Annex A:

Assessment materials

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The significance of the environmental effects resulting from plans or programmes (PPs) has to be assessed in the following cases:

- new PPs according to paragraph 2 that determine the use of small areas at local level,
- modification of PPs according to paragraph 2 that determine the use of small areas at local level,
- minor modifications of PPs according to paragraph 2,
- all new PPs according to paragraph 4,
- all modifications of PPs according to paragraph 4,

Table A-1 gives an overview of these cases.

Reference to Article 3 of the SEA Directive	New / modified PPs	PPs covered	Relevant sectors	Requirement
Para. 3 plus para. 2 (a)	New PPs	Use of small areas at local level	Agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use	Setting the framework for future development consent of projects listed in the EIA Directive
	Modified PPs	Use of small areas at local level		
	Modified PPs	Minor modifications		
Para. 3 plus para. 2 (b)	New PPs	Use of small areas at local level	All sectors	Examination required under the Habitat Directive
	Modified PPs	Use of small areas at local level		
	Modified PPs	Minor modifications		
Para. 4	New PPs Modified PPs	All PPs	All sectors	Setting the framework for future development consent of (any) projects

Table A-1: Overview of cases to be screened

To support the drafters of PPs, they are provided with the assessment materials presented below, i.e.

- check-lists,
- general and specific assessment rules, as well as
- an example of a relevance matrix.

They include explanations on their use and several examples.

These assessment materials have been designed in such a way that they can be used as such, without any additional documents, when a decision has to be taken on the likely significance of environmental effects of specific PPs and, thus, on the need for a strategic environmental assessment (SEA). They have to be worked through **step by step** and can also be used for plans and programmes that are not expected to have serious or far-reaching effects (e.g. possible in case of modifications). In these (routine) cases that may be very simple, **quick decisions** should be possible. Therefore, the lists of criteria constitute **"maximum lists"** from which irrelevant ones can and should be deleted in concrete individual cases.

Moreover, the assessment materials include the inputs and characteristics that are to provide orientation for the decision. Hence, they may also be used — so to speak — as **"lists of arguments"** for a decision. Provided that these lists are as comprehensive as possible, they contribute to minimising the risk of incorrect assessments. The length of the lists and, in part, their level of detail also has to be seen from this perspective, and takes into account that, if applicable, the lists may subsequently be used for detailed assessments (see below). A list that is as complete as possible, therefore, also has to be seen as a **"service"** for the users in order to ensure the correct application of the criteria specified in Annex II of the Directive.

Support is also provided for the two criteria of "small areas at local level" and "minor modifications" that are indicated in the Directive. Since the assessment materials are to be used both for new and modified PPs, these two aspects are not separately emphasised in all the cases.

The check-lists are supplemented by **assessment rules** containing the characteristics to be taken into account. They include generally applicable rules and specific rules for individual assessment steps. Both the general and the specific assessment rules as well as the individual assessment steps are mandatory provided that the characteristics described are present.

Of course, it is possible at any time to include additional or more differentiated criteria in the lists if this seems to be appropriate due to the special features of PPs (the fields "Other" are provided for this purpose). Furthermore, the lists constitute tools that need not be applied in a rigid way, but also permit justified deviations.

On principle, the criteria and characteristics included in the lists only have to taken into consideration if this is possible and relevant for a concrete plan / programme.

It is recommended that, after the work has been performed, the completed assessment materials are added to the PP documents forming an official part of them (they are placed on file, so to speak), in order to document the aspects taken into account in the assessment.

Further information, in particular on the background and the reasons for the approach and methodology selected, is presented in the main part of this study.

A.1. Assessment questions

The steps outlined in the following chart (Figure A-1) reflect the questions to be asked and have to be carried out one by one, unless one of them already determines that a **SEA is not required**.

Basically, it makes only sense to go through the assessment steps if there are no **obviously** significant environmental effects. This may, for example, be the case if significance is given due to a predominant criterion — a so-called “taboo” or “k.o.” criterion —, which will apply, for example, if the effects have the potential to destroy an environmental system affected or lead to a permanent degradation or restriction.

If the need for a SEA is established due to one or more criteria, this means by analogy that the remaining steps of the assessment are also obsolete.

