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IGNORANCE, UNCERTAINTY AND BIODIVERSITY: DECISION MAKING BY THE COURT OF JUSTICE OF THE EUROPEAN UNION [1]

By

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Conflicts in conservation often include aspects of ignorance and uncertainty. This paper focuses on conservation conflicts dealing with at least one of these aspects and occurring in connection with the Birds Directive and the Fauna-Flora-Habitat-Directive of the European Union. The methodology applied is an in-depth analysis of more than a hundred judgements handed down by the Court of Justice of the European Union (CJEU) since 1984. The paper offers practical examples of such conflicts regarding species conservation as well as habitat conservation based on several judgements of the CJEU.

I've ben analysing these judgements with regard to situations where the Court was facing a total lack of information about future developments as well as withstanding opinions on technical matters.

Regarding ignorance in habitat conservation, the analysis shows that the Court of Justice applied the precautionary principle in order to prevent any deterioration of the species and their biotopes, no matter whether conflicts were taking part inside or outside protected areas. With respect to ignorance in species conservation no such application could be found yet.

Regarding uncertainty, in habitat as well as species conservation the Court allocated the burden of proof while – in so doing - partly referring to the precautionary principle. The Court relies on existing formal rules as well as – if there are no such rules are available – creates innovative new rules in order to allocate the burden of proof and its extent among litigating parties. This allocation of the burden of proof is based on criteria such as the narrow interpretation of exemptions, the general availability of scientific proof concerning the asserted theme, the effectiveness of conservation, and the absolute lack of any means to prevent damage.

The CJEU handed down also judgments regarding uncertainty in cases related to the selection by Member States of protected sites. This started with very general prescriptions on the overall number of sites to be designated under Article 4 of the Birds Directive and has been recently concretized down to the level of individual species. based on several practical examples, my findings summarize for the first time the main problems and solutions related to ignorance and uncertainty in the CJEU case law related to species and habitat conservation . The approaches applied in these judgements by the Court of the European Union can widely serve as a pattern for parties and decision makers during similar conflicts in other world regions as well as for legislative bodies there providing the legislative basis of such decisions. The CJEU applies "ignorance" in the sense of precautionary principle in- and outside protected sites and adjudicates cases in the face of uncertainty "in dubio pro natura" (when in doubt, favour nature). The CJEU has continued to apply this principle even in cases where there has been no concrete knowledge of the any perceived risks to the protected sites. The outline of the paper is as follows:

1. Introduction: Aim and method
2. Overview
3. Ignorance and uncertainty in habitat conservation
4. Uncertainty in species conservation
5. Conclusions

1. Introduction

This paper aims at highlighting patterns of practical solutions for dealing with ignorance and uncertainty in conservation conflicts regarding species and habitat conservation. It does so through a structured and comprehensive assessment of more than 100 cases adjudicated since 1985 by the CJEU.

2. Overview

The intensity of the regional integration within the EU is unique in the world. In acceding to this regional integration organization, Member States gave up a wide part of their sovereignty. Nowadays, they are subject to the jurisdiction of the CJEU in EU-related environmental cases. The EU also deals with conservation issues in its autonomous legislation. Among the most striking examples are the Birds Directive[2] and the Habitats Directive[3] which cover Species conservation and Habitat conservation including Natura 2000 respectively. This specific legislation was already in far more than 100 cases since its release subject of the interpretation by the CJEU. Within several of them the CJEU had already to deal with ignorance, uncertainty and risk.

These three terms are interpreted in the following manner (based on Faber et al. 1996, 212):

Ignorance: *if not all results of future happening are known* (e.g., future adaptations/genetic modifications of species)
Uncertainty: *if potential results are known, but probabilities are not known* (e.g., expedition into a yet unexplored rainforest site)
Risk: *if all potential results are known, and also their probabilities* (e.g., horse race)

3. Ignorance and uncertainty on habitat conservation

Articles 3 and 4 of the Birds Directive place several conservation duties on the Member States, requiring them to protect areas for birds, be it inside or outside Special Protection Areas (SPAs) (Mauerhofer 2010; Iojă et al. 2010).

