

## EUFJE Conference 2019

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### The role of science in environmental adjudication

#### Questionnaire

##### 1) Mandate of the court to review techno-scientific matters

*a) In what forms do judges gather scientific advice (e.g. party-appointed experts, court-appointed experts, in-house experts, expert judges (legal adjudicators having a formal training in a certain scientific field), and/or expert assessors (scientific experts sitting with judges during the deliberation without the right to vote)? What is the task of these actors?*

Other than written material, judges gather scientific advice through actors in three main categories.

First, through expert judges. Commonly, expert judges does not have a legal education. Expert judges are appointed on a case by case basis due to their knowledge in a scientific field. The expert judges sits in a panel with professional judges. Expert judges have the same right to vote as the professional judge.

Second, party-appointed experts. Usually, party-appointed experts submit a written report before they give oral evidence in the court proceedings. The issues to be examined by the experts is decided by the party appointing the expert. The court have in general the ability to restrict the right to present the evidence through rules of evidence, e. g. if the evidence is regarded unnecessary. Prior to the oral evidence the court will caution the party-appointed expert to give truthful and complete testimony and the expert is warned of the liability associated with giving false testimony and affirmation. The expert is asked to affirm that he/she will tell the whole truth and not conceal anything. The party-appointed expert is treated as an ordinary witness.

Third, court-appointed experts. Court-appointed experts may be appointed at the request of a party or at the courts own initiative when the appointment is necessary to establish a sound factual basis for the ruling in the case. The court usually only appoints one expert. The court determines the issues to be examined by the expert and gives the necessary instructions. The court-appointed expert is also obligated to give affirmation before giving oral evidence. The affirmation is however, slightly different from the one given by the party appointed expert. In principle, the court will have the same ability to restrict the evidence given by the expert as with the party-appointed expert.

*b) What forms of scientific references are acceptable as bases for making persuasive scientific findings (E.g. expert evidence, standards issued by competent international or national organizations, regulatory trends of other states, etc.)?*

There are no formal requirements as to which forms of scientific references are acceptable as basis for making persuasive scientific findings, provided that the parties have been given the opportunity to comment on the references). In criminal cases, scientific evidence may be subject to control by a commission of forensic medicine, and the same applies also to certain other types of cases (e.g. expert assessments in cases concerning child care and possible takeover of care responsibilities).

*c) Can a higher court (e.g. appeal court, supreme court) in your jurisdiction investigate scientific questions, and/or review the scientific findings of lower courts? If so, to what extent?*

Scientific questions are not subject to other limitations than other questions of evidence. Thus, there is no particular limitation on the ability of a higher court to investigate scientific questions, and/ or review the scientific findings of lower courts. Any limitation is due to other, unrelated, limitations, e.g. the limitation placed on the ability to appeal in some cases.

*d) How would you handle evidence derived from geospatial (GIS) technologies (such as satellite images, aerial photography, drones, etc.) (see for instance the use of geospatial intelligence in the Bialowieza case, C-441/17 R)? In what type of cases and in what ways do you utilize them? How can they promote compliance monitoring and a more effective enforcement?*

In its simplest form, GIS technology may be used to illustrate or prove a factual finding. In this form the technology may prove to enhance effectiveness by the courts e.g. by allowing for GIS-evidence in the place of on-site inspections by the court. However, the courts should be aware of the possibility of manipulation of such evidence or perhaps the ability of selective and/or warped depiction. In more advanced forms GIS technology may be paired with expert witnesses to make a deeper analysis of the imaging presented. Evidence based on GIS technology is not handled differently by Norwegian courts – which are courts with general jurisdiction – than other type of evidence. Which means that the judge have to evaluate the merits of the evidence, and based on that decide whether or not the evidence should be taken into consideration under the courts assessment and which weight it should be accorded.

## **2) When do you gather expert advice?**

*a) How do you distinguish between technical/scientific questions and legal questions in fact-intensive disputes, where science and law are closely interlinked in the underlying legal rules and concepts?*

Questions of law are questions of what the issue of consideration is. In cases where the underlying legal rules and concepts are closely interlinked with science the legal question may be limited to clarify that the law incorporates the scientific meaning of a word or a phrase. As far as technical/scientific questions are part of what the court must decide on to reach a decision in a case, the judges must also decide on these questions. There are not drawn a distinction between the two types of considerations. But experts before the court are normally only asked to assess technical/scientific points, and not give their view of the legal aspects.

*b) Are there any types of cases and/or questions where gathering scientific evidence is mandatory under domestic law?*

There are no types of cases where the courts are obligated under domestic law to gather scientific evidence.

*c) To what extent are judges allowed to investigate the scientific dimensions of cases ex officio?*

In most civil cases, the parties have the sole dominion when it comes to questions of evidence. The court may arrange for the presentation of evidence if the parties does not object. The court rulings shall be based on the documents in the cases and the proceedings at the court hearings.

In criminal cases, the court is duty bound to ensure the complete clarification of the cases and may decide to obtain new evidence. The same goes for some other special types of cases, e.g. concerning custody for children and medical treatment without consent from the patient.

If the judge is unsure about the scientific value of the evidence brought forward by the expert witness, the court may appoint another expert or through questions to the witness try to sort out the quality of the work done.

## **3) Rules of expert appointment**

*a) What are the selection criteria of experts in your jurisdiction (e.g. having requisite training, being impartial, independent from the party, being enrolled on government-issued lists, etc.)?*

There are, in principle, no firm selection criteria of experts. Court-appointed experts in civil cases have to have the “necessary skills and experience”. The law is open to establish a list of qualified experts. If such a panel is established the expert shall be appointed from the panel unless it is desirable to appoint someone else.

A person who, due to conflict of interest, could not have sit as a judge in a case shall not be a court-appointed expert. The same standard is not imposed on party-appointed experts.

*b) Whether and on what basis can a party challenge the appointment of a party appointed/ court-appointed/in-house expert?*

The appointment of an expert can be appealed to a higher court. There are no in-house experts in the Norwegian courts, except for the land courts (jordskifterettene), who basically handles cases concerning borders and rounding of properties.

*c) To what extent and in what ways do judges in your jurisdiction exercise control over the scientific fact-finding process (e.g. by defining precisely the scope of factual controversy needed to be addressed by experts)?*

The court determines the issues to be examined by the court appointed expert and gives the necessary instructions in a mandate.

#### **4) Evidentiary issues: standard and burden of proof**

*a) What is the applicable standard of proof for environmental cases in administrative, civil and criminal law (e.g. preponderance of the evidence, beyond reasonable doubt, etc.)? Is it set in domestic law, or are judges free to adjust the standard as they deem fit?*

In criminal cases, the standard of evidence is beyond reasonable doubt. In civil cases, the preponderance of evidence-standard is used unless there are rules of evidence dictating otherwise (e.g. if the theme of proof is a question of criminal or reprehensible behavior). The rules of evidence is largely rooted in the legal tradition and not subject to adjustment as the judges “deem fit”.

*b) What are the rules of allocating the burden of proof in science-intensive cases (maybe give one or two examples to indicate what is meant by scienceintensive cases)?*

There is no specific rules of allocating the burden of proof in science-intensive cases. The burden of proof is generally put on the party claiming a certain fact. The burden of proof can shift in some instances, e.g. if one party had the opportunity to secure evidence.

#### **5) Rules of evaluating expert evidence: standard (intensity) of review**

*a) How do you choose between two competing or conflicting pieces of expert evidence?*

Based on a free evaluation of the evidence.

*b) Could you review the scientific assessments and justifications made by a competent domestic authority (by conducting a de novo review of the evidence)? Or is your judicial review deferential towards the scientific claims of domestic authorities?*

The courts can review scientific assessments and justifications made by a competent domestic authority. However, in some cases the review may be deferential towards the claim of the domestic authorities. If, and to what degree, this is case is determined in the individual case, but will normally rely on how technical the question is and the degree of specialized competence by the domestic authority.

*c) What is the applicable standard of review to scrutinize the scientific assessments of domestic authorities (e.g. scrutinizing ‘manifest errors’, or the reasonableness/consistency/coherence of their scientific conclusions, or interrogating the scientific validity and factual correctness of the evidence, or reviewing the procedural aspects of science-based decision-making process at hand)?*

The courts will always scrutinize, without limitations, whether the authorities have acted within its legal powers. The same standard of review is applied when it comes to the factual grounds for the decision of the government. However, if the decision is based on a discretionary legal standard a factual error will have to be deemed to have affected the decision in order for the invalidation of the decision. If the decision allows for the authorities to adopt a decision by discretion, the decision may

be voided if it is based on irrelevant considerations, if the decision entails unjustified differential treatment or the decision is unreasonable.

The courts may show restraint when scrutinizing the scientific assessments of domestic authorities if the court is ill-equipped to subsidize its own discretion with that of the authorities. In a patent case (Rt-1975-603) the Supreme Court of Norway showed restraint when reviewing the decision of the patent office. Reference was made to the special expertise and broad experience of the patent office. In a case regarding the validity of two decisions to establish nature conservation-areas, the Supreme Court of Norway (Rt-1995-1427) stated that it would show restraint before it would depart from the professional assessment behind the decision. The standard of review should be regarded as relative to area of law. If basic legal safeguards are challenged, a more intensive review may be expected.

## **6) The role of science and technology in the courtroom – an overall assessment**

*a) To what extent do you consider the difficulties of scientific fact-finding to be a defining challenge in environmental adjudication compared to other difficulties?*

The answer will depend on which type of environmental adjudication the scientific fact-finding relates to. The combination of scientific fact-finding and assessment of a possible future development is perhaps more challenging than scientific fact-finding in a narrow sense.

*b) Do you consider the domestic rules of expert involvement to be appropriate to secure judicial control/monopoly over deciding environmental disputes? Or do you think judges should exercise greater control over the scientific fact-finding process?*

As a starting point the Norwegian legal tradition and the domestic rules are based on an assumption that the parties bringing the case has more knowledge of the need for expert involvement than the courts. However, early involvement from the court in the early stages of litigation may reveal a need for expert involvement, not recognized by the litigants. But in general, environmental dispute cases are in principal not treated differently than other civil cases before the courts.

*c) Do you consider the limits of curial supervision of fact-intensive cases are appropriate for providing effective judicial protection and promoting uniform application of EU law?*

It is difficult to answer this question in general, as it can vary according to the area of law and which legal limitations one thinks of.

*d) Do you think it is necessary and if so, in what ways, to improve the scientific engagement of judges (E.g. would you improve the procedural rules of scientific fact-finding, enhance the scientific competence of the judges through training and capacity building, or develop new legal tests to review contradicting scientific evidence, etc.)?*

In some cases there may be useful for the judge to be able to challenge the methods used in the scientific fact-finding to ensure that the science provided to the court is acceptable to a general scientific community. This ability could be trained by enhancing the scientific competence of the judges or adopting a method/ procedure for the courts to review validity of the scientific evidence prior to the hearing as with the Daubert-test in the US. But in general I have not revealed any shortcomings in this respect in Norwegian Courts.

## **7) Case study**

*How would you delineate applicable questions of law and science in the following cases, what types of expert evidence would be gathered, and how would they be evaluated?*

*Choose one of the following cases, according to your field of expertise:*

- a) The case brought before you is about a proposed artificial groundwater production plant that might impact a nearby Natura 2000 -site, whose conservation values are contingent on groundwater levels, thus being of concern when authorizing artificial groundwater undertaking outside the protected area. The Natura 2000 site has e.g. the region's largest*

*sinkhole that has wetland at the bottom of it, and is thus connected with the groundwater formations. It also has coniferous forests on glaciofluvial eskers, and the site is generally described as having calcareous fens and springfens (all listed as Natura 2000 habitats). Up until now the plant has gained the required approvals. The groundwater model used in the proposed undertaking's plans modeled the water currents in the ground. As typical of such models, it was more uncertain in the rims of the area than in its centre. Coincidentally, these rims of the area also included especially sensitive and small wetland formation. The administrative authority, in its statement of reasons, discussed the role of the precautionary principle and scientific uncertainty, noting that neither formed as such a reason to not allow the venture. They only obliged the administration to establish such permit conditions that they adequately curbed the harmful impact. However, an environmental NGO brings a claim against the permit arguing that the permit should not have been granted at all. They claim that since the scientific assessments presented before the administrative authority did not remove all justified scientific uncertainty on the undertaking's consequences, and since there are thus relevant risk of detrimental impact to the Natura 2000 –site, the plan should not be allowed to proceed.*

- b) *The case brought before you is a case of illegal trade in birds protected under the EU CITES regulation Annex A (e.g. Red kite, Egyptian Vulture). Trade activities with respect to these birds are prohibited. There is an exception when one can prove that a specimen has been bred and born in captivity. These birds can obtain a CITES-passport, which makes them marketable. Through forgery of rings and breeder's declarations, the defendants obtained CITES-certificates for "captive-born and bred species", which allowed them to commercialise the birds in spite of the general prohibition to trade EU CITES Regulation Annex A species. A bird protection NGO becomes a party to the criminal proceedings and claims moral damages because of the loss of the birds. Would this be evaluated by an expert? If not, how would the court estimate the amount of the compensation?*

*Case B:*

Given the above facts, the case brought by the NGO would not need evaluation by an expert as moral damages would not be recognized in a case such as the described. Norwegian law does allow for damages to the government (environmental-damages) in case of breach of the CITES-regulation. The damages are fixed after a global assessment including the inherent value of the protected species, the extent of the damages caused, the extent of other sanctions imposed on the person in breach and other circumstances.

In general, the court may feel competent to estimate the amount of the compensation without the help of an expert. However, the law directs an assessment of the value of the environmental aspects, which is difficult to assess without empirical knowledge of the rarity of the protected species or the future impact of the breach. It would be appropriate to have an expert give his or hers opinion on these aspects without the expert putting a monetary value.