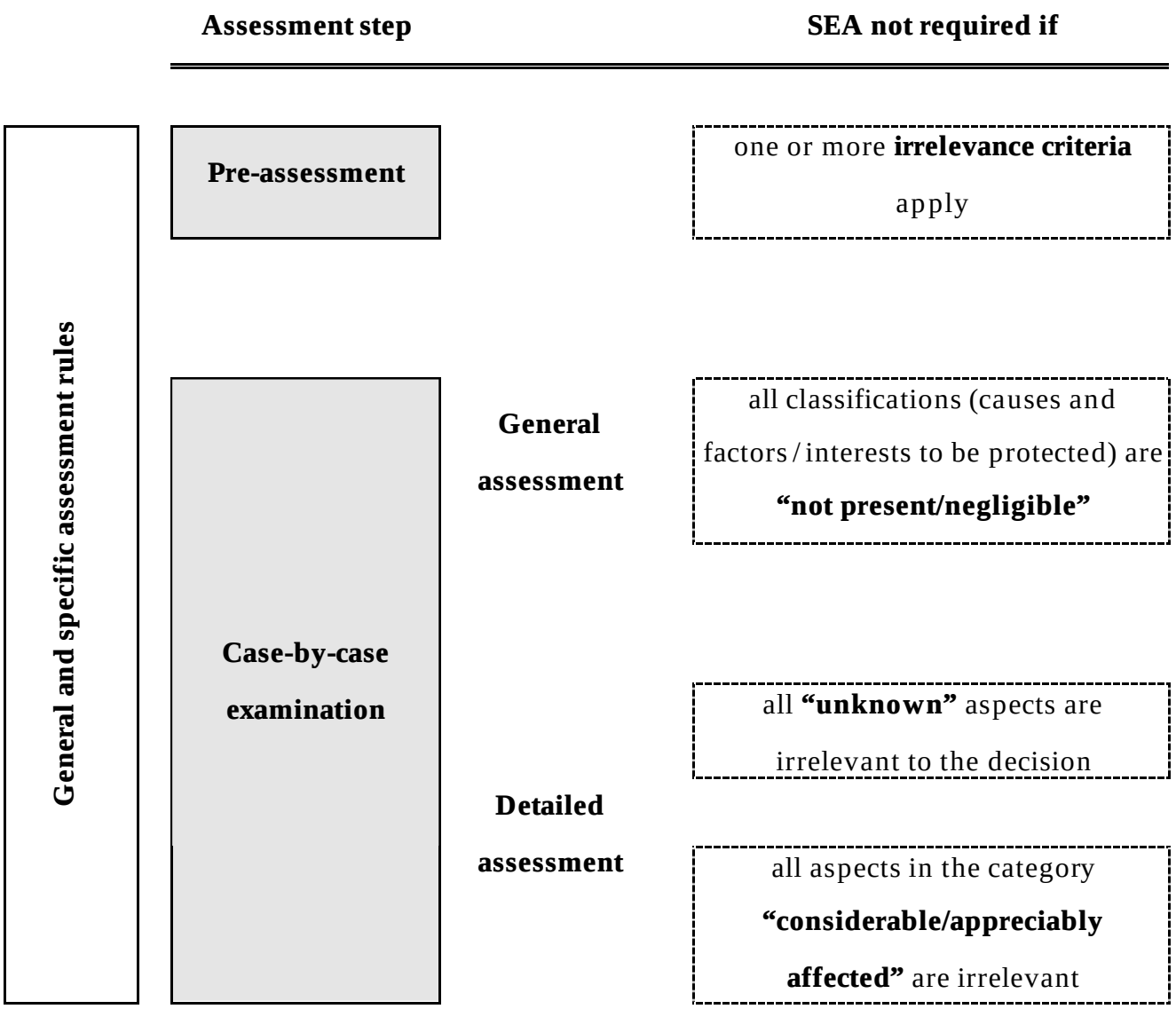

Figure A-1: Overview of the assessment steps

A.1.1 Assessment rules

The general assessment rules, which also contain definitions, apply to all the assessment steps carried out. Additionally, specific rules are presented under the individual assessment steps.

A.1.2 Pre-assessment

Irrelevance criteria are used to determine whether a (quick) decision can be taken on the need for a SEA.

If at least one of the irrelevance criteria applies, there is **no obligation** to perform a **SEA.**

A.1.3 Case-by-case examination

If none of the irrelevance criteria applies, the next step is a case-by-case examination (CCE) that is made up of a general and a detailed assessment.

General assessment

The general assessment serves to identify potential causes of environmental effects and potentially affected factors / interests to be protected. This is done in a systematic and structured way, taking into account specific assessment rules. Here, you examine whether the PPs or their measures and instruments have the potential of resulting in the causes of effects listed that are possible on principle. Then, you check which factors / interests to be protected may be potentially affected by the PPs' effects. For both causes and factors / interests to be protected, all aspects are taken into account **as far as they are known or identifiable.**

Consideration is to be given to the assessment rules relating to:

- the characteristics of the effects, and
- the characteristics and the ecological sensitivity of the areas affected.

