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Catrin Schmidt

Landscape planning

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Contents

Landscape planning is the proactive sectoral planning of nature and landscape protection and conservation. In the narrower sense, it covers the formal plans defined in sections 8-12 of the Federal Nature Conservation Act *(Bundesnaturschutzgesetz, BNatSchG)*; in the broader sense, it contributes to other types of planning and projects, informal strategies for nature conservation, and the management of landscape development for the purpose of nature protection and conservation.

1 Evolution of landscape planning

The roots of modern-day landscape planning date back to the 18th century when the idea of the ornamental farm emerged from England and led to the first large-scale reform of individual estates (e.g. in the Dessau-Wörlitz Garden Realm). In the 19th century, efforts to enhance the land developed on this basis, which as a social reform movement initially aimed to shape and develop landscapes (▷ *Landscape*) across large-scale areas (Vorherr 1817; von Nagel 1831; Lucas 1849). While this movement only took hold on a small scale and had limited spatial impacts, the major changes to the landscape brought about by industrialisation led to a further growth in civic engagement with issues relating to nature and the landscape, which resulted in the establishment of the first nature conservation organisations and state nature conservation institutions at the start of the 20th century. Triggered by the rapid growth in settlements and transport, the first green spaces plan was drawn up in the Ruhr area in 1923; in 1934 so-called landscape lawyers were first involved in efforts to conserve the landscape in connection with the construction of autobahns in the Third Reich.

But it was several decades before the corresponding planning instruments were incorporated into law: the Reich Conservation Act of 1935 was initially limited to legal principles of nature conservation with regard to selected parts of nature and the landscape. In practice, landscape conservation plans became more widespread from the 1950s (Runge 1998). In 1961 the term *landscape plan* became established in the political sphere by the Green Charter of Mainau. At the same time, the role of landscape planning was more firmly defined as an ecological basis for ▷ *Urban land-use planning* and ▷ *Spatial planning*. Key scientific and methodological principles of landscape planning were drawn up in the 1960s and 1970s. Significantly precipitated by the environmental movement, the Federal Nature Conservation Act was finally enshrined in law on 20 December 1976; it standardised landscape planning in law for the first time as a central planning instrument of nature conservation and landscape management alongside the ▷ *Impact mitigation regulation* . Nature conservation law in the GDR lacked instruments; at best it just had landscape management plans for landscape conservation areas, which meant that the landscape planning system has only been established and developed in the new federal states since 1990.

Due to continuous social change, as well as new instruments under European law, landscape planning has constantly changed and evolved in both substance and method. For example, in recent years it has been apparent that, in addition to legally defined formal landscape planning, many informal strategies with distinct participatory approaches are becoming established, and project development and management is gaining ground in landscape planning. As the federal government also has legislative competence for both ▷ *Nature conservation* and landscape conservation, the previous framework legislation was translated into a full provision of federal law in 2010, when the landscape planning instrument was enshrined in section 8 of the Federal Nature Conservation Act. Furthermore, current issues such as climate change (▷ *Climate, climate change*) and cultural landscapes (▷ *Cultural landscape*) have further intensified the discourse between landscape planning and urban and spatial planning.

2 Clarification of the term

Landscape planning is a proactive planning instrument for achieving the objectives of nature protection and landscape conservation; more specifically, it includes formal, supra-local and local landscape plans as defined in sections 8-12 of the Federal Nature Conservation Act:

- the landscape programme, landscape structure plan, landscape plan and green spaces plan, which are subject to a procedure regulated by law and which become legally binding – usually by way of integration into spatial development planning or urban land-use planning (hereinafter referred to as formal landscape planning),
- informal (i.e. not set out in law) strategies of nature protection and landscape conservation, which respond to the issues of the day, but which are not subject to a standardised procedure and are primarily based on the voluntary self-commitment of stakeholders (examples include species and biotope protection programmes, wildlife corridor planning, recovery planning, conservation and development plans for particular aspects or areas of nature and the landscape, cultural landscape strategies and climate change adaptation strategies),
- the specific contributions landscape planning makes to other types of planning and projects, for example as are legally stipulated within the scope of the impact mitigation regulation as environmental impact assessments in accordance with section 17(4) of the Federal Nature Conservation Act, in the scope of the ▷ *FFH assessment of implications* as per section 34(1) of the Federal Nature Conservation Act or in the scope of ▷ *Species protection* as per section 44(1) of the Federal Nature Conservation Act,
- the management of processes which aim to shape and develop landscapes for the purpose of nature protection and landscape conservation, which are strategically supported and overseen, and which often feature extensive participation by stakeholders.

