Uzbekistan (further activities in this field of actions will be planned if appropriate).	Outstanding	
	Phase II	Completion of the assessment of the proposed Emerald Network sites in Armenia, Azerbaijan, Moldova and Georgia.	Done	
	Phase II	Start of assessment of proposed sites in Belarus, the Russian Federation and Ukraine in coordination with the evaluation for sites in the Republic of Moldova and South Caucasus, if appropriate.	Done	
	Phase II	Assessment of proposed Emerald Network sites in Switzerland, Iceland and Norway.	Done	Excepted for Iceland. Switzerland: only one seminar in 2012, based on a small number of sites.
	Phase II	Assessment of proposed Emerald Network sites in other countries according to achievements in Phase I (Andorra, Liechtenstein, Monaco, Kazakhstan (the European part))	Outstanding	Excepted for Andorra.
	Phase III	Official designation of the Emerald Network in the West-Balkans.	Outstanding	
	Phase III	Implementation of management, monitoring and reporting tools in the West-Balkan area.	Outstanding	
2015-2016	Strategic	Continuation of drafting and implementing management plans and monitoring for designated ASCI's.	Outstanding	This activity is not completely “outstanding”. According to the Emerald Network database some sites already have management plans.
	Phase II	Finalisation of the evaluation of proposed Emerald sites in	Done	

Timing	Type	Activity description	Status	Comments
		Belarus, the Russian Federation and Ukraine.		
	Phase II	Assessment of proposed Emerald sites in participating African countries.	Outstanding	
	Phase III	Designation of the Emerald Network in the Republic of Moldova and South Caucasus.	Ongoing	All sites in the Republic of Moldova are adopted; some sites in Georgia are also adopted
	Phase III	Start designation of Emerald Network sites in Belarus, the Russian Federation and Ukraine.	Done	Except for the Russian Federation. Some sites in Belarus remain Candidate sites
	Phase III	Designation of the Emerald Network in Norway, Iceland and Switzerland.	Outstanding	Rather “ongoing”. Switzerland has adopted all identified sites, Norway most sites. But no action in Iceland.
	Phase III	Re-assessment of all agreed Emerald Network sites according to new knowledge.	Outstanding	See a comment on this activity in Chapter 3.
	Phase III	Designation of the Emerald Network in other countries according to achievements in Phase II (Andorra, Liechtenstein, Monaco, Kazakhstan (the European part)).	Outstanding	Except Andorra: ongoing.
2017-2019	Phase III	Publication of the lists of the Emerald Network of areas of special conservation interest	Done	In practice, this is a recurring activity implemented every year.
	Phase III	Finalise the designation of Emerald Network sites in the whole Pan-European area, as well as in participating African countries	Ongoing	
	Phase III	Full assessment of the Pan-European Emerald Network in view of the long-term survival of the species and habitats of European concern	Ongoing	The current assessment of the Emerald Network is reflected in the sufficiency conclusions database.
	Phase III	Assessment of the adequacy of the Bern Convention’s Appendices and Resolutions No. 4 (1996) and No. 6 (1998)	Ongoing	Recurring activity.
2018	Not directly related	First reporting exercise on the Emerald Network implementation for the period 2013-2018, as foreseen in Resolution No. 8 (2012)	Ongoing	Presumably can be moved to “Done” category. First test reporting done, yet not for all features nor reports were received from all expected countries. But this activity is only indirectly related to Emerald.
2020	Na	The Emerald Network of Areas of Special Conservation Interest is fully operational to guarantee the long-term survival of all species and habitats of European Interest, including appropriate management, monitoring and reporting tools, compatible with Natura 2000		This is rather a long-term vision, a goal even beyond 2021-2030 period.

Timing	Type	Activity description	Status	Comments
	Na	Procedures for continuous updating of the data and evaluation of the long-term survival of the species and habitats have been put in place		Recurring activity.

A strict division of the Emerald Network constitution into Phases is difficult. Due to the cyclic character of the process, Phases II and III can start even if the preceding phase has not been completed (see Opermanis & Roekaerts 2020). In many countries all phases actually take place at the same time. For example, some sites for the network may be still under investigation and being described (Phase I), others can be already assessed and adopted (Phase II), and other sites also may have specific conservation measures already introduced (Phase III).

Table 2. Countries at different stages of the Emerald Network constitution process (including those which have not started yet). Phase II includes all countries which have had at least one bio-geographical evaluation round. Phase III includes countries which have reported a management plan in place at least for one Emerald Network site.

Not started any Phase	Started Phase I	Started Phase II	Started Phase III
Burkina Faso	Albania	Albania	Andorra
Iceland	Armenia	Armenia	Armenia
Kazakhstan	Andorra	Andorra	Belarus
Liechtenstein	Azerbaijan	Azerbaijan	Georgia
Monaco	Belarus	Belarus	Republic of Moldova
Morocco	Bosnia and Herzegovina	Bosnia and Herzegovina	Switzerland
Senegal	Georgia	Georgia	Ukraine
Tunisia	Republic of Moldova	Republic of Moldova	
Turkey	Montenegro	Montenegro	
	North Macedonia	North Macedonia	
	Norway	Norway	
	Russian Federation	Russian Federation	
	Serbia	Serbia	
	Switzerland	Switzerland	
	Ukraine	Ukraine	

Table 2 provides lists of countries according to the different phases of the Emerald Network constitution. As explained above, it is easier to classify countries rather by the fact that they have started, but not completed a certain Phase. In fact, no country has fully completed even Phase I, because, according to the consolidated sufficiency conclusions database, all countries need to describe and propose additional sites. For those fifteen countries which have started the process, it was also possible to attribute values to the indicators for each Phase according to the proposed Emerald Network monitoring framework (Table 3, Opermanis & Roekaerts 2020).

