Utilising law in the transition of the Kingdom of Saudi Arabia to a low-carbon economy

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Environmental Governance and Practice according to Environmental Principles: A Case Study of the Kingdom of Saudi Arabia

Abstract

Environmental principles with their varying forms, natures and different legal roles across jurisdictions are gaining increasing attention in environmental scholarship. These principles are also embraced as potentially transformative notions. The trend in the literature has been to discuss these principles in the context of developed countries, however, this paper offers an original contribution in discussing the status of environmental principles in the Middle East with a focus on the environmental governance in the Kingdom of Saudi Arabia (KSA). This study is based on a mixed-methods study, based principally doctrinal, case study and socio-legal methods (expert interviews). The paper advocates that, with the advent of the ambitious KSA Vision 2030, these principles, if interpreted and employed appropriately, would have a promising legal role to play and the potential to fill existing lacunae in the environmental governance domain both in the this context, and in existing legal and environmental Middle Eastern studies. However, currently environmental principles as evidenced here do not have the same 'legal status', and the generalisations in research literature around the application of these principles internationally needs to be more nuanced. To encourage the internationally community to achieve increased environmental protection, there needs to a be a revision of the status, application and power of environmental principles in the literature.

Keywords: environmental principles; environmental governance; Kingdom of Saudi Arabia (KSA); KSA Vision 2030; socio-legal methods

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1. Introduction

Environmental principles seem to be now permeating throughout legal jurisdictions, however, in considerably distinctive forms across different legal systems, due to their "ambiguous and open-ended nature … and the multiple jurisdictions in which, increasingly they have legal roles".[1] This paper attempts to explore the "practical and actual" legal role and status of such environmental principles in the quite uncharted territory of the KSA's environmental governance sphere. These principles, Sustainable Development, the Precautionary Principle, the Polluter Pays Principle, are known to be "crucial and intertwined issues".[2] Hence, this paper does not claim to provide a comprehensive examination of the status of the key environmental principles, but opts instead for empirically identifying the in-real-life forms and functions of the principles in the case study at stake.

As the KSA enters a new phase of overhauling its entire administrative bureaucratic machinery, it is undertaking a comprehensive revision of its laws and policy-making, driven by the ambitious national masterplan Vision 2030. Under this plan, a major legal area that is being thoroughly investigated and reviewed is the environmental protection domain. This seems a clear recognition, at the highest policy-making level, that a new form of environmental governance needs to be devised. For example, this is pledged in powerful language under the Pillar "Vibrant Society, With Fulfilling Lives"[3] :

> "*Achieving Environmental Sustainability: By preserving our environment and natural resources, we fulfil our Islamic, human and moral duties. It is our responsibility to future generations and essential to the quality of our daily lives. To safeguard our environment, we are improving the efficiency of waste management, establishing comprehensive recycling projects, reducing all types of pollution and fighting desertification. Use of water resources will also be optimized through reduced consumption and utilizing treated and renewable water. In addition, efforts are underway to protect and rehabilitate our beautiful beaches, nature reserves and islands, and make them open to everyone*"

Probably the most salient point to be noted from this powerful and high-profile statement is the dissatisfaction with the level of environmental protection in place. Moreover, despite the strong positive message carried in this statement, the approach appears quite sectoral and administratively-based, rather than being holistic or overarching. This piecemeal approach reflects a long-lasting heritage of dealing with environmental threats and challenges by the respective administrations. Indeed, "successful reform must be grounded in an understanding of the nature and context of … risk regulation"[4] and thus the environmental principles have great "legal" potential to fill the gap in the Middle Eastern, and KSA's contexts, as they "can connect, catalyse, and inspire legal thinking in relation to environmental problems".[5] The presence and involvement of environmental law experts is undoubtedly overdue, since the

[1] Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017) P 3.
[2] Maria Lee and Eloise Scotford, 'Environmental Principles After Brexit: The Draft Environment (Principles and Governance) Bill' [2019]. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3322341
[3] The Vision consists of 3 major Pillars or Themes "With strong roots, with fulfilling lives and with strong foundations" https://vision2030.gov.sa/en (The Vision Themes, Saudi Vision Website, accessed in 30/3/2020).
[4] Elizabeth Fisher, 'Drowning by Numbers: Standard Setting in Risk Regulation and the Pursuit of Accountable Public Administration' [2000] 20 Oxford Journal of Legal Studies 109 P 130.
[5] Eloise Scotford, 'Environmental Principles Across Jurisdictions: Legal Connectors and Catalysts' in Emma Lees and Jorge E. Viñuales, *The Oxford Handbook of Comparative Environmental Law* (Oxford University Press 2019).

environmental domain has been historically led by specialist experts and scientists,[6] with no tangible input from environmental lawyers due to, inter alia, the infancy of this branch of legal scholarship in general,[7] and inattention of local lawyers and legal researchers to specialise in this branch of law in comparison to civil and commercial law. Thus, although this style of "executive environmental law" is regarded unfavourably in some leading western contexts,[8] it is deemed convenient given the environmental governance culture and reality of the availability of environmental.

Examination of the KSA's environmental domain reveals that the KSA is not an exception in accommodating such principles in its legal system. However, "environmental principles look very different, despite similar names, in different jurisdictions".[9] So, the question at stake is what form do they take and what roles do they play in the context of the case study? Does their capacity and legal service bear similarities to those identified by legal scholars in certain western legal regimes? These are the questions which this paper addresses and there is a key premise to engage with the international, mainly western discussion of the phenomenon of environmental principles and at the same time attempt to ignite a discussion about the relatively unexplored Middle Eastern context. Section 2 provides a scholarly account of the nature and thrust of the environmental principles to set the stage for the subsequent discussion in the paper. Section 3 describes the research methods utilised in this research and explains the logic behind the need for them and clarifies their complementary role in this research. Section 4 examines the key environmental principles and their nature and role in the case study. It offers an analysis of their status and promising potential role in improving the case study's environmental governance approach to environmental problems. This analytical account is backed up by a synthesis of the scholarly discussion available in the literature, to bring a new dimension to the discussion in this paper. Section 5 lays out the conclusions and the final remarks regarding the role of the environmental principles discussed, and their character in the case study, as well as some potential areas for further development and research.

2. Environmental Governance and Environmental Principles in the Literature

2.1 Introduction

It is not intended here to offer a comprehensive overview of the environmental principles, nor to discuss the history of their emergence and salience.[10] In fact, there is no clear consensus in the literature as to what are the key environmental principles. Nevertheless, there are a number of principles that are almost always present in discussions about environmental principles, which are sustainable development, the precautionary principle, the preventive principle and

[6] Who are regarded as the knowers and interpreters of technical data. Interestingly, this is very similar to the explanation of western scholars regarding the growth of public administration in the technical and risk surrounded domains such as the environmental sphere. Elizabeth Fisher, Risk Regulation and Administrative Constitutionalism (Hart Publishing 2010) P 20. See also Elizabeth Fisher, 'The Enigma of Expertise' [2016] 28 Journal of Environmental Law 551 [Review] P 2.

[7] Although some scholars argue that "adulthood [for the environmental law subject as a subject in general] has never arrived". Elizabeth Fisher and others, 'Maturity and Methodology: Starting a Debate about Environmental Law Scholarship' [2009] 21 2 Journal of Environmental Law 213 P 214.

[8] Elizabeth Fisher, 'Executive Environmental Law' [2020] 83 1 Modern Law Review 163.

[9] Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017) P 5.

[10] Which some seems to be strongly driven from the international level by some of its soft law instruments and declarations, including the Rio Declaration on Environment and Development (1992) and Brundtland Report (1987).

the polluter pays principle. The UK, for example, has recently included these and two or three other principles to form their environmental principles list, in a draft bill.[11]

As with the concepts of governance and environmental governance, the fluid and vague nature of the environmental principles has prompted a large body of literature addressing this point. What is important here, however, is to realise they are not rules or laws themselves; thus contravening them cannot be viewed as an illegal act per se. However, as they generally underpin environmental law by virtue of their normative value, they can serve to guide actions and facilitate interpretations of laws.[12]

2.2 Sustainable Development

Sustainable development is presented in the literature in diverse forms, including as a concept or theory,[13] principle,[14] discourse,[15] or even as a dilemma of governance[16]. Moreover, some commentators avoid such categorisation, referring to sustainable development merely as a "term"[17]. This is quite similar to what is encountered in commentaries on governance, and environmental governance.

Indeed, environmental governance could be a suitable, overarching, flexible and catch-all topic to substitute for sustainable development. Several broad similarities are shared by these two marketable terms. For instance, most of the themes, trends and principles identified pertaining to environmental governance can also be similarly seen to be integral components of the umbrella concept "sustainable development". As with the concepts governance and environmental governance, this appears to be because it is "*wrong to claim there is a unified theory of sustainable development*"[18]. Commenting on sustainable development, O'Riordan says that: "*sustainable development has become a universal phrase. It means everything, and is in danger of meaning nothing*"[19], echoing almost identically the words of some commentators on governance.[20]

[11] DEFRA, Draft Environment (Principles and Governance) Bill (December 2018) 3 (DEFRA, Draft Bill).
[12] John Alder and David Wilkinson, *Environmental Law and Ethics* (Macmillan Press 1999) P 146-149, David Hughes and others, Environmental Law (4th edn, Butterworths 2002) P 20, and Stuart Bell and Donald McGillivray, Environmental Law (7th edn, Oxford University Press 2008) P 53-56 and P 74, and see also Winfried Lang, 'UN-Principles and International Environmental Law' [1999] 3 Max Planck UNYB 157 notably P 159.
[13] Joyeeta Gupta and Isa Baud, 'Sustainable Development' in Philipp H. Pattberg and Fariborz Zelli (eds), *Encyclopedia of Global Environmental Governance and Politics* (Edward Elgar Publishing 2015)
[14] As in this research and in the sources referred to in the introduction of this section "Environmental Governance and Environmental Principles".
[15] John S. Dryzek, The Politics of the Earth: Environmental Discourses (3rd edn, Oxford University Press 2013) P 147.
[16] James Meadowcroft, 'Sustainable Development' in Mark Bevir (ed), *The SAGE Handbook of Governance* (SAGE Publications 2011).
[17] Andrea Ross, 'Why Legislate for Sustainable Development? An Examination of Sustainable Development Provisions in UK and Scottish Statutes' [2008] 20 Journal of Environmental Law 35.
[18] Giles Atkinson, Simon Dietz and Eric Neumayer, 'Introduction' in Giles Atkinson, Simon Dietz and Eric Neumayer (eds), *Handbook of Sustainable Development* (2nd edn, Edward Elgar 2014).
[19] Tim O'Riordan, 'Faces of the Sustainability Transition' in Jules Pretty and others (eds), *The SAGE Handbook of Environment and Society* (SAGE Publications 2007) P 325.
[20]

Sustainable development is defined in several ways in the literature and has consequently generated different reactions and responses to different issues.[21] As early as 1996, some commentators noted that over 80 definitions of sustainable development had been identified, and that they were, in fact, not always consonant with each other.[22] The competing ideas and principles analysed within the framework of sustainability and sustainable development[23] led some commentators to view this principle as a virtual battlefield based on underlying deep-rooted contradictions.[24]

Even the widely recognised definition provided by Brundtland ("Our Common Future") that sustainable development is "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*"[25] is not immune from criticism. For example, Lee bluntly contends that "*sustainable development is an unashamedly anthropocentric concept*"[26].

At the bottom line, sustainable development, prompted by international instruments,[27] can serve as a reconciling medium for discourses previously perceived as contradictory and classical theses, such as the "limits to growth."[28] It brings together the ostensibly conflicting "only-choose-one" debates regarding development or care for the environment, even adding in consideration of social issues.[29]

With regard to sustainable development in the Middle East and especially the KSA, several questions and research areas within the environmental law and governance arena remain under-researched. Two main directions of inquiry highlighted by Richardson and Wood,[30] seem to be a good starting point for recommended future studies in such distinct legal and cultural contexts.[31] These two broad socio-legal questions ask to what extent environmental law, in the Middle East generally and in the KSA in particular, guides and influences sustainable

[21] Bill Hopwood, Mary Mellor and Geoff O'Brien, 'Sustainable Development: Mapping Different Approaches' [2005] 13 Sustainable Development 38.
[22] Raymond Fowke and Deo Prasad, 'Sustainable Development, Cities and Local Government: Dilemmas and Definitions' [1996] 33 Australian Planner 61, and Ross.
[23] However, some writings actually differentiate between sustainability and sustainable development. See for example Stephen Dovers and Robin Connor, 'Institutions and Policy Change for Sustainability' in Benjamin J. Richardson and Stepan Wood (eds), *Environmental Law for Sustainability: A Reader* (Hart Publishing 2006).
[24] Stephen R. Dovers and John W. Handmer, 'Contradictions in Sustainability' [1993] 20 Environmental Conservation 217.
[25] Report of the World Commission on Environment and Development, *Our Common Future* (1987) World Commission on Environment and Development.
[26] Keekok Lee, 'Global Sustainable Development: Its Intellectual and Historical Roots' in Keekok Lee, Alan Holland and Desmond McNeill (eds), *Global Sustainable Development in the Twenty-first Century* (Edinburgh University Press 2000) P 32.
[27] Jamie Benidickson and others, 'Introduction: Environmental Law and Sustainability after Rio' in Jamie Benidickson and others (eds), *Environmental Law and Sustainability after Rio: The IUCN Academy of Environmental Law series* (Edward Elgar 2011).
[28] Duncan French, *International Law and Policy of Sustainable Development* (Manchester University Press 2005) P 10-11.
[29] Elizabeth Fisher, Bettina Lange and Eloise Scotford, Environmental Law: Text, Cases, and Materials (Oxford University Press 2013) P 185.
[30] Benjamin J. Richardson and Stepan Wood, 'Environmental Law for Sustainability' in Benjamin J. Richardson and Stepan Wood (eds), *Environmental Law for Sustainability: A Reader* (Hart Publishing 2006) P 13.
[31] These are only examples of questions, for future studies. For example, similar questions about the role of sustainable development in enhancing the role of law for environmental protection objectives are also viable for future research in the Middle Eastern and KSA's jurisdictions. See Louis J Kotzé, 'Sustainable Development and the Rule of Law for Nature: A constitutional Reading' in Christina Voigt (ed), *Rule of Law for Nature: New Dimensions and Ideas in Environmental Law* (Cambridge University Press 2013) especially P 131.

development patterns and practices at the societal level. It is also asked to what degree, if any, the existing framework or discourse of sustainable development has impacted the choice of environmental law and governance approaches and their institutions and instruments, in order to properly safeguard the natural environment. Although this paper lacks the space and scope to address these questions, it is hoped to trigger legal discussion in the *unique* context of the case study.[32]

2.3 The Precautionary Principle

Many threats such as environmental and health problems are surrounded by scientific uncertainty. If precautionary actions are not taken in advance, the threats may turn into real harm and damage to people's heath or their environment, or both. However, adopting such precautionary measures in advance, may incur considerable extra costs and burdens, without full certainty that bad consequences will appear. In such cases, should policy-makers and decision-takers embrace such precautions and preventive measures despite their costs? For those opting for "yes", the precautionary principle is normally their justification and legal basis.[33]

This precautionary principle inherently entails regarding the concept of risk which has not yet occurred as a real harm or damage.[34] This principle started gaining prominence as a legal principle in international environmental law instruments from around 1987, in concurrence with the Vienna Convention and Montreal Protocol[35].[36] However, this principle evokes heated disputes in many aspects, notably when it comes to its real applications, interpretation, definitions and to what extent should systems be precautionary.[37] Some commentators have put forward critical statements, for example: "*Few legal concepts have achieved the notoriety of the precautionary principle … the principle is deeply ambivalent and infinitely malleable*"[38]. Moreover, Wildavsky claims that science outcomes and, accordingly, the precautious taken based on them are quite often exaggerated.[39]

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[32] Unique because the local and contextual dynamism of the legal settings and "administrative constitutionalism" has a great repercussion on how abstract legal environmental phenomenon including environmental principles materialise in reality. Elizabeth Fisher, Risk Regulation and Administrative Constitutionalism (Hart Publishing 2010), and Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017).

[33] Jules N. Pretty, 'The Precautionary Principle in Environmental Policies' in Jules Pretty and others (eds), *The SAGE Handbook of Environment and Society* (SAGE Publications 2007) especially P 590- 592.

[34] To elucidate this underlying link, one can ask "precautionary approach or measures from what?" Then the answer comes "from risk", prompting other central questions: "What is risk, exactly?" Is it what prestigious scientists dictate to be risk? Or rather, is risk what the society and its individuals and their culture perceive to be so?

[35] James E. Hickey and Vern R. Walker, 'Refining the Precautionary Principle in International Environmental Law ' [1995] 14 Virginia Environmental Law Journal 423.

[36] Locally, the precautionary principle can be traced back to Germany in 1970s-1980s and its *Vorsorgeprinzip* concept that empowered government to embrace preventive measures to problems. 'The Precautionary Principle in Germany - enabling Government' in Timothy O'Riordan and James Cameron (eds), *Interpreting the Precautionary Principle* (Earthscan Publications Ltd 1994).

[37] Kenneth R. Foster, Paolo Vecchia and Michael H. Repacholi, 'Science and the Precautionary Principle' [2000] 288 Science 979.

[38] Joanne Scott and Ellen Vos, 'The Juridification of Uncertainty: Observations on the Ambivalence of the Precautionary Principle within the EU and the WTO' in Christian Joerges and Renaud Dehousse (eds), *Good Governance in Europe's Integrated Market* (Oxford University Press 2002) P 253.

[39] And interestingly he entitles the conclusion of his argument as "*rejecting the precautionary principle"*. See Aaron B. Wildavsky, *But is It True? A Citizen's Guide to Environmental Health and Safety Issues* (Harvard University Press 1995).

Sunstein also harshly criticises the principle both in theory and practice. He argues that this principle is "*literally incoherent*" and those who invoke the precautionary principle are often merely against selective risks, as whatever decisions they reach are not without their own risks.[40] Beckerman argues that average people are naturally sensible and precautious, so that the precautionary principle is "*nothing new at all*"[41]. Nevertheless, the precautionary principle is largely approved and well-entrenched in a large number of legal and policy documents at all levels, notably in the developed states.

2.4 The Preventive Principle

Perhaps due to its evidently less contentious nature, there is less debate in the literature about the prevention principle compared to the closely related precautionary principle. This lower level of controversy seems to be because the preventive principle deals with the harm that is going to happen, by simply preventing it, or preventing the existing damage from worsening. As De Sadeleer pointed out: "common sense dictates timely prevention of environmental damage to the greatest extent possible"[42]. This "common sense" approach, does not trigger as much argument as the precautionary principle. Therefore, it should not be surprising to find some scholarly statements, such as "*While modern environmental regulations are anticipatory and preventive, they are not necessarily precautionary. They generally aim to prevent known risks rather than anticipate and prevent uncertain potential harm.*" [43]

The older version of the preventive principle was the "too late" curative approach, concerned with trying to rectify the problem after its occurrence, and this primitive approach was engrained in the content of early environmental law.[44] Like the precautionary principle, the preventive principle is articulated in countless national and international legal instruments. Principle 2 of the 1992 Rio Declaration, for example, sets out that states have "*the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.*"[45]

When it comes to the Middle Eastern states, however, and the KSA in particular, questions arise regarding whether the principle of prevention is applied and legally prominent, or if the curative approach is still predominant. The mechanisms by which the governance system prevents and deals with the problem prior to its existence need to be identified, and when exactly the damage is prevented, if at all. It is also important to ask who is or should be the producer of the knowledge upon which the preventive decisions are taken.

2.5 The Polluter Pays Principle

[40] Cass R. Sunstein, *Laws of Fear: Beyond the Precautionary Principle* (Cambridge University Press 2005) P 4.
[41] Wilfred Beckerman, *Small is Stupid: Blowing the Whistle on the Greens* (Gerald Duckworth & Co Ltd 1995) P 2.
[42] Nicolas De Sadeleer, Environmental Principles: From Political Slogans to Legal Rules (Oxford University Press 2002) P 60.
[43] Sharon Beder, *Environmental Principles and Policies: An Interdisciplinary Introduction* (Earthscan 2006) P 47.
[44] Nicolas De Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (Oxford University Press 2002) P 61.
[45] Rio Declaration (1992).

This is a central underlying principle of numerous environmental law provisions at different levels. In fact, it is one of the very few principles that can be deemed as a common language or *lingua franca* between environmental law experts.[46] What makes this principle quite distinctive, according to Fisher, Lange and Scotford, is its economic element. They neatly present this principle as seeking to " *correct market failures by internalizing the costs of environmental pollution - in broad terms, it requires that polluters should pay for the environmental harm they cause*"[47]. Further, the OECD has recognised this principle since 1974; the Recommendation of the Council on the Implementation of the Polluter-Pays Principle C (74) 223, articulates:

> "*The polluter should bear the expenses of carrying out the measures … to ensure that the environment is in an acceptable state. In other words, the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption.*"

This principle is widely recognised at all levels; however, despite sounding fair and logical, in practice, it may cause confusion and inconsistency with some environmental governance mechanisms.[48] Progressively, the applications of the principle have been extended to cover a number of expenses and costs beyond the simple cost of the pollution caused.[49]

Based on the clear economic dimension of this principle, many outstanding questions arise in the context of Middle Eastern, GCC countries, and especially the KSA, bearing in mind their largely fossil fuel-based economies. These polluter-pays questions include investigating the legal definitions of the different types of pollution, if any, and, accordingly, who can be legally captured as a polluter. The scope of application of this principle needs to be delineated. Does it cover only the costs of prevention or does it include other control and improvement costs and measures? If so, to what extent and who determines such answers? It is also necessary to examine whether the principle is clearly stressed in the environmental policies and regulations or implicitly manifested (or neither), and whether the prices of such oil-based economies internalise and reflect the real damage or pollution released to the environment. Thus recommended research questions that are likely to enrich the regional literature concern the proper understanding and application of the principle and what it should look like in such forms of economies.

3. Research Method

3.1 Introduction

In order to systemically research the in-operation legal status of Environmental Principle in the KSA, a number of research methods have been deployed. This mixture of methods has been dispersed between the various phases of the research.[50] The research will deploy mixed

[46] Michael G. Doherty, 'The Judicial Use of the Principles of EC Environmental Policy' [2000] 2 Environmental Law Review 251.
[47] Elizabeth Fisher, Bettina Lange and Eloise Scotford, Environmental Law: Text, Cases, and Materials (Oxford University Press 2013) P 413.
[48] Jonathan Remy Nash, 'Too Much Market: Conflict between Tradable Pollution Allowances and the Polluter Pays Principle' [2000] 24 Harvard Environmental Law Review 465.
[49] Ling Zhu and Yachao Zhao, 'Polluter-pays Principle - Policy Implementation' [2015] 45 Environmental Policy and Law 34.
[50] This mixture of methods is accepted in empirical legal studies. As advocated by Nielsen "*Research that employs multiple tactics for observing and understanding is more reliable than a single study if the studies are of*

methods, as each "legal" qualitative research method has its own strengths and shortcomings.[51] Thus, a combination of valid methods will contribute to the validity and reliability of the outcome of the research. Borrowing Patton's terminology, a triangulation[52] approach will be deployed, given the fact that no single research method will be sufficient to adequately uncover the empirical reality of the subject under investigation.[53]

The empirical data was collected by undertaking fieldwork and semi-structured interviews with the participants were conducted to obtain original insights into the subject matter of the case study, and raise a number of issues that have not been prominently covered or are not found within the currently available literature concerning the case study.

3.2 Doctrinal Methodology[54]

The black-letter-law approach was applied in this research and embedded in the qualitative discussion. Despite some criticism,[55] this doctrinal legal methodology, is useful in extracting and identifying inherent principles, rationales and values from legal cases and legislation, since it is extensively predicated on raw legal materials, such as constitutional provisions, laws and judicial decisions.[56,57] As such, a range of legislation and legal instruments were considered in this thesis at various scales: internationally, regionally and nationally (the prime focus) as well as locally.[58]

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comparable quality". Laura Beth Nielsen, 'The Need for Multi-Method Approaches in Empirical Legal Research' in Peter Cane and Herbert M Kritzer (eds), *The Oxford Handbook of Empirical Legal Research* (Oxford University Press 2010) P 953.

[51] Note that the adjective "legal" does not imply that legal qualitative methods are very different from usual qualitative methods, but to highlight, as Cane and Kritzer suggest, that the focus of the investigation is law and legal phenomena. Regarding the word "empirical," this thesis opts for the meaning that relates to that quoted here from Epstein and King. Rather than resting exclusively on legal doctrines, empirical legal research is interested exploring and investigating how legal system/s and their legislations operate in practice, and how certain legal system/s allow actors to behave and work. It is about the supply, delivery and pragmatic effects and enforcement of laws and regulations. In short, it is premised on "*law in the real world*" rather than in constitutions, legislations and libraries. Caroline Morris and Cian Murphy, *Getting a PhD in Law* (Hart Publishing 2011) P 35, and Peter Cane and Herbert M Kritzer, 'Introduction' in Peter Cane and Herbert M. Kritzer (eds), *The Oxford Handbook of Empirical Legal Research* (Oxford University Press 2010) especially P 1.

[52] Especially triangulation of methods, and data sources. Triangulation as a concept has many dimensions; all seem to contribute positively to rigorous research. For this particular context, embracing more than one methodology, even though they are all qualitative, is a form triangulation that contributes to the quality of research studies. See, for example, Uwe Flick, *An Introduction to Qualitative Research* (5 edn, SAGE Publications 2014) P 182.

[53] Michael Quinn Patton, 'Enhancing the Quality and Credibility of Qualitative Analysis' [1999] 34 Health Services Research 1189 Especially P 1192.

[54] Although the term "doctrinal research" is evolutionary and contested, the meaning of "doctrinal methodology" for the purpose of this research is simply to indicate a considerable reliance on legislations and legal instruments. To obtain some idea about the meaning and evolution of the term doctrinal research, methodology or method see for example Terry Hutchinson and Nigel Duncan, 'Defining and Describing What We Do: Doctrinal Legal Research' [2012] 17 Deakin Law Review 83.

[55] The doctrinal approach, as opposed to an interdisciplinary approach, has been portrayed by some as "intellectually rigid, inflexible, and inward-looking". Douglas W Vick, 'Interdisciplinarity and the Discipline of Law' [2004] 31 Journal of Law and Society 163 P 164.

[56] Resort to legal cases and court judgments and decisions will, however, be minimal, given that the publication of such legal material is noticeably limited and not systematic in the KSA.

[57] Mike McConville and Wing Hong Chui, 'Introduction and Overview' in Mike McConville and Wing Hong Chui (eds), *Research Methods for Law* (Edinburgh University Press 2007) Especially P 1-4.

[58] Local environmental regulations especially in major cities such as Riyadh, will be referred to.

3.3 Qualitative Research

This paper is mainly about a real-life phenomenon, i.e. environmental principles, with a focus on the KSA as a case study from the Middle East. Thus, among its main objectives is to provide an in-depth understanding of the current reality and practices of the main environmental governance institutions or actors in the KSA,. This is in order to properly address the subject in the KSA, and to explore and explain the underlying driving forces and challenges in the application of such environmental principles in the KSA. This first necessitates identifying what can be viewed as existing environmental principles in the stakeholders' practices in this case study. Yin, for example in his discussion accentuates this characteristic and states "*a case study is an empirical inquiry that investigates a contemporary phenomenon (the "case") in depth and within its real-world context; especially when the boundaries between phenomenon and context may not be clearly evident*".[59].

Empirical Method: Semi-Structured Interviews

Interviews have been proven useful in empirical law-focused research projects, since they allow an entry to the experts' insights and experience regarding the legal phenomenon being explored.[60] As noted above, decent quality case study research should enable a deep understanding of certain phenomena or of the unit being investigated. One avenue to reach such depth in understanding is not to rely solely upon a single type of qualitative data source, such as documents, although these may be a cornerstone, but actually to diversify the forms of data being utilised, in order to achieve intellectual depth.[61] Here is where the importance of the interview as a data gathering strategy comes into this thesis. However, Moreover, one of the driving forces to resort to interviews in this research, beside the recognised advantages of the interview method in case study projects,[62] was the lack of environmental governance data disclosed or even documented by the relevant environmental agencies in the KSA.

Thus, to cope with this scarcity of environmental data and environmental governance studies on the KSA, primary data obtained via semi-structured in-depth interviews was generated and analysed. The potential of the interview strategy in this regard is great, since it can "*reach areas of reality that would otherwise remain inaccessible.*"[63] Yin, for example, asserts the usefulness of interviews to gain deep understanding in case study research, if the researcher carries out his or her mission effectively[64] and focuses on the "line of inquiry" and does not get deviated.[65] It is equally important to pose the questions in an unbiased manner.[66] The issue of the line of inquiry, as well as the issue of who to interview can be, and was in this thesis, driven by the

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[60] Lisa Webley, 'Qualitative Approaches to Empirical Legal Research' in Peter Cane and Herbert M Kritzer (eds), *The Oxford Handbook of Empirical Legal Research* (Oxford University Press 2010) P 936

[61] Creswell, *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* P 98*, and 100.*

[62] Robert K Yin, Case Study Research: Design and Methods (5 edn, SAGE Publications 2014) P 106.

[63] Anssi Peräkylä and Johanna Ruusuvuori, 'Analyzing Talk and Text' in Norman K Denzin and Yvonna S Lincoln (eds), *The Sage Handbook of Qualitative Research* (4 edn, Sage Publications 2011).

[64] Though the interviewing method is not flawless. Robert K Yin, Case Study Research: Design and Methods (5 edn, SAGE Publications 2014) P 106.

[65] Facilitating the pursuit of the line of inquiry was the leading purpose of the interview guide, which contains the set of question posed to the different interview respondents. See, for instance, Michael Quinn Patton, *Qualitative Research and Evaluation Methods* (3 edn, SAGE Publications 2002) P 343.

[66] Robert K Yin, Case Study Research: Design and Methods (5 edn, SAGE Publications 2014) P 110.

theoretical framework and literature review (regarding environmental governance), as well as by the research questions.[67]

Selection of Interviewees

Participants were chosen on the basis of their perceived knowledge and/or practical involvement in environmental protection circles and the environmental governance field in general. This required first identifying the main authorities and institutions which have a clear involvement in the dynamics of environmental protection. Based on the types of institutions identified, interviewees were divided into four categories as:

- Bureaucrats or civil servants (I-A)
- Representatives from industries and the private sector (I-B)
- Academics (I-C)
- Representatives of environmental societies (I-D)

Due to the practical nature of the environmental societies and the requirements of their foundations, representatives from the (I-D) category can also be categorised as belonging to other groups, such as (I-C), where they had other, roles, as shown in Appendix A below.

Nevertheless, representatives from each of the principal environmental bodies were interviewed. These institutions included the Ministry of Environment, Water and Agriculture and the environment agency, the Ministry of Municipal and Rural Affairs, the Royal Commission for Jubail and Yanbu – Environmental Protection Department and the Saudi Industrial Property Authority (MODON) Environmental Protection Department, as well as representatives from major national industries and companies, in addition to professors from principal universities in the KSA, as shown in Appendix A below. Thus, the interview process encompassed participants from a broad range of specialisations or fields of scholarship, including Environmental Science, Environmental Engineering, Petroleum Engineering, Biological Science, Nanotechnology and Toxicology, Civil Engineering, Environmental International Relations (see Appendix A below).

However, there was no opportunity to interview environmental lawyers, as this specialisation has not so far gained currency and attracted researchers wishing to specialise in this area. It is hoped that this research may contribute to highlighting this under-researched area of knowledge and attract the attention of researchers to conduct future studies in the context of Saudi Arabia or its regional neighbours.

The Questions Asked

The interviewees were asked a total of 35 questions, classified under the following themes: environmental governance modes, environmental governance and risks; environmental principles; good environmental governance; scales or levels of environmental governance; trends in environmental governance; environmental governance and societal actors; environmental governance and the unique characteristics of environmental problems.

[67] Ben K Beitin, 'Interview and Sampling: How Many and Whom' in Jaber F Gubrium and others (eds), *The Sage Handbook of Interview Research: the Complexity of the Craft*, vol 2nd (SAGE Publications 2012).

4. Environmental Principles and Practices in the Context of KSA's Environmental Governance (A Qualitative Analysis)

4.1 Introduction

The purpose of this section is to address the respective environmental principles in their real-world practice, as opposed to the doctrinal or in-theory statements about them in the various documents, some of which have been introduced above. Principally, this section unpacks the status of the environmental principles in real practice in the environmental governance jurisdiction of the KSA, based on the responses derived from interviewees in the four categories, but also with reference to the main environmental legal instruments. It discusses the application of the principles and to what extent they are present, their understanding and conception, as well as some practical issues regarding their implementation and comprehension.

4.2 Sustainable Development

Although participants agreed on the critical importance of the issue of sustainable development, the conceptualisation of this principle, even within the same category, varied, sometimes, considerably. For example, some respondents seemed to view sustainable development as a fuzzy and stretchy term generally denoting the general notion of "environmental protection" in the various national legislations, policies, mechanisms and programmes. For this camp, sustainable development is already strongly present in the national environmental governance arrangements. The General Environmental Law (GEL), The General Authority of Meteorology and Environmental Protection (GAMEP),[68] and its parent Ministry of Environment, Water and Agriculture (MEWA), and their respective institutional and legal instruments are seen to be a clear embodiment of the "in-process" principle (I-A-5).[69]

Associated with this doctrine, there are those who conceive that the real issue lies in the lack of emphasis of the sustainability principle at the "operational" level of the current environmental governance system, rather than, for example, in the planning or policy-making arenas (I-D-1). For example, (I-C-7) explained that, "*Sustainable development is theoretically there, but effectively not.*" Interestingly, however, GAMEP seems to have different perspective. In its last published "The State of The Environment Report 2017" GAMEP depicts sustainable development as a "field", stating that "*The General Authority for Meteorology and Environmental Protection has developed many major initiatives in the field of sustainable development within the framework of the 2030 Vision.*"[70]

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[68]The General Authority of Meteorology and Environmental Protection, Ministry of Environment ,Water and Agriculture Website, available at: https://mewa.gov.sa/en/Partners/Pages/%D8%A7%D9%84%D9%87%D9%8A%D8%A6%D8%A9-%D8%A7%D9%84%D8%B9%D8%A7%D9%85%D8%A9-%D9%84%D9%84%D8%A3%D8%B1%D8%B5%D8%A7%D8%AF-%D9%88%D8%AD%D9%85%D8%A7%D9%8A%D8%A9-%D8%A7%D9%84%D8%A8%D9%8A%D8%A6%D8%A9.aspx (last accessed in 28/3/2020).

[69] To some extent, the variation of understanding is attributable to the inherently contestable nature of the principle (and the interviewees themselves and their varied levels of practice, experience and qualifications). As Jacobs explains, "Often there will be a number of such definitions available; but neither this nor their vagueness makes such concepts meaningless or useless." Michael Jacobs, 'Sustainable Development as a Contested Concept' in Andrew Dobson (ed), *Fairness and Futurity: Essays on Environmental Sustainability and Social Justice* (Oxford University Press 1999) P 26.

[70] GAMEP, The State of the Environment Report (2017). The report can be found in English in https://www.pme.gov.sa/Ar/DataLists//DocumentLibrary/%D8%A7%D9%84%D8%AA%D9%82%D8%A7%D8%B1%D9%8A%D8%B1%20%D8%A7%D9%84%D8%A8%D9%8A%D8%A6%D9%8A%D8%A9/The%20

Moreover, surprisingly, none of the participants, amongst all four categories, seemed to have any awareness of this understanding favoured by GAMEP. This is, however, not to claim special significance of this definition. In fact, tracing and examining the various announcements, reports or works by GAMEP can reveal quite distinct connotations of this term, even in the same 2017 report. Indeed, if one conclusion is to be put forward in this context, it is that the aggregate responses from the participants do seem consistent with the available reports, in terms of their variety and lack of a unified definition or perception. This is one reason why introducing a legislation focusing on or emphasising the principle of sustainable development will at least show the "*authorities' awareness of* [th*e] problem*"[71], which is likely to be reflected in mobilising other stakeholders to positively react at, inter alia, the educational and implementation levels.

On the other hand, the majority of participants believed that the sustainability principle did not figure effectively in the environmental governance sphere. According to (I-A-7), (I-B-6), (I-C-4) and (I-D-3), there are no overarching measurable sustainability goals on the national scale on which the implementation of sustainable development is appraised. According to this perspective, which is strongly supported by the evidence, the existing actions or plans are incoherent sectoral attempts by largely fragmented entities, either formal authorities such as GAMEP, or academic institutions such as Universities and Research Centers.

Several examples were supplied to support this opinion. For instance, with regard to sustainability in the energy sector, the amount of energy produced nationally is huge, and is from non-sustainable sources, particularly for water desalination purposes, which is the main method for producing drinkable water in the major urban areas.[72] In addition, the issues of the non-use of and inattention to natural water resources, such as those accumulated in the dams was also highlighted by (I-A-) and (I-C-2).[73] They emphasised that despite the dams having cost massive amounts of money for construction and maintenance, the majority of the water retained by these reservoirs is not used and eventually evaporates or is lost by other natural causes. Other examples, such as over-fishing, were also raised by respondents.

Thus, several participants amongst the different categories demonstrated a high level of uncertainty as to whether the fundamental principle of Sustainable Development was feasibly translated by GAMEP in particular, and the whole economic and environmental governance domain in general. They viewed the current reality of environmental governance as far from attaining a satisfactory level with respect to sustainability, despite the existence of some part of the basic institutional and regulatory infrastructure. Equally interesting was to note that

State%20of%20the%20Environment%202017.pdf (The General Authority of Meteorolog and Environmental Protection, Ministry of Environment ,Water and Agriculture Website, accessed in 28/3/2020).
The General Authority for Meteorology and Environmental Protection has developed many major initiatives in the field of sustainable development within the framework of the 2030 Vision.

[71] Luzius Mader, 'Evaluating the Effects: A Contribution to the Quality of Legislation' [2001] 22 Statute Law Review 119 P 122.

[72] Remote villages and rural areas might use groundwater for drinking water. This is reported to be hazardous, due to the sub-optimal treatment of industrial waste, notably the liquid industrial waste, by the industrial activities nearby (I-A-1) and (I-C-5).

[73] Although the national Vision 2030 is likely to significantly drive towards more sustainable development practices, notably via the officially endorsed objective to move towards less reliance on unsustainable energy sources.

Tarlock's conclusion that sustainable development is a "paradox" concealing different contents or emphases to different parties was equally applicable to the case of this study.[74]

Examples of the Sectoral Sustainable Development Attempts

(i) The High Commission for the Development of Arriyadh (Riyadh City) (HCDA)

HCDA is a city-specific entity that has an extensive regulatory mandate over the city of Riyadh and one of its central responsibilities is to environmentally protect the capital city. In its last version of the five-year "Executive Plan for Environmental Protection" (2015-2019), HCDA introduced the "climate change" dimension to the already existing 5 themes of the previous older versions.[75]

Via this plan, HCDA has created a concrete expression of the principle of sustainable development that suits the topography of Riyadh city. The translation by HCDA of the principle into an elaborate and well-defined concept, with specific tasks and responsibilities that are clearly shaped and specifically entrusted to the various formal and semi-formal institutions, can be regarded as a role model and a stepping-stone for future nationally-scaled strategies.[76]

Unfortunately, however, this plan has no mandatory power beyond the frontiers of the capital city. Moreover, the majority of respondents across all the interviewed categories did not seem to have adequate familiarity with this document. Either they had no idea about it, or merely minimal awareness of its very general concept. Equally surprising was that those who showed great knowledge about this plan and its implementation in Riyadh seemed rather uncertain about the situation in the other cities, and at the national scale, including the major regions .

(ii) Ordinary private factories vs internationally-oriented industries

All respondents across the categories agreed that, in practice, GAMEP has not introduced legally-binding nor soft law national-scale sustainable development goals or indices that are enforced on or even advertised to industries. Consequently, driven by their profit-oriented mind-set, industries, in general, do not voluntarily conform to such perceived restrictive measures, which could put them at a comparative disadvantage compared to their competitors in the market, as pointed out by (I-B-4).

International businesses or major industries which are already engaged in the international market, however, have self-initiated sustainable development policies. As (I-A-1), (I-B-5) and (I-C-1) explained, these types of businesses are driven by international market developments, instruments and requirements rather than by GAMEP or the GEL, per se.

4.3 Preventive and Precautionary Principles

[74] A. Dan Tarlock, 'Ideas without Institutions: The Paradox of Sustainable Development' [2001] 9 Indiana Journal of Global Legal Studies 35.

[75] High Commission for the Development of Arriyadh (Riyadh City) (HCDA), Executive Plan for Environmental Protection in the city of Riyadh (2015-2019). P 12 (Arabic).

[76] Due to time and word restrictions details of the HCDA plan cannot be discussed in this paper. For full details see High Commission for the Development of Arriyadh (Riyadh City) (HCDA), Executive Plan for Environmental Protection in the city of Riyadh (2015-2019). (Arabic).

Obtaining the participants' responses on questions about these principles was a sobering experience. The first and foremost surprise was that the meaning of each principle and the distinctions between them had to be explained to the entire group of interviewees. One notable challenge when attempting to explain these two principles to the interviewees can be illustrated by Scotford's words in describing the preventive principle in the EU context, that "*the principle is also sometimes confusingly conflated with the precautionary principle … as if they represent an equivalent idea*"[77].

This does not mean that the interviewees were unaware of the basic notions of prevention and precaution. But they were certainly not aware of them as legal, economic and academic subjects that are extensively discussed by scholars and commentators in the massive body of literature. This applied particularly to the principle of precaution, where it could be concluded that this principle has not reached even the status of being viewed as "*an aspiration aimed at guiding policy makers*"[78], let alone more stringent forms of the principle. The preventive quality was widely acknowledged by interviewees,[79] but "*prevention* [remains not] *elevated to the level of a general principle, but maybe sometimes seemed to be "formulated in very general declaratory rules.*"[80] In some cases, participants, notably among (I-A) and (I-B), even showed a lack of interest in the precautionary principle on the grounds that "*the costs of such principles may outweigh the benefits*."[81] Several major aspects of what was said in this context are explained below.

Environmental problems vs environmental threats

Interestingly, the attitude revealed in the overall responses among the bulk of the respondents across the different categories was that the real issue is the existence of environmental problems rather than environmental threats or risks. Thus, in practice, "*where there are threats of* [considerable environmental] *damage, lack of full scientific certainty* [is frequently understood as a valid] *reason for postponing cost-effective measures to prevent* [arguable] *environmental degradation.*"[82] So, in practice, Fisher's explanation of the precautionary principle as: "*no evidence of harm' does not mean that there is 'no harm*",[83] did not seem to be recognised by several respondents, nor to be evidently operational in the real practice of GAMEP or by actors in the environmental governance sphere in general. However, in the case where there is established certainty about the occurrence of the environmental damage the "preventive principle" was widely understood and recognised by the participants as a logical and uncontroversial precept but not as an established environmental *legal* principle.

[77] Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017) P 89.
[78] Ole W. Pedersen, 'From Abundance to Indeterminacy: The Precautionary Principle and Its Two Camps of Custom' [2014] 3 Transnational Environmental Law 323.
[79] Although they disagree in terms of how the current legal setting is effectively preventive, as will be discussed below.
[80] Nicolas De Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (Oxford University Press 2002) P 89.
[81] Adrian Vermeule, 'Precautionary Principles in Constitutional Law' [2012] 4 Journal of Legal Analysis 181 P 182.
[82] Adjusted from Principle 15 of the United Nations Declaration on Environment and Development.
[83] Elizabeth Fisher, 'The New Oxford Companion to Law' in Peter Cane and Joanne Conaghan (eds), *The New Oxford Companion to Law* (Oxford University Press 2008) P 171. See also Jale Tosun, 'How the EU Handles Uncertain Risks: Understanding the Role of the Precautionary Principle' [2013] 20 Journal of European Public Policy 1517.

Environmental threats seemed to be perceived as "anticipated" and "logical in development and appearance", in the sense that the causal links between environmental damage and its causes are almost always detectable and identifiable, even though they might be compound and involve intricate situations caused by several entangled causes. Thus, environmental knowledge is treated, *in practice*, as complete and conclusive and a subject about which there is not, or should not be, "exaggerated" doubt, controversy or uncertainty.

Environmental Problems rather than Risks?

From the aggregate comments, there appeared to be a number of reasons for this conceptualisation being predominant, even among academics. Two main reasons, in particular, are more discernible. The first is that, as the salient environmental challenges in the KSA are widely known and their casual links are largely recognisable and detectable (or perceived to be so) and have identifiable causes, little uncertainty can be perceived to exist regarding them. . The interviewees agreed that environmental ills such as air quality degradation, surface and ground water contamination and environmental problems sparked by massive amounts of domestic municipal and medical waste are all prime examples of the environmental challenges currently at stake. According to the interviewees, these are all real and "on the ground" problems for which the causal links are not a puzzle. Such pressures on the environmental assets are easily understood as the result of factors such as the increasing industrialisation trends and consumer behaviours, coupled with several legal and regulatory defects of the environmental law, both in "documents and theory" and "in practice".

The second reason that seems to sustain this dominant opinion, is the participants' concerns regarding the "wobbliness" of precepts such as "risk" and "uncertainty". Interestingly, some of the respondents, for example (I-A-3), believed that when these concepts are executed and given substance as governing principles, they are likely to lead to dangerous and unbearable economic consequences, with inevitable eliminations of viable economic opportunities. Thus, it is believed their harm might be more than their potential benefits. This, in turn, has a direct repercussion on their understanding and perception of the risk-centred principle of precaution. Thus, the statement by Sunstein that "*…the precautionary principle should be rejected, not because it leads in bad directions, but because it leads in no direction at all. The principle is literally paralyzing-forbidding inaction, stringent regulation, and everything in between*"[84] to some extent reflects their view.

Moreover, according to several respondents, including (I-A-6) and (I-C-6), notions such as "risk" and "uncertainty" are markedly vulnerable to politically-oriented agendas at the international scale. The issue of climate change was cited as a typical example. Several interviewees suspected than the notions of 'risk' and 'uncertainty' vary and are prone to be overstated and manipulated to attain politically-loaded gains by developed countries, according to (I-C-2) and (I-D-1).

So, What are the Environmental Threats and Problems?

As discussed above, the predominant conception of environmental problems and threats leaves little room for the 'precautionary principle' to be exercised. Equally, at the legislative level of the environmental governance arena, Leinen's precept that "*the precautionary principle*

[84] Cass R. Sunstein, 'Beyond the Precautionary Principle' [2003] 151 University of Pennsylvania Law Review 1003 P 1003.

[should] *rightfully play a major role in the daily work of the legislator*"[85] seems to be hardly applicable. Thus, environmental problems appear to be envisaged and dealt with as if they "*present themselves in well-defined boxes*"[86], as Dryzek puts it.

Interestingly, however, environmental problems appeared to be defined differently by respondents in different categories. For a number of interviewees, environmental problems are those deemed to be so and prescribed by the law, especially the GEL and its Rules for Implementation (RI). This belief seemed to be engrained, particularly among those who conceived the GEL to be well-drafted and adequately protective, despite some imperfections, such as (I-A-4) and (I-A-10). Another stance was exhibited by those such as (I-A-8) and (I-B-1), who appeared to define environmental problems according to the thresholds and standards set by international parties and advanced industrialised countries. For them, environmental problems occur when the standards set forth by entities such as the European Union (EU), World Health Organization (WHO) and the United States' Environmental Protection Agency (US EPA) are breached. This conviction was common, particularly among participants working with or closely linked to internationally-driven industries and factories. Their involvement in the international environmental regulatory developments, schemes and initiatives seemed to be the main driving force in constructing their attitude.

Finally, there were those who regarded the definition of environmental problems as substantially premised upon laboratory outcomes. For this camp, the results of the perceived authoritative, scientific and laboratory experiments were the cornerstone for identifying and defining environmental problems, as stated by (I-A-5). This and the previous view can be seen as science-based perspectives that are led by "*a technocratic and expert process based on demonstrated, significant levels of harm.*".[87] Neither, however, rests easily with the spirit of the precautionary principle, not only because the precautionary principle is argued to be "… *a deliberative principle. Its application involves deliberation on a range of normative dimensions which need to be taken into account while making the principle operational in the public policy context.*"[88] Going along with this latter conceptualisation of the precautionary principle might be conducive to divergent conclusions and decisions by policy-makers or judgments by judges, as reasoning and argument will "*not* [be] *grounded in science, but rather based on subjective, idiosyncratic, political preferences, and cultural values employed often under the guise of differences in 'level of protection*".[89] These and other challenges have led some scholars to question the justiciability of the principle of precaution.[90]

Across this range of understandings by interviewees, there seems to be insufficient room for the precautionary principle to operate in any of its shapes or forms. For instance, if the scale of the precautionary principle is to be presented from weak to strong as "*uncertainty does not*

[85] Jo Leinen, 'Risk Governance and the Precautionary Principle: Recent Cases in the Environment, Public Health and Food Safety (ENVI) Committee' [2012] 3 European Journal of Risk Regulation 169 P 169.
[86] In his wording, Dryzek's rightly argues that these problems "do *not* present …" in this way (emphasis added). See John S. Dryzek, The Politics of the Earth: Environmental Discourses (3rd edn, Oxford University Press 2013) P 9.
[87] Paul Rübig, 'The Changing Face of Risk Governance: Moving from Precaution to Smarter Regulation' [2012] 3 European Journal of Risk Regulation 145 P 145.
[88] René von Schomberg, 'The Precautionary Principle: Its Use Within Hard and Soft Law' [2012] 3 European Journal of Risk Regulation 147 P 147.
[89] Lucas Bergkamp and Lawrence Kogan, 'Trade, the Precautionary Principle, and Post-Modern Regulatory Process: Regulatory Convergence in the Transatlantic Trade and Investment Partnership' [2013] 4 European Journal of Risk Regulation 493 P 506.
[90] Elizabeth Fisher, 'Is the Precautionary Principle Justiciable?' [2001] 13 Journal of Environmental Law 315.

justify inaction", to "*uncertainty justifies action*" or "*shifting the burden of proof*" from the opponent to the proponent to establish and prove the safety and non-harm of the proposed activities, none of these versions of the precautionary principle seems to be viable.[91] The reason is because the concept of 'uncertainty' and 'risk' upon which all the versions of the principle of precaution are premised is not adequately considered or emphasised.

One principal shared standpoint that seemed to be present among all the respondents of all four categories, however, was the necessity of the preventive principle for those "certain and defined" environmental problems, to pre-empt and forestall them prior to their coming into existence. At the same time, they perceived no need of what they regarded as an "extreme" version of the precautionary principle that might allow exaggeration, and therefore economic loss.

4.4 Precautionary, Preventive or Reactionary?

Many factors, some of which have been discussed in this paper and some which will be addressed in forthcoming papers, have rendered GAMEP unable to discharge its statutory obligations effectively. GAMEP has a limited number of branches located in some of the major regions, and consequently its presence is weaker in the other cities and sites, to the extent that regulated entities will practically relax in their actions and compliance in such areas. This was bluntly stated by (I-C-5) thus:

> "*Until major health or environmental incidents occur, GAMEP seems busy. And even subsequent to that, they sometimes appear either to deny or trivialised the problem, or sometime it might get defensive. Of course they care about the environment, but they also no less care about their reputation and not to appear ineffective or not doing their job properly"*

This was also explained in similar degree by participants across the categories, notably (I-B) and (I-C). Interestingly, however, some participants including (I-C-8) attributed this to, inter alia, the lack of environmental knowledge and thus commitment among the administrative environmental leadership and the dominance of cost- and economic-centred thinking, as well as the lack of environmental expertise among those working in and holding leadership positions in GAMEP and other relevant environmental bodies. According to this view, expressed by (I-A-8), the personnel working for environmental institutions are either poorly qualified, or non-environmental in their original specialisation, and certainly not environmental lawyers. Some participants such as (I-A-1) and (I-C-3) also attributed this to the unattractive salaries granted to GAMEP's employees. The low level of payments for environmental workers are dangerous for two reasons. The first is to discourage potential highly-qualified candidates and experts from working in GAMEP. The other, perhaps more critical consequence is to raise the possibility of environmental inspectors and employees indulging in unsound and corrupt practices, which is, according to a number of participants, not utterly inconceivable.

These challenges, coupled with the lack of contribution by any environmental courts or tribunals, do not sit easily with the specialised expertise and knowledge needed in order to tackle delicate precautionary principle inquiries regarding, inter alia, "*the level and type of harm that would justify action, the amount of knowledge needed to justify action, the types of actions that would be appropriate as precautionary measures, and under what circumstances*

[91] Nathan Dinneen, 'Precautionary Discourse: Thinking Through the Distinction Between the Precautionary Principle and the Precautionary Approach in Theory and Practice' [2013] 32 Politics and the Life Sciences 2.

these would be appropriate".[92] Therefore, the *legal* challenges of the precautionary principle can be certainly addressed by filling the extant legal and legislative gaps, but additionally this needs to be accompanied by raising the level of employees' qualifications and understandings of the principle and its legal implications in practice. In other words, although different scholars and practitioners might have fairly comparable understandings of the principle, "*intense controversy over the role*" it should play in real practice means it is an acknowledged challenge.[93]

Thus, it was stressed by many respondents including (I-A-6), (I-C-7), (I-B-5) and (I-D-2), that environmental principles, including preventive principles and especially the precautionary principle, are, in practice, either merely slogans for media consumption, or the current environmental governance system is still clearly immature. That is being said, there is great future potential held by the fundamental role of environmental protection in Vision 2030.

4.5 Polluter Pays Principle

The interviewees almost all agreed that the consideration of this principle in the current environmental governance system was sub-optimal. In contrast, some policies might actually counter the thrust of this principle, such as fossil fuel and vehicle fuel subsidies. However, this situation is noticeably changing and likely to continue improving, in line with the comprehensive national Vision 2030.[94]

The bottom-line idea of this principle is that the polluter should be the one who bears the costs incurred by public authorities and society due to their pollution, or as Carol Browner, former administrator of the US Environmental Protection Agency put it, "*It's this simple: You pollute, you pay*"[95,96] Although this is easily understandable, logical and therefore, at the theoretical level, uncontested by participants, the interviewees did not demonstrate an awareness of this 'logical concept' as a *legal* and economic way of cost allocation that is derived from the economic theory of externalities.[97]

In practice, however, this principle is not adequately present in the current environmental governance order, as mentioned by (I-A-6), (I-C-6), (I-B-6). Moreover, thorough application of this principle is likely to ignite great controversy and resistance by society, including businesses, due to the potential surge of prices and living costs in general, as (I-A-3) suggested, as polluters are 'unwilling to pay'. Moreover, challenges arise regarding what would be the

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[92] Elizabeth Tedsen and Gesa Homann, 'Implementing the Precautionary Principle for Climate Engineering' [2013] 7 Carbon and Climate Law Review 90 P 94.

[93] Christoph Klika, 'Risk and the Precautionary Principle in the Implementation of REACH: The Inclusion of Substances of Very High Concern in the Candidate List' [2015] 6 European Journal of Risk Regulation 111 P 111.

[94] For instance, auto fuels prices are no longer stable, but they are "reviewed on a monthly basis" https://www.saudiaramco.com/en/creating-value/products/retail-fuels (Products: Retail fuels, Saudi Aramco Website, accessed in 30/3/2020).

[95] As reported by John J. Fialka Staff Reporter of The Wall Street Journal in https://www.wsj.com/articles/SB947781616495455358 "Koch Industries' $30 Million Fine Is Biggest-Ever Pollution Penalty" (The Wall Street Journal Website accessed in 19/3/2020).

[96] Although it is a little naïve to think of the principle as so straightforward. It is surrounded by several uncertainties concerning meanings and application. Michael Doherty, 'The Status of the Principles of EC Environmental Law' [1999] 11 Journal of Environmental Law 354. And Richard Macrory, ''Maturity and Methodology': A Personal Reflection' [2009] 21 Journal of Environmental Law 251.

[97] Nicolas De Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (Oxford University Press 2002) P 21.

proportionate price-tag for each pollutant or polluting activity, [98] given the particular situation of the KSA and its aridity and scarcity of green spaces. Nevertheless, this principle was widely welcomed by the academics and scholars interviewed. Examples of aspects of the imperfect implementation of the polluter pays principles are discussed below.

Examples of the Sub-optimal Application of the Polluter Pays Principle

(i) Treatment of Industrial Waste

Article 13 of the GEL obliges any undertaker of any service or production activities and businesses to take necessary measures to protect the environment, while GAMEP, as the environment agency, is mandated with monitoring and ensuring compliance, according to Article 3, where no industrial project will be given an environmental certificate to initiate operation unless it provides, in its application to GAMEP, a contract with an endorsed environmental or waste treatment company that will collect and treat its industrial and operational waste. This allows GAMEP, in theory, to ensure that the industrial waste is treated properly and professionally. This legal requirement is part of the EIA of any potential project.

However, in practical terms, there are underlying issues. For example, in many cases the waste collected by waste collection companies is disposed of by simply moving it somewhere, as reported by (I-C-5) and (I-C-7). There are no stringent recording, tracking, or monitoring mechanisms for such collected waste nor for the private collection companies, except in some limited zones.[99] This was explained by (I-B-6) as follows:

> "*In spite the fact that industrial activities are legally required, during their application for establishment, to show the way they deal with their waste and residuals, in practice, however, the industrial waste is not rigorously recorded and tracked. For instance, some industrial activities disposed of their industrial liquid wastes by dumping them into a deep ground hole they made. Once such a primitive well was full, they left it for a couple of days so the earth through its porosity would swallow and absorb the waste, and then they started to dump the next consignment, and so on".*

Even more surprising is that the interviewed representatives of industries believed that some industrial projects do not engage in a feasible contractual relationship with these companies. According to some participants, (I-A-9) and (I-C-5), what might happen in some operations is to pay for the contract paper from the company in order to provide it to GAMEP, and then obtain the environmental licence or permit. So, it is merely an ostensible arrangement, rather than a genuine or authentic legally binding contractual relationship.

This act allows them to save a huge amount of money (i.e. the polluter does not pay). For example, according to (I-C-5), rather than engaging in a mutually binding contract costing the industry at least around 25,000SR, in some cases they obtain the paper contract only for 1,000 SR. This raises questions about the extent of the real applicability of the polluter pays principle in this regard and the need for this principle to work as "*an incentive for the polluter to prevent*

[98] Nicolas De Sadeleer, *EU Environmental Law and the Internal Market* (Oxford University Press 2014) P 59.

[99] The case appears to be in contrast with the situation in the areas with decentralised regulation and supervision, namely in the Royal Commission Zones, and areas under the supervision of major oil companies, where the waste is inventoried, recorded, tracked, and closely monitored and treated. (I-B-1), (I-B-4), (I-A-8).

or reduce pollution".[100] In this context, more effective consideration and implementation of the polluter pays principle is needed for both of its main functions: pollution cost internalisation (where polluters bear the cost of prevention control measures, making their products' prices are more expensive than the environmental-friendly products), and as a cost allocation principle, in terms of who should pay; so the person producing the pollution is liable for payment rather than, for example, the public authorities or the society as a whole.[101]

(ii) EIA-related Issues

Participants (I-A-4) and (I-A-9) also highlighted the negligible average cost of EIAs, which encourages more 'polluters' to obtain them, and establish their projects without really accurate assessment of the environmental damage or impact cost they will place on the environment. This is also applicable to the quality and feasibility of the pollution control, reduction and treatment measures provided by the EIA applicant as to how to deal with the environmental impact or harm that may occur. For instance, (I-C-5) stated that the average cost of EIA studies is around 5000-15000 SR for some projects, whereas the rightful and reasonable cost for proper EIAs would be many times more than this relatively insignificant cost.

In addition, the adequacy and appropriateness of the controlling and preventive measures provided by existing and potential industrial activities were argued to be rather sub-optimal by several interviewees across the four categories. This is beside the lack of an environmental taxes scheme, as pointed out by (I-A-6) and (I-C-6), which also raises considerable concerns regarding the polluter pays principle in the environmental arena. Hence, it can be concluded that "*polluters should pay for pollution prevention and control measures as well as for the environmental damage they cause*" which is a basic meaning of the polluter pays principle.[102]

(iii) Polluter Pays Principle and Charges on Industrial Activities

The fees and charges applied by GAMEP to actual and potential polluters cover only specific administrative and sometimes punitive aspects but not the real, systematically evaluated) environmental impacts, damage and illnesses (externalities in general) caused by polluters. Therefore, the economic profits they gain out of their pollution are not paid back, even partially, to GAMEP or public institutions, nor to society, in order to contribute to the environmental protection and surveillance tasks mandated to GAMEP and other public bodies. Here a more eco-centric interpretation of the principle is required in, to account for all the externalities or the cost of environmental harm produced or potentially produced by the industries.[103] This would include the cost of not only pre-activity preventive and controlling measures, but also post-activity liability if treatment or reparation is needed for the environment afterwards.[104]

[100] Petra E. Lindhout and Berthy van den Broek, 'The Polluter Pays Principle: Guidelines for Cost Recovery and Burden Sharing in the Case Law of the European Court of Justice' [2014] 10 Utrecht Law Review 46 P 46.
[101] Candice Stevens, 'Interpreting the Polluter Pays Principle in the Trade and Environment Context' [1994] 27 Cornell International Law Journal 577. See also the explanation of Lord Carnwath of the Polluter Pays Principle's role as cited in Justine Thornton, 'Significant UK Environmental Law Cases 2017/18' [2018] eqy014 Journal of Environmental Law 1 P 3.
[102] Edwin Woerdman, Alessandra Arcuri and Stefano Clò, 'Emissions Trading and the Polluter-Pays Principle: Do Polluters Pay under Grandfathering?' [2008] 4 Review of Law and Economics 2 P 572.
[103] Sanford E. Gaines, 'The Polluter-Pays Principle: From Economic Equity to Environmental Ethos' [1991] 26 Texas International Law Journal 463.
[104] The principle could also be interpreted broadly in a way that compensates for the damage or requiring the polluters to pay even though they did not *de facto* break the relevant legislation. Marcin Stoczkiewicz, 'The Polluter Pays Principle and State Aid for Environmental Protection' [2009] 6 Journal for European Environmental and Planning Law 171 P 173.

Strikingly, these insignificant costs required from the polluters throughout the different administrative phases to the actual running of the industrial activities are, in practice, interpreted by polluters as 'I have paid for the pollution so I gained the right to pollute', which is described by Bell and his colleagues as "*a complete misunderstanding of the principle's true meaning*"[105]. Once polluters acquire their environmental licence and permit to operate, they act as they are allowed to openly and pragmatically gain the most out of their 'payment for pollution'. In addition, (I-A-1) reported that some operators of industrial activities become confrontational towards the imposition of fiscal penalties, despite their environmental lawbreaking.

This situation has been even further complicated by the indisputable lack of monitoring and controlling capacity of GAMEP. This means that once the licence to operate is obtained, polluters unleash their operational capacities to gain the maximum profit out of the cumbersome administrative and bureaucratic procedures they have gone through. Environmental caps, for example, as in the system of tradable permits, are non-existent. Legislative environmental standards are not, in practice, adequately enforced and implemented, for various reasons, mainly capacity-related issues with GAMEP, as pointed out by (I-A-4), (I-B-5) and (I-C-3). Thus, the flagship aim of the polluter pays principle to encourage pollution abatement is not serviceable. The resulting market failure is clear, since prices of goods and services do not reflect the negative externalities caused to the environment.

As discussed above, even civil liability does not complement this regulatory gap by forcing polluters to compensate for the damage they cause, since polluters defend themselves by showing their environmental licences and their EIAs.[106] In other cases, polluters defend themselves by claiming that the damage has not arisen out of their pollution per se, but due to the loose and insufficiently restrictive legislative standards that allow the pollution to take place.[107] On top of that, for various reasons, including encouraging local and international investments, a scheme of environmental taxation was not favoured to be set up in the early stage of the KSA's environmental law history. With the advent of Vision 2030, however, the situation is likely to significantly change in the foreseeable future.

Lastly, but most importantly, with regard to the remedial dimension of the polluter pays principle, GAMEP and pertinent bodies were not regarded as capable enough to stringently and systematically detect pollution and properly hold polluters accountable, as argued by (I-A-2), (I-B-1) and (I-C-7). One of the most widely-accepted facts cited by the respondents was that polluters, in practice, were not forced to remedy the harm and damage they had instigated. Consequently, according to (I-A-1), in some cases, polluters found it more cost-effective to move from their location or to cease carrying on their business instead of bearing the excessive cost of rectifying the environmental damage they caused or attempting to restore the site to its original environmental status, as required by Article 11, Item 2-2-11 of the RI. This can cause environmental and legal challenges for future investments in the site, including defining who is the polluter that should pay,[108] and also regarding allocation of liability issues, which might

[105] Bell and others, P 226.

[106] The polluter pays principle can be extended "*to create an obligation … to compensate the victims of environmental harm*". Barbara Luppi, Francesco Parisi and Shruti Rajagopalan, 'The Rise and Fall of the Polluter-Pays Principle in Developing Countries' [2012] 32 International Review of Law and Economics 135 P 135.

[107] Surprisingly, some interviewees even among (I-A) did agree with this to some degree.

[108] Samvel Varvaštian, 'Environmental Liability Under Scrutiny: The Margins of Applying the EU 'Polluter Pays' Principle Against the Owners of the Polluted Land Who Did Not Contribute to the Pollution: Case C-534/13

require certain extensions to the application of the principle in general.[109] These are examples of the imperfect application of the polluter pays principle which have led many businesses, sometimes international ones, to flood into the territory. As stated by (I-A-4):

> *"I came across some foreign applicants who were their wildest dream to obtain a license to their polluting project in their home countries. They came here to establish their business and benefit from the facilities and attractive advantages given to entice international business. I can recall one applicant who came here to apply for one license, but due to the relatively very low cost for establishing and running its project, he applied for establishing three industrial enterprises instead!"*.

All the above-identified issues seem to be driven by the difficulty in applying many dimensions or aspects of the polluter pays principle. Moreover, scholars, practitioners, lawyers and stakeholders within the environmental governance domain in general are invited to devote more effort to exploring the *legal* principle and bringing it to the forefront for environmental protection ends. This is a valuable exercise, due to the stretchy and evolving nature of the *legal* principle/s which render "*lawyers* [to be] *increasingly inquiring into the types of role these principles play, or may play in the legal practice.*"[110]

5. Conclusion

This paper has explored the presence and legal status of the four environmental principles examined in the environmental governance jurisdiction of the KSA. The examination has included the manifestations and forms into which the principles are shaped in these jurisdictions. The different findings were observed via two main analytic approaches. The first was doctrinal analysis, where the discussion was on the documents and legal instruments. The second, main, approach was socio-legal formed of a case study and expert interview qualitative analysis, which provided findings related to practical issues and the presence and forms of the environmental principles in the real application and practice.

Based on the above findings, it can be concluded that the nature and status of the key three environmental principles in the Middle Eastern jurisdiction of the KSA is quite distinct from what is portrayed by some key international environmental law scholars. For instance, neither the recent statement by Bell and his co-authors that environmental principles "*are general guides to action*"[111], nor the perception of Fisher and her colleagues that they have the function of being "*interpretive tools … informing tests of legal review … and as generating legal review tests*"[112] can be said to be relevant to the status and position of these principles in the environmental governance jurisdiction of the KSA.

Similarly, the recent conclusions by Scotford that environmental principles are "…*formulated phrases representing policy ideas, and … they have been developing* [an] *increasing role in*

Ministero dell'Ambiente e della Tutela del Territorio e del Mare and Others v Fipa Group Srl and Others [2015] (ECJ, 4 March 2015) (Fipa Group and Others)' [2015] 17 Environmental Law Review 270.

[109] Gonzalo Caballero and David Soto-Oñate, 'Environmental Crime and Judicial Rectification of the Prestige Oil Spill: The Polluter Pays' [2017] 84 Marine Policy 213.

[110] Nicolas de Sadeleer, 'Preliminary Reference on Environmental Liability and the Polluter Pays Principle: Case C-534/13,Fipa: Case Note' [2015] 24 Review of European, Comparative and International Environmental Law 232 P 232.

[111] Bell and others, P 55.

[112] Elizabeth Fisher, Bettina Lange and Eloise Scotford, Environmental Law: Text, Cases, and Materials (Oxford University Press 2013) P 420, 422 and 424.

judicial reasoning…"[113] and that "*courts play a critical role in shaping and accommodating the legal potential of environmental principles…*"[114] are equally inapplicable to the Middle Eastern case study examined here. Nevertheless, all these characterisations of the principles by scholars might hold some relevance in the future for the KSA, notably by virtue of the Vision 2030 and its environmental momentum. Indeed, this paper might be a call in this direction.

However, with the possible exception of sustainable development, the principles are at present more akin to latent, and non-dynamic general legitimate and logical ideas instinctively accepted by stakeholders. These logical ideas are in favour of preventing environmental harm, being minimally precautious, and that the polluters should be held financially responsible for the damage they caused or might cause. At the first stage, these abstract, broad, logical ideas need, inter alia, more direct recognition, including legal status, popularisation and promotion amongst actors and stakeholders in the environmental governance sphere.

More importantly, they are in need for a legislative ticket to enter the courtroom, or at least standardise administrative decision-making practices. For the latter end, it should be considered that "the statutory incorporation of environmental principles as overarching statutory objectives could inform and regularise processes of decision-making". As to the former, i.e. the entrance to the courtrooms, this is pivotal at this Vision reformist stage, since they can "play a critical role in shaping and accommodating the legal potential of environmental principles within the structure of discrete legal systems … they are sites for doctrinal evolution involving environmental principles within legal systems"[115]. To be honest, this aspired effective presence of the judiciary, is not specific to the topic of environmental principles per se, but also to the complex and poly-centric nature of environmental problems the "hot" nature of the subject environmental law scholarship in general.[116] It is never too late for such more explicit incorporation of environmental principles into legislations. In fact, this was the case even in advanced legal environmental jurisdictions. As argued by Lee and Holder regarding sustainable development in the UK as "*Its introduction into legislation was fairly slow … sustainable development first entered official policy documents far earlier than it found its place in legislation*".[117]

[113] Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017) P 260.
[114] Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017) P 260.
[115] Eloise Scotford, Environmental Principles and the Evolution of Environmental Law (Hart Publishing 2017) P 260
[116] E Fisher, 'Environmental Law as 'Hot' Law' (2013) 25 Journal of Environmental Law 347
[117] Jane Holder and Maria Lee, Environmental Protection, Law, and Policy: Text and Materials (2nd edn, Cambridge University Press 2007) P 243.