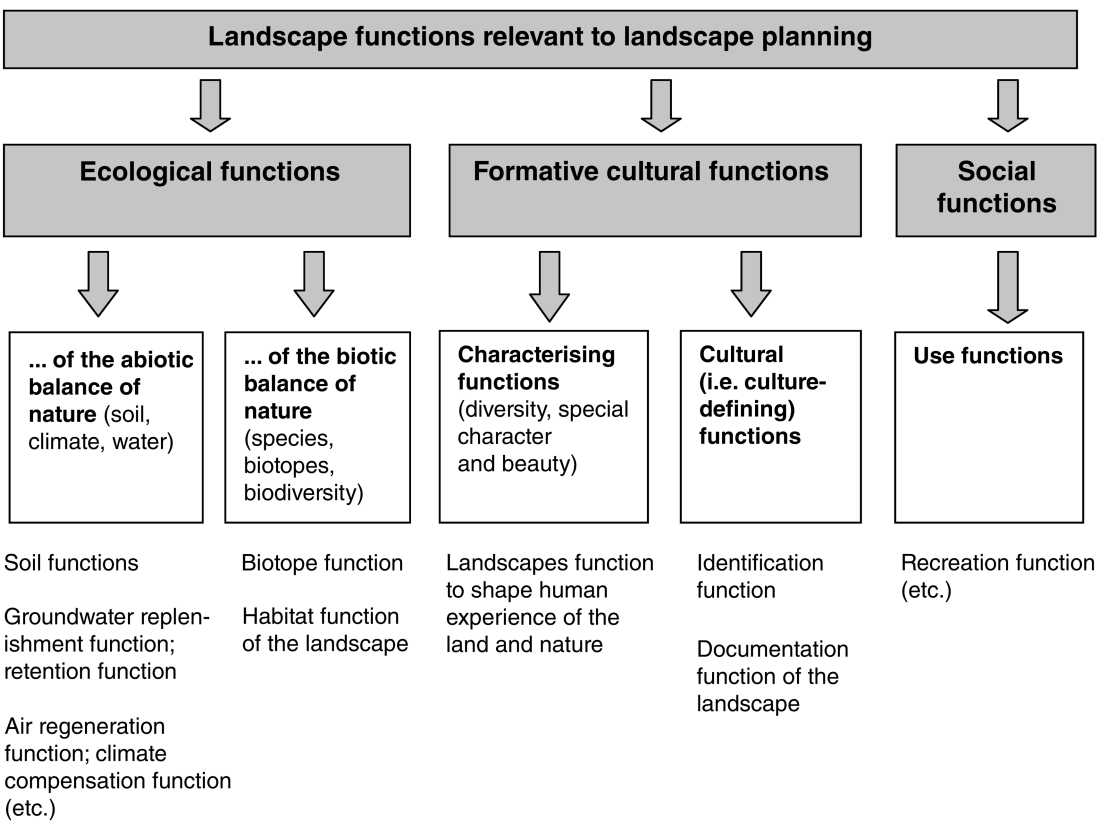
▷ *Planning*, including landscape planning, has long since been seen as much more than the final plan that is its outcome; rather it is considered a process, spanning an initial orientation stage, a target-based analysis and evaluation of nature and the landscape, the development of forward-looking, action-oriented strategies and finally the implementation of specific projects.

