

Master thesis:

Policy integration across the water and forest sectors in Baden-Württemberg

Thesis supervision:

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Background

Forests and forest management have an important role on the quantity and quality of water. Among the multiple functions of forest for water ecosystems, forests contribute to the filtering of pollutants on water, flood control and regulation of precipitation, among a wide range of other benefits including the provision of freshwater resources for socio-economic systems, such as human consumption and agriculture production. At the same time nonetheless, forests can have a negative impact on water quantity or quality in the case of certain forest management practices (e.g., spruce monocultures, intensive forestry) or the abandonment of forest management. On the other hand, different water policies and practices (e.g., flood control vs. biodiversity protection, agricultural vs. forestry use of waters, restoration of riparian zones, drinking water use in downstream vs. water supply in upstream forested landscapes) can both negatively or positively influence forests and forest management. In a moment in which the effects of climate change will increase the risk of extreme weather events such as droughts, storms, fires and floods, integrated policy and management approach towards forest and water resources can have a very important role for both adaptation and mitigation activities to fight against climate change but also to enhance the sustainability of both these interlinked two natural resources.

Despite or even because this increasing importance of the forest-water nexus has been recognized in academia and international organizations (such as the Food and Agriculture Organization - FAO), many countries around the world are still facing challenges to integrate water and forest in policy and in management. In the literature, little is known about what factors impede or can enable cross-sectoral policy integration. Still, there exist some cases where steps towards forest and water integration have been undertaken. In Baden-Württemberg, there exist financial schemes to foster forest management that protects water bodies, covering up to 85% of the total costs of the measures among other aspects that can be considered a form of policy integration (e.g. informational policies, monitoring of water-forest interactions, etc.). Still, there are other cases in this federal state where important trade-offs and challenges towards forest and water integration can be seen, for example as regards the Integrated Rhine program.

Possible research questions and empirical sub-questions (potentially related to each other)

- What forms of policy integration between the forest and water sectors can be observed in Baden-Württemberg?
- What actors and institutions are in favor and what actors and institutions are against it? What are the reasons for support or opposition?
- What type of relationships are established between the actors and institutions from both sectors as regards which policy issues?
- What facilitates cooperation on forest and water integration?
- What drives conflicts and disagreement?
- How can relations and motivations of actors and institutions from both sectors

Methods: Qualitative social science methods (e.g., interviews, content analysis of documents, participants' observation) and quantitative social network analysis (with support of the supervisors).

Possible Data Sources: relevant secondary literature, project documents and gray literature (e.g. public official reports, studies, etc.) and survey (online or mail) and/or interviews with relevant stakeholders in the region.

Research Design: single case study, comparative analysis of two contrasting case studies

Skills required:

- German (obligatory), English (additional asset);
- At least basic knowledge of policy analysis (e.g. testified through successful participation in relevant teaching modules/programs);
- Good computer literacy and command of MS office is required;
- Experience with statistical/quantitative or qualitative methods is an asset.