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The application of the precautionary principle in the assessment and management of uncertain and potentially serious risks to environment or to public health has shown some ambiguity in the interpretation of the concept of precaution, insufficient knowledge of the potential effects of activities that may cause risk and lack of mechanisms and operational frameworks to support decisions.

The role of the decision-maker becomes more difficult due to the diversity of situations, the lack of precise regulations and the multiple interests involved (environmental, economic and social), in a context of uncertainty. In court disputes, in particular, judges find it difficult to conduct analyzes based on facts originating in branches of science other than legal science.

Therefore, the conditions of application of the precautionary principle have been strongly conditioned by factors such as the objectives of decision-makers, their attitudes towards risk and the rules and decision criteria they use, hindering the functioning of administrative justice and generating discretion, ambiguity and unpredictability in the decision process.

This study intends to clarify how the precautionary principle has been interpreted and applied by the courts in Portugal in the analysis of conflicts associated with the existence of uncertain risks to the environment or to public health.

It is also intended to contribute to the debate on when and how to apply precautionary measures towards sustainability and to improve their implementation conditions.

To this end, a recent set of ten relevant court cases is considered in areas involving environmental risks (waste incineration, high voltage power lines, dam and wind farm construction) and the application of the precautionary principle. The decisions of the courts and their reasons in the different judicial bodies are analyzed. This is a first systematic analysis of legal proceedings in Portugal on the issue.

In order to evaluate the degree of consistency of the courts’ decisions in relation to comparable risks and their proportionality with respect to the severity of risks, a theoretical framework was developed based on three attributes: level of seriousness of risk, level of evidence required, level of severity of precautionary measures.

Different positions among courts were observed, with contradictory arguments in the same case or in similar cases. The existing risks are admitted but with different levels of seriousness, requiring different levels of evidence and giving priority to different interests. When advocating the application of precaution in its strongest version the courts consider it necessary to revert the burden of proof to the entities responsible for the risk activity. The courts do not refer to the case-law of the Court of Justice of the European Union, thus assuming their autonomy in applying the precautionary principle.

The results obtained in this study lead to the conclusion that, in order to counteract
the lack of clear and insufficient information on existing uncertainties, leading to the perception of different levels of seriousness of risks and to contradictory decisions, more explicit legal requirements and criteria would be desirable for the analysis of uncertain risks and the balancing of interests in different areas of activity and also for the proportionality of the decisions.

In this context, it would be very important for the courts to have the technical support of high quality scientific expertise in the analysis of environmental and economic information.