In other words, Table 2 lists the countries which have entered the different Phases but Table 3 helps to see how advanced they are in each of the Phases. This is more informative than Table 1 which informs only if an activity has been finalised, is in progress, or has not started. The problem is that in the 2011-2020 workplan no measurable indicators were set to assess the extent to which the targets were achieved. Often the possible answer can only be “yes” or “no”, but the reality is much more complicated, and behind a “no” answer, some of achievements cannot be seen. Also, if an activity is considered as “ongoing”, its progress can vary from 1% to 99%.

We can also assume that the aim of the “National coverage” indicator of the Phase I should be proportionate to the Aichi Target 11 (i.e. protection of 17 per cent of terrestrial and inland water areas and 10 per cent of coastal and marine areas). Yet it can be argued that Phase I does not guarantee (but does not exclude either) that proposed sites are legally protected and thus the Phase’s II indicator “National coverage of adopted sites”

more conforms to the meaning of Aichi target 11. Yet, still, Table 3 shows that several countries, such as Albania, Armenia, Azerbaijan, Georgia, Montenegro and North Macedonia, have already reached a national coverage of 17% for Phase I.

Table 3. A possible table to present indicators to measure the distance to targets (which would shape the final Emerald Network Barometer). (Source: Opermanis & Roekaerts 2020). Please note that there are strong reasons to believe that the information about management plans may be under-reported in the Emerald Network databases.

Country	Phase I				Phase II			Phase III
	Number of all site types	Area of all site types (km ²)	National coverage of all site types (%)	Sufficiency index (%)	Number of adopted sites	Area of adopted sites (km ²)	National coverage of adopted sites (%)	Proportion of adopted sites with management plans (%)
AD	2	26.2	5.6	11.9	2	26.2	5.6	100.0
AL	25	5,224.3	18.2	28.7	0	0	0	0
AM	23	10,337.2	34.8	68.7	0	0	0	21.7
AZ	17	16,795.3	19.4	21.7	0	0	0	0
BA	29	2,504.6	4.9	0.7	0	0	0	0
BY	162	24,038.4	11.6	27.7	155	23,064.7	11.1	8.0
CH	37	642.2	1.6	1.4	37	642.2	1.6	21.6
GE	58	12,629.1	18.1	25.1	46	10,401.9	14.9	1.7
MD	61	3,252.0	9.6	24.0	61	3,252.0	9.6	47.5
ME	32	2,400.8	17.1	18.0	0	0	0	0
MK	35	7,543.8	29.3	16.1	0	0	0	0
NO	706	49,687.3	15.3	19.8	568	44,033.4	13.6	0
RS	61	10,210.8	11.6	13.5	0	0	0	0
RU	1635	499,497.9	12.6	8.4	0	0	0	0
UA	377	80,982.4	13.4	40.1	377	80,982.4	13.4	2.1

The other Aichi target which aims to protect 10% of marine territory is not measurable at this stage, because so far only a handful of sites are proposed by Ukraine in the Black Sea and by the Russian Federation in the Arctic and in the Caspian Sea. Bio-geographical seminars to date did not attempt to evaluate marine species and habitats and provisionally a specific evaluation seminar(s) will be necessary in the future (as it was in the Natura 2000 process).

The indicator of the Phase II (i.e. sufficiency index) expressed as percentage of sufficient conclusions versus all conclusions, is the most informative indicator (see discussion in Opermanis & Roekaerts 2020) because it reflects the qualities of the site network for each protected species and habitat. Currently, there have been 15 bio-geographical evaluation seminars: 7 countries have experienced 2 evaluation rounds and 8 countries one round. Only Armenia exceeds 50% of sufficiency mark and has a good chance to complete the network soon, but most other countries are substantially lagging behind this level.

The Emerald Network is aimed to guarantee the long-term survival of **all** habitats listed in Resolution No. 4 (1996) and all species listed in Resolution No. 6 (1998) of the Bern Convention. This would automatically suggest a target of 100% sufficiency. The sufficiency index can only theoretically be of 100%. Over the time both nature changes and scientific knowledge constantly improves, thus countries need to step back from previous sufficiency conclusions and carry out additional, unanticipated work. Therefore, a sufficiency index of over 95% could be considered a good achievement.

Another question is **what could have been realistically done** for the Emerald Network in the past decade (2011-2020) and what can be done during the upcoming decade (2021-2030). In order to get some objective judgement, the only possibility is to look back to the experience with the creation of the Natura 2000 network in the EU, because there are many similarities in these networks, particularly a common approach and methodology. In any case there is no reason to believe that the creation of the Emerald Network should have been or will be easier than the creation of the Natura 2000 network.

