Natura 2000 as a strategic element of nitrogen reduction policy

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Abstract

The Natura 2000 network has been conceived by the European Union to protect natural habitats and wild species. Protection is governed by the habitats directive, whose regulations provide instruments to survey, monitor, maintain and develop specific structures and functions of natural habitats and the natural range and population of species. In order to fulfil requirements for appropriate assessments of roads, an assessment method was developed based on the concept of critical loads. Scrutinizing project contributions in this manner has turned out to be an effective way also to look at effects exerted by other project types including agriculture. The approach could be also used for targeting nitrogen reductions by looking at existing contributions and within further nature protection regulations.

Keywords: EU, Natura 2000, environmental assessment, appropriate assessment, agriculture, emissions, project contributions

1. Natura 2000

The Natura 2000 network of the EU is the largest network of protected areas in the world, stretching over 18 % of the EU's land area and 9 % of its marine territory (EU Commission 2019). First developped for the protection of wild birds by means of the birds directive, it has been substantially enlargened and further complemented and refined by the habitats directive (HD). A number of instruments help to implement measures of protection, strictly enforced by the European Court, which also gave nature conservation NGOs strong rights to control among others project approvals. However, concepts to abate nitrogen deposition at the site level had not been developped despite its role as one of the main pressures and drivers enthreatening not least site specific sensitive habitats.

2. Appropriate assessments

This started to change when nitrogen contributions became more and more pivotal within assessments for the approval of projects in the wake of a court sentence in 2007 (BVerwG 9 A 20.05 Halle motorway).

Any project or plan likely to have a significant effect on the site has to "be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives" (Art. 6.3 HD). In-combination-effects as well as effects stemming from installations or projects outside the site itself have to be regarded. Only if there is no doubt about the integrity of the site being fully maintained a project may be approved by the authorities. Meanwhile in Germany project contributions of .3 kg/ha/a have been agreed upon as being low enough not to exert conceivable effects on a site (Balla et al. 2014). Those values may be e.g. exceeded by atmospheric depositions of manure spreading in the vicinity of a sensitive habitat. Higher project contributions may be accepted as a bagatelle if they don't exceed 3 % of the critical load in combination (all values related to protected sensitive habitat areas). Of course, as long as the total contribution does not exceed the respective critical load value, a natural feature won't be harmed. However, due to emissions of road transport, industry and - most important agriculture, sensitive habitats typically have lower critical loads than are the values of background deposition or at least total contribution. The devised method has been developped as an expert convention to be used within road plannings



Fig. 1: Assessment scheme of project contributions of nitrogen deposition within an appropriate assessment in Germany (FGSV 2019, translated)

(FGSV 2019). It has been also adopted for approval procedures of installations governed by the Bundesimmissionsschutzgesetz (Federal emissions law) like livestock farms or coal plants (LAI/LANA 2019).

4. Outlook

Although NGOs express concerns that the de minimis value might be too high we are confident that our evaluation method will lead to a more stringent approach towards abating effects of nitrogen deposition in Germany: E. g. contributions of livestock farms range far enough to raise problems within permission procedures if emissions are not treated appropriately. Livestock farms are clearly acknowledged as a major source of reactive nitrogen. Also, by the means of the de minimis value troublesome existing project contributions may be identified which should be tackled individually by site management if necessary. In contrast, rather low contributions may be tackled on a broader base, giving room for efficient solutions with less constraints on the target and the exact location of action.

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