

**CASE STUDY**

**Interactive Landscape (Environmental) Planning  
 Königslutter**

**OVERVIEW**

The Königslutter Landscape (Environmental) Plan was prepared between 2002 and 2005 for the municipality of Königslutter in the Brunswick (*Braunschweig*) region of Lower Saxony (*Niedersachsen*) in Germany. It represents the ecological, environmental and landscape baseline for municipal and regional spatial and other sectoral plans, as well as for subsequent project decision making.

Strategic Environmental Assessment (SEA) is a formal planning requirement in all EU member states, following European Directive 2001/42/EC. As part of a joint HCA Academy and ESRC Initiative, a research project at Liverpool University developed a framework for understanding the different types of learning that took place in the process of undertaking SEA. The framework was then used to analyse case studies in England, Germany and Italy. In this context, the Königslutter Landscape Plan was identified as a good practice example of learning within a highly participatory environmental planning and management instrument.

**BACKGROUND**

In the Federal Republic of Germany, landscape (environmental) plans and programmes (*Landschaftspläne; – programme*) are statutory plans and programmes that are prepared at various levels of decision making, including state, regional and local levels. They aim to be proactive, setting overall as well as spatially specific objectives and make suggestions for an environmentally sustainable land use. They provide an important evaluative baseline for spatial and other sectoral plans, as well as for subsequent projects. A landscape plan, which is prepared in parallel to a statutory land use plan, will fulfil formal SEA requirements to a large extent. Normally, landscape plan and SEA preparation processes would then be fully integrated.

Formal requirements for the preparation of landscape plans and programmes were introduced about 30 years ago by the Federal Nature Conservation Act 1976 (last amended 2008). Landscape plans and programmes include information on:

1. the existing and anticipated status of nature and landscape,
2. the objectives and principles of nature conservation and landscape management,
3. the assessment and evaluation of the existing and anticipated status of nature and landscape on the basis of overall aims and principles, including any possible conflicts,
4. the anticipated measures for:
  - avoiding, reducing or eliminating adverse effects on nature and landscape,
  - protecting, managing and developing certain parts or components of nature and landscapes, among which the European ecological network “Natura 2000”

Depending on the state – *Land* – in which they are prepared, landscape plan and programme preparation processes include more or less extensive public participation.



**THE PROJECT**

The Königslutter Landscape Plan (LP) covers a population of 17,000 and was prepared in a highly interactive and communicative manner, using a web-based and geo-information system approach. The municipal council, its planning

**KEY WORDS**

- Planning
- Sustainable Communities
- Learning



department, Hanover University and a consultant were involved in the LP preparation process. Above-average funding was granted by the Federal Agency for Environmental Protection.

Through web-enabled interactive map and text based participation, as well as through other ways of communication, a total of 830 public comments and contributions were made, which is substantially more than in comparable exercises elsewhere.

The Landscape Plan preparation process obtained support from Hanover University which saw the following four main aims for it:

- making participation of the general public and other interest groups easier in order to achieve more democratic spatial planning;
- improving landscape planning and implementation through early inclusion of stakeholders and actors;
- increasing acceptance of environmental objectives among those that may be affected by them;
- improving levels of implementation of environmental and landscape development measures.

As certain traditional methods of consultation (eg leaflets and announcements) have normally resulted in only low levels of participation, an interactive web and geo-information system supported approach was chosen which, it was hoped, would also reach groups that normally don't participate. Furthermore, opportunities for participation were a lot more extensive than in other comparable landscape plan preparation exercises (and also other SEAs). Stakeholders, interest groups, and the general public were involved on a range of environmental protection and development issues and proposals brought forward during the plan preparation process. Involvement opportunities included the organisation of a range of workshops, school and market information days, computer-based games on environmental issues, organised nature walks, one-to-one conversations, leaflet distributions and other activities. These meant that the general public was enabled to learn about environmental problems and issues. Furthermore, in the plan making exercise, interactive web-based maps were used, which

enabled consultees to work their comments directly into the various maps of the landscape plan. Figure 1 shows the visualisation techniques used for the interactive landscape plan.

**Figure 1: visualisation techniques used for the interactive landscape plan**

|   |   |
|---|---|
| Maps  | Sketches  |
| Aerial photographs  | Panorama photograph                             |
| 3-D images  | Fotomontage                                     |
| VRML scene express <sup>1</sup>   | Lenné3D <sup>2</sup>                            |
| <sup>1</sup> Software that allows users to export their projects for use in other formats | <sup>2</sup> Digital Botany/ Virtual landscapes |

## THE IMPACT

Preparation of the Königslutter Landscape Plan illustrated learning at two levels. The first level, 'single loop learning', included knowledge acquisition, comprehension, application, and analysis. This type of learning generated adjustments to the planning process and the Plan itself, eg in terms of changes to anticipated land use in sensitive areas.