The first Natura 2000 bio-geographical seminar (in the Macaronesian Region) was held in 1996⁴. The Emerald bio-geographical process was launched in 2011 with a regional seminar for 6 West Balkan countries. This means that the Emerald Network process is lagging behind Natura 2000 process for about 15 years which gives an opportunity for comparisons. Thanks to the EEA and European Commission archives, there is information available about the history of the Natura 2000 development and for this study we compared the following information:

- To assess results for 2011-2020 period we looked at the Natura 2000 achievements 10 years after the start of the bio-geographical process, i.e. in 2006;
- To assess the possible targets for 2021-2030 period, we looked at the Natura 2000 achievements 20 years after the start of the bio-geographical process, i.e. in 2016 (this is covered in Chapter 3 of this report).

The first comparison lead to following outcomes: in 2006, the Sites of Community Importance (SCI) represented an average of **12.1%** of EU's terrestrial area and Special Protection Areas (SPA) **8.9%** of the EU⁵. In 2020, all types of Emerald Network sites occupy **14.8 %** of countries terrestrial area. Regarding the EU, there are 2 important notes: (1) Earlier, due to legal reasons, SCI and SPA networks were calculated separately. The overall Natura 2000 coverage was not available for 2006, yet it is known that SCI and SPA in most countries significantly overlapped; (2) In the EU, the status of SCI does not automatically ensure legal protection, similar to proposed or Emerald Network candidate sites. In 2006 seven countries had started to build the network since 2004, and among the non-EU Contracting Parties – Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, the Russian Federation and Ukraine - started the bio-geographical process only in 2015.

In 2006, the average sufficiency index was **82.6%** in the EU (24 countries assessed), although the difference between countries, particularly “new” and “old” Member States, was quite substantial (Figure 1). The average sufficiency index in the non-EU Contracting Parties in 2020 is **21.7%** (Table 3). In this calculation only 15 countries which have started Phase I were considered, and that 9 other countries have not proposed any site.

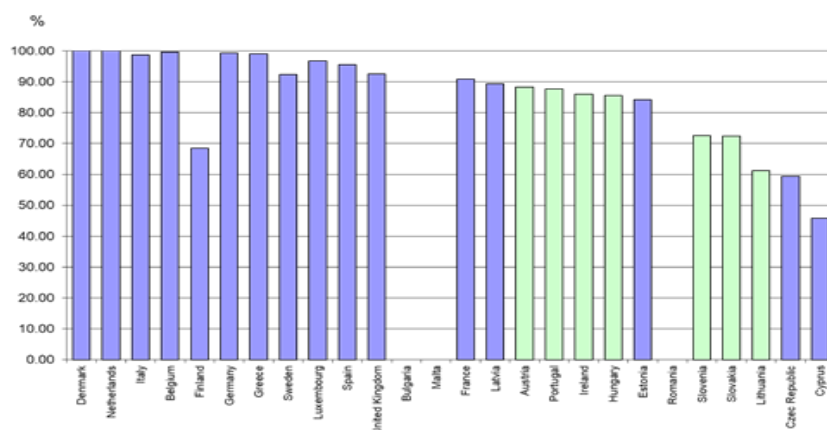


Figure 1. Sufficiency index in the EU in 2006. Bars show the degree to which Member States have proposed sites that are considered sufficient to protect the habitats and species mentioned in the Habitats Directive Annex I and II (marine species and habitats are not considered). Source: EEA⁶.

Difficulties to measure progress within the Phase III of the Emerald Network constitution process are described in the parallel work on establishing an Emerald Network monitoring framework (Opermanis & Roekaerts 2020, chapter 3.3). Measuring and assessing conservation measures is a complex task and is still under development, including in the EU, by involving both site databases, reporting databases and special thematic

⁴ https://www.eionet.europa.eu/etcs/etc-bd/activities/list_of_seminars_2016.pdf

⁵ https://ec.europa.eu/environment/nature/info/pubs/docs/nat2000newsl/nat20_en.pdf

⁶ https://www.eea.europa.eu/data-and-maps/figures/sufficiency-index-state-of-progress-by-member-states-in-reaching-sufficiency-for-the-habitat-directive-annex-i-habitats-and-annex-ii-species-2/csi008_fig04_2008_graph.eps

assessments. Thus no comparison with the EU is really possible. Only a need for a similar “new biogeographical process”⁷ which would facilitate the exchange of information and experience about various management issues in non-EU Contracting Parties has been earlier acknowledged (Pritchard & Opermanis 2017). The only measurement we could provide in this study was the proportion of Emerald Network sites with management plans (see Table 3, Phase III). It showed very low performance by a majority of countries, but it is also questionable how systematically countries have recorded the existence of management plans in the SDFs.