3.1. Ignorance on conservation status outside and inside of sites

Such SPAs play a major role in the birds site conservation EU policy (Mauerhofer, 2010) as it can be exemplified by the infringement action brought by the Commission against Spain (C-355/90). In this case, the CJEU stated that '….*The obligations on Member States under Articles 3 and 4 of the directive therefore exist before any reduction is observed in the number of birds or any risk of a protected species becoming extinct has materialized*'(para 15). This interpretation was confirmed in Case C-117/00 for all species in areas outside of birds sites protected under Article 3 of the Birds Directive. This clearly shows an application of the precautionary principle in the face of ignorance. Effective conservation measures have to be taken in order to prevent any threat, known or unknown, leading to a reduction in the number of birds. Of course, the question comes up how to react against unknown threats and therefore how to counteract against ignorance.

[2] EEC (1979) Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds. Official Journal L 103, 25/04/1979, 1–18 and its amending acts, recently replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version); Official Journal of the European Union (OJEU) 26.1.2010 L 20/7.
[3] EEC (1992) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal L 206, 22/07/1992, 7–50 and its amending acts.

3.2. Uncertainty in selecting sites

The CJEU also addressed uncertainty in cases regarding the selection of SPAs. This started with very general prescriptions on the overall number of sites to be designated under Article 4 of the Birds Directive and has been continuously fleshed out at the level of individual species.

Basically, Article 4 of the Birds Directive obliges the Member States to classify in particular the most suitable territories in number and size as Special Protection Areas (SPAs) for the conservation of migrating species and species listed in Annex I of this Directive. Therefore, their protection requirements have to take into account the geographical sea and land area where the Birds Directive applies.

The first case was brought against the Netherlands (C-3/96). As a matter of factual evidence, the CJEU applied as benchmark the so-called Important Bird Areas (IBA) – inventory that was published by an NGO in as much the defending Member State failed to provide relevant evidence as to the suitability of the sites to be designated. Regarding such an inventory from the year 1989 (IBA89), the CJEU stated:

> '*(i)n the circumstances, IBA 89 has proved to be the only document containing scientific evidence making it possible to assess whether the defendant State has fulfilled its obligation to classify as SPAs the most suitable territories in number and area for conservation of the protected species. The situation would be different if the Kingdom of the Netherlands had produced scientific evidence in particular to show that the obligation in question could be fulfilled by classifying as SPAs territories whose number and total area were less than those resulting from IBA 89'* (para 69f).

Afterwards, the Court used similar terms in its judgments on the Birds Directive, for instance in case C-240/00 *Commission v Finland* as well as in the cases C-378/01 and C-235/04 *Commission v Italy and Spain*. Partly, it delved into the evidence provided for in the successor inventory, namely the IBA 2000.

In all these cases, the CJEU did not delve into details. However, this changed in case C-334/04 *Commission v Greece* regarding the failure of that Member State alleged by the Commission to classify areas of importance for the conservation of birds. In this case the CJEU ruled – beside the well-known general formulation firstly used in the case against the Netherlands – down to the species level. Thus, besides an overall failure by Greece to abide by the duty to designate the relevant birds sites, the CJEU also stressed that one species was not represented in any SPA area and that 11 species were insufficiently represented (C-334/04). This shows that the CJEU does not even refrain from entering into the 'battlefield of scientific facts'. This was even more surprising in particular with regard to the different evidence which was brought forward by both the Commission and Greece concerning the lingering uncertainty about the extent of occurrence of the 11 species, finally considered by the CJEU to be insufficiently represented.

3.3. Uncertainty about changing boundaries of designated sites

Once protected areas were designated within the framework of the Natura 2000 network, Member States have continuously intended to reduce or alter their boundaries. However, in a judgement *Commission v Portugal* the CJEU made it clear that a Member State is not endowed with the same discretion than in the course of the sites' selection process. The rationale is that the Member State is required to bring evidence from the beginning that the site had become unsuitable for conservation purporses (C-191/05, paragraph 13). Nonetheless, an Appropriate Assessment based on Article 6 (3) of the Habitats Directive can be implemented regarding the question whether the alteration of the site's borders is possible.

3.4. Uncertainty on implementing an Appropriate Assessment

In cases where it had to assess the level of uncertainty triggering an Appropriate Assessment under the Habitats Directive, the CJEU took a similar view than the one in its case law on reducing and altering SPAs. With respect to Article 6 (3) of the Habitats Directive, the Court decided in a preliminary ruling that:

> **'***any plan or project not directly connected with or necessary to the management of the site is to be subject to an appropriate assessment of its implications for the site in view of the site's conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects*' (C-127/02, para 45).

Again any discretion of the authority is excluded. Without any objective information proving the opposite, the authority is called on to implement an Appropriate Assessment.

3.5. Uncertainty in granting permission

The situation just described concerns the question whether or not an Appropriate Assessment shall be carried out. One must also deal with another procedural step where the Appropriate Assessment has already been achieved. Now, the authority has to decide whether the license shall be granted or not. The legal basis for that decision is clearly set forth in Article 6 (3) of the Habitats Directive. According to this paragraph, the competent national authorities, taking account of the Appropriate Assessment of the implications of certain plans and/or projects for the site concerned in the light of the site's conservation objectives, may authorise such an activity in so far as they can ascertain that it will not adversely affect the integrity of that site. According to the CJEU in the case mentioned before against the Netherlands, this authorization criterion '*integrates the precautionary principle*' (C-127/02, para 58). In the same judgment, the CJEU stated concerning the absence of such adverse effects that there should '… *no reasonable scientific doubt remain…..'* (para 61). Hence, the mere fact that uncertainty lingers precludes the public authority from granting the license (apart from the next steps of that procedure set forth in Art 6 paragraph 4 Habitats Directive). Article 7 Habitats Directive applies this interpretation in line with the precautionary principle even on those sites which have been designated as SPAs under Article 4 of the Birds Directive.

4. Uncertainty on effective implementation of strict species conservation systems

All the cases treated so far are dealing with the maintenance or restoration of habitats of wild species. That being said, the Birds and the Habitats Directives of the EU also address the issue of uncertainty regarding the conservation of wild species in their own rights. Articles 5 to 9 Birds Directive and Articles 12 to 16 Habitats Directive are particularly relevant. They mainly cover the concrete conservation of wild bird species and other wild animal species as

well as wild plants respectively. In several judgments, the CJEU was called on to interpret these provisions.

4.1. Uncertainty about the existence of a strict species conservation system

Article 12(1) of the Habitats Directive requires Member States to take all the requisite specific measures with the aim of effectively implementing the regime of strict protection. Interpreting this Article, the CJEU found in the case against Ireland (C-183/05, para 30) that a Member State bears the burden of proving '*the adoption of coherent and coordinated measures of a preventive nature*' enhancing effective protection , and not merely "*the existence of a network of full-time rangers and officers responsible for monitoring and protecting species*". Furthermore, the CJEU ruled that ` *(a)s noted by the Advocate General in point 24 of his Opinion, the transposition of Article 12(1) of the Directive requires the Member States not only to adopt a comprehensive legislative framework but also to implement concrete and specific protection measures ...'* (para 29)'. Finally, the CJEU highlighted the precautionary principle in this case against Ireland in the following way: *`(s)imilarly, the system of strict protection presupposes the adoption of coherent and coordinated measures of a preventive nature (Case C-518/04 Commission v Greece, not published in the ECR, paragraph 16)'* ((para 30). By emphasizing the 'preventive nature' of the measures to be taken, it can be assumed that the CJEU applies a similar benchmark than the one in the habitat-related cases cited above. Thus, measures have to be taken before any quantitative or qualitative decline is observed and any threat or risk has materialized.

4.2. Uncertainty due to unsubstantiated assumptions

The case law annotated here seems to indicate that the European Commission does not bear the burden of a too strict proof requirement. But it can be concluded that the Commission has to provide more than assumptions regarding the circumstances threatening wild species. This was stated in a case *Commission v Spain* concerning the Iberian Lynx (C-308/08), a species endemic to Spain listed in Annex IV (a) of the Habitats Directive. The facts of the case concerned the incidental killing of the Iberian Lynx by vehicles along a road in Spain (para 57). Spain was able to prove that it was continuing to study new measures capable of improving the conditions for conservation and improvement of species as provided under Article 12 (4) of the Habitats Directive (para 59). The CJEU interpreted that provisions. This provision reads as follows: *'Member States shall establish a system to monitor the incidental capture and killing of the animal species listed in Annex IV (a). In the light of the information gathered, Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned.'* Thus the Court concurred with the reasoning of the Spanish authorities and dismissed the infringement action brought by the Commission. Similarly, in an earlier judgment *Commission v Ireland* (C-183/05, para 39), the Court ruled out unsubstantiated assumptions put forward by the Commission. The Court held: *'(I)n that regard, it must be borne in mind that, according to settled case-law, in an action for failure to fulfil obligations brought under Article 226 EC it is for the Commission to prove that the obligation has not been fulfilled without being able to rely on any presumption (Case C-221/04 Commission v Spain [2006] ECR I-4515, paragraph 59 and the case-law cited).'* Concrete evidence is also required to prove a breach of the provisions above: *'(I)n the present case, it must be held that the Commission has not put forward any concrete evidence to substantiate the seventh part of its second complaint*' (C-183/05, para 40).

4.3. Uncertainty on deliberativeness of species killing/catching

Another case brought by the Commission against Spain (C-221/04) concerned the deliberativeness of killing/catching of wild species prohibited also by Article 12(1) (a) of the Habitats Directive. Therein the Commission had to prove the deliberate action regarding the killing of a protected species through a specific hunting method (snares) mainly targeting a non-protected species. Although the Commission failed even to prove that the protected species occurred in the area wherein the hunting method was used, the Court required nonetheless that *'.... it must be proven that the author of the act intended the capture or killing of a specimen ... or, at the very least, accepted the possibility of such capture or killing*' (C-221/04, para 71). Although the CJEU consequently dismissed the infringement action, it is important in this context to stress the broad interpretation of deliberativeness. In comparison with the Austrian Criminal Law Act, this concept covers even the slightest extent of intentional behaviour, whereas in according to this Act, 'deliberativeness' is only the middle of three gradual forms of intentional behaviours. Thus, the proof of deliberativeness in the CJEU's interpretation could be achieved rather easily.

4.4. Uncertainty on deliberativeness in species disturbance

The *Caretta caretta* is a case in point as to the burden of proof placed on the European Commission in nature protection infringement cases (C-103/00). The Commission lodged an infringement action before the CJEU against Greece claiming that the defendant State infringed Article 12(1) (b) and (d) of the Habitats Directive by failing to offer strict protection to the sea turtle *Caretta caretta*. In particular, the Greek authorities did not prevent disturbance of the species during its breeding season. The Commission could bring forward evidence – based on a field visit – as to the presence of pedalos and small boats around two breeding beaches coupled with the presence of illegal buildings on another breeding beach. The Greek Government did not dispute the accuracy of these findings.

The CJEU then concluded that the use of mopeds as well as the presence of pedalos and small boats deliberately disturbed the species in question during its breeding season for the purposes of Article 12(1)(b) of the Directive (paras 32-36). By the same token, the existence of illegal buildings was considered to be liable to lead to the deterioration or destruction of the breeding site within the meaning of Article 12 (1) (d) of the Directive (para 38). Deliberativeness is not required.

4.5. Derogation from species protection and the burden of proof

Article 12 (1) Habitats Directive prohibits all forms of deliberate capture or killing of specimens of the species in the wild whereas Article 16(1) allows the member States to derogate from the strict provisions of Articles 12, 13, 14 and 15 subject to certain preconditions such as to prevent serious damage to crops, livestock and other types of property. An explicit precondition laid down in Article 16(1) of the Habitats Directive is that '*the derogation is not detrimental to the maintenance of the populations of the species concerned at a favorable conservation status in their natural range*'. Despite this clear wording, the CJEU ruled differently in an infringement case brought by the Commission against Finland (C-342/05). This case was brought against Finland under Articles 12(1) and 16(1) of the Habitat's Directive for hunting wolf which was considered to be in breach of the said provisions. Therein, the CJEU ruled that a Member State which allows the hunt of a species despite its '*unfavourable conservation status*' bears the burden of proof that such