3 Objectives and aspects to consider

The objectives of landscape planning are the same as the objectives defined for nature protection and landscape conservation in section 1(1) of the Federal Nature Conservation Act. According to these, nature and the landscape must be protected, conserved and developed in settled and unsettled areas in such a way that secures ▷ *Biodiversity*, the balance of nature and nature's productivity and proper functioning, including its capacity to regenerate. The sustainable usability of natural assets must also be secured in the long term, as well as the diversity, special character, beauty and recreational value of nature and the landscape. It is clear from this that landscape planning is not just limited to conservation areas or landscapes outside of built-up areas, but rather covers all land. Besides protecting precious landscape components, it involves actively shaping and sustainably developing landscapes, even sometimes completely transforming and

redeveloping them (e.g. as part of the recultivation of raw material extraction areas). These objectives of nature conservation thus determine the aspects to be taken into consideration in landscape planning: these range from the soil, climate/air and water (including ▹ *Groundwater*) as abiotic components; species, biotopes (▹ *Biotope*) and biodiversity as biotic components of the balance of nature; and the form of the landscape and its recreational value. If one differentiates between various landscape functions, landscape planning has to address both ecological as well as the cultural and social functions of a landscape (see Fig. 1).

Figure 1: Overview of landscape functions relevant to planning



Source: The authors

In current discussions, landscape functions are sometimes associated with certain ▹ *Ecosystem services*. However, regardless of whether landscape planning is conceived to be oriented around certain environmental assets, landscape functions or ecosystem services, the broad spectrum of aspects to be considered and the need to weigh the ensuing conflicts between competing actions and demands against each other results in a distinctly integrative approach to landscape planning. It is thus extensively wide-ranging whilst – unlike spatial planning and urban land-use planning – remaining essentially sectoral (▹ *Spatially-relevant sectoral planning*), insofar as it is concerned with nature protection and landscape conservation.

4 Tasks and levels of statutory landscape planning

Ever since its incorporation into law in 1976, landscape planning has essentially comprised a graduated system of plans coordinated with spatial planning and urban land-use planning, the fundamental structure of which is illustrated in Table 1, with regulations potentially differing in individual cases from state to state.

Table 1: Basic system of landscape planning in the context of spatial planning and urban land-use planning

Planning level	Comprehensive spatial planning		Landscape planning		
Federal state	Spatial development planning	State development plan/state development programme	Supra-local landscape planning	Landscape programme	M 1:200.000 – 1:300.000/ 1:500.000
Region/ district		Regional plan		Landscape structure plan	M 1:100.000 – 1: 25.000
Local authority	Urban land-use planning	Preparatory land-use plan	Local landscape planning	Landscape plan	M 1:10.000/ 1: 5.000 – 1:25.000
Specific area within a municipality		Binding land-use plan		Green space plan	M 1:5.000 – 1:1.000