Following conclusions can be drawn from this exercise:

- As defined, the Emerald Network workplan (calendar) 2011-2020 has not been fulfilled, given that 45% of planned activities are still outstanding and the overall target for 2020: “a fully operational Emerald network to guarantee the long-term survival of all protected species and habitats” was not achieved.
- Obviously, the 2011-2020 workplan was very ambitious but possibly it was mainly because of the lack of experience about what reasonable progress in the establishment of the Emerald Network could be achieved within the 10-year period. It should have also considered the size of the territory covered by non-EU Contracting Parties (as in 2011), and their considerable differences.
- There are some positive evidences for a considerable success judging numeric criteria. A comparison of the same indicators from the Natura 2000 process and the Emerald Network process, both 10 years after the start of the bio-geographical process, showed that the coverage of proposed sites was similar, but the average sufficiency index on was substantially higher in the EU countries than in the non-EU Contracting Parties. It can be explained either by poorer information about the presence of species and habitats in non-EU countries (thus not indicated in SDFs), or because the best and most representative sites have not been selected for the network. Or, most likely, a combination of both.
- There are two major shortcomings in the Emerald Network bio-geographical process: (1) the fact that 9 countries have not even started the Phase I and (2) that other six countries (namely, Switzerland and 5 West Balkan countries) have not continued to designate additional sites after the first evaluation round.
- Best results were achieved in the Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, the Republic of Moldova, Ukraine) and the Russian Federation where targeted projects to foster the bio-geographical process were implemented (2013-2016, 2017-2018, 2019).

The following chapter will provide an insight on the outstanding activities that were not implemented from 2011 to 2020, will try to shape reasons of failures, and discuss their relevance for the post-2020 workplan.

3. Outstanding activities

There were 18 activities in the 2011-2020 workplan which were eventually classified as outstanding, i.e. where no or insignificant progress has been reached. For a better view, these activities have been classified mainly on geographic basis (Figure 2). Yet some other considerations, such as country size and their historical participation in the Emerald Network, was also taken into account, but as far as possible the groups of countries from the 2011-2020 workplan were maintained. Compared to Table 1, the description of the activities are abbreviated. One activity related to Phase III 2015-2016 entitled “Re-assessment of all agreed Emerald Network sites according to new knowledge” was left outside because we lost track of its meaning, as written, in the general context of Emerald Network constitution process.

The analysis lead up to 6 indicative clusters of outstanding activities by geographical groups of countries involved (Figure 2). Each of the sections below include brief observations about the current situation. Groups of countries may help better understand possible common problems and better plan a strategy to address them in the future. Initially it was aimed also to prioritise these clusters depending on the urgency for necessary actions/progress, but it was also realized that in theory each Contracting Party to the Bern Convention is subject to the same work-programme and thus they are all equal irrespective of the progress achieved so far.

⁷ https://ec.europa.eu/environment/nature/natura2000/platform/index_en.htm

Due to common methodology, each Phase has its own “standard” activities. As it can be seen from Table 1, the types of outstanding activities are generally the same as completed activities, excepted for Phase III where there were generally no achievements.

