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CONVENTION EUROPÉENNE DU PAYSAGE

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National Conference of Croatia:
Integrated Approach to Landscape Protection,
Planning and Management

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Celebrating the International Landscape Day of the Council of Europe – 20 October
Saturday 20 October 2018, Zagreb, Croatia

SESSION 2 – LANDSCAPE IN SPATIAL PLANNING

Landscape Planning - Good Practice Instrument for Sustainable Spatial Development

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Landscape planning cares about spaces shaped by nature or man. Following the precautionary principle, it is an instrument that aims to arrange landscapes in a way that influences ecological functions and people's needs at the same time. While landscape architecture may be commonly known as park and garden design landscape planning is rather little known. It is the aim to introduce landscape planning to them who are less familiar with it and to share practical experiences with professionals. Hence, landscape planning will be introduced as important player in integrated spatial development planning. It will be introduced the

three phases of elaboration (analysis, principle and measures), the overlay method and the aim of provision of landscape and environmental information and objectives. Last, but not least, landscape planning must be integrated in an overall planning and decision making system, that will be explained by the example of Germany.

Introduction

Landscape is a man-made term containing ecological, geographical and visual parameters. It is shaped by nature and transformed by anthropogenic use. However, the transformation process can be arranged for the benefit of both: Nature and people. Now planning and design comes into play. We call it "Landscape Planning and Landscape Architecture". While landscape architecture is an organized profession that deals with both planning and design, landscape planning is a so-called instrument as part of a regulated or unregulated planning system. It is an instrument for conservation, remediation and improvement of nature and the man-used landscape. If empowered by environmental parameters such as air quality, climate change, noise, waste and sewage management, risk and disaster management it can be called "Environmental Planning". The thus extended landscape planning will then be able to strengthen its role for preservation and uplift of human well-being and human health, and serve as a mainstay for the development of sound urban ecosystems.

Ecosystem functions (biological, geochemical and physical processes and components that take place or occur within an ecosystem), in brief eco-functions, are the baselines for landscape planning. Landscape planning analyses and values the eco-functions, overlays it with the anthropogenic influence (cultural, environmental) and defines the potential and needs for conservation, remediation and improvement of the landscape and urban ecosystems. Potential and needs will be compiled first in guiding principles, second in goals to meet the principles and third in measures to meet the goals. The result is the landscape plan. The design phase takes over and landscape architecture and related professions are responsible for implementing the landscape plan. Last but not least, the overall planning and design process is not sustainable, if there is no participation of the people being affected.

Landscape planning can be considered as a matter of scale. The scale of landscape planning ranges from 1:100,000 to 1:1,000. Landscape architecture mostly ranges below 1.000. By looking at these scale ranges it can easily be recognised, that detailed landscape arrangements are the own component of landscape architecture.