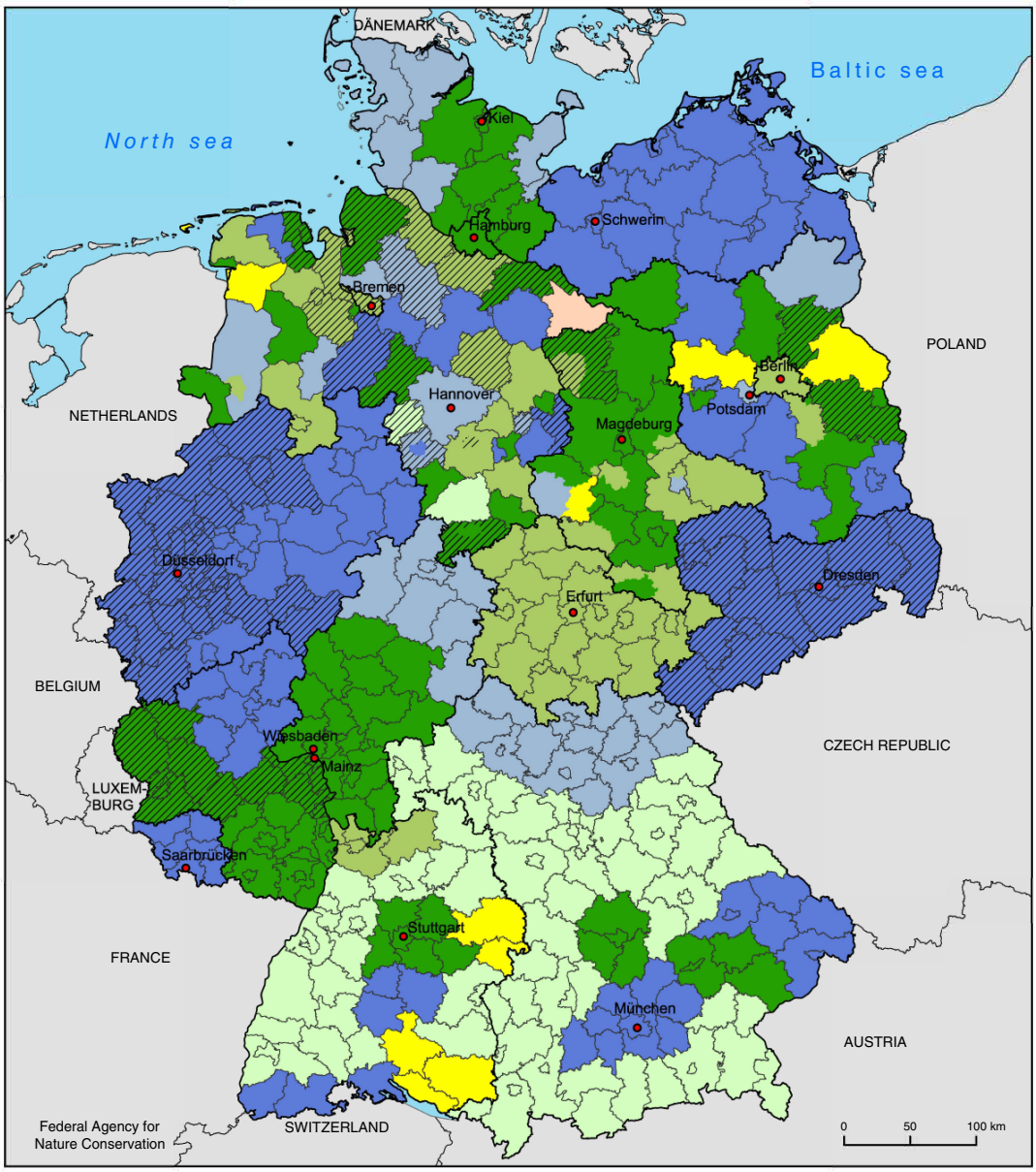
Source: The authors

The framework of landscape planning is not prescribed by law at the federal level; nevertheless, landscape planning can provide input to other types of planning at an informal level – for example, it can serve as a basis for spatial development plans as per section 17(1) of the Federal Spatial Planning Act *(Raumordnungsgesetz, ROG)*. Landscape planning involves detailing the spatial objectives of nature conservation and developing measures and requirements on this basis at each of the planning levels shown (section 9(1) of the Federal Nature Conservation Act). Such measures are geared towards administering nature conservation and the public planning authorities themselves, the requirements of other authorities and land users, often with little distinction being made in practice (Wende/Marschall/Heiland et al. 2009). It is true of all planning levels that the inventorising and assessment of nature and landscapes and the objectives derived therefrom constitute a significant ecological basis for comprehensive spatial planning.

4.1 Supra-local landscape planning

Figure 2: The state of landscape structure planning in the Federal Republic of Germany

As at 31 December 2013



- No planning
- First plan now under preparation
- Most recent plan up to 1990
- Most recent plan 1991–1995
- Most recent plan 1996–2000
- Most recent plan 2001–2005
- Most recent plan from 2006
- Update underway

Sources: Federal Agency for Nature Conservation (BfN), landscape plan index, 2013
http://www.bfn.de/0312 lpv.html, district boundaries: BKG, 2011 (Federal Agency for Cartography and Geodesy)

Remarks
According to the BFN's knowledge:
Notes to diagram:
In Berlin, Hamburg, Bremen and Saarland: the landscape programmes were used as the basis for the landscape structure plan
In Bavaria: the landscape structure plan is part of the regional plans and landscape development strategies
In Hesse, Saarland and Schleswig-Holstein: landscape structure plans are no longer provided for under the Nature Conservation Law of these states
In Rhineland-Palatinate: landscape structure planning takes the form of input to the regional spatial development plans
In Saxony: landscape structure planning takes the form of input to the regional plans

