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Assessing the future - How technological impact assessment and strategic environmental assessment deal with the long term

The call for sustainable development implicates inter alia the challenge of a longer-term orientation of policy making and public planning processes. An increasing number of public and private institutions nowadays deals with complex and long-term questions, the anticipation of ecological and social changes, the steering of technological developments, the mitigation of harmful effects for future generations, or the development of adaptation strategies to changes.

This paper builds on a current PhD-project dealing with new institutional designs to impose a longer-term perspective in the policy-making process. These institutions might encompass such different organizations as a council for sustainable development, future commissions, or environmental officers or instruments such as environmental and technological impact assessment, monitoring and evaluation systems, etc. The main question is how these institutions are dealing with the near and farer future and how they influence public and political discourses on long-term challenges.

In this paper the focus is on the institutional design and use of two such instruments, namely technological impact assessment (TA) and strategic environmental planning (SEA). Both instruments include aspects of ex ante evaluations of the (future) effects of current developments, planning processes and/or decisions and thereby aim at developing reliable knowledge about the future. Consequently, by applying these instruments particular pictures of the future are produced. The paper deals with the question how these instruments contribute to a collective picture of the future and how they succeed to introduce longer time horizons into political and planning processes.

The comparison of the two instruments starts with an analysis of their general design principles and their institutional integration in Austrian political system and public planning processes. In addition, different techniques and methodologies applied by these instruments will be analysed with a special focus on how they address issues or effects along different time horizons. For example, technological impact assessment might base on expert knowledge or might be more oriented towards participatory approaches involving the broader public. It is argued that by relying on specific techniques, procedures or methodologies these instruments contribute to specific narratives about the future while ignoring others. Further, communication channels and the general influence on public and political discourses on long-term developments will be assessed. After the discussion of the general design principles and functioning of technological impact assessment and strategic environmental planning the paper will turn towards the analysis of two specific cases of TA and SEA from the Austrian context. For the analysis projects are chosen that demand a particular long time horizon, i.e. a time horizon exceeding one generation. The paper asks how this challenge is addressed in these particular cases, what problems occur with longer time horizons and what solutions are developed. It further asks how the future-oriented techniques of TA and SEA might have influenced the public, policy and/or planning discourses and decisions.

The paper concludes with the discussion of different design options by comparing the Austrian cases to other international experiences.