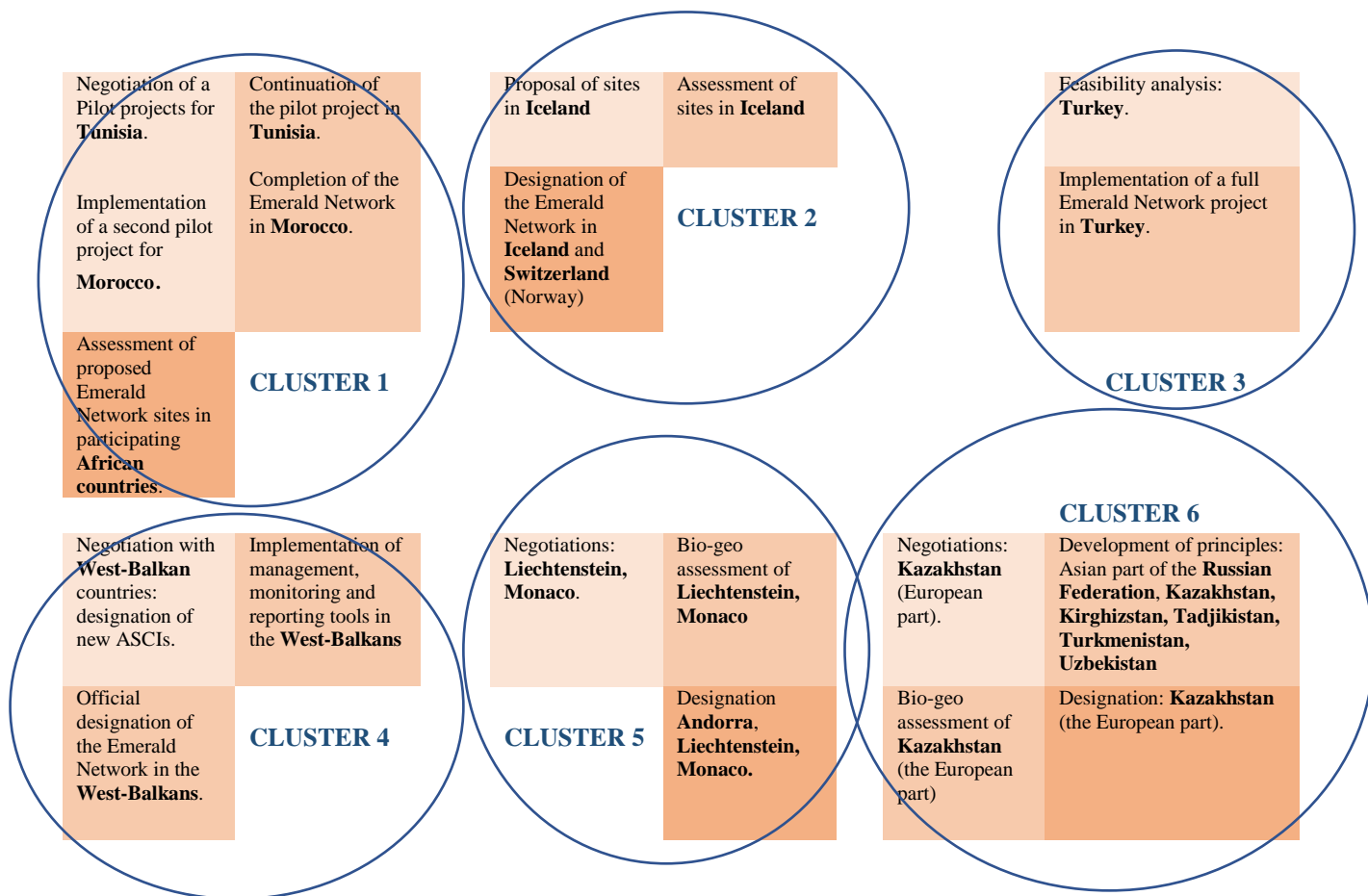


Figure 2. Clustering of outstanding activities by geography. Please note that in the workplan 2011-2020 some western European countries, such as Monaco, Liechtenstein and Andorra were grouped with Kazakhstan. In this graph they are kept separately. Colours reflect the time periods when activities were foreseen:

2011-2012	2013-2014	2015-2016
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3.1. Cluster 1: African countries

Four African countries have ratified the Bern Convention (Burkina-Faso, Morocco, Senegal and Tunisia). In three of them, pilot projects took place and there have been several attempts to “promote” a pilot project in Tunisia, some years ago, the Standing Committee even agreed on a budget line for this.

The first pilot project in Morocco ended with the selection of 10 sites, but they were never submitted to the Secretariat in the form of a database. In 2014 an official delegation from the Secretariat visited Morocco to discuss the second pilot project. This was a very positive meeting which included some of the members of the local Emerald Network scientific team. Although the budget was agreed, the project did not reach an operational level.

Despite undeniable importance of the North African region for European migratory species, the feasibility of investing efforts to launch an Emerald Network bio-geographical process could be re-assessed. In order to continue, a strong support from countries is needed, both at academic and administrative levels.

3.2. Cluster 2: Iceland, Switzerland and Norway

This group represents larger European countries with quite different geographical placement. These countries have remarkably different achievements. Of these countries, Norway is the most advanced (Table 3) with 2 bio-geographical seminars already held in 2013 and 2016.

Switzerland, after the successful first seminar in 2012, unfortunately, has not shown further progress in proposing new sites, and the sufficiency index and national coverage of existing sites remains very low (Table 3).

Iceland has not started the process. No database with site proposals has been ever received by the Secretariat, despite quite a lot of preparatory activities. It is difficult to judge what progress has been actually done, but only the submission of the Emerald Network database triggers the start of Phase I.

3.3. Cluster 3: Turkey

For several years, there has been numerous negotiations with Turkish authorities, including at least two informative seminars on the methodology with academia and NGOs. Unfortunately, this has not yielded any significant follow-up. No database with site proposals has ever been received, thus it cannot be considered that Turkey has entered even Phase I.

3.4. Cluster 4: West Balkan countries

West Balkan countries (Albania, Bosnia and Herzegovina, Croatia, Montenegro, North Macedonia and Serbia), started the bio-geographical process back in 2011 with the first Emerald Network seminar in Montenegro. Unfortunately, no progress was recorded since as none of the countries have submitted an updated database. In 2017 the Secretariat did a great effort to re-vitalise the process and, although some countries showed an interest (Serbia and Montenegro), no concrete steps followed. It is also a pity that a number of EU-funded projects in relation to the preparations for the Natura 2000 process in the West Balkan region, did not stimulate progress in building the Emerald Network.

It is important to mention that one country (Croatia) during the evaluation period became a member of the European Union and already had a Natura 2000 seminar in 2015 with very good results. There is a good reason to believe that this was largely thanks to the Emerald Network evaluation seminar in 2011.

3.5. Cluster 5: Andorra, Liechtenstein and Monaco

In this group of “small” European countries, only Andorra has recently started the bio-geographical process in 2019 with a first seminar and even the adoption of the two proposed sites. For Liechtenstein and Monaco, the Secretariat has taken some initiatives, and Liechtenstein has expressed an interest, yet no sites have been proposed to date.

3.6. Cluster 6: Central Asia countries

This group consisting of the Asian part of the Russian Federation, Kazakhstan, Kirghizstan, Tadjikistan, Turkmenistan and Uzbekistan has not started the process, and only very preliminary negotiations have taken place with no significant results. Given an initial interest, representatives from these countries were invited to Bern Convention meetings as Observer states, but they never participated. Also in this case a feasibility to continue negotiations should be assessed by the Secretariat.

There are definite two other clusters: (1) South Caucasus countries and (2) the broad group of Belarus, the Republic of Moldova, the Russian Federation and Ukraine. Considering the good progress since 2013, these countries are not shown in Figure 2, although Azerbaijan would possibly merit a special analysis of performance, because there was not any major activity since 2015.

There are no specific observations about the activities categorised in 2019 as “ongoing”. In fact, most of them, as defined in the 2011-2020 workplan, are recurrent by their nature (see comments to the Table 1 above). It is proposed to deal with such recurring activities separately (see text and Table 4 below).

For the future Emerald Network agenda it is very important to understand the reasons for failing to accomplish activities which are categorised as “outstanding”. Most likely they are very country-specific, and cannot be generalized even at the level of clusters as above. In this study it was very difficult to unravel the real factors and reasons behind inactivity of countries based just on some fragments of information and indirect hints.

Such information is generally lacking and thus it is proposed to organise **a survey** (method to be confirmed) with the aim to collect information about the obstacles to the start of site designation, or to the continuation of the biogeographical process, in order to inform the Bern Convention Secretariat and foster an adequate action. There could be a variety of reasons (e.g. lack of funding for nature conservation, no political support/low priority, insufficient scientific expertise available etc.). Some problems, in fact, can be easily solved, especially if they are grounded on any misunderstanding in interpretation of the Emerald Network process, for example that countries cannot start proposing Emerald Network sites because they cannot ensure full management at this moment (i.e., already entering Phase III from the start).

One example, often heard from the EU associate countries, is that they should focus on Natura 2000 implementation, instead of investing efforts towards the Emerald Network. But the recent experience with Croatia shows that there are multiple benefits of implementing the Emerald Network before accession, namely mobilization of resources, capacity building, understanding the process of network assessment, timely awareness of possible gaps. To re-iterate, the Emerald Network and Natura 2000 processes are very similar, based on nearly the same methodology, and the differences exist only regarding applied habitat classifications, and in the approach in designation of areas for birds.

4. Proposed elements of post-2020 workplan

4.1 Proposals on contents and presentation of the new workplan

This chapter proposes an outline of the post-2020 workplan. Compared to the 2011-2020 workplan, there are a number of modifications:

- It is proposed that the post-2020 workplan would technically consist of 3 separate but inter-related tables and one appendix:
 1. Targets (Table 4),
 2. Strategic issues (Table 5),
 3. Activities to reach targets (Table 6).

Appendix: Detailed planning matrix by phase, year and countries

It is assumed that progress in reaching targets could be measured against the “Emerald Network barometer” developed in parallel for the monitoring framework of the implementation of the Emerald Network (see Table 3 above). In addition, an Appendix to this report presents a possible framework for planning more detailed activities, but its completion also relies on suggestions from Contracting Parties to the Bern Convention. In the future it should be discussed how countries and the Secretariat could cooperate in using this table for planning or reporting purposes.

- Four measurable (quantitative) targets are proposed (Table 4). They are associated with the proposed performance indicators (Table 3, Table 6).
- Strategic issues and Phase-related activities are listed separately (Table 5 and Table 6). Strategic issues are general and apply to the whole period and theoretically to all countries. As such, they are more to be addressed by the Secretariat.

It is proposed that the 2021-2030 workplan period is divided into 4 parts with 4 subsequent progress assessments every 2-3 years (see Appendix). The assessment in 2025 will be a mid-term assessment and the assessment in 2030 would be the final one. It is also advisable that the workplan is not a “static” document, and at least the activity part can be amended and/or changed in the light of new information and the evolvement of the situation.

Table 6 includes a list of activities or means of achievement to reach targets of each Phase of the Emerald Network constitution process. In order to avoid ambiguous formulations/definitions (which was occasionally the case in the 2011-2020 workplan) we provide a list of “typical” activities for each Phase:

Phase I: (including preparations for it)

- Feasibility study (official negotiation, fact-finding mission)
- Pilot project (full project which includes also inventories and data collection)
- First database submission (data collection, data recording and submission)
- Preparatory evaluation seminar (prepares country for the “proper” seminar)

Phase II:

- Biogeographical evaluation seminar involving multiple countries, either by geography or by biogeographical region (sufficiency assessment of proposed sites and follow-up)
- Bilateral evaluation seminar with single country (sufficiency assessment of proposed sites and follow-up)
- Site adoption (countries propose sites for adoption to the Standing Committee)
- Special assistance for individual countries between 2 assessment rounds (e.g. Republic of Moldova, Belarus)

Phase III:

- Management seminar (to exchange experience about conservation measures etc.)
- Key activities with respect to adaptive management cycle: setting conservation objectives, management planning, implementation of conservation measures, monitoring and review
- Evaluation study on implemented conservation measures (towards 2030)

Regarding the Phase III, the Bern Convention Secretariat has limited possibilities to assist countries to ensure adequate management of thousands of sites in the Emerald Network. In the EU this process is also largely an initiative and responsibility of its member States. Thus, after the adoption of the Emerald Network sites, Contracting Parties to the Bern Convention should take a full ownership of the network and management issues should become a part of their daily agenda.

4.2 Level of ambition for setting targets

The global Aichi Biodiversity Target 11 stated that by 2020, at least 17 % of terrestrial and inland water areas, and 10 % of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes⁸. In discussions ahead on CBP COP 15, there is a general support to Aichi targets, and Aichi Biodiversity Targets should be used as the basis for developing any new targets⁹.

The new EU Biodiversity Strategy for 2030¹⁰ aims to fully implement the Birds and the Habitats Directives and to complete the establishment of the Natura 2000 network and ensure effective management.

Furthermore, to reverse biodiversity loss and following IPBES recommendations¹¹ the EU has stated its commitments to 2030 which include:

1. Legally protect a minimum of 30% of the EU’s land area and 30% of the EU’s sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.

⁸ <https://www.cbd.int/sp/targets/>

⁹ <https://www.cbd.int/conferences/post2020/post2020-prep-01/documents>

¹⁰ https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF

¹¹ <https://ipbes.net/global-assessment>

2. Strictly protect at least a third of the EU's protected areas, including all remaining EU primary and old-growth forests.
3. Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately.

The EU strategy further states that Member States will be responsible for designating the additional protected and strictly protected areas. Importantly, designations should either help to complete the Natura 2000 network or be under national protection schemes. All protected areas will need to have clearly defined conservation objectives and measures. The Commission, working with the Member States and the European Environment Agency, will put forward in 2020 criteria and guidance for identifying and designating additional areas, including a definition of strict protection, as well as for appropriate management planning.

The Commission will aim to agree the criteria and guidance for additional designations with Member States by the end of 2021. Member States will then have until the end of 2023 to demonstrate significant progress in legally designating new protected areas and integrating ecological corridors. On this basis, the Commission will assess by 2024 whether the EU is on track to meet its 2030 targets or whether stronger actions, including EU legislation, are needed.

A general view of CBD is that the post-2020 global biodiversity framework should be **ambitious**¹² and support the transformational changes needed to realize the 2050 Vision for Biodiversity. The post-2020 global biodiversity framework should serve as a universal framework for action on biodiversity and foster strong ownership and support for its implementation.

Bern Convention's policy to date was to adapt all the methodologies and principles developed by the EU countries for Natura 2000 process. It would seem logical that the Contracting Parties to the Bern Convention and the Secretariat would accept the above statements and commitments also for the Emerald Network. Yet it is also obvious that in the current state of development the Natura 2000 and the Emerald networks are at **very different distances from the target** in terms of sufficiency index and national coverage. The non-EU Contracting Parties are even more behind the EU in setting conservation objectives, developing management plans and introducing adequate conservation measures (Phase III). This means that if Natura 2000 and the Emerald Network will aim both to reach these high targets, the non-EU countries would have to do substantially more than the EU countries. It is questionable if this is realistic considering the progress of the Emerald Network development so far.

As regards to the Aichi Target 11 (aim to reach 17% of national coverage), the non-EU Contracting Parties have better achievements. But the further aim to protect a minimum of 30% of the land and sea area (stated both in the EU and CBD documents) moves the target ahead. The EU new strategy states that "designations should either help to complete the Natura 2000 network or be under national protection schemes". This remains to be clarified by the end of 2020. It remains unclear for the time being what should be the proportion of Natura 2000 sites in this target which could subsequently be considered for the Emerald Network.

All of the above needs to be carefully considered by the Contracting Parties to the Bern Convention to understand if identical or similar commitments can be taken by the convention.

The previous version of this document proposed two approaches in setting the Emerald Network targets 2030:

- Optimistic, or ambitious, corresponding to the EU commitments in the new strategy and to align the Emerald Network targets with the European Union.
- Cautious, or realistic, which is based on real experience and observations of progress so far from the Emerald and Natura 2000 networks.

Table 4 below foresees both above options.

¹² CBD: <https://www.cbd.int/conferences/post2020/post2020-prep-01/documents>

Table 4. Target values for each phase of the Emerald Network constitution process. The targets apply to the Emerald Network in general and in each country individually to ensure fair share of contribution. Current situation: calculated from the end-2019 Emerald Network databases and WebApp. Mid-term targets: automatically assumed as a mid-point between the current situation and the final target. Final targets: to be agreed on by Contracting Parties to the Bern Convention. Setting optimistic and realistic targets could still be envisaged.

Milestones	Phase I		Phase II				Phase III	
	1. National coverage (all site types) (%)		2. Sufficiency index (%)		3. National coverage (adopted sites) (%)		4. Proportion of adopted sites with management plans (%)	
	OPTIMISTIC	REALISTIC	OPTIMISTIC	REALISTIC	OPTIMISTIC	REALISTIC	OPTIMISTIC	REALISTIC
Baseline (2020)	14.8	14.8	21.7	21.7	4.7	4.7	13.5*	13.5*
Mid-term target (2025)	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]
Final target (2030)	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]	[Tbd]

* This figure is strongly influenced by Andorra's 100% for only 2 Emerald Network sites.

5 Conclusion

The proposed draft post-2020 workplan was discussed by the Group of Experts on Protected Areas and Ecological Networks on 7-8 October 2020. While the Group of Experts approved the new structure of the strategic workplan it postponed the setting of numeric targets until the European Commission provides interpretive guidance on EU's 2030 commitment to protect 30% of the land and marine territory. It should also await the adoption of the global biodiversity targets by the upcoming CBD COP in May 2021.