Source: *BfN* (Federal Agency for Nature Conservation) 2013

In accordance with section 10(1) of the Federal Nature Conservation Act, the supra-local nature conservation objectives, requirements and measures are set out in the landscape programme for a given federal state's area, or in landscape structure plans for parts of the federal state's area; landscape programmes are optional while landscape structure plans are mandatory: if a landscape programme is less detailed than a landscape structure plan, landscape structure plans must be drawn up throughout Germany (section 10(2) Federal Nature Conservation Act). In accordance with the extent to which federal state laws on nature conservation have now been adapted to the Federal Nature Conservation Act, which came into effect on 1 March 2010, a landscape programme – instead of landscape structure plans – is drawn up in the city states as well as in the federal states of Hesse, Saarland and Schleswig-Holstein to a level of detail that corresponds to that of the regional planning level (as at 2014). Landscape structure plans are thus provided for in most federal states in the future, and landscape programmes in all federal states. The responsibilities, process and the relationship between landscape programmes/landscape structure plans and spatial development plans are based on the respective federal state law. The responsible public planning authorities are either the respective nature conservation authorities or the regional planning authorities, which then usually have to reach agreement or liaise with the nature conservation authority. Figure 2 illustrates the current state of landscape structure planning.

It shows that there are now landscape structure plans throughout almost all of the Federal Republic of Germany (as at 2013). It must be assumed, however, that in most of the regions or districts for which landscape structure plans must be drawn up, these need to be updated.

4.2 Integration in spatial development planning

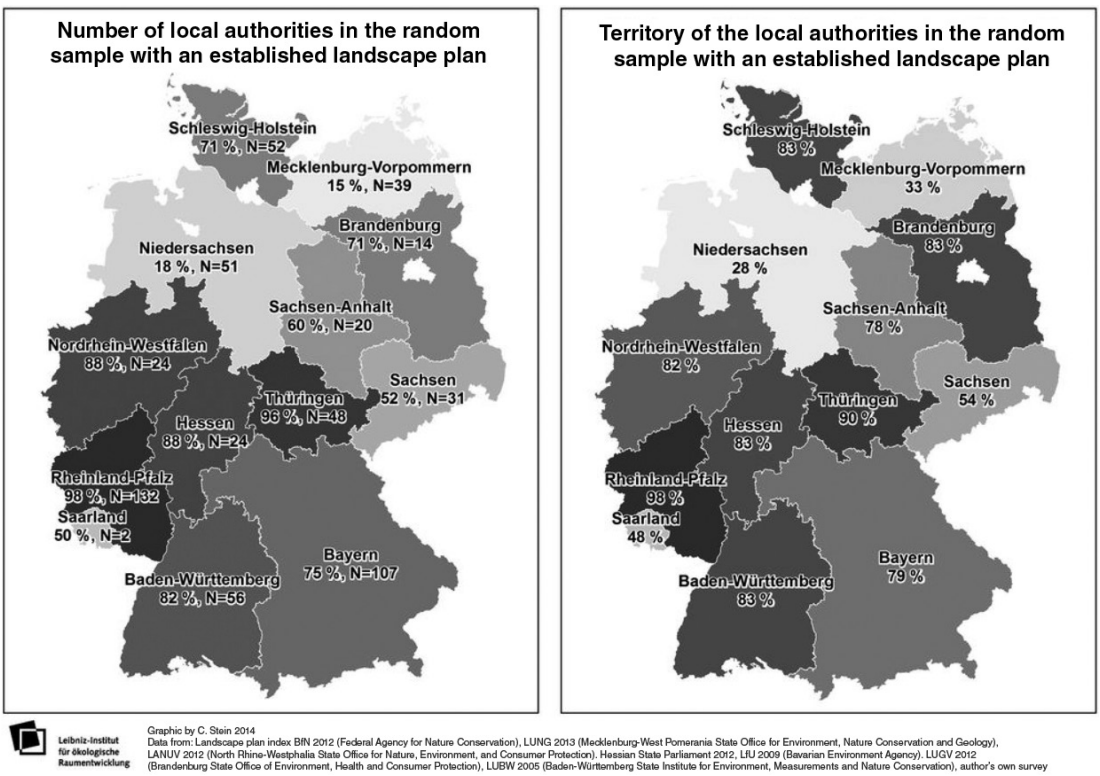
The objectives, measures and requirements of supra-local landscape planning affecting spatial structures should be integrated into spatial development planning and thereby become binding for authorities subject to the federal state provisions (section 10(3) of the Federal Nature Conservation Act). A distinction can be made between primary and secondary integration. In primary integration the respective spatial development plan also serves as the landscape programme or landscape structure plan; this can be – but need not be – based on a separate landscape planning report (for example in Saxony). In secondary integration the landscape structure plan or landscape programme and the spatial development plan are separate from each other (e.g. in Mecklenburg-Western Pomerania). Most federal states use the model of secondary integration. There is scope for improvement when it comes to updating landscape structure plans and regional plans in terms of both their content and timing – currently only around 11% of the territory of the Federal Republic of Germany has both a regional plan and a landscape structure plan less than seven years old (as at 2013).