Regional framework | municipal principal and goals | municipal measures concept

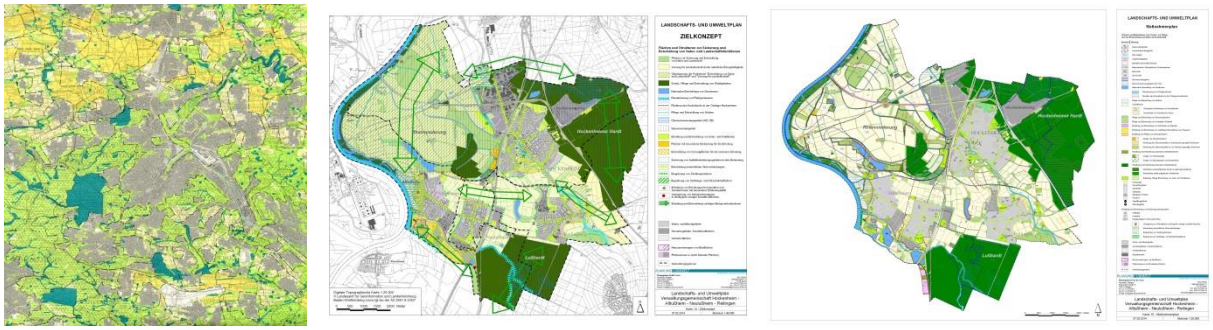

Fig. 1: Landscape planning on regional and municipal/ local level

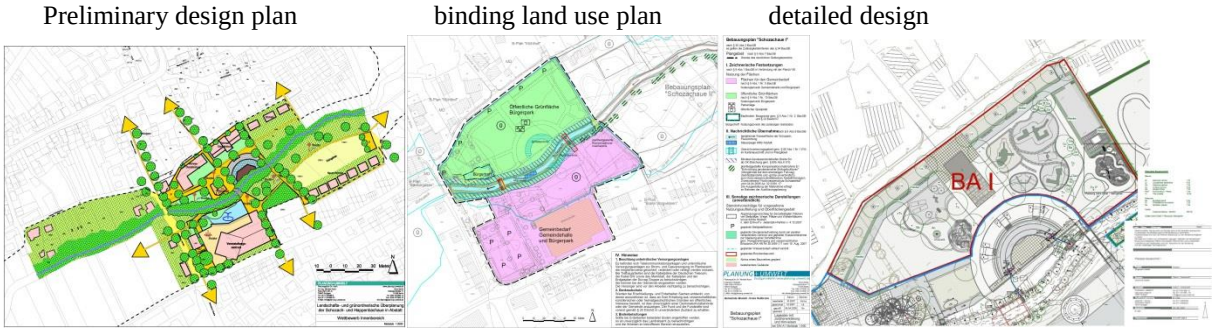

Fig. 2: Implementation of landscape plans

The role of landscape planning within planning, approval and decision making processes

All analyses done and good ideas proposed by landscape plans keep being theoretical if not integrated in an approval and decision making process and a functioning planning system. As shown in fig. 3, an important emphasis of landscape planning therefore lies on the provision of landscape and environmental information and objectives for other plans (spatial or sectoral) and for environmental assessments (SEA, EIA), that are important for decision on implementation of different kinds of land use including those for buildings and technical infrastructure, as well as for the development of natural potentials within open land and of green infrastructure.

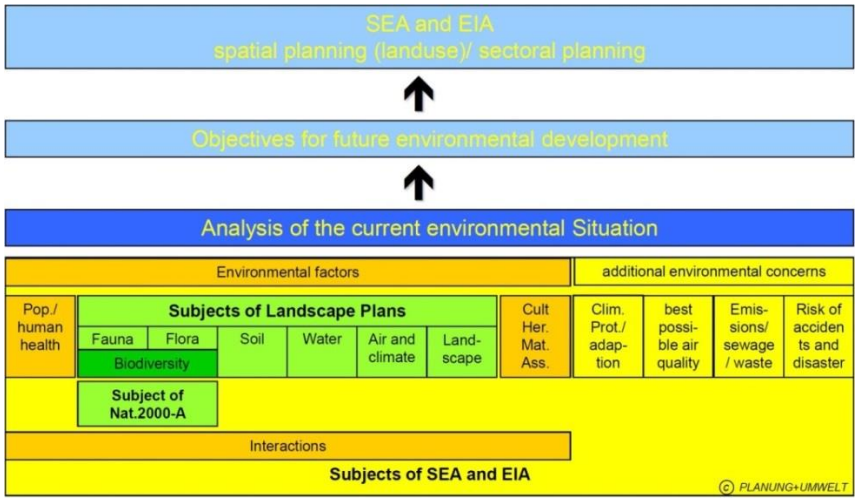

Fig. 3: The role of Landscape planning within approval and decision making processes

Different countries, different landscapes, different planning approaches

Depending on the planning, approval and decision making system, landscape planning approaches can be quite different in different countries as shown in the following examples.

The German way

Fig. 4 shows the linkages between the different types of planning on the different decision making levels. Related to the landscape plan, the municipal level is the most effective link between planning and design.

