Improving the assessment of pure ecological harm

Impact paragraph

This research aimed at tackling the topic of pure ecological damage assessment from an interdisciplinary point of view. Through case law research, normative philosophical analysis of the law, and a look toward (environmental) economic analysis, the thematic of pure ecological harm was examined from various angles.

The added value of this thesis to the field of ecological damage assessment, and possibly, to the broader field of environmental law is multiprong. Firstly, the case law analyses of *Exxon Valdez*, *Erika*, and *Costa Rica v. Nicaragua* are novel in terms of the detail of the analysis. So far, there are no publications available that analyse the multi-level court proceedings, parties' arguments and economic analyses for the purposes of valuation, and the respective Courts' reception of those arguments, rationales, and judgements to this degree. Conducting the analysis at this level allowed for the exact pinpointing of some of the existing bottlenecks in the law and the judiciary's approaches to pure ecological harm.

The normative philosophical analysis introduced a novel juxtaposition of the harm concept in law and philosophy. While the topic of "harm" is one that is written about extensively in normative philosophy, it is one that, as a distinct concept in and of itself, seems to slip through the fingers of our legal system. In the legal realm, the concept of harm *sec* seems to be presumed or taken for granted as one of several criteria for damages establishment. Bringing normative philosophy to bear on the justifiability of our current (passive) understanding of the harm-concept, allowed for the formulation of a broader harm-concept which, in turn, formed the theoretical justification for the introduction of pure ecological harm into our legal system. This has not been done before in this form.

Much has been written about the topics of ES and PES. However, bridging these policy concepts and tools to a legal context, taking into account recent case law, is new.

By suggesting in concrete, straight-forward terms the validity of adopting a broader harm-concept and the possibility of implementing this is the courtroom through an ecosystem services approach, this thesis may possibly function as a handy reference work. Both to stimulate and confirm the validity of the efforts of those who are already working toward the recognition of pure ecological harm in the courtroom (e.g. environmental lawyers, governments, NGOs, institutions that provide ecological damage assessments), but importantly also to support judges who find themselves confronted with this exceedingly complex material. This thesis offers a detailed account of three cases that are considered to be exceptionally emblematic of how courts deal with valuation of ecological harm, spanning the course of around 30 years. It also offers an objective normative argument for giving a broader interpretation to the harm-concept, and a suggestion for an applied, practical approach to implement this is the courtroom. The aforementioned may help lawyers and judges to quickly gain oversight over the broader subject matter of pure ecological harm. It may also help lawyers find some useful points of departure for formulating a claim for pure ecological harm. It might encourage judges, who are newly confronted with this subject matter, to funnel the usual broader back-and-forth on economic valuation analyses to a sharp focus on concrete ES valuation. The normative argument posited for the application of a broader harm-concept, could potentially take away possible doubts on the part of judges as to whether they are acting within the bounds of the law when hearing and

assigning claims for nonmaterial harm. As evidenced by the case law review, many judges acknowledge the existence of pure ecological harm and, consequently, want to assign damages for it. However, it appears that, constrained by traditional legal customs, they have so far not always felt the freedom to do so.

Finally, this research has, at several points, lightly brushed upon related topics that may be interesting for future research. Below, these related topics shall be listed summarily in the form of recommendations for future research. Before this is done, it should be pointed out that it is clear that a lot is happening in the field of pure ecological damage valuation and that this thematic figures into a much broader (environmental) debate. It is therefore impossible to be complete in an analysis of this topic and in suggesting points for future research. Nevertheless, below, a few ideas for future research that have come to mind during the course of this research are briefly summed up. I take for granted that there are many more related topics that are of interest for future research and that the ideas mentioned below are still rather rudimentary.

1. It may be interesting to conduct further research into the role that independent, court appointed experts on environmental valuation (methodology) can fulfil in the courtroom. Imaginably, they could play an important role in clearly communicating, in a manner accessible to an audience of judges, complex economic methodologies and calculations as proposed by parties.[1107]
2. Towards the future, it may be useful to look into the possibility of developing a legal 'toolkit' for environmental damage valuation, for example, in the form of guidelines and training for judges. Imaginably, standardization could be sought for rules on valuation methodology that determine admissibility, interpretation, and application in court; much like rules of evidence that determine, among others, how evidence may be collected, what evidence is admitted or excluded in court, and relevance. The legal frameworks described at the outset of Chapter 2 could possibly provide a point of departure for research in this area, as they prescribe specific valuation methods and, in their accompanying guidelines, give guidance on how these ought to be interpreted and applied in practice. However, one may also look toward the EU Forum of Judges for the Environment's BIOVAL project.[1108]
3. By extension, it would be useful to investigate how (i.e. by which institution) the abovementioned guidelines could best be developed. This may also raise the question of what role the legislator can play.