4.3 Local landscape planning

According to section 11(1) of the Federal Nature Conservation Act, the local objectives, requirements and measures of nature protection and landscape conservation are set out in landscape plans which cover the territory of a local authority and in open space plans which cover certain parts of the territory of a local authority on the basis of the landscape structure plans. Landscape plans are to be drawn up as soon as and to the extent necessary, especially when major changes to

nature and the landscape have occurred or are planned or expected in the planning area. Green space plans can also be drawn up (section 11(2) of the Federal Nature Conservation Act).

Figure 3: The state of landscape planning in the Federal Republic of Germany



Source: Stein/Wende/Walz 2013: 236

Only the federal states of Bremen and Hamburg deviate in their legal regulations from this framework. In all other federal states the landscape plan is the central planning instrument of nature conservation at a local level. In North Rhine-Westphalia, the landscape plan is itself legally binding, but is limited to the outer built-up zone (section 16(1) of the Landscape Protection Law *[Landschaftsgesetz, LG]*). In all the other federal states the objectives, measures and requirements of a landscape plan only become binding for the authorities when it is integrated into the respective preparatory land-use plan. In most of the nature conservation laws of the federal states, the discretionary provision of the Federal Nature Conservation Act is adopted for green space plans (as at 2014). Only in Schleswig-Holstein are the local objectives, requirements and measures of nature conservation exclusively set out in landscape plans (section 7(1) of the State Nature Conservation Law *[Landesnaturschutzgesetz, LNatSchG]*). Whilst in North Rhine-Westphalia, Saxony-Anhalt, Berlin and Hamburg green space plans are not mentioned in the respective acts which adapt state law to federal law, landscape planning reports for binding land-use plans are common in practice. It is usually the local authority as the agency for urban land-use planning that is responsible for landscape and green space planning; in exceptional cases (for example in Thuringia for landscape plans) it can be the nature conservation authorities. A random sample of

600 local authorities, which was representative both in terms of distribution by federal state and by local authority size, found in 2014 that a landscape plan had been drawn up for 72.5% of the surveyed local authorities in the Federal Republic of Germany (Stein/Wende/Walz 2014: 235). In 1988 the figure was just 23% (*SRU* [German Advisory Council on the Environment] 1987: 140) – the number has therefore increased significantly, with considerable differences between the federal states as shown in the overview in Figure 3.

The landscape plans in the sample surveyed were on average 17 years old (Stein/Wende/Walz 2014: 237), which indicates that landscape planning at local authority level requires updating.