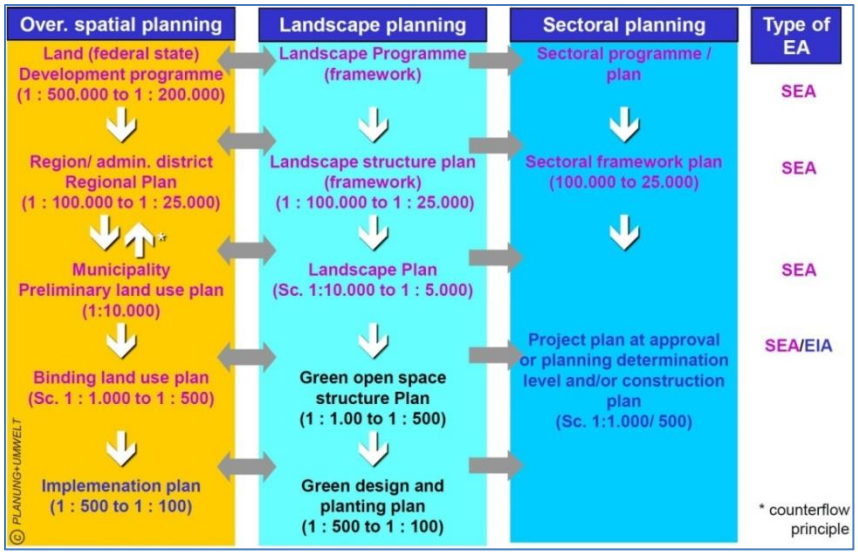

Fig. 4: German planning system – Instruments and decision-making levels

The German Municipal Landscape Plan

German municipalities have the right to prepare legally binding spatial plans for different types of land use (also known as land use plans). Traditionally they deal with settlements, infrastructure and resource-depleting and other economic driven land uses. Open land in spatial plans/ land use plans on the preliminary level mostly is addressed as agricultural or forest land. Ecological and environmental concerns are not or rarely considered. That's the task of landscape plans. They provide spatial and sectoral planning with data on natural resources and environmental conditions and objectives for developing these subjects. In fact, objectives or goals that are defined by a landscape plan are ranking as public concerns that have to be considered within approval processes for any spatial or sectoral plan (also refer to fig. 3 and 5).

The landscape plan will be elaborated mainly in three phases:

Phase I: Analysis of baseline conditions, threats and opportunities;

Phase II: Development of guiding principle and formulation of goals;

Phase III: Elaboration of measures.

The outputs of each phase will be compiled into a single document containing text and maps, while the goals map and the measures map are the core outputs.

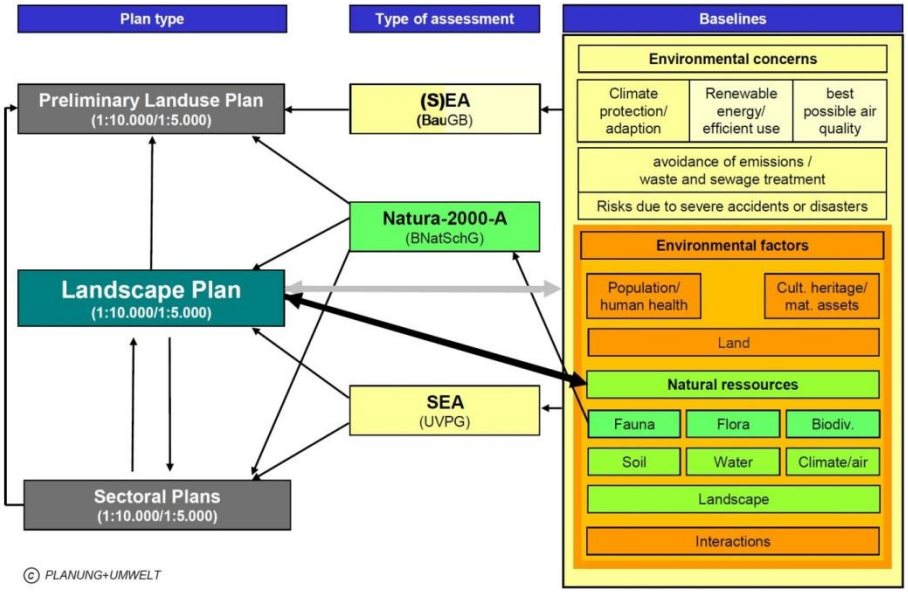

Fig. 5: The municipal landscape plan in Germany, within the planning and assessment system

