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Principles Underpinning the Implementation and Enforcement of International Energy Legal Framework in Cameroon : An Appraisal

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Abstract

This article explores in an explicit manner the principles underpinning the implementation and enforcement of international energy legal framework in Cameroon in order to spotlight or identify the causes, stakes, challenges and possible ways forward concerning the implementation and enforcement of international energy legal framework in Cameroon. This article focuses on pure environmental principles relating to energy concerns on the one hand, and principles directly relating to energy development in Cameroon on the other hand. In consequence to this, it should immediately be pointed out that, principles if properly taken into cognisance can go a long way in guaranteeing the implementation and enforcement of international energy legal framework in Cameroon. In this connection, therefore, this can only be attained with an objective involvement of all the stakeholders in the energy sector in the country and an unequivocal political will everything being equal. This is because the energy sector in any country is vital at every ramification for any significant growth. A fundamental recommendation to this effect is that all the actors in the energy sector in the country should be conferred precise roles in the energy governance so as to curb double standing.

Keywords: *Cameroon; Enforcement; Implementation; International Energy Legal Framework; Principles*

1. Introduction

The least disputed aspect of energy development is an acceptance that it constitutes distinct set of elements by which development activities can be made environmentally sustainable. This fact is recognised in scholastic interactive on the subject.[1] There may be slight variances in the general appreciation of the principles, usually placed in context of attempts to distinguish between their nature, function, application, or the means of achieving their individual objectives. In the absence of clear substantive obligation, the principles have severally been deemed to serve variegated functions in aid of directing sustainability.

Again, other principles are considered a 'reiteration and precisation of existing customary law'; while some guide specific substantive policy choices or relate to procedural and institutional behavior, directed by a process by which future environmental impacts can be considered and addressed.[2] These relevant principles can also provide for the application and further elaboration of the concept by states, international organisations, courts and tribunals. '

Two fundamental inferences can be drawn from the respective distinctions and categorisations. First, they suggest a basic common agreement in the least, on certain elements and principles of the concept though their functions or the manner in which they may be employed is likely to vary depending on the context in which they may be used. Second, the various formulations give ample legal capacity to the principles, as they prescribe the important contexts in which their values can be interpreted and harnessed. To my mind these references mark the corner stone for applying and achieving environmental protection in conduct of development activities.

[1] Marcotullio, P. *et al.* (2014), "Urbanization and the carbon cycle: Contributions from social science". Earth's Future 2 (10): 496–514.
[2] Rest, A. (2005), Implementation of Rio Targets-Preliminary Efforts in State Practice, In EPL, Vol. 25 No. 6(1995) p. 313. Note that principles reiterating and making customary law precise are those embodied in numerous international treaties.

2. Pure Environmental Principles Relating to Energy Concerns

Environmental principles are necessary with respect to energy development in general, and in Cameroon in particular. In this connection, therefore, it shall be important to analyse them in this section.

2.1. Environmental and Social Impact Assessment (ESIA)

ESIA is a very prominent policy tool in the pursuit of energy development in international environmental law and regulation, though it is initially of domestic orientation.[3] As a strategy for energy development, it seeks to mitigate the destructive potential of development activities (or ameliorate their impact), by basing action on greater and widespread knowledge, and thereby enhancing 'ecological rationality' of policy decisions.[4] Its goal is to integrate environmental issues into development planning, in other to maximise the potential for sustainable and environmentally sound decisions and plans.[5] Over 70% of the World's nations (including Sierra; Leone), have reportedly adopted either informal or mandatory EIA requirements. Also the principle is deemed a mandatory 'legal' fundament of international environmental law.[6]

Representing a global endorsement of ESIA, the Rio Declaration requires that `as a national instrument, ESIA shall be undertaken for proposed activities that are likely to have significant adverse impact on the environment, and are subject to a decision of a competent national authority'. This mandate does reflect the relevance of the EIA mechanism for the regulation of domestic developmental activities and effectively warranting suggestion that the presence of ESIA In the global arena is a reflection of each state's environmental law.[7] A distinction must be made between EIA as a requirement under international law and EIA as a domestic mandate. Despite the Rio endorsement international law does not generally purport to require EIA for projects with solely domestic effects.

For international law to apply, the environmental consequences of any proposed project must have a transboundary effect, pursuant to the sovereignty principle of state responsibility for transboundary environmental damage.[8] But presently, apart from the Antarctica regime,[9] there is no global MEA that certifies its legal status, or that requires EIA of development activities, with transboundary effect, though such efforts are being made. [10] The closest to that is a declaration by the UN General Assembly, ranking it as an equivalent with the Polluter-Pays Principle, the Precautionary Principle and the Common but Differentiated Responsibilities principle.[11]

But ESIA has been catapulted on the international arena through regional EIA regimes and efforts of other multilateral lending institutions.[12] There are also other instances of EIA requirements as obligations in some major treaties,[13] lawsl48, declarations or as policy initiatives for sustainable development.[14] Its importance as a principle for sustainability of development activities has also not been an oversight in judicial pronouncements.[15]

The Espoo regime can be credited for putting an EIA mechanism in place that will address transboundary environmental harm, albeit through domestic EIA requirements. Generally, parties are required to take into account

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[3] US/NEPA (1969) is the first to Institute EIA; (see 40 C. F. R1500.1 -1517.7 and also 42 U. S. C ss 4321-4370,2000).
[4] Bartlett, R. (1990), Ecological Reasoning Administration: EIA and Administrative Theory, OUP, Oxford, p. 83.
[5] Ibid.
[6] Ibid.
[7] Gray, K. R. (2000), "International Environmental Impact Assessment: Potential for a Multilateral Environmental Agreement" in Colorado Journal of International Environmental Law & Po/icy, Vol. 11, No.1 p. 83
[8] Knox, J.H. (2002), In "The Myth and Reality of Transboundary EIA" AJIL Vol. 96: 291, p. 297.
[9] See Wellington Convention (arts. 4(2) & 5(2); Antarctic Environmental Protocol (1991) 30 ILM 1461 (art. 25 (1)); the 1991 Protocol on Environment Protection to the Antarctica Treaty (Madrid Protocol) 30 LL. M 1461 (1991). Generally, the regime (including its protocols) requires an assessment or 'comprehensive environmental evaluation' on all proposed mineral resources activities In the Antarctica or other designated areas.
[10] 43 "ILC Draft Articles on Prevention of Transboundary Environmental Harm from Hazardous Activities" In Report of the ILC, 53rd Sess., UN GAOR, 56th Sess., Supp. No. 10, at 370- 436, UN Doc. 56/10 (2001).
[11] 4See Programme for the Further Implementation of Agenda 21, UN GAOR, 19"' Spec. Sess., Annex, Agenda item 8 UN DOC. A/S - 1929 (1997)
[12] World Bank Operational Manual (OP) 4.01 (1991), at httl2: //www. worldbank. org- (reissued as Operational Policy 4.01 in Dec. 1998); See also World Bank Environment Department: The Impact of Environmental Assessment., A Review of Word Bank Experience, World Bank, Washington DC. (1997).
[13] See Article. 14(1)(a) CBD (1992) 31 ILM 818 (1992); Art. 206 UNCLOS (supra n. 69); Art. 3(1)(h) Convention on Transboundary Watercourses and Lakes.
[14] See UNEP Principles (supra n. 69); UNEP Guidelines on Goals and Principles for Environmental Impact Assessment, (1987) (UNEP Guidelines) UN DOC. UNEP/Z/SER. A/9 (1987); WCN (1982) (supra n. 69); Agenda 21; See further "Africa and EIA" in EPL 25/6 (1995) 322.
[15] *Gabcikovo-Nagymaros Case*

the extra- territorial effects of limited range of projects that are subject to domestic EIA or government approval.[16] While focusing primarily, on the project level of proposed activities (including post project analysis), Espoo also urges parties to apply EIA principles to policies plans and Programmes'. Procedurally, parties are to 'notify' `assess, ' and 'consult' with potentially `affected states' about likely transboundary impacts. They must also apply these requirements to the public in `affected areas' on an equal access and non-discriminatory basis.[17] It is probably in light of these arrangements that Espoo is said to extend rather than rewrite domestic EIA law.[18] However, nothing in Espoo obliges the 'state of origin' to prohibit a proposed activity or even minimize its adverse extra- territorial effect. It is sufficient that an 'affected' party is notified of the final decision on the proposed activity, including the considerations on which it was based.[19] Evidently, the parties use EIA as an informational tool rather than a substantive prohibition of environmentally harmful projects.[20]

Thus far, it can be safe to suggest that the state of the principle of ESIA as it stands in regulation of environmental harm derives validity through domestic law which basically requires the decision maker to weigh environmental, economic and social concerns in deciding whether to allow a project to go on. As a mechanism it necessitates an assessment of certain development activities primarily for their environmental impact and impresses the need for consultation and public participation in the decision -making process. It does not necessarily prohibit, prevent or halt activities with significant environmental impacts from being implemented. As has been observed, the legal requirement emphasises the objective of ESIA in environmental protection, but the procedure relies on political and not legal means to reach an end.[21] One should however caution on some possible consequences engendered by the inherent domestic character of the principle. It allows for variances, discretions and flexibilities that not only effect to undermine any legal obligation created thereby, but also presents the likelihood of political or other factors outweighing environmental concerns. Also, Pring observes that 'ESIA are both inadequate predictors of, and inadequate controls for sustainable development standing alone'.[22]

Despite these concerns, ESIA is still a formidable and well-recognised tool in the regulation of development activities. Its greatest and primary merit lies in its capacity to assess environmental and social effects of proposed (and ongoing) development projects, thereby improving environmental decision-making and enhancing environmental awareness. Others accredit its flexible environmental management strategy that allows firms and industries to incorporate environmental concerns into their rationale.[23] ESIA is also perceived as amounting to greater environmental protection than would otherwise occur[24] and has potential for greater usefulness if it is sufficiently linked formally or informally, to the ways problems are defined, structured and addressed.[25] This re-echoes Judge Weeramantry's call for a 'continuing environmental impact assessment'. "'

The broad implication of this analysis is far-reaching for directing energy activities. It recognises that environmental concerns are alive and continuing, irrespective of when the project under which they arise may have been inaugurated. It also means that the relevant environmental standards that will be applicable will be those prevailing at the time. ESIA mechanism is thus destined to become very valuable as a continuing assessment process, but only within a legal mandate that guarantees participatory rights and holds authorities accountable for taking its results into consideration

2.2. The Integration of Environment and Development

The meaning and concept of the integration principle can be discerned from a combination of principles 3 and 4 of the Rio Declaration. While Principle 3 justifies and sanctions the conduct of development activities energy development inclusive, Principle 4 seeks to condition such conducts by recommending the integration of environmental concerns and initiatives into such activities. By this element the declaration indicates that environmental preservation and promotion of development are interrelated and therefore require an integrated approach. The implications of the integration element for energy development are far reaching, as it seeks to

[16] Art. 2(1) Espoo,It includes Major mining, and other Extraction and processing activities.
[17] Ibid.
[18] Knox, J.H. (2002), op.cit.
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Pring, G .W. (2004), op.cit.
[23] Gray, K. R. (2000), op.cit.
[24] Sadler, B. (1996), Environmental Assessment in a Changing World: Evaluating Practice to improve Performance, Federation Press, London, pp. 52-53.
[25] Ibid.

reconcile environmental and developmental differences, recognise and absorb social issues, influence economic policies and political decisions including the way laws are made and implemented. Rio is said to also integrate the needs of both present and future generations.[26] Policy makers and developers should therefore, always consider the social effects of their development policies and activities.

The practicalities of integrating environment and development in, decision- making and the prescriptions for implementing it are dealt with in chapter 8 of Agenda 21. In that context, integration requires ensuring that economic activities and environmental protection are integrated at the policy, planning and management levels. The principle has accordingly been interpreted as injecting 'sustainability' concepts into both macro and microeconomic policies.[27] At the 'macro' level, traditional national accounting systems must be changed to rather measure the quality of life in the face of development ventures by reflecting environmental damages caused by pollution, or otherwise to exclude efforts aimed at controlling such damages. Microeconomics shifts calls for imposing the costs of environmental damage on the developer causing the damage, while product pricing should be made to reflect environmental and social costs as the true cost of production costs.[28] This integration approach has been described as 'most legalistic', its formal application requiring the collection of appropriate environmental information and its dissemination. It may also serve as the basis for allowing or requiring 'green conditionality' in development loan institutions.

This holistic approach and diversified application engendered by the integration element, truly makes it priceless in the pursuit of energy activities. It is therefore not surprising that the principle is described as the very 'backbone' of the concept of sustainable development.[29] Thus, the key to energy development in resource use, exploitation and the achievement of environmental protection and conservation is through the integration of environmental safeguards and economic decision-making. 'Integration remains the most likely means to secure a balanced view of environmental needs within competing priorities.[30] People in the business of resource exploitation for economic reasons are able to empathize with the demands of this element, because it translates environmental concerns into a language they understand. Above all, the other elements find easy application through it, because it explains inter alia why 'posterity' matters in the environmental protection imperative of sustainable development.

2.3. Precautionary Principle

The Principle requires the exercise of due care, caution and prudence in carrying out socio-economic activities, in order to prevent any possible damaging environmental consequences. "'Precaution' means that if a risk is not certain, this will not ý be used as an excuse to prevent measures that could mitigate harm. It differs from 'prevention' which applies when risk is known and preventive measures are needed.[31] It does not 'posit a perfect understanding of any giving risk: it is sufficient that a risk be suspected, conjectured or feared', to warrant its application.[32] The principle is deemed central in international law relating to sustainable development because it expresses a 'duty on states' to take preventive measures to protect human health, natural resources and the environment. Precautionary principle does occupy a central place in any realistic strategy for achieving sustainable development, and particularly sustainable use of the planet's natural resources.[33] It is therefore not surprising that the 'approach' has marked presence in most international environmental treaties, natural resource management regimes, application by courts and tribunals, and is increasingly being adopted by national legal systems.[34]

These endorsements of the principle have been read as suggesting a pattern of state practice and a breadth of application, which supports 'a good argument that it has emerged as a principle of customary international law.[35] The principle is also explicitly incorporated in Principle 15 of the Rio Declaration, as an approach that will secure protection of the environment and efficient use of natural resources in the conduct of development activities.[36] It was

[26] Ibid.
[27] http: //www. aol2her-undp. oraloolunoopher/uneD/publi cations/monoaraohs/law, last accessed on June 2026 at 11:47am.
[28] Ibid.
[29] Ibid .
[30] Bimie, B. (1999), op.cit.
[31] Ibid.
[32] Ibid.
[33] Freestone, D. (2001), International Fisheries Law since Rio: The Continued Rise of the Precautionary Principle in International Law and Sustainable Development, OUP, Oxford, 2001 p. 135.
[34] Hey, E. (1992), The Precautionary concept In Environmental Policy and Law: Institutionalising Caution, In Georgetown Environmental Law Review IV, pp.303-318. Note also that the principle is reflected as a general principle for environmental policy for most Organizations.
[35] Ibid.
[36] Rio Declaration Principle 15.

reiterated at the WSSD, ' with a prominence directed at social issues such as human health, and the importance of science 'based decision-making for sustainable development.[37]

The Rio formulation however brings out the distinguishing features of the principle, by indicating the time, manner and the circumstances in which it could be applied. First, the approach is triggered only for environmental protection (and not as reasons for holding a balance between development and environmental goals). The relevant environment must be under threats 'of serious or irreversible damage'. In any such case, irrespective of whether or not there is scientific proof of, or the likelihood of damage occurring, measures should be employed in order to prevent or contain the damage. Thus, as has been observed, Principle 15 resolved the controversy on scientific uncertainty in favour of not requiring complete knowledge in case of serious threats, and provides 'a new lens with which to view existing obligations'.[38] The next feature in the application of the precautionary principle relates to the' manner and the extent of the measure to be taken. These are to be employed in accordance with states 'capabilities' and are to be 'cost effective'.[39] The obligations created hereunder are of a relative nature since they depend upon economic and financial capabilities.[40]

The Iaw association also identifies some precautionary measures as including: accountability for harm caused (including state responsibility where appropriate), planning based on clear criteria and well-defined goals and EIA.[41] The principle is deemed capable of implementation through different types of measures.[42] As a peculiarity in its nature, the precautionary principle could be applied in the regulation of diverse economic activities, which have deferring ways of affecting the environment. The value in its application criteria therefore allows the principle to reflect some flexibility within which decision makers can determine every potential impact which turns out on the facts of the particular development activity, and assess the method of prevention or contention that is cost effective to be adopted.[43] The capability will determine the cost effectiveness of the measure to be applied, but in all cases, it must have an effect of prevention of harm or protection of the environment.

The Southern Bluefin Tuna Cases[44] represent a useful illustration of the application of the precautionary principle, bringing out its value-added incentive for sustainable development. In that case, ITLOS considered that the conservation of the living resources of the sea was an element in the protection and preservation of the marine environment, and therefore the parties were required to act with `prudence and caution'to ensure that measures were taken to effect such conservation and prevent serious harm to the stock. In Judge Treves'[45] view, the application of the precautionary `approach' was warranted by the purpose which it would ' serve (of avoiding any environmental harm or damage to the fish stock), as opposed to concerns with the legal status of the concept. In his opinion, `precautionary approach, / "caution' and `prudence', are one and the same thing, signifying the 'stopping of a trend towards' environmental deterioration or, collapse.[46]

The tribunal seemed to be suggesting that measures which had the objective of preserving resources and protecting the environment, were reason enough to impress on persons undertaking development activities to exercise 'prudence and caution', so as to avoid damage to the environment notwithstanding that scientific evidence has not confirmed such danger of damage. ITLOS also seemed to have appreciated the flexibility in the legal character of sustainable development, by not limiting the application of the principle to treaty application or

[37] Sands, H. (2009), op.cit.
[38] Wolf, R. (2008), op.cit.
[39] Rio Principle 15
[40] Ibid.
[41] Ibid.
[42] Nollkaemper, B. (1996), What You Risk Reveals What You Value and Other Dilemmas Encountered in the Legal Assault on Risk" in The Precautionary Principle and International Law : The Challenge of Implementation Kluwer Law International, The Hague/ London, 1996) p.80.
[43] Note that EIA, ERA, Environmental Auditing and Monitoring all have direct connections with the implementation of the principle, as mechanisms to determine the propensities of risks.
[44] The tribunal was required to stipulate provisional measures that would Impose restraints on Japan so as to allow for the recovery of the stock which the complainants alleged was at its lowest. In such a case, the tribunal could by authority of Article 290 of UNCLOS and Article 25 of ITLOS, prescribe such measures if it considered among other things that `... the urgency of the situation so requires' for preserving the rights of the parties or preventing serious harm to the marine environment. Despite the Inconclusive nature of the parties' scientific evidence, ITLOS ruled `that measures should be taken as a matter of urgency to preserve the rights of the parties and to avert further deterioration of the southern bluefin stock'
[45] Ibid.
[46] Ibid.

customary law (legality by obligation). Instead, it realistically pursued the concept of legality based on its effects.[47] Adoption of this 'approach' it has been suggested, underlined the appreciable awareness of ITLOS' members, of the existence and significance of environmental rights and duties of states, in modern international law.[48] Consequently, precautionary measures are equally employed in the implementation and enforcement in the legal framework regarding energy development to this effect. This is because to achieve sustainable energy development within Cameroon's context, renewable energy becomes vital since it environmentally friendly.

2.4. The Principle of Permanent Sovereignty over Natural Resources

The most fundamental rule in international relations is that States are sovereign entities and that, subject to international law, they may conduct their business as they please. States exercise sovereign rights over all natural resources on their territory, which means that they may conserve, exploit or destroy them, or allow them to be destroyed as they wish. The conservation of natural resources and habitats is, in consequence, a matter which comes under the exclusive jurisdiction of the States on whose territory they are situated. The State also has sovereignty over marine resources found in the Exclusive Economic Zone (EEZ) and on the continental shelf, as well as in its inland waters and territorial sea. In contrast, the rule applicable to the high seas, beyond the jurisdictional limits of any State, is that of the freedom of the high sea which includes the freedom of fishing.[49]

The principle of national sovereignty over natural resources, which include all living resources, is restated in several international instruments relating to the conservation of species. Principle 21 of the Stockholm Declaration, adopted by the United Nations Conference on the Human Environment which was held in Stockholm in 1972, states that "States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies...". Additionally, this principle is reproduced word for word in article 3 of the Convention on Biological Diversity of 1992. It also appears in Principle 2 of the Rio Declaration, adopted by the United Nations Conference on Environment and Development in Rio de Janeiro in June 1992 (UNCED), but has been altered to refer to "environmental and developmental policies." The sovereign right to destroy is qualified, however, by another general rule of law, also embodied in Principle 21 of the Stockholm Declaration and in the new Convention on Biological Diversity, which is 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." Subject to this restriction, the sovereign right to destroy nature is in theory absolute. However, as in any other area, States may of course always voluntarily accept limitations of their sovereign rights by treaty.

However, as mentioned already, this principle is not absoluite. Its exceptions are estsblished by the principles of Common Heritage and Common Concern of Humankind.The concepts of "common heritage of humankind" and "common concern of humankind" reflect the growing awareness of the interdependence of the biosphere and the environmental problems besetting it, as well as of the global nature of many environmental problems and the critical importance of those problems. It is thus increasingly acknowledged that the international community has an interest in these issues. The protection, preservation and enhancement of the natural environment, particularly the proper management of the climate system, biological diversity and fauna and flora of the Earth, are generally recognized as the common concern of humankind. Basic assumptions implicit in the common concern concept include that states and other actors should not cause harm with regard to issues of common concern, and that states and other actors share responsibility for addressing common concerns.The resources of outer space and celestial bodies and of the sea-bed, ocean floor and subsoil thereof beyond the limits of national jurisdiction are generally recognized as the common heritage of humankind. The international community's interest in these is probably stronger, generally speaking, than it is with respect to common concern, though the contours of that interest are not clearly defined.

2.5. The Principle of Prevention

The current formulation of the principle of prevention in the environmental context was introduced in 1972 in principle 21 of the Stockholm Declaration on the Human Environment. The Principle of Preventione allows action to

[47] Note that this dimension of 'legality' is hinged on what this thesis submits as 'deliberative processes'-which Is geared towards 'defining measures which seek to regulate development activities for environmental protection, including responsibility for environmental harm'

[48] Kwiatkowska, B. (2000), The Southern Bluefin Tuna (*New Zealand v Japan; Australia v Japan*) Cases, The International Journal of Marine and Coastal Law Vol. 15, No. 1, Kluwer Law International, p.35.

[49] However, following the Law of the Sea Convention of 1982, the extension of the EEZ to 200 miles has in fact probably brought more than 95% of marine species under national sovereignty.

be taken to protect the environment at an early stage. It is not only a question of repairing the damage after they have occurred but to prevent those damage from occurring at all. It means in short terms: it is better to prevent than to repair. Under this new rule, a state may be under the obligation to prevent damage within its own jurisdiction.[50] The importance of this principle was underlined in a major oil spill disaster of "*Torrey Canyon*" disaster in 1967 where the entire cargo of the vessel had spilled 120 000 tonne of oil in the English Channel and caused major environmental disaster and this incident surely draw the international community attention for a need of legal instruments to govern similar incident based on the prevention principle.[51]

Equally so, the discharge of toxic substances in such quantities or concentrations which exceed the capacity of the environment's degradation capacity, must be stopped in order to ensure that serious or irreversible damage is not inflicted upon ecosystems. This is contained in Principle 20 of Stockholm Declaration on the Human Environment of 1972. Action should be taken at an early stage to reduce pollution, rather than waiting to restore contaminated areas. To ensure this principle, states have established authorization procedures, commitments to environmental standards, ways to access information, the use of penalties, and the need to carry out environmental impact 'assessments.[52]

One obligation that flows from the concept of prevention is prior assessment of potentially harmful activities. Since the failure to exercise due diligence to prevent transboundary harm can lead to international responsibility, it may be considered that a properly conducted Environmental Impact Assessment might serve as a standard for determining whether or not due diligence was exercised. Preventive mechanisms also include monitoring, notification, and exchange of information, all of which are obligations in almost all recent environmental agreements.[53] The Preventive principle has been supported by international instruments preventing the introduction of pollutants and also by agreements in the field of international economic law. Finally, it has also been endorsed by international case law.

The duty of prevention extends to combating the introduction of exogenous species into an ecosystem. Article 5(4) of the 1976 Convention on Conservation of Nature in the South Pacific provides that the contracting parties must carefully examine the consequences of such introduction. More stringently, article 22 of the 1997 United Nations Convention on the Law of the NonNavigational Uses of International Watercourses requires watercourse states to "...take all measures necessary to prevent the introduction of species, alien or new, into an international watercourse which may have effects detrimental to the ecosystem of the watercourse resulting in significant harm to other watercourse States".[54]

3. Principles Directly Relating to Energy Development

After having examined environmental principles having a nexus with energy concerns, it shall be paramount in this section to analyse in detail principles directly relating to energy development

3.1. Principle of Cooperation in Energy Development

The principle of cooperation in energy development involves governments, organisations, and individual working together to meet shared energy goals, such as ensuring energy access, security and sustainability, through actions like sharing resources, coordinating policies, fostering open markets, and collaborating on technological innovation.[55] In fact, this approach recognises that many energy challenges are global in nature and require collective action to achieve mutal benefit and enhance sustainable development. Also, many energy issues like climate change, energy security, and access to affordable and reliable energy are transnational and cannot be solved by individual nations alone, necessitating cooperation. Again, cooperation aims to achieve common development goals by accommodating the interests of all parties involved and finding solutions that benefit everyone.[56]

Energy cooperation often involves market oriented principles, