The Value of Proactive Methodological Approaches for Understanding Environmental Law

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1 Introduction

In contrast to *e.g.* natural science, law as an academic subject, including environmental law, is as a rule categorised with applied sciences. Placed in a Nordic context, legal research and the practical application of law are traditionally based upon methodological approaches that place the hierarchy of the legal sources, principles of interpretation and past experiences in the centre of legal reasoning and deduction. When compared to some other sciences, particularly natural sciences – which are typically labelled as empirical and proactive – the legal science, in spite of its normative character, is usually perceived as being a reactive science,[1] not only dealing with something that has taken place, its traditional methodological approach is partially tied to past experiences.[2] In the context of some of the critical issues raised by Fisher, Lange, Scotford and Carlarne (Fisher *et al.)* in their article "Maturity and Methodology: Starting a Debate about Environmental Law Scholarship",[3] where they focus on environmental law scholarship, method and methodology, one of their main arguments relates to the immaturity of the subject of environmental law and they conclude, *inter alia,* that "nearly all environmental law scholars, have been guilty of failing to get to grips with the methodological challenges of the subject."[4] In this light, the overall objective of the chapter is to offer some comments on the value of a proactive methodological approach, environmental law methodology (ELM), for understanding modern environmental law and its challenges. The chapter is structured as follows: First, for background, see section 3, it introduces the main arguments and criticism brought forward by Fisher *et al.* Although their focus is not particularly set on proactive methodological approaches, they argue for a transparent design and an application of a preset methodological approach for furthering environmental law scholarship. Secondly, in section 4, it introduces and discusses some of the features of a particular proactive methodological approach for environmental law, ELM, with the aim of drawing forward its usefulness, particularly for the understanding of modern environmental law. Thereafter, in section 5, and in the light of Fisher's *et al*. main arguments, some critical problems relating the environmental law scholarship will be commented on and if they hold true in Nordic environmental law research. Finally, some concluding remarks will be presented in section 6. For context however, the coverage commences with some generics relating to proactive law and approaches, *cf.* section 2.

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1 *See* further, *e.g.* Siems, Mathias M., *Numerical Comparative Law: Do we need Statistical Evidence in Law in Order to Reduce Complexity?* in Cardozo Journal of International and Comparative Law, Vol. 13:521 (2005), p. 521-561, at p. 529-533.

2 *See*, *inter alia*, on the role of legal precedents in an Icelandic context, which are usually followed, Líndal, Sigurður, *Um lög og lögfræði: grundvöllur laga – réttarheimildir*, 3rd ed., Hið íslenzka bókmenntafélag, Reykjavík (2002), p. 193-294.

3 Fisher, Elizabeth, Lange, Bettina, Scotford, Eloise and Carlarne, Cinnamon, *Maturity and Methodology: Starting a Debate about Environmental Law Scholarship*, Journal of Environmental Law, 21:2 (2009), p. 213-250.

4 *Ibid.*, p. 249.

2 Proactive Methodological Approach

Contrary to reactivity, the ordinary meaning of the term *proactive* relates to results and actions taken in advance rather than acting when something happens. Consulting legal dictionaries[5] for terms such as proactive approach, proactive law, proactive legal research, deliver slim results and traditional Nordic jurisprudence is usually quiet on the issue. This does however not mean that proactive law and approaches have not been generally theorised[6] and also in a Nordic context. Several researches of the Nordic school on proactive law are available,[7] including Cecilia Magnusson Sjöberg´s, providing a definition for proactive law.[8] According to Sjöberg, proactive law – which is not to be equated to rules and regulation – approaches law as a strategic tool and provides a system of a particular way of future oriented legal thinking, skills, practices and procedures that are meant to assist the different actors "to identify opportunities in time to take advantage of them, and to spot potential problems while prevention action is still possible."[9] Hence, as will be further elaborated below, ELM – which is usually also viewed as a proactive methodological approach although not in the above meaning – rests upon the fundamental thesis whether law and legal systems are capable of legally operationalise the future oriented concept of sustainable development and sustainability – the fundaments of modern environmental law – and by acknowledging rule of law, ELM´s main emphasis is placed on theorising and explaining how law actually affects the environment, not by describing valid law and drawing forward its substance in individual cases, rather by focusing on the relationship between law and the environment and its components via law's addressee or the actor, and by taking into account the particular nature of the object that is to benefit from the regulation, *i.e.* the environment and its components.[10]

5 *See, e.g. the Law Dictionary* "thelawdictionary.org/" (5 September 2013).