Additionally, possible functions of individual factors / interests are indicated (by way of example). This is to facilitate full coverage of the potential effects of the PPs to be examined.

They are to be assigned to the categories "not present / negligible", "considerable / appreciably affected" or "unknown".

If all aspects fall in the category "not present / negligible", a **SEA is not required.**

Detailed assessment

Lack of data and knowledge

For all aspects classified as "unknown", specific assessment rules are used to check whether the existing data and knowledge gaps are relevant for the decision.

If they are irrelevant and if there are no aspects classified as "considerable / appreciably affected", a **SEA is not required.**

Relevance matrix

Unless the previous steps ruled out the need for a SEA or unless any data and knowledge gaps were found to be irrelevant for the decision, further work is necessary to determine whether the "considerable / appreciably affected" or "unknown" potential effects on the environment are decisive, which would mean that a SEA had to be performed. Relevance matrices are recommended as a tool for identifying (additional) aspects that may be interdependent.

If necessary, with the help of additional experts and after obtaining further information, these matrices are used to assess whether the effects classified as "considerable / appreciably affected" or "unknown" are to be considered significant in a specific individual case.

For all the effects described here, it is recommended to ask experts to provide their advice in the form of reasoned opinions. These are to be collated for the final decision in which a verbal argumentative statement is to be presented. In this process, specialised assessment procedures and criteria may and should obviously be used.

Figure A-2 gives an example of a "maximum matrix" that includes all the causes identified so far as well as the factors / interests to be protected. In a concrete case, it will make sense to limit the matrix to the triggers and targets of environmental effects (causes and factors / interests to be protected) identified in the (general) assessment performed.

Please note that the (general and specific) assessment rules also apply to this assessment of the significance of environmental effects.

If at least one environmental effect is considered to be significant, a SEA has to be performed.

Result

At any rate, the final decision on the need for a SEA is to be supplemented by a summary of the reasons based on the structured assessment carried out. Thus, the result is a **verbal argumentative statement**.

It may be necessary in some cases to specify the **conditions** for the decision on the need for a SEA (which issues must or must not be contained in a PP, e.g. in case of the following variant, form or measure, a SEA is not necessary, or similar conditions). However, there is no duty to do so: in development consent procedures, conditions may be proposed.

A.2. General assessment rules

✓	The assessment takes into account and is orientated to the following **objectives** and **principles:** ❍ the principles of precaution and prevention; ❍ safeguarding a high level of environmental protection with a view to promoting sustainable development (the preservation, protection and improvement of the quality of the environment); ❍ the protection of human health; ❍ the prudent and rational utilisation of natural resources; ❍ the conservation and sustainable use of biological diversity; ❍ other environmental objectives of relevance to PPs that have been defined at an international, Community, national, regional or local level.[1]
✓	The assessment takes into account the **characteristics** of PPs, having regard, in particular, to: ❍ the degree to which a framework is set for projects and other activities, either with regard to the location, nature, size and operating conditions or by allocating resources[2];[3] ❍ the degree to which other PPs, including those in a PP hierarchy, are influenced;[4] ❍ the relevance of the PP for the integration of environmental considerations in particular with a view to promoting sustainable development;[5] ❍ environmental problems relevant to the PP;[6] ❍ the relevance of the PP for the implementation of Community legislation on the environment (e.g. PPs linked to waste management or water protection).[7]
✓	The criteria for assessing the significance generally do **not form part of a hierarchy** and will be of different relevance in each concrete case. It is safe to assume that, usually, a single criterion will not be decisive and that significance will be more likely, the more criteria are fulfilled.
✓	The assessment's **level of detail and concreteness** matches the one of the PP to be examined.[8]
✓	The environmental effects covered include direct and indirect, secondary, cumulative, synergistic, short, medium and long-term, permanent and temporary, reversible and irreversible, positive[9] and negative effects.[10]
✓	An assessment is to be given with regard to **potential** environmental effects that will occur with sufficient **probability**, i.e. the PPs are examined to find out whether there are concrete indications for reasonably assuming such a potential (risk).
✓	The assessment has to cover the entire **range** of PPs and their instruments and measures; this includes the examination of the following aspects: ❍ all realistic planning options; ❍ (reasonable) **alternatives**, if they form part of the PPs; ❍ future **developments**, including growth effects as far as these are foreseeable (e.g. demographic, transport and other developments).
✓	For all the decisions taken, the **reasons** have to be given, stating the criteria that were decisive, and a **documentation** has to be prepared.
✓	If the decision “SEA not required” only applies under specific **conditions** (e.g. aspects that have to be covered and / or must not be included in PPs, such as certain variants, designs, measures, etc.), this has to be documented, as well.