Phase I: Analysis phase

Basically the analysis compiles available data about natural resources and the landscape and does field surveys where it's necessary and appropriate. The data is kept in geographic information systems (GIS) where it can be viewed, overlaid, analysed, managed and displayed. The analysis phase not only describes the status quo but also values the ecological, environmental and landscape functions of the natural resources and their potential to develop. If low valued functions are the result of lower naturalness but higher anthropogenic influence (thread analysis), it may be assumed that some landscape intervention is needed (objective analysis).

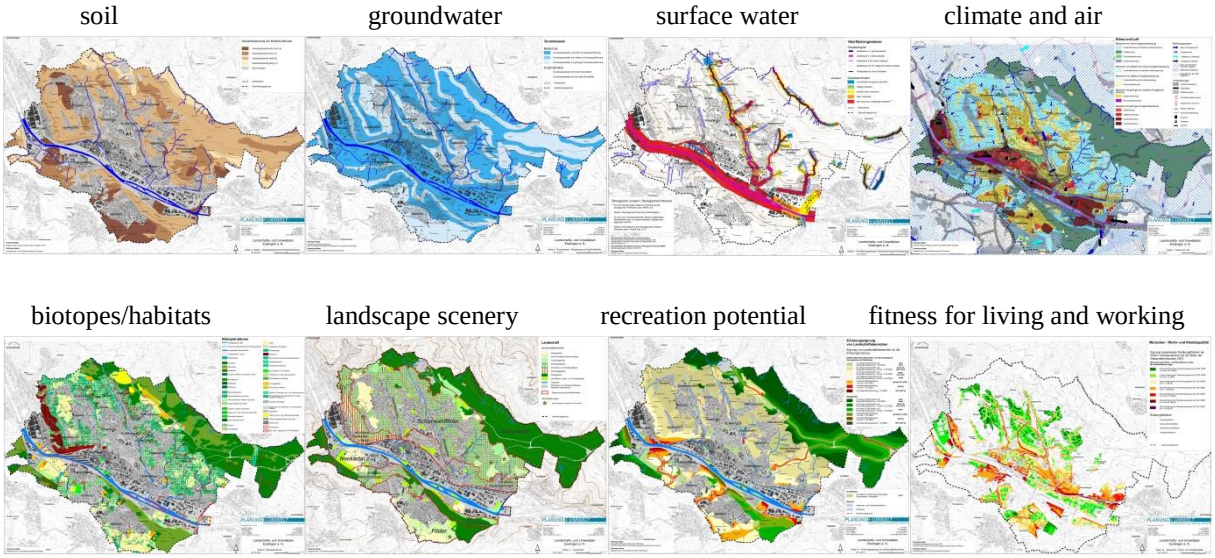

Fig. 7: Map examples baseline analysis Reference: PLANUNG+UMWELT (2017)

Phase II: Principle and Goals

Built upon the baseline analysis a principle will be elaborated as a guide for qualitative and spatial orientation for the future landscape development. In a second step goals are formulated, how and where conservation, maintenance, improvement, complements and remediation needs to be implemented. These goals are more general and do not have the depth of measures, that are on the preliminary stage to design. For the city of Esslingen am Neckar the landscape plan has determined the following goals and came out with an overall zoning map for these goals:

- Conservation and maintenance: protected areas, forest land (use) and impact compensation land and structures;
- Conservation and improvement: improvement of biodiversity in agricultural used areas; conservation and improvement of diverse landscape scenery, keep open cold/fresh air production area and cold air runoff channels; conserve and improve urban green;
- Complement and remediation: Complement urban green and habitat structures in areas of high connectivity, recreation and compensation demand; remediation of climatic adverse structures.