6 *See, e.g.* Siedel, George J., and Haapio, Helena, *Using Proactive Law for Competitive Advantage*, in American Business Law Journal, Vol. 47, Issue 4, (2010), p. 641-686, particularly p. 656-667, tackling, *inter alia*, the emergence of an approach in Europe of proactive law and a proactive law movement as part of management strategies. They seemingly view proactive law as a process in making the best possible use of the available legal resources before something goes wrong, instead of using them to react to the situation afterwards. *See* also a definition on http://www.proactivelaw.org/ (5 September 2013).

7 *See* further Scandinavian Studies in Law Volume 49, *A Proactive Approach*, Law Libraries, ed. Wahlgren, Peter, Stockholm Institute for Scandinavian Law, Stockholm (2006).

8 *Ibid.*, "Introduction", at p. 13-19.

9 *Ibid.*

10 *See* further, *inter alia*, Westerlund, Staffan, *Miljörättsliga grundfrågor 2.0*, IMIR Institutet för miljörätt, Åmyra förlag AB (2003), particularly p. 33-39, *et passim.*

3 Fisher, Lange, Scotford and Carlarne's Main Arguments

3.1 Four Different Issues

Contributing to the discussion of method, methodology and environmental law scholarship, and seemingly based upon United Kingdom's legal practice and publications, [11] Fisher *et al.* tackle four main topics: environmental law scholarship; its immaturity; methodological challenges, and, the development of a critical discourse.[12] Their main criticism is based upon the thesis that environmental law research is lacking environmental law scholarship. They take a stand on what they mean with scholarship and rely upon a broad and abstract definition that draws forward the connection between the subject of legal research, the problems that are being researched, and research results.[13] Depending on what is being researched, research aims and objectives, legal scholarship can be diverse and conducted for different reasons. Thus the focus may be on internal reasoning or on law in a particular context. If a high degree of professionalism is exercised, including a commitment to the best suited research method and integrity in its application, and a desire to share the results publicly, environmental law scholarship could take on many forms, including socio-legal, doctrinal or jurisprudential; thus the hallmark of good environmental law scholarship is not to rely upon a particular method but the deployment of some thought out method.[14] Fisher *et al.* tackle the immaturity and why the subject of environmental law has not grown up, which they view as an internal problem of environmental law scholarship as scholars approach the subject as being undeveloped. They offer several explanations for the insecurity conception, including the intellectual incoherence of the subject and the lack of an overarching doctrinal framework; the perceived marginality of environmental law scholarship – which Fisher *et al.* underpin with empirical findings – and the radical political and legal challenges that fostered early environmental law. They, however, view this as strength for environmental law scholarship compared with mainstream appreciation which would contribute to the loss of its academic value. Though the situation is different in journals on International and European law, Fisher *et al*., after scrutinising several mainstream journals, conclude that compared with some other legal subjects, fewer articles concerning environmental law scholarship seem to be published, particularly in journals with national and socio-legal focus. Although this could be a sign of the marginality, the relatively low number of publications may also be indicating the institutional and intellectual complexity of the subject. Fisher *et al*. draw the attention to what they deem as poor quality of some environmental law scholarship, which in their view has contributed to the immature image. In their view, purely descriptive environmental law

11 *Supra*, n 3, p. 213 and 223.

12 *Ibid.*, p. 213-250.

13 Fisher *et al.* rely, *inter alia*, upon Feldman's definition of scholarship, *See* further Feldman, David, *The Nature of Legal Scholarship* in 52 Modern Law Review, p. 498-517 (1989).

14 *See* further, *supra*, n 3, p. 217-218.

commentary aimed at practitioners falls into the category simply as it is wrongly labelled as scholarship. Furthermore, a cluster – not so easily defined – containing polemic environmental law scholarship and thus not living up to standards due to a shortage of professionalism and the necessary methodological framework. Moreover, they highlight some of the difficulties facing environmental law scholarship, including the academic complexity of the subject as it is partially carved into existing legal regimes, influenced by non-legal issues and policy, and containing laws of different jurisdictions. In Fisher *et al.* and several others view these problems, as having contributed to the conception of environmental law scholarship as immature.[15] In this light, Fisher *et al.* draw forward the need to focus on methodology and methodological challenges and, as they argue, poor methodological quality results in inadequate environmental law scholarship. In this context they introduce several challenges to environmental law scholarship that are illustrating the complexity of environmental law as a legal subject. Their first concern relates to the speed of the development of environmental law, which according to Fisher *et al.*, causes difficulties for many reasons, including the subject's vast scope, its fragmented character and non-legal elements. The second relates to interdisciplinary, which, as they point out, is often perceived as part of environmental law scholarship and the argument that environmental law scholars need to comprehend environmental problems. The third concerns governance diversity – environmental law includes public and private, soft-law and non-legal, self-regulation, etc., – and how it differs from the existing scholarly approaches. The fourth places the multi-jurisdictional character of environmental law regimes in focus and as Fisher *et al.* argue this nature is posing a particular challenge to scholars, *inter alia*, as some of them are not aware of how national legal systems are inbreeded in multi-level system.[16] By highlighting five methodological challenges the way from immaturity in Fisher's *et al.* view is to further critical discussions on methodology. First, the connection between the methodological approach and the research questions which the researcher sets out to answer; second, the necessity of critically mapping environmental law, which will aid scholars in their research endeavours; third, greater appreciation among environmental law scholars and participation in methodological discussions; fourth, the furtherance of the environmental law scholars´ understanding of the many interdisciplinary research approaches, and finally fifth, the development of standards for evaluating the quality of environmental law scholarship.[17]

3.2 Some Concluding Remarks

Fisher *et al.* do not provide a one solution for solving the immaturity conception nor do they propose a one method approach for environmental law

15 *Ibid., p.* 218-226.

16 *Ibid., p.* 226-243.

17 *Ibid.*, p. 243-249.

scholarship. Against the complexity of modern environmental law however, they draw forward a fundamental principle of environmental law scholarship namely that its quality has a direct correlation to the methodological catalysts which the researcher defines and applies in his research activities. Although their focus is not particularly set on proactive environmental law scholarship, their critical approach towards the immaturity conception of environmental law scholarship, which is not necessarily conceived as a problem in Nordic environmental law research, and methodology touches several sensitive problems, which could possibly be present not only in environmental law scholarship but in all legal scholarship.

4 Westerlund´s Methodological Approach

4.1 Introduction

In a Nordic perspective, Professor Staffan Westerlund (1942-2012) definitely left his methodological footprint on environmental law scholarship. [18] Motivated by the environmental movement shaping the 1970s; several legal initiatives introduced by US Congress; [19] particular New Zeeland's legal developments;[20] Eckhoff and Sundby´s philosophical views on legal systems;[21] system theory; [22] the development of Swedish environmental law; [23] good understanding of natural science, and probably his particular personality, Westerlund developed a methodological approach of environmental law, usually referred to as environmental law methodology (ELM). [24] Having in mind the descriptive rear-mirror method of (environmental) legal research, an approach that is commonly relied upon in the Nordic countries, and perhaps

18 Included are publications such as *Miljörättsliga grundfrågor. Temahäften i miljölära.* Nordisk ministerråd, Tapir förlag, Trondhjem (1987); *En hållbar rättsordning. Rättsvetenskapliga paradigm och tankevändor,* Iustus förlag, Uppsala (1997); *Miljörättsliga grundfrågor 2.0,* IMIR Institutet för miljörätt, Åmyra förlag AB (2003), and *Theory for Sustainable Development. Towards or Against?* in Sustainable Development in International and National Law, Bugge, Hans C. and Voigt, Christina, eds. The Avosetta series 8. Europa Law Publishing, Groningen (2008), p. 47-66.

19 Including the National Environmental Policy Act (NEPA) (1970); The Endangered Species Act (ESA) (1972); Clean Air Act (1970), and Clean Water Act (1972).

20 *See* further the Recourse Management Act (1991).

21 *See* further Eckhoff, Torstein and Sundby, Nils, K., *Rettssystemer. Systemteoretisk innføring i rettsfilosofien,* 2. ed. TANO, Oslo (1991).

22 Including William Ross Ashby's systems theory. Ashby is considered the most influential theorist of the 20th century in the development of cybernetics and complex systems.

23 *See* further Westerlund´s doctoral thesis, *Miljöfarlig verksamhet. Rättstekniska studier av de centrala tillåtlighetsreglerna i miljöskyddslagen på grundval av teori och praxis,* P.A. Norstedt & Söners förlag, Stockholm (1975).

24 *Supra,* n 18, *Miljörättsliga grundfrågor. Temahäften i miljölära*; *En hållbar rättsordning. Rättsvetenskapliga paradigm och tankevändor,* and *supra,* n 10, *Miljörättsliga grundfrågor 2.0.*

challenging Alf Ross´ influence, Westerlund obviously presumed that the researcher knew the content of environmental law, therefore it was not necessary to waste valuable pages and publish descriptions of valid law and present humble *de lege ferenda* views for the introduction of problems that had not been thought of by the legislator and thus not available in the preparatory documents. Instead environmental law should be proactive and theorised by placing in the centre questions relating to the underlying, however, not always explicitly asked question, if modern environmental law was actually cut out to legally operationalise sustainable development and sustainability.[25] At the same time rule of law was to be respected.[26]

4.2 Environmental Law Methodology

4.2.1 Fundamental Prerequisites

Although not presented as a multidisciplinary method, Westerlund´s ELM is directly influenced by and based upon several non-legal and external prerequisites. Included is a statements on the connection of human beings to laws of nature, which they have to adjust to in order to avoid negative environmental impact;[27] facts such as man's technical abilities that may result in long-term negative environmental impact;[28] growing world population[29] and growing energy usage;[30] particular environmental problems such as climate change[31] and declining biodiversity;[32] and – in contrast to the linear character of law – the non-linear character of natural systems. Even more importantly the concepts of sustainable development and sustainability and their inbuilt future orientation play a central role in ELM, not as passive overarching objectives, but as concepts that have to be translated into legal principles in order to deliver the intended results.[33] In this context Westerlund, when theorising

25 Although the concepts of sustainable development and sustainability are far from exhaustively defined in a legal context and researchers sometime use that as an excuse, they have a particular impossibility in common with some other key concepts of law, including justice, fairness and reasonability, or the lack of one definition.

26 *See* section 4.2.3 below.

27 *Supra*, n 10, *Miljörättsliga grundfrågor 2.0,* p. 7.

28 *Ibid*., p. 9

29 *Ibid.*

30 *Ibid*., p. 9, 16, *et seq.*

31 *Ibid*., p. 9

32 *Ibid*. *See* also Jóhannsdóttir, Aðalheiður, *The significance of the default. A study in environmental law methodology with emphasis on ecological sustainability and international biodiversity law*, Uppsala universitet (2009), p. 41-53.

33 *See* further, *supra*, n 10, *Miljörättsliga grundfrågor 2.0, p.* 23-25, 95-100, and also a model in *supra*, n 18, *En hållbar rättsordning. Rättsvetenskapliga paradigm och tankevändor*, p. 38.

environmental law, drew forward its complexity, including the environmental, ecological and multigenerational orientation, which traditional legal principles where not necessary capable of addressing sufficiently.[34]

4.2.2 ELM's Basic Tools – Theory Frameworks

ELM consists of several theory frameworks and models,[35] including the action-reaction model, that aims to further the understanding on how law actually works for the environment,[36] and a model on the implementation deficit, that theorises several possible deficits in the implementation of environmental objectives and law within a legal system and the environmental consequences.[37] The action-reaction model's fundaments are uncomplicated but necessitate an understanding of how law affects the environment via the actor, laws addressee, which are always humans never the environment, and they are responsible for all actions. Thus although the principal benefiter of environmental law is the environment (including human beings as objects) obviously the environment, and its different components, only react to the different actions and activities conducted by the actors according to laws of nature. As Westerlund observed, in many instances environmental law only related to the actions and – not surprisingly – was also often right-oriented. These approximations were only partially capable of responding to the environmental situation as they did not relate to the necessary environmental quality and the environmental effects. However, effect orientated law – which modern environmental law is usually reflecting – is primarily concerned with the acceptable environmental results and environmental quality and requires a different kind of regulatory approaches, including the necessary material rules in order to control the different actions. Thus viewed by ELM, new environmental law does not always deliver the sought after result although it may be tackling new and previously unregulated areas of environmental law.[38] The model of the implementation deficits draws forward the situation when there is a difference between environmental objectives and the actual results in the environment, which is not an uncommon situation in environmental law; moreover, it is also worth keeping in mind that environmental quality is usually measurable. The model's value is considerable as it furthers the understanding of law in context with other important elements of the legal system, including legislating and enforcement. The model is based upon the presumption that environmental objectives necessitate enforceable law for their legal operationalisation and enforcement mechanisms to ensure law's full effect and

34 *Supra*, n 10, *Miljörättsliga grundfrågor 2.0*, particularly p. 9-23, *et seq*.

35 *See* also other ELM theories and models, including the filters´, *supra*, n 10, *Miljörättsliga grundfrågor 2.0*, p. 46-52, *et pass*im.

36 *See* further, *supra*, n 10, *Miljörättsliga grundfrågor 2.0*, p. 33-39, *et passim*.

37 *See* further *supra*, n 18, *En hållbar rättsordning. Rättsvetenskapliga paradigm och tankevändor*, p. 54-59, and *supra*, n 10, *Miljörättsliga grundfrågor 2.0*, *p.* 50-70.

38 *Supra*, n 36.

the realisation of environmental objectives, not in law but in the environment. The reasons for the deficits may include unrealistic objectives, imperfect law and enforcement failures. Concrete information on the environmental situation, may however lead to changed objectives, altered or new legislation, and changes in enforcement.[39]

4.2.3 Rule of Law

Probably to underpin and legitimate ELM, Westerlund placed an emphasis on rule of law. Thus ELM theorisation and reasoning fully respects the notion of a democratic constitutional state where all actors, including the authorities, are bound by law and have to act accordingly in their decision making. In a way Westerlund equated the *Rechtsstaat* notion, *rule of law* and the principle of *legitimacy* without taking a direct stand on which theoretical school he was following.[40] However, due to the rule of law requirement of ELM – which is basically focusing on the legitimacy of all actions in the positivistic sense – ELM theorisation and reasoning acknowledges particular fundaments of the legal system, and in that light, and taking into account the overall objectives of sustainable development and sustainability, its reasoning is capable of theorising some of the weaknesses and the counter-productivity of valid law and how that legal situation affects the environment.[41]

4.2.4 The Difference in a Nutshell

What differentiates ELM from traditional legal approaches and draws forward its proactive approximation, is that the emphasis is placed on theorising law from a particular and not necessary legal perspective; a traditional approach would be to theorise law and legal practice on the basis of internal legal reasoning. In contrary to an internal legal approach, ELM places law and legal reasoning within a particular context as it directly takes into account the nature of the objective that is being regulated and how it reacts to the different human actions presently and in the future. In that respect ELM is effect-oriented in contrary to the traditional right- and duty-orientation of law. One of ELM´s obvious benefits – many legal scholars probably view this as a threat and some kind of an attack against particular fundaments of law, presumably some human rights principles[42] and aspects relating to predictability and legal

39 *Supra*, n 37. *See* also Jóhannsdóttir, Aðalheiður, *Effectiveness of International Biodiversity Targets* in Pro Natura. Festskrift til Hans Christian Bugge på 70-årsdagen 2. mars 2012, eds. Backer, Inge, L., Fauchald, Ole, K., and Voigt, Christina, Universitetsforlaget Oslo (2012), p. 249-267, employing the deficits model to theorise the effectiveness of international biodiversity targets under the international legal system.

40 *See* further, *supra*, n 10, *Miljörättsliga grundfrågor 2.0*, particularly p. 46-50, *et passim.*

41 *Ibid.*

42 Although acknowledging human rights and their development, Westerlund did not particularly connect them to ELM, *See e.g.* comments, *supra* n 10, *Miljörättsliga*

security[43] – is that past legal practice is not placed in the centre of legal theorisation thereby minimising the risk of perhaps outdated perspectives being relied upon when theorising new and often unprecedented environmental problems.

4.3 Some Concluding Remarks

Byaking into account several external prerequisites and using a particular set of reasoning and tools, Westerlund´s proactive environmental law approach explains and theorises how environmental law actually functions in a legal system and if it is capable of legally operationalizing sustainable development and sustainability. As ELM strives to draw forward particular weaknesses of law and legal systems, its value is considerable for the understanding of environmental law and how it affects the object that is to benefit from regulation presently and in the future, and ELM´s value is probably the most in environmental law research and when new environmental law is being designed.

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grundfrågor 2.0, p. 10-12, and was seemingly rather sceptical towards human right approaches in environmental law. However, it is worth mentioning that the European Court of Human Rights (ECHR) does not have any difficulties in accepting that environmental objectives are legitimate objectives and their operationalisation within a particular legal system can legally affect and circumscribe established human rights, such as property rights. *See* further, *inter alia, Fredin v. Sweden (12033/86),* A 92, and *Pine Valley Developments Ltd. and others v. Ireland (12742/87),* A 222. Moreover, in relation to the development of positive obligations and environmental quality, the construction and application of Articles 2 and 8 of the Convention for the Protection of Human Rights and Fundamental Freedoms, (CETS No.: 005), ECHR´s case law has developed considerably the last fifteen years or so and is now providing a link between the enjoyment of particular human rights and environmental quality, *See* further cases such as *López Ostra v. Spain (16798/90)*; *Öneryildiz v. Turkey (48939/99); Giacomelli v. Italy (59909/00); Taşkin and others v. Turkey (46117/99); Ledyayeva and others v. Russia (53157/99, 53247/99, 53695/00, and 56850/00*); *Fadeyeva v. Russia (55723/00)* and *Budayeva and others v Russia (15339/02, 21166/02, 20058/02, 11674/02 and 15543/02).*

43 The stability of law criterion is, *inter alia,* part of Raz´s approach to the rule of law conception, *See* further Raz, Joseph, *The rule of law and its virtue,* in The Law Quarterly Review, Vol. 93, (1977), p. 195-211, however, due to the rapid development of modern environmental law and reflecting one of its challenges, legal security must be viewed as an abstract concept. In relation to environmental law and procedural safeguards of legal certainty, *See* also Nilsson, Annika, K., *Enforcing Environmental Responsibilities. A Comparative Study of Environmental Administrative Law,* Uppsala universitet (2011), p. 31-32.

5 Some Selected Problems

5.1 Introduction

In the context of the preceding coverage this Section's aim is to provide some general comments on selected problems, first, whether Fisher's *et al.* main argument, or that most environmental law scholars have failed in tackling the methodological challenges of environmental law, holds true in Nordic environmental law research, and if so which are the shortcomings and how should they be engaged; second, if there is a need for a particular environmental law method(s) and if the need exists how do they differ from a general or traditional legal method; third, if multidisciplinary is inherent to good environmental law research and the challenges it brings, and finally, how the environmental law scholar is to relate to natural science with its scientific paradigms and understanding of, *e.g.* truth and probability. The problems will be commented on by using some of ELM´s principles.

5.2 Methodological Challenges

5.2.1 Main Argument – True or Untrue

Relating to the first issue, although only a handful of Nordic journals are solely focusing on environmental law, [44] Nordic environmental law has been systematically researched since the 1970s, [45] and several environmental law textbooks, other books on environmental law, commentaries, honorary publications, not to forget a bulk of articles on environmental law in generic law journals, exist where the different aspects and fields of environmental law have been tackled and theorised. Even so it would probably not be unrealistic to describe Nordic environmental law scholarship as being reflecting, primarily, legal dogmatic studies on the diverse substantive environmental law and usually only marginally tackling the methodological challenges of environmental law, as described by Fisher *et al.*, or even in some instances not amounting to environmental law scholarship as they argue. Taking into account however, firstly, Nordic research traditions, secondly, the way law is usually taught as an academic subject in the Nordic countries, thirdly, general Nordic legal research, and finally, the applied labelling of law as an academic subject

44 Several journals are or have been regularly publishing material in environmental law, including *Nordisk miljörättslig tidskrift* (Nordic Environmental Law Journal) in Sweden; *Tidsskrift for Miljø* (TfM) in Denmark; *The Journal of Environmental Law* (Ympäristöjuridiikka) in Finland, and *Miljörättslig tidskrift* in Sweden.

45 See, *e.g.* supra, n 23, *Miljöfarlig verksamhet. Rättstekniska studier av de centrala tillåtlighetsreglerna i miljöskyddslagen på grundval av teori och praxis* (1975); von Eyben, William E., *Dansk miljøret*, I-V, Akademisk Forlag, Copenhagen (1977-1978), and *Miljørettens grundbog*, Akademisk Forlag, Copenhagen (1986); Schram, Gunnar, G., *Umhverfisréttur. Um verndun náttúru Íslands*, Úlfljótur, Reykjavík (1985); and Backer, Inge L., *Naturvern og naturinngrep. Forvaltningsrettslige styringsmidler*, Universitetsforlaget, Oslo (1986).

and the close ties between Nordic academia and the practical needs of (legal) practitioners and the courts, then, in generic terms, it would be an oversimplification to conclude that Nordic scholars have failed in tackling the methodological challenges of environmental law or that they view the subject as being immature in a Nordic context. Yet there are however, not many Nordic environmental law scholars that have been directly engaged in environmental law and its many methodological challenges.[46] Westerlund´s ELM provides an example and, as previously mentioned, aims to further the understanding of how environmental law actually functions for the object that is to benefit from regulation. To assume however, that Nordic environmental law scholars have failed in dealing with the methodological challenges would be a simplification. Nonetheless some environmental law studies tend to provide a rather superficial knowledge on environmental law, particular on how environmental law actually functions in a legal system, and whether (environmental) law as an instrument is capable of legally operationalise sustainable development and sustainability. There are probably many ways to tackle this problem; one obvious is the furtherance of the development of methodological approaches for environmental law scholarship. However, and taking into account Fisher's *et al.* description of the complexity of environmental law – including the subject's rapid development and vast scope; interdisciplinary character; governance complexity, and multi-jurisdictional disposition – environmental law and the subject's methodological challenges should also be given more attention in general jurisprudence. The complexity of modern environmental law provides an example of a unique development of a legal subject, not only requiring an understanding of the complexity of the object that is the main beneficiary of regulation, but also multi legal system knowledge. Furthermore, some scholars do not always differentiate between the dogmatic legal method of establishing the content of valid law and the designing and application of a particular methodological approach for an individual legal research that aims to theorise problems that do not necessarily have to have any practical value for legal practitioners or the courts.

46 The ones that have been directly involved include, *inter alia,* Zetterberg, Charlotta, *Miljörättslig kontroll av genteknik*, Iustus förlag, Juridiska Föreningen i Uppsala (1997); Gipperth, Lena, *See e.g., Miljökvalitetsnormer. En rättsvetenskaplig studie i regelteknik för operationalisering av miljömål,* Uppsala universitet (1999); Christensen, Jonas, *e.g., Rätt och kretslopp. Studier om förutsättningar för rättslig kontroll av naturresursflöden, tillämpade på fosfor,* Skrifter från juridiska fakulteten i Uppsala 79, ed. Jareborg, Nils, Iustus förlag AB Uppsala (2000); Ebbesson, Jonas, *Lex pernis apivorus: An Experiment of Environmental Law Methodology*, in Journal of Enviromnmental Law, 15(2) (2003) p. 153-174 and Jóhannsdóttir, Aðalheiður, *e.g. The significance of the default. A study in environmental law methodology with emphasis on ecological sustainability and international biodiversity law,* supra note 32, and *Effectiveness of International Biodiversity Targets,* supra note 39.

5.2.2 Need for Particular Environmental Law Method

In the light of the above this section comments on the problem if a particular environmental law method is needed. First, however, some other issues necessitate attention, basically the question what is modern environmental law? Environmental law as a legal subject can be defined in several ways; one is to place an emphasis on describing and interpreting legal rules having the conservation and utilisation of the environment and natural resources as a primary objective; [47] another definition could be presented with the question: which legal rules, or lack of legal rules, influences the possible conservation and sustainable utilisation of the environment and natural resources? The employment of the latter definition – which is system and effect oriented – transforms the scope of the legal subject of environmental law beyond rules having the conservation and utilisation of the environment and natural resources as an objective as it takes into account other rules and also the lack of rules and how this legal situation affects the environment and natural resources presently and in the future. Although early environmental law scholars did often describe and theorise environmental law on the basis of the principles of other legal subjects, including property law's, tort law's and administrative law's, modern environmental law contains it own objectives, including sustainable development and sustainability, and growing body of general principles and particular objectives that should be placed in the centre of all theorisation.[48] This does however not mean that property law, tort law and administrative law are somewhat irrelevant to environmental law scholarship. To the contrary, it is precisely due to other legal principles than environmental law's why ELM thinking and arguing are of importance for understanding how (environmental) law functions in the legal system and if and how it affects the environment.[49] If ELM is taken as an example of a thought out methodological approach for environmental law scholarship, what differentiates it from a traditional legal method, or dogmatic internal legal approach, is basically its proactive approximation where the emphasis is placed on theorising law from a particular perspective – past legal practice is not placed in the centre of

47 See, *e.g.*, Backer, Inge L., *Innføring i naturressurs- og miljørett*, 4th ed. Gyldendal Akademisk, Oslo (2002), p. 37 (2002), and also *Miljøretten 1, Almindelige emner*, 2nd ed., ed. Basse, Ellen M., Jurist- og Økonomforbundets forlag, Copenhagen (2006), p. 27-29.

48 Including the principle of integration, precautionary principle, the polluter pays principle, etc. *See* further on environmental principles, *inter alia*, an overview provided by Sands, Philippe and Peel, Jacqueline, with Fabra, Adriana and MacKenzie, Ruth, in *Principles of International Environmental Law*, 3rd ed. Cambridge University Press (2012), p. 185-237. Furthermore, each sub-field of environmental law, including biodiversity law, has it own set of principles and approaches, including ecosystem approach, adaptive management and favorable conservation status, etc., *See* further, *supra*, n 32, Jóhannsdóttir, Aðalheiður, *The significance of the default. A study in environmental law methodology with emphasis on ecological sustainability and international biodiversity law*, p. 21, 255 and 265, *et passim*.

49 A typical example would be the application of neighbour law principles, which, due to their right orientation, would be capable of ensuring land owner some compensation due to environmental nuisance stemming from a neighbour, however, such an approach does not ensure any environmental quality, presently or in the future.

theorisation – in order to draw forward the weaknesses of law and how it affects the environment. In the above light, and if the overall objective of environmental law is to be realised, not in law but in the environment, there is a need for environmental law method for theorising and understanding the legal subject. As Fisher *et al.* argue, however, the methodological issue is not the question of *the method*, but rather *a method*. As they argue, as long as the environmental law scholar employs a thought out method and applies it with scholarly integrity, there is room for several methodological approaches for environmental law scholarship.

5.2.3 Multidisciplinary

The next problem relates to multidisciplinary and whether it is inherent to good environmental law scholarship and which challenges it brings. Fisher *et al.* elaborate this problem and in their view interdisciplinary – which can be defined in several ways and where law has a different role to play – is often perceived as part of environmental law scholarship.[50] In this respect it is necessary to keep in mind that environmental law has a broad social and professional relevance and is not only dealt with by legal scholars, legal practitioners and the courts, but also by other professionals, including natural scientists, political scientists and economists, not to forget the growing interest of the general public and non-governmental organisations in environmental issues. In this light and depending on the research objectives that are defined for each project, some kind of multidisciplinarity may be necessary, although it does not automatically have to be part of good environmental law scholarship. Apart from the obvious challenge facing the multidisciplinary scholar, namely the lack of the necessary academic training to be able to tackle all aspects of a particular multidisciplinary research, at some point however, although law may be involved in a research project, the results may simply not be credible when viewed from a legal point of view. As touched upon earlier, while ELM is generally not viewed as being reflecting a multidisciplinary approach; however, as one of ELM's elements relates to the environmental situation, some real understanding of the complexity of environmental problems is necessary.[51]

5.2.4 Understanding Natural Science

As previously commented on ELM emphasises some knowledge of the complexity of environmental problems. However, whether it is necessary for the environmental law scholar to be able to relate directly to natural science and its paradigms and methods, may be problematic due to the differences of the methodological approximations and the lack of academic training. But is it necessary for the environmental law scholar to evaluate natural scientific

50 *See* further, *supra*, n 3, particularly p. 231-235.

51 See, *supra*, n 10, *Miljörättsliga grundfrågor 2.0, inter alia, p.* 137-155.

information directly and is there any real methodological friction due to different methods? Several legal subjects other than environmental law, for example tort law, are in one way or another reliant upon scientific information, facts and conclusions without reviewing or doubting the underlying scientific methodology. In this respect it is also of relevance to point out that one of environmental law's principles is to base decisions having environmental impact directly on scientific facts and information,[52] and another one, the precautionary principle, particularly accepts that full proof or certainty cannot be provided in some circumstances and that the uncertainty should under particular conditions not be used as an excuse for non-action or non-regulation, etc.[53]

5.3 Some Concluding Remarks

The aim of this section was to provide some general comments on a few issues, including the thesis whether Nordic environmental law scholars have failed in addressing the methodological challenges of modern environmental law. Taking into account Nordic research traditions, the close ties between the Nordic legal academia and legal practitioners, and even though many environmental law studies tend to be legal dogmatic and are in some instances rather descriptive, to accept that Nordic environmental law scholars have failed in the environmental law scholarship quest would be an oversimplification of the Nordic situation. The deduction is however not meant to indicate that the methodological challenge has not been given attention; to the contrary several environmental law scholars have particularly responded to the challenge. The need to address the methodological challenge openly is on the other hand still present. Although good understanding of environmental problems is without a doubt an asset, however, as viewed by this chapter multidisciplinary is not necessarily an inherent component of good environmental law scholarship although some degree of such approaches may further the understanding of environmental law and its role in individual cases. Regarding the rather obvious methodological difference between the legal science compared to the natural sciences, modern environmental law has in a way responded to that particular challenge by emphasising that decision making should be based upon scientific facts and information.

52 *See*, *inter alia*, a reflections of the principle in Article 114(3) and Article 191(3), Consolidated Version of The Treaty on the Functioning of the European Union, OJ C 83, 30.3.2010, p. 47-199. *See* also Article 8 of the Icelandic Act No 60/2013 on Nature Conservation stipulating that official decisions concerning nature should as possible be based on scientific knowledge. *See* furthermore the recitals and several substantive provisions of Directive 200/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy. OJ L 327, 22.12.2000, p. 1-72.

53 *See* further Principle 15 of Rio Declaration on Environment and Development (1992). *Report of the United Nations Conference on Environment and Development* (UNCED). A/CONF.151/26 (Vol. I).

6 Some Final Conclusions

Taking into account Fisher's *et al.* criticism on environmental law scholarship, the overall aim of the chapter was to offer some comments on the value of a proactive methodological approach, ELM, for understanding environmental law. Against the growing complexity of modern environmental law, the subject's vast scope, its mutigenerational orientation, and multi-jurisdictional character, ELM´s basic thesis, reasoning and tools can be of considerable value for understanding how environmental law affects the environment and its components presently and in the future. As pointed out above, ELM´s value is probably most in academic environmental law research and when new regulatory instruments are being prepared. Although Fisher's *et al.* may from time to time be shooting over the fence, their criticism nonetheless provides a welcome reminder of the necessity of being aware of the quality of environmental law scholarship. This is however, not a question of designing *the* method for environmental law scholarship, but rather an application of a thought out method for researching environmental law for the furtherance of environmental law scholarship.