[1107] See also Mohan & Kini 2021; Rudall 2018. Recall also Duffield 1997, p. 99 and 109-110, who emphasizes the importance of translating economic language in the courtroom to legal language. Referring to the Native Alaskans' claim in *Exxon Shipping Co. v. Baker*, he states: "*In a review of several cases, Cummings (1991) concludes that frequently the courts uncritically accept and inappropriately apply economic paradigms. Certainly the court environment is more demanding in terms of whether a given method seems reasonable and is readily communicated […] This case may serve as a warning to practitioners that groundwork needs to be done to communicate to the rest of the world what economists are doing. The court's decisions were consistent with the narrow folk definition of economics as the realm of markets and commodity exchange. […] This case also illustrates the importance of economic rhetoric. While the plaintiffs won the first round in terms of having a claim under Oppen, the defendants successfully labeled some claims as "non-economic," repackaged their economics, changed experts, and won the second round on economic methods.*"

[1108] https://www.eufje.org/index.php?option=com_content&view=article&id=40&Itemid=228&lang=en accessed 29 January 2023; https://www.eufje.org/index.php?option=com_content&view=article&id=66&Itemid=257&lang=en accessed 29 January 2023

4. It would be interesting to conduct broader, comparative legal research into how courts in various countries deal with claims for pure ecological harm.
5. In Chapter 3, the moral and legal status of nature were addressed.[1109] While this research is not concerned with the topics of legal personality, rights of nature and the like, Chapter 3 did provide some ideas that could possibly lend themselves for transposition to research in that context. In particular, it provided an argument for the moral and legal status of animals and ecosystems. This argument may be relevant for research in the realm of protection of individual living beings, collectives or nature at large.[1110]
6. Departing from the idea that animals and ecosystems, too, have moral and legal status, this evokes questions on who will step us as a claimant. It may be interesting to further explore the role/duty, of governments in protecting the environment. Also the rights of local, indigenous peoples to act as public trustees for local ecosystems, as well as NGOs, would be interesting to examine further.[1111]
7. In the policy field, it appears that more interdisciplinary approaches to valuation of nature are emerging. These concern valuation methods from the field of economics, biology, anthropology, and indigenous and local traditions.[1112] Imaginably, toward the future, it would be interesting to research the relevancy of these interdisciplinary valuation approaches for the courtroom.
8. It may also be interesting to examine the role that PES could play *ex post* in restoration of injured ecosystems and / or ecosystem services, rather than only as an *ex ante* policy tool.[1113]
9. It may be interesting to examine how claims money (awarded to a government, an NGO, or a private party) for pure ecological harm is spent. Specifically, it might be of interest to research in how far a successful claim for pure ecological harm can be said to end up benefiting the environment that was damaged.
10. Finally, it would be valuable to continue research on how to best quantify pure ecological harm in the courtroom, as this is not a cut-and-dried matter.[1114] Following this research, at the moment, an ecosystem services approach would appear to be the right way forward. But that is not to say that other approaches cannot be conceived of that are perhaps better than this approach.

[1109] Drawing from Korsgaard's impressive body of work on the moral status and legal rights of animals, in particular Korsgaard 2011, Korsgaard 2012, Korsgaard 2018, Korsgaard 2018a and Korsgaard 2020. Chapter 3 also drew largely from the Stanford Encyclopedia of Philosophy and its comprehensive overview of normative thought on moral status, see https://plato.stanford.edu/entries/grounds-moral-status/ accessed 20 December 2021

[1110] Recent publications that entertain similar arguments in regards to the moral status and right of animals, concern Precht 2018, Donaldson & Kymlicka 2011, and Korsgaard 2018.

[1111] Recall in this regard, the opportunity that seemed to have been foregone in the *Exxon Valdez* case for the Native Alaskans to act as public trustees for the conservation of the local ecosystem.

[1112] IPBES 2022

[1113] See Chapter 4 for an overview of the academic literature on PES, which approaches this concept consistently from a policy perspective.

[1114] See for earlier suggestions as to how to come to a final ecological harm valuation in-court, e.g. Olszynski 2005; Knudsen 2009; Fejes et al. 2011