Terms and definitions	
✓ For the purposes of assessing the significance of environmental effects, the following **terms** are defined as follows:	
❍ environmental effect	any change in the physical, natural or cultural environment (be it positive or negative) that fully or partly results from PPs or from instruments and measures
❍ significant	weighty and momentous in the context studied
❍ decisive	determining the final decision
❍ likely effects	potential effects that may be reasonably expected, i.e. due to concrete indications and with sufficient probability
❍ cumulative effects	effects building up
❍ synergistic effects	effects acting together (here, we can differentiate synergistic effects whose combined impact is greater than the sum total of the individual effects from antagonistic effects whose combined impact is less than the sum total of the individual effects)
	Both cumulative and synergistic effects may be caused by the fact that effects occur at the same time or at the same place.
Other:	

A.3. Check-lists and specific assessment rules

A.3.1. Check-list of irrelevance criteria

Criteria	Yes
The PP to be assessed was **already** examined in a **SEA** and the following applies: ❍ the version (modification) to be assessed obviously does not contain any additional or current aspects with regard to environmental effects, and ❍ the results of the SEA already performed are sufficiently up to date, and ❍ there are no new framework conditions, findings or data that have a decisive influence on the results of the SEA already performed.	☐
PPs of **superior** levels in a planning hierarchy were already examined in a SEA and the following applies: ❍ the PP to be assessed obviously does not contain any additional or current aspects with regard to environmental effects, and ❍ the results of the SEA performed for the superior PPs are sufficiently up to date, and ❍ there are no new framework conditions, findings or data that have a decisive influence on the results of the SEA already performed for the superior PPs. In particular, this may apply in case of **adaptations** of superior PPs.	☐
The environmental aspects (possibly in the same planning area) of the PP to be assessed were **already** covered by a **SEA** performed for other PPs — these may relate to **sectoral** planning and need not necessarily be in any planning hierarchy — and the following applies: ❍ the PP to be assessed obviously does not contain any additional or current aspects with regard to environmental effects, and ❍ the results of the SEA performed are sufficiently up to date, and ❍ there are no new framework conditions, findings or data that have a decisive influence on the results of the SEA already performed.	☐
Due to the type or objective of the PP to be assessed or to its instruments and measures, there are obviously **no adverse,** but only positive effects on the environment as a whole, i.e. in an **integrated** perspective and not only related to individual sectors or factors / interests to be protected so that sectoral protection aims do not adversely affect other sectors or factors / interests to be protected.[11]	☐
The PP's object merely is the **designation** (classification, nomination) of land for the protection of certain areas, for example, under the Habitat or Birds Directives.	☐
The (negative) environmental effects to be expected are within the range of forecast / measurement uncertainties so that the effects **cannot be identified** (observed, detected, perceived, measured in comparison with the situation without the PP to be assessed).	☐
The additional pressures or the expected (negative) effects on the environment are within the range of the **background load** (typical for the area).	☐
The additional pressures or the expected (negative) effects on the environment are within the **natural range** of the factors / interests to be protected.	☐

Criteria	Yes
There are only (minor) **modifications** (revisions, updates) of PPs that do not change ❍ the PPs' nature and intervention aims[12], and ❍ the type and order of magnitude of the environmental effects.[13]	☐
The PPs are only **adapted** to the actual (legal) structural and utilisation conditions.	☐
The PPs only relate to the use of a small area of **local** dimension, i.e. a **spatial-functional unit** at **municipal** level characterised by specific or related natural, socio-economic, socio-cultural and structural (urbanist) **interactions/textures**.[14]	☐
There are other sector-specific (irrelevance) criteria that make it possible to preclude significant environmental effects and, for instance, are laid down in relevant legal documents.[15]	☐
Other:	☐

Notes / Reasons:

A.3.2. Check-list of causes of effects

Cause: Potential of	Not present / negligible	Considerable / appreciably affected	Unknown	Notes
Use of resources				
Land use, sealing	☐	☐	☐	
Use or shaping of nature and landscape	☐	☐	☐	
Water use and abstraction	☐	☐	☐	
Use of other resources[16]	☐	☐	☐	
Changes in the area concerned and in spatial-functional relations[17]				
Terrain changes, fragmentation, separating or barrier effects, erosion, increase or decrease in density	☐	☐	☐	
Changes in dispersal conditions and surface properties	☐	☐	☐	
Hydrological changes[18]	☐	☐	☐	
Clearing	☐	☐	☐	
Traffic generation	☐	☐	☐	
Visual, aesthetic changes	☐	☐	☐	
Hazard potential				
Earthflows, mud slides, avalanches, floods	☐	☐	☐	
Risk of accidents[19] or failures[20]	☐	☐	☐	
Emission potential[21]				
Noise[22]	☐	☐	☐	
Air pollutants[23]	☐	☐	☐	
Liquid emissions[24]	☐	☐	☐	
Waste and residues[25]	☐	☐	☐	
Interactions and interrelationships[26]				
Cumulation of effects[27]	☐	☐	☐	
Synergistic effects[28]	☐	☐	☐	
Other:[29]	☐	☐	☐	

A.3.3. Assessment rules for causes of effects

	If applicable, consideration is to be given to:
	Characteristics of the effects
✓	Volume
✓	Extent
✓	Complexity
✓	Severity
✓	Dominant or shaping character
✓	Likelihood (of occurrence)
	Temporal dimension of effects
✓	Point in time[30]
✓	Duration (short, medium or long-term)
✓	Frequency
✓	Development and, if applicable, change
✓	Reversibility
✓	Period of time until regeneration / recovery may come about
	Spatial dimension of effects
✓	Location, including altitude, exposedness, spatial barriers / topographic boundaries
✓	Geographic region (local, regional, transregional, global)
✓	Number of persons affected
✓	Transboundary character
✓	Other:
Notes:	

A.3.4. Check-list of factors/interests to be protected

Factors and interests to be protected	Not present / negligible	Considerable/ appreciably affected	Unknown	Notes
Environmental media				
Soil and sub-soil[31]	☐	☐	☐	
Groundwater and surface water[32]	☐	☐	☐	
Air	☐	☐	☐	
Meso-climate[33] and macro-climate	☐	☐	☐	
Fauna and flora[34]				
Animals[35]	☐	☐	☐	
Plants[36]	☐	☐	☐	
Forests[37]	☐	☐	☐	
Habitats (biotopes, eco-systems)[38]	☐	☐	☐	
Biological diversity[39]	☐	☐	☐	
Human beings				
Health and well-being	☐	☐	☐	
Landscape[40], its character and ecology	☐	☐	☐	
Cityscape and scenery[41], spatial structure, aesthetics	☐	☐	☐	
Utilisation[42]	☐	☐	☐	
Material assets[43]	☐	☐	☐	
Cultural heritage	☐	☐	☐	
Interactions and interrelationships[26]	☐	☐	☐	
Other:	☐	☐	☐	

A.3.5. Assessment rules for factors and interests to be protected

	If applicable, consideration is to be given to:
	Functions of factors to be protected
	Soil and sub-soil in their function as:
✓	a habitat for animals, plants and other organisms
✓	a part of natural balance, including in particular the water and nutrient cycles
✓	decomposition, neutralisation and accumulation media
✓	an area used, for example, for settlements, transport, recreation, sports, tourism, agriculture and forestry, horticulture, etc.
✓	groundwater storage
✓	deposits of raw materials
	Groundwater and surface water in their function as:
✓	a habitat for animals, plants and other organisms
✓	a part of natural balance, including in particular the nutrient cycles
✓	retention volume
✓	drinking water (including watering points for animals)
✓	domestic and industrial water
✓	basis of fishery and other economic activities (e.g. energy production, cooling medium, navigation)
✓	bathing waters
	Air and (local) climate in their functions as
✓	basis of life for humans, animals, plants and other organisms
✓	a part of natural balance, including in particular the water cycles and climate-relevant functions (e.g. temperature regulation)
✓	transport medium
	Plants (incl. forests) in their functions as
✓	parts of food chains
✓	crops
✓	producers of fresh air
✓	protection
✓	recreation areas
✓	barriers, including climate-relevant functions,
	Animals in their “function” as
✓	parts of food chains
✓	livestock
✓	Other:

Notes:

	If applicable, consideration is to be given to:
	Characteristics and ecological sensitivity of the areas affected[44]
	Ecological/cultural importance of the areas or their value, in particular
✓	densely populated areas
✓	areas or landscapes which have a recognised national, Community or international protection status, e.g. areas designated under the Habitat and Birds Directives, national parks, nature reserves, areas of outstanding natural beauty, protected landscape areas, natural monuments, forest reservations, water protection and conservation areas, climatic health resorts, etc.
✓	(cultivated) landscape or elements of historic, cultural, geological or archaeological importance, e.g. architectural and archaeological heritage, monuments, UNESCO World Cultural Heritage, etc.
✓	areas subject to special (spatial planning) designations and provisions (e.g. protected, priority, development and suitability zones); open spaces
✓	areas with protective functions (against natural risks), e.g. areas with retention functions
✓	pristinity, naturalness, level of anthropogenic influences (hemeroby)
✓	coherence and consistency of areas, networking of ecologically important areas (habitat patch connectivity)
✓	possibility of (directly) experiencing nature
✓	scarcity, characteristic features, uniqueness; also with regard to ensembles
	Potential of the areas, in particular
✓	special or particularly characteristic or representative natural or cultural features
✓	production, habitat and regulating functions
✓	performance and functioning, development potential, potential yield
✓	natural or semi-natural dynamism, including spatial dynamism (e.g. migration routes, movement ranges, game paths)
✓	availability or depletability of renewable (e.g. plant and animal biomass, water) and non-renewable (e.g. mineral) resources, landfill volume, etc.
✓	richness in, and diversity of, natural resources as well as their quality and regenerative capacity
✓	special reserves, e.g. with regard to habitats, (recreational) utilisation, water (e.g. medicinal springs)
	Vulnerability of the areas, in particular
✓	existing pressures
✓	current utilisation, especially intensive land use
✓	existing or foreseeable utilisation conflicts
✓	existing environmental problems, such as former disposal and industrial sites[45], suspected and proven contaminated sites according to ALSAG, pollutant depositions, overfertilisation, compaction, etc.
✓	areas in which statutory limit values, recognised recommended values or other environmental quality standards, in particular those laid down in Community legislation[46], are exceeded[47]
✓	existing risks, for example due to natural risks, such as avalanches, mud slides, rockfalls or floods (e.g. hazard zone plans under ForstG, flood zones under WRG); fields of consultation under the Seveso II Directive, etc.
✓	absorption and buffering capacity
✓	sensitivity
✓	ecological / functional substitutability
✓	regenerative capacity
✓	(carrying) capacities, e.g. infrastructure, including transport infrastructure
✓	(unfavourable) special topographic or meteorological characteristics
✓	areas with extreme living conditions
✓	particularly sensitive eco-systems, such as wetlands, forests, mountain regions, glaciers
✓	rare or endangered animal and plant species[48], plant communities, refuges
✓	eco-systems (biotopes, biocoenoses) that are rare, endangered, of particular ecological value or typical for a region as well as their transition zones (eco-tones)
✓	Other:
Notes:	

A.3.6. Assessment rules for data and knowledge gaps

	If applicable, consideration is to be given to:
	Rules with regard to the relevance of uncertainties to the decision
✓	Data and knowledge gaps are considered to be irrelevant to the decision if the **result is stable**, i.e. the decision does not depend on the knowledge or data gap identified.
✓	Data and knowledge gaps are considered to be irrelevant if detailed information is needed for the assessment that exceeds the PP's level of detail and specificity and if it is ensured that this detailed information will be taken into account in subsequent examinations (SEA or (approval) procedure) — with a view to the effects on the environment as a whole, i.e. in an **integrated** approach, and not with regard to individual sectors or factors / interests to be protected.
✓	The requirements to be met with regard to the precision and level of detail of the underlying data and information increase as a function of the importance, sensitivity, ecological value and protection needs of the area / factor / interest affected and as a function of the severity of the potential damage. In case of uncertainties due to insufficient knowledge or data, the effects will have to be considered significant even if their **likelihood** is low when important factors / interests to be protected are effected or major potential damage is possible.
✓	The more **uncertainties** exist, the greater the probability that a SEA will be required.
✓	In case of **doubt**, the principle should apply that, in case of doubt, knowledge gaps tip the balance towards the need for a SEA.
✓	Other:
Notes:	

A.3.7. Relevance matrix

			Causes																		
	Assessment of the potential effects of plans/programmes		Land use, sealing	Use or shaping of nature and landscape	Water use and abstraction	Use of other resources (raw materials, energy, etc.)	Terrain changes, separating or barrier effects, etc.	Changes in dispersal conditions, etc.	Hydrological changes	Clearing	Traffic generation	Visual, aesthetic changes	Earthflows, mud slides, avalanches, floods	Risk of accidents or failures	Noise (industry and traffic)	Air pollutants (gas and particles, odour)	Liquid emissions	Waste and residues (incl. excavated material)	Cumulation of effects	Synergistic effects	Other
	Factors/interests to be protected																				
Effect on	Environmental media	Land and soil																			
		Groundwater and surface water																			
		Air																			
		Meso- and macro-climate																			
	Fauna and flora	Animals																			
		Plants																			
		Forests																			
		Habitats																			
		Biological diversity																			
	Human beings	Health and well-being																			
		Landscape, etc.																			
		Cityscape and scenery, etc.																			
		Utilisation types																			
		Material assets																			
		Cultural heritage																			
		Interactions, etc.																			
		Other																			