derogations '*are not such as to worsen the unfavourable conservation status of those populations or to prevent their restoration at a favourable conservation status*' (C-342/05, par 29). Nevertheless, the CJEU found that *'...by authorising wolf hunting on a preventive basis, without it being established that the hunting is such as to prevent serious damage within the meaning of Article 16(1) (b) of the Habitats Directive, the Republic of Finland has failed to fulfil its obligations under Articles 12(1) and 16(1)(b) of that directive;...'* (para 47). Though Finland managed to prove that the derogation did not worsen the unfavourable conservation status of those populations or to prevent their restoration towards a favourable conservation status, it failed to provide sufficient evidence for another precondition, namely the effectiveness of the hunting.

To sum up, in face of uncertainty the burden of proof shifts to the Member State as to the impact of the derogation on the unfavourable conservation status.

4.6. Uncertainty on numbers of derogations from species conservation

As already mentioned, Article 9 of the Birds Directive provides the basis for granting derogations from the species conservation obligations laid down by this Directive. Important criteria are therein the restriction of derogations to '*small numbers*' and *'affected populations*'. In this connection, the Member States are increasingly challenged by the findings of the CJEU given that the Court has already defined '*small numbers*' and *'affected populations*' based on recommendations of the so-called ORNIS-Committee (see e.g., C-79/03 paragraph 36, and Case C-344/03, paragraph 53). This Committee for the Adaptation to Technical and Scientific Progress was instituted under Article 16 Birds Directive, and consists of representatives of the Member States and is chaired by a representative of the European Commission.

In all these cases, the CJEU held that the definitions of the ORNIS Committee are not legally binding. However, in recognising the scientific value of the work of the ORNIS Committee and in as much as the defending Member States are unable to contradict this evidence, ORNIS Committee reports are taken into consideration (C-79/03 paragraph 36, C-344/03 para 53). Thus, the Member States bear the burden of proof to challenge the evidence brought forward by the ORNIS Committee..

5. Conclusions

The CJEU applies "ignorance" in the perspective of the precautionary principle in- and outside of protected sites and adjudicates cases under uncertainty mostly "*in dubio pro natura*" (when in doubt, favour nature). Similarly, de Sadeleer (2007:3) states that '*…pursuant to the precautionary principle, authorities are prepared to tackle risks for which there is no definitive proof that the damage will materialize*.' The CJEU has continued to apply the principle even in instances where there has been no concrete knowledge of the any perceived risks to the protected sites.

Attention should also be drawn to the CJEU case law regarding the obligation to carry out an Appropriate Assessment pursuant to Article 6 Habitats Directive for certain plans and projects impinging on the conservation of Natura 2000 sites and the subsequent authorization of these activities. In two cases, the CJEU held that "*in dubio*" the developer bears the burden of proof. This reflects again the precautionary principle as applied in cases of uncertainty (Mauerhofer, 2008a).

Regarding species conservation, the European Commission bears the least burden to prove mostly the probability/likeliness of damage and deliberativeness. Thanks to the wide interpretation of the concept of deliberativeness as discussed above, it should be quite easy for the Commission to bring this evidence. Thus, the Commission should be usually able to put forth a watertight case which fosters the implementation of Article 12 (1) of the Directive.

According to CJEU, Member states have to bring forward mostly the full scientific and factual evidence of effective protection as provided for under Article 9 of the Habitats Directive with no negative impact. Where a Member State is unable to provide such scientific evidence, the ORNIS Committee's work forms the basis of the court's findings. This is in line with de Sadeleer (2007:3) who states that *'...absence of scientific certainty as to the existence or the extent of a risk should henceforth no longer delay the adoption of preventive measures to protect the environment*.'

In summary, in a wide range of cases the CJEU ruled on issues of ignorance and uncertainty. These judgments encompass both habitat as well as species conservation issues. In habitat conservation cases, the issue of ignorance is dealt with to some extent. whereas uncertainty receives broad attention in habitat as well as species conservation. Regarding both issues, the precautionary principle is widely applied by the CJEU. The allocation and the extent of the burden of proof is a key element in all cases when the CJEU has to deal with ignorance and uncertainty.

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