The second level of learning or 'double loop learning' that makes Königslutter an example of good practice included wider synthesis and evaluation, leading to more substantive changes in organisational culture, values and behaviour.

The interactive approach to the landscape plan and the various involvement efforts revealed a range of positive outcomes. Communication and co-operation between different parties was improved. As a consequence, changes occurred, not just in terms of anticipated action, but also in terms of overall attitudes, which also appears to have led to some changes in individuals' values. For example, local farmers, who had previously been highly sceptical of environmental protection and development measures began to see benefits regarding measures for reducing soil erosion. Importantly, these measures were found to be in line with other suggested environmental development measures, eg planting of hedges, leading to overall 'win-win' solutions. All types of learning

including knowledge acquisition and comprehension, application, analysis, wider synthesis and evaluation were embraced (see Figure 2).

**Figure 2: An Assessment of the Königsutter Landscape Plan Learning Outcomes**

| Levels of Understanding | Individual   | Organisational  | Social  | Types of Learning                           |                               |
|-------------------------|--|---|---|---|-------------------------------|
| Evaluation              | <i>Know why</i><br>Questioning underlying principles<br>Changing values and behaviours   | <i>Know why</i><br>Integrating principles into Organisational culture<br>Changing norms and practices | <i>Know why</i><br>Changing values and behaviours | <i>Know why</i><br><br>Double Loop Learning | Transformatory Learning ----- |
| Synthesis               | Applying understanding to other areas  | Applying understanding to other areas   | Applying understanding to other areas             |   |                               |
| Analysis                | <i>Know how</i><br>Adjusting the Plan  | <i>Know how</i><br>Adjusting the Plan   | <i>Know how</i><br>Adjusting responses to Plan    | <i>Know how</i>                             | -----Instrumental Learning    |
| Application             | Adjusting SEA Process  | Adjusting SEA Process   | Adjusting input to SEA process                    | Single Loop Learning                        |                               |
| Comprehension           | <i>Know that</i>   |   |   |   |                               |
| Knowledge Acquisition   | (Development of individual/organisational capacity – initially likely to be a few ‘experts’)<br><br>(Legal/administrative/political procedures)<br><br>(Familiarity of terms and concepts) |   |   | <i>Know That</i>                            |                               |

-  Strong indications that Landscape Plan resulted in learning outcomes
-  Indications that Landscape Plan resulted in learning outcomes
-  Some indications that Landscape Plan resulted in learning outcomes

## LESSONS LEARNED

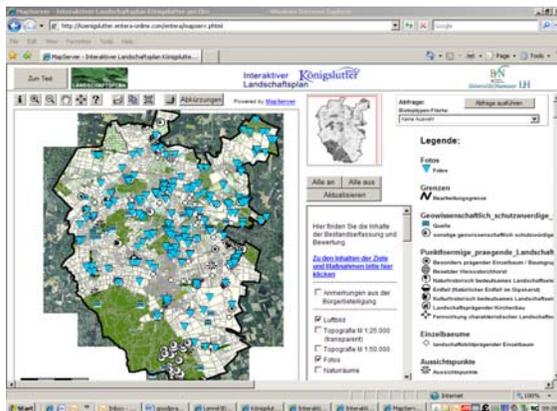
An interactive web-based and geo-information system supported approach can help to improve participation and involvement, leading to higher levels of acceptance of a plan. Ultimately, the approach applied by the Königslutter Landscape Plan can lead to more democratic decision making and can also reach groups in society who would normally not get involved in planning. In this context, target group specific communication is crucial.

The success of the Landscape Plan Königslutter is clearly connected with the substantial funding and support provided. Furthermore, the size of the municipality may have also been important, as personal and group networks are strong in this small town (17,000 inhabitants).

The evidence provided by the Königslutter Landscape Plan suggests that in order to involve a wide range of stakeholders, interest groups and individuals, SEA needs to do more than simply informing eg through official announcements or leaflets. Instead, target group specific communication is required. Overall, research results indicate that a communicative approach to SEA can have many positive outcomes. These include

- the involvement of groups that would normally not get involved
- increased levels of transparency
- acceptance and support for the landscape plan.

Through the interactive approach introduced here, all types of learning may arise, which may later lead to more effective implementation.



## REFERENCES

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