4.4 Integration into urban land-use planning

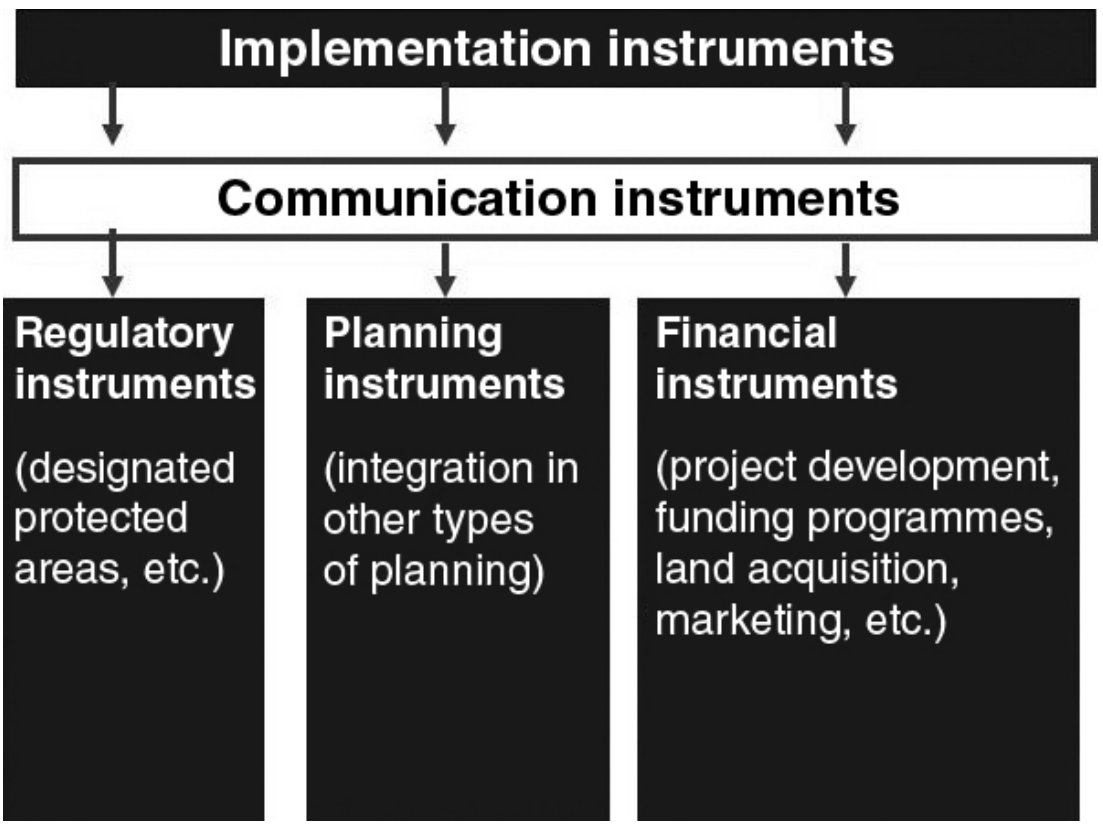
In most federal states, secondary integration is common at local authority level. The landscape or green space plan is initially drawn up separately as a sectoral plan and then integrated into the preparatory land-use or binding land-use plan, having been weighed against other public interests in accordance with the Federal Building Code. Those components that are not integrated remain important on an advisory basis. In Bavaria and Hesse, landscape and green space plans are integral parts of the preparatory land-use or binding land-use plan from the outset (primary integration) and thus have the same binding effect as the urban land-use plan. The situation in North Rhine-Westphalia and the city states are exceptions. For example, the landscape plan need not be integrated in urban land-use planning in North Rhine-Westphalia; rather, it is to be drawn up by the districts and urban districts according to a prescribed method and is itself legally binding as a bye-law. In Berlin and Bremen too, the landscape plan is established by statutory ordinance; however, it must not conflict with the stipulations of a binding land-use plan.

5 Planning process

Planning is a process. It is recommended in both formal and informal landscape planning to specify the problem and task in an orientation phase, so that nature and the landscape can be analysed and assessed in the light of set objectives. The extent of the data collected always depends on the planning task. There is a wide range of ▷ *Evaluation and decision-making methods* available for assessing the state of nature and the landscape (cf. von Haaren 2004), which has been further developed in recent years, not least by the increasing use of geoinformation systems (▷ *Geoinformation/geoinformation systems (GIS)*). A landscape planning strategy is drawn up on the basis of the analysis and assessment of the existing and expected state of nature and the landscape as well as the resulting consideration of possible conflicts and potentials, whereby internal trade-offs and alternative development scenarios need to be weighed up and distinctions made between guiding principles and objectives on the one hand and measures and implementation-oriented key projects on the other. The content of formal landscape planning is defined more precisely in section 9(3) of the Federal Nature Conservation Act and relates, for example, to preserving and developing the diversity of species and biotopes typical of the natural landscape, the wildlife corridor and the system of protected areas; to shaping open spaces (▷ *Open space*) and green spaces; to developing cultural landscapes (▷ *Cultural landscape*) and enriching recreational landscapes; and to protecting and improving the quality of the soil, waters, air and

climate as natural resources. Informal strategies substantively depend on the specific need for action. Although implementation and ▷ *Monitoring* in terms of reviewing success are no longer part of planning in the narrower sense, they do constitute crucial steps within a planning process. An intensive participation process is fundamental to the implementation of landscape planning. Other implementation instruments are shown in Figure 4.

Figure 4: Instruments for implementing landscape planning



Source: The authors

6 The contribution of landscape planning to other types of planning and projects

Many basic principles and benchmarks are drawn up at the various levels of landscape planning, which can also be used in other processes for assessing the environmental impact of specific projects and plans. For example, experience in drawing up environmental assessments (▷ *Environmental assessment*) for spatial and urban land-use plans shows that the more sound, broad-ranging and up-to-date the basic principles of landscape planning are, the less effort is

involved in an environmental assessment. At the same time, landscape planning also contributes to third-party planning and projects via specific instruments. These include the impact mitigation regulation, which has served since 1976 as an instrument for managing the consequences of incursions into nature and the landscape; the ▷ *Species protection* instrument; and the FFH assessment of implications, which ensures that plans and projects are compatible with the conservation objectives of Natura 2000 areas. While the impact mitigation regulation involves looking at the same range of issues as landscape planning in the narrower sense, special species protection and the FFH assessment of implications are limited to specific aspects – however, they all serve to realise the objectives of nature conservation.

7 Informal strategies and process management

Challenges such as the energy transition, ▷ *Demographic change*, changing values and economic conditions as well as climate change and accelerating ▷ *Land use change* have led to a greater orientation towards processes and projects in landscape planning too. For example, in addition to the long-term formal plans at the various levels, informal strategies are increasingly being developed, which can be used to respond with greater speed and flexibility to the issues of the day, and which either focus on specific aspects of landscape planning (e.g. ▷ *Vulnerability* analyses, species and biotope protection programmes, wildlife corridor planning or cultural landscape strategies) or elaborate on spatial action priorities (e.g. a recreation strategy for a specific area or a management plan for a conservation area). Informal strategies should not compete with, but rather complement and support formal landscape planning. At the same time, the sustainable development of landscapes is increasingly associated with such complex requirements that process management, including the initiation and support of the necessary participation processes, has become much more important in landscape planning – a trend that is likely to continue in future.

References

BfN – Federal Agency for Nature Conservation (ed.) (2013): Kartographische Übersicht über den Stand der Landschaftsrahmenplanung. http://www.bfn.de/fileadmin/MDB/documents/themen/landschaftsplanung/031301_kartelrp.pdf (03 September 2014).

Lucas, E. (1849): Populäre Anleitung zum ländlichen Gartenbau als Mittel zur Erhöhung des Wohlstandes und zur Landesverschönerung. Stuttgart.

Runge, K. (1998): Entwicklungstendenzen der Landschaftsplanung. Berlin.

SRU – German Advisory Council on the Environment (ed.) (1987): Umweltgutachten 1987: Unterrichtung durch die Bundesregierung. Document 11/1568. Berlin.

Stein, C.; Wende, W.; Walz, U. (2014): Stand der örtlichen Landschaftsplanung in Deutschland. In: Naturschutz und Landschaftsplanung 46 (8), 233-240.

von Haaren, C. (ed.) (2004): Landschaftsplanung. Stuttgart.

von Nagel, H. (1831): Landesverschönerung und Landesverbesserung. Munich.

Vorherr, G. (1817): Länderverschönerung: Ein Wink für Kunstfreunde. In: Wöchentlicher Anzeiger für Kunst- und Gewerbe-Fleiß im Königreiche Bayern (48), 705-710.

Wende, W.; Marschall, I.; Heiland, S.; Lipp, T.; Reinke, M.; Schaal, P.; Schmidt, C. (2009): Umsetzung von Maßnahmenvorschlägen örtlicher Landschaftspläne: Ergebnis eines hochschulübergreifenden Evaluierungsprojektes in acht Bundesländern. In: Naturschutz und Landschaftsplanung 41 (5),145-149.

Additional literature

Auhagen, A.; Ermer, K.; Mohrmann, R. (eds.) (2002): Landschaftsplanung in der Praxis. Stuttgart.

Jessel, B.; Tobias, K. (2002): Ökologisch orientierte Planung. Stuttgart.

Riedel, W.; Lange, H. (eds.) (2001): Landschaftsplanung. Berlin.

Runge, K. (1998): Entwicklungstendenzen der Landschaftsplanung. Berlin.

von Haaren, C. (ed.) (2004): Landschaftsplanung. Stuttgart.

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