Figure A-2: Relevance matrix

A.4. Notes

[1] In general, objectives from the following fields may be relevant: waste management, water management, water protection, spatial planning, transport, nature conservation, climate protection, agriculture, forestry, land use, energy industry, resource economy, industry, tourism. In particular, landscape management plans, development concepts, transport concepts, etc., have to be taken into account.

[2] These are not financial resources. This is corroborated by the separate provision on financial or budget plans and programmes in Article 3 (8) of the Directive, by the wording of the Directive's recitals, in particular the first recital that speaks of the "prudent and rational utilisation of natural resources", and by the German version of the Directive (where the term "Inanspruchnahme" (utilisation) is used for "allocating").

[3] For example, PPs that only define objectives — and do not specify measures to achieve them — or PPs whose elements are not subject to mandatory implementation will usually be less important in terms of setting a framework as described.

[4] Basically, PPs at the same level ("horizontal") and at different levels ("vertical") in a planning hierarchy may be influenced. In this context, the binding nature of PPs may also be decisive for the fact whether and in how far other PPs can be influenced. In planning hierarchies, the influence may be relevant, in particular, when PPs at a lower level of the planning hierarchy are based on, or implement, higher-level PPs. If a PP does not form part of a planning hierarchy or even is the only one in its sector, there is only minor potential for influences.

[5] The following question is raised in this context: in how far can PPs or the performance of a SEA contribute to avoiding environmental damage in the sense described?

[6] The relevance may be "active" or "passive", so to speak. This means that PPs may give rise to environmental damage ("active") or are affected by them ("passive"). Here, the primary focus will be on PPs contributing, for example, to the solution, reduction or prevention of environmental problems.

[7] The decisive question is whether PPs contribute to the implementation of the EU's environmental legislation and whether they do so to an adequate extent. Here, a major role is played, for example, by PPs prepared on the basis of Community legislation in the field of environmental protection (e.g. under the Habitat and Water Framework Directives).

[8] It does not make sense, for example, to look at the concrete volume of air emissions if these are not covered by the PPs with the same level of concreteness.

[9] Positive effects on the environment are considered, but the CCE does not weigh negative against positive effects with a view to assessing the likely significance of environmental effects. This is reserved for the performance of the SEA proper. This is also true for measures intended to prevent, reduce and offset negative environmental effects, i.e. in general, a decision on their effectiveness can reasonably be taken only within the framework of a SEA.

[10] In general, "environmental quality" is to be taken into account when assessing the PPs' effects. The following may serve as an orientation: Environmental quality ("ecological status") covers all the structures and functions of an eco-system and provides information on certain characteristics, features and properties of factors to be protected, including resources, potentials and functions, that are defined in terms of substance, space and time. Eco-systemic relationships have to be taken into account. Environmental quality is characterised by a system of objectives that specify the environmental quality to be maintained or achieved in concrete cases. Conservation value, load and desirable quality are determined by means of relevant standards serving as concrete assessment instruments. Indicators are used to define the expression, measurement methods and framework conditions.

[11] Possible, for example, in case of exclusive utilisation restrictions, changes in zoning from construction land to (certain categories of) green space.

[12] For example, in case of zoning plans if the building requirements for the land are not affected.

[13] In general, it may nevertheless make sense to carry out a SEA on modifications of PPs if — for whatever reasons — a SEA was not performed on the PPs themselves even though they (may) have significant environmental effects.

[14] Possible, for example, in case of town centres, residential compounds and recreation areas (of course, with consideration to the assessment rules).

[15] For example, regulations related to zoning plans in the *Länder* (that partly use quantitative criteria for the area in addition to qualitative ones), closure of gaps and connections to designated building land in the same zoning category (even if a minor street runs through this area that does not constitute a structural boundary).

[16] Such as raw materials, energy, building materials, operating materials.

[17] Taking into account impoverishment or isolation (of elements), urban sprawl, change of land-cover types.

[18] Including drainage, transfers, etc.