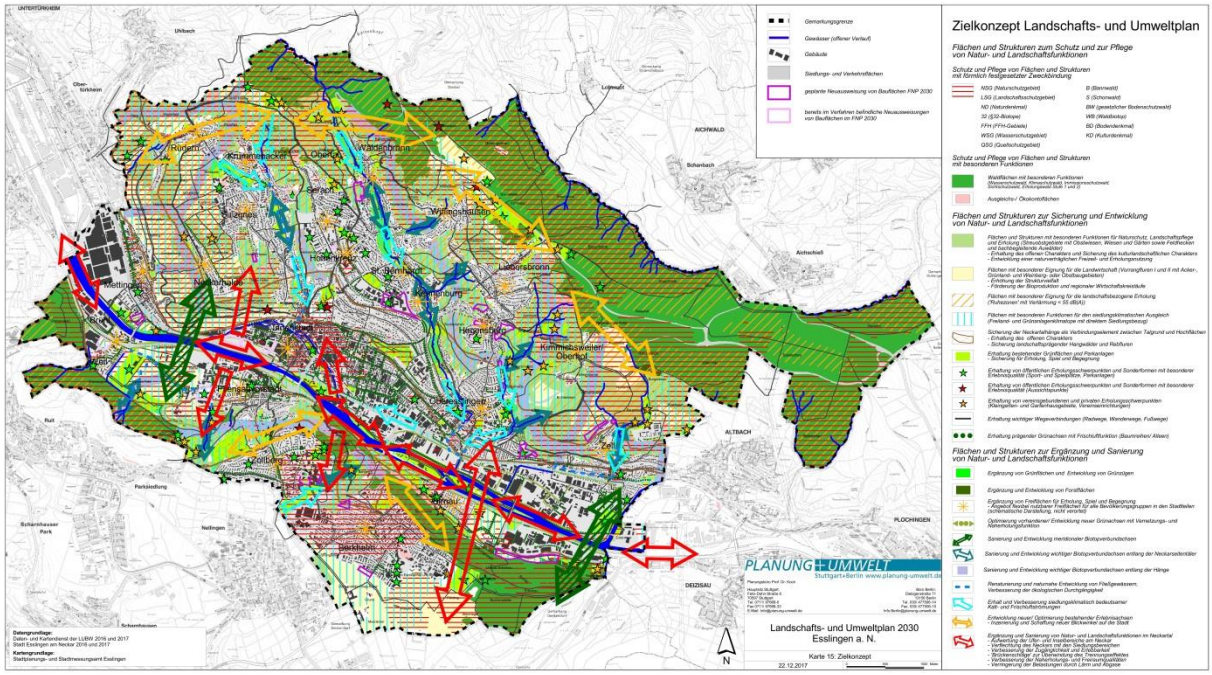

Fig. 7: Zoning map for landscape development goals – Landscape plan for the city of Esslingen am Neckar, Germany Reference: PLANUNG+UMWELT (2017)

Phase III: Measures concept

The task of the measures concept is to define in more detail how and where within the landscape development zones (fig. 7) their aims can be implemented. The measures concept is guided by the needs of the ecological functions to be saved, maintained, improved and remediated. E.g. for the city of Esslingen am Neckar, Germany, one result of the baseline analysis was the high sensitivity of soils to

erosion in the agricultural zones. The overall goal therefore was defined as counteracting soil erosion. But the measures concept described it in detail. Another important task for the measures concept is the provision of compensation measures resulting from environmental impacts.

Soil protection and agriculture concept

Context area for improvement, complement, remediation and impact compensation measures

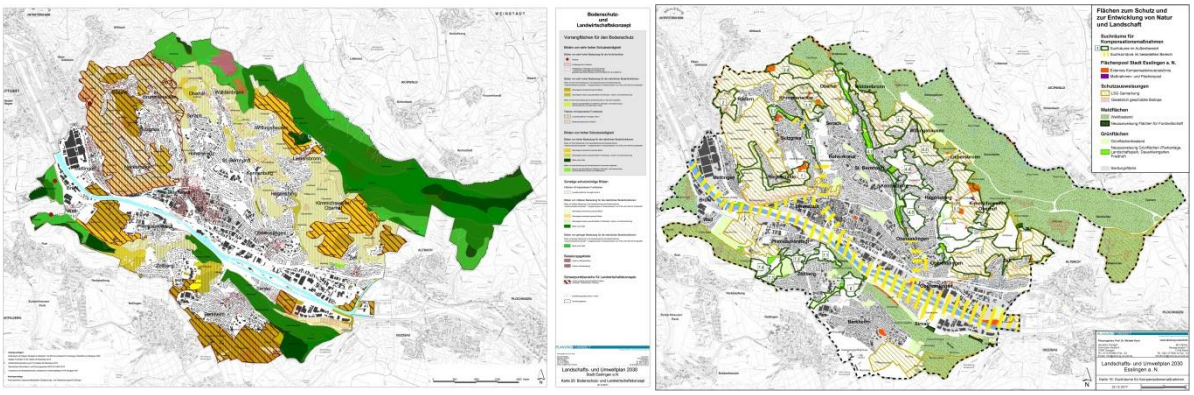

Fig. 8: Measures concept Reference: PLANUNG+UMWELT (2017)

Landscape aspects in spatial planning

In the German planning system, landscape planning is of public interest. However, to become a binding issue within spatial planning landscape aspects have to be integrated in the spatial plan. Since spatial plans are not capable to integrate all aspects from sectoral plans such as landscape plans, only appropriate and required contents are taken over. Supported by expertise the decision of what will be integrated in the spatial plan is the result of a political but democratic weighing up process.

As an example, Fig. 9 shows the preliminary land use plan for the city of Esslingen am Neckar that has integrated some landscape and environmental aspects.

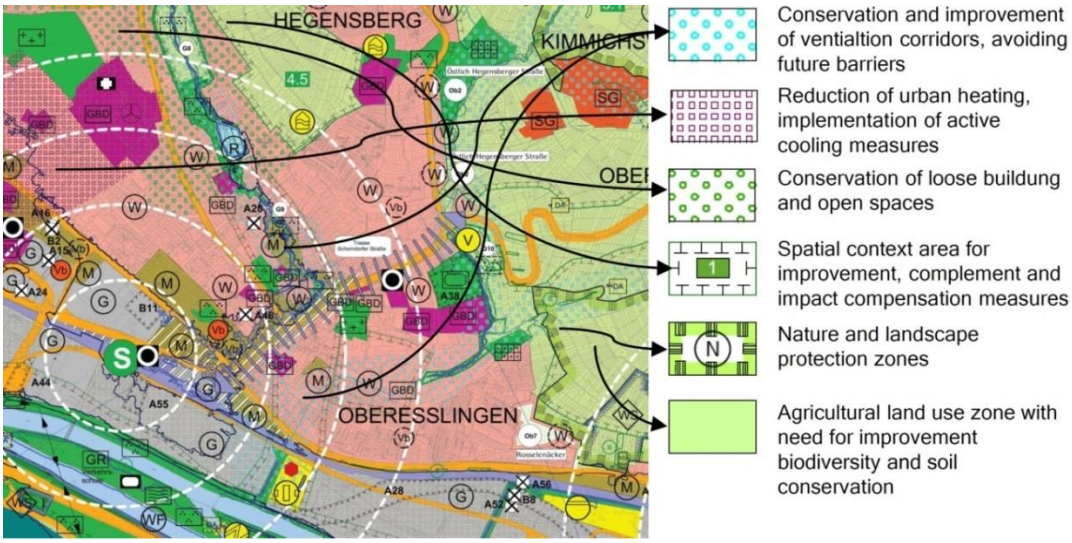

Fig. 9: Integration of landscape aspects in spatial planning Reference: Stadt Esslingen am Neckar (2017)

Conclusion

Landscape planning provides environmental assessments and authorities with necessary baseline information needed for programme, plan or project approval. It delivers principles, goals, opportunities and measures for implementation of green infrastructure and ecosystem services. It serves as an important instrument within planning systems and decision making hierarchies. However, where this is not the case, its role must be clarified and put on a legal basis.

Through their cross-media approach, landscape planning, urban planning and landscape architecture form a mainstay for sustainable urban and landscape development.

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