6 References

- Pritchard, D. and Opermanis, O. 2017. Emerald Network status in the Eastern Partnership region and the Russian Federation. Council of Europe.
- Opermanis, O. Roekaerts, M. 2020. Proposal of a monitoring framework to monitor the implementation of the Emerald Network. Draft report. Submitted to GoEPAEN meeting 7-8 October 2020.

Table 5. Proposed strategic issues for the implementation of the Emerald Network from 2021 to 2030. These items apply for the whole planning period. The list is not considered to be complete and countries are invited to suggest amendments as necessary.

Phase	No.	Description
General	0-1	Ensure further development of the Emerald Network IT tools: Emerald Viewer, Emerald WebApp, and QA/QC procedures for incoming databases and strengthen the capacity of the secretariat to follow and guide this process.
	0-2	Develop and regularly update the Emerald Network barometer containing information about the progress.
	0-3	Update the list of habitats listed in Resolution No. 4 (1996) and list of species listed in Resolution No. 6 (1998) as necessary. Update the EUNIS habitat classification.
	0-4	...
Phase I	I-1	Implement an enquiry to all possible non-EU countries about the reasons for not starting the Phase I or stopping the Emerald Network process after initial evaluation.
	I-2	Further explain for the EU associated countries the benefits of running the Emerald Network process before accession to the EU.
	I-3	...
Phase II	II-1	Unless there is a specific reason, bio-geographical seminars or bilateral meetings should be held preferably 2 years but no later than 3-4 years after previous seminar.
	II-2	After long-time period (approximately 10 years, e.g. West Balkan countries and Switzerland) a preparatory meeting should be organised to assess possible progress and to refresh knowledge about the biogeographical process.
	II-3	Bilateral evaluation meetings are recommended (instead of larger regional biogeographical evaluation seminars with several countries), if participating countries in a group/cluster have markedly different speed in progress with previous conclusions.
	II-4	Identify a need for and implement technical bilateral assistance projects for countries between two sufficiency evaluation rounds.
	II-5	Marine biogeographical process initiated if a substantial amount of marine sites are submitted for the Marine Regions as adopted by the Standing Committee meeting in 2018 ¹³ : Arctic, Atlantic, Baltic, Black Sea – Sea of Azov, Caspian Sea and the Mediterranean.
	II-6	...
Phase III	III-1	If the Emerald Network development is progressing into the Phase III, the discussions need to be renewed about launching a process which would discuss site management issues, similar to the “new biogeographical process ¹⁴ ” in the EU.
	III-2	In the Emerald Network database, countries should systematically fill the fields related to site management to enable more objective progress assessment of implementation of Phase III.
	III-3	...

¹³ <https://rm.coe.int/proposal-of-delineation-of-marine-regions-in-the-framework-of-the-bern/16808e2ba5>

¹⁴ https://ec.europa.eu/environment/nature/natura2000/platform/index_en.htm

Table 6. Emerald Network strategic framework (2021 – 2030)

Goal and targets	Expected results (Table 4 above)	Indicators with reference to Emerald Network monitoring framework	Means of achievement: activities (see more detailed descriptions in text)
Overall goal	Ensure a favourable conservation status of species and habitats listed respectively under Resolution No. 6 (1998) and No. 4 (1996) in all non-EU Contracting Parties to the Bern Convention.	Analysis of the reports under Resolution No. 8 (2012) for the periods 2019-2024 for mid-term assessment and 2025-2030 for final assessment	All of below plus conservation activities outside the Emerald Network
Target 1 (Phase I)	All non-EU Contracting Parties propose Emerald Network sites for the species and habitats for whom they have responsibility on their territory so as to reach [To be decided] % of their terrestrial and marine territory.	Indicator 1: National coverage (%) of all types of Emerald Network sites.	<ul style="list-style-type: none"> • Feasibility study • Pilot project • Field studies or existing information review • Database submission • Preparatory evaluation seminar
Target 2 (Phase II)	Non-EU Contracting Parties ensure that their lists of sites proposed are sufficient to ensure a coherent Emerald Network. By the end of the decade all non-EU Contracting Parties reach a sufficiency of [To be decided] %.	Indicator 2: Sufficiency index (% of sufficiency conclusions versus all conclusions).	<ul style="list-style-type: none"> • Bio-geographical evaluation seminar involving multiple countries, either by geography or by bio-geographical region • Bilateral evaluation seminar with a single country
Target 3 (Phase II)	All non-EU Contracting Parties propose Emerald Network sites for the species and habitats for whom they have responsibility on their territory so as to reach [To be decided] % of their terrestrial and marine territory and are officially adopted Emerald Network sites.	Indicator 3: National coverage (%) of Adopted Emerald Network sites.	<ul style="list-style-type: none"> • Site adoption • Special assistance for individual countries between 2 assessment rounds
Target 4 (Phase III)	Non-EU Contracting Parties take necessary steps to set management schemes. At the end of the decade [To be decided] % of Emerald Network adopted sites have up-to-date management plans and are designated at national level.	Indicator 4: Proportion (%) of Adopted Emerald Network sites with management plans.	<ul style="list-style-type: none"> • Management seminars to exchange knowledge • Setting site conservation objectives • Management plans • Introduction of appropriate conservation measures • Monitoring of conservation measures vs conservation objectives