[19] For example, due to the storage, handling or transport of dangerous substances (e.g. flammable, explosive, toxic, radioactive, carcinogenic or mutagenic substances).

[20] For example, supply or emergency facilities.

[21] Including the mobilisation of pollutants.

[22] Industrial and traffic noise.

[23] Gaseous and particulate emissions, including substances contributing to the greenhouse effect or to the depletion of the ozone layer as well as odorous substances (both with regard to traffic-related and diffuse emissions); indirect effects caused by dry and wet deposits, eutrophication and acidification due to pollutant inputs, etc., also have to be taken into account.

[24] Wastewater, including water used for fire fighting, liquid seepage.

[25] Taking into account waste generation and disposal, recovery and recycling, including excavated material.

[26] Interactions and interrelationships may include repercussions and counteractions of interventions as well as shifts to other media, accumulation and consequential effects, in addition to the effects mentioned (e.g. cumulative and synergistic effects). In order to cover combined effects, the existing load (e.g. due to current utilisation), the absorption capacity, the additional load caused by the PPs as well as the resulting overall load have to be considered. The essential factor in the assessment of the overall load may be either the existing load (making a low additional load critical) or the additional load (if it significantly changes the previous (local) conditions). Interactions and interrelationships may also concern spatial-functional relationships between eco-systems or their elements and, hence, processes (e.g. change in a regime or ecological balance taking into account interrelationships, such as the food chain). Additionally, the dynamism of relationships (e.g. between water and soil or animals and plants), which may by typical of the structure or function of areas, can play a role.

[27] Including cumulation with other PPs; if applicable, also due to the fact that PPs are based on other PPs or, in their turn, induce and result into other PPs.

[28] In case of effects acting together, we can differentiate synergistic effects whose combined impact is greater than the sum total of the individual effects from antagonistic effects whose combined impact is less than the sum total of the individual effects.

[29] For example, light and shade, (ionising) radiation, electro-magnetic fields, heat and thermal pressures, vibrations, fires, effects of explosions (blast, debris), biological working substances, genetically modified (micro) organisms, infectious material.

[30] This may be relevant, for example, with regard to meteorological aspects, vegetation seasons and utilisation aspects (time of day).

[31] Including soil structure and type, ecological and physico-chemical characteristics, quality, geological and geomorphologic aspects (e.g. relief, slope inclination and erosion risk).

[32] Including hydrogeological conditions, hydrochemical and bacteriological parameters, bedload and suspended load balance, flow regime and riparian zones.

[33] Including temperature, precipitation, humidity, cloudiness, wind patterns, cold air drainage, conditions favouring frost and fog.

[34] Including vitality, level of organisation, resistance, self-regulating capacity as well as the possibility of reproduction and, if applicable, the restoration of populations.

[35] Including game, fishes.

[36] Including plant communities, vegetation height, structure, dynamism, management methods, etc.

[37] Including location, species patterns, age, dynamism, forest edges, management methods, etc.

[38] Including interrelationships and networks.

[39] Diversity of species (including number of species and individuals), habitats and movement ranges (including terrestrial and aquatic habitat requirements, structures).

[40] Plus their elements and endowments, natural and anthropogenic characteristics and peculiarities.

[41] Including rhythm as well as visibility and vision.

[42] For example, housing, leisure and recreation, schools, hospitals, medical institutions, churches, agriculture, paths, forestry, pastures, use of water resources, hunting, fisheries, transport, supply and disposal, other technical infrastructure, raw material extraction, tourism.

[43] In particular, facilities of traffic (e.g. bridges), supply and disposal infrastructure, etc.

[44] Consideration is to be given not only to land directly affected or in physical contact (with regard to the PP's domain), but also to neighbouring land, its utilisation and characteristics, if this land can be impacted.

[45] For example, industrial plants, mines, landfills.

[46] For example, the environmental quality standards defined in, or based on, the Water Framework Directive and the Air Quality Framework Directive (e.g. under the 1st, 2nd and 3rd Air Quality Daughter Directives).

[47] For example, rehabilitation areas (*Sanierungsgebiete*) under IG-Luft, polluted areas (air) *(belastete Gebiete (Luft))* under UVP-G 2000, ozone monitoring areas (*Ozon-Überwachungsgebiete*) under OzonG that require a rehabilitation plan (*Sanierungsplan*); waters and water stretches requiring a rehabilitation programme or plan under WRG; monitoring areas (*Beobachtungsgebiete*) and prospective areas of action (*Maßnahmengebiete*) under GSwV, etc.

[48] For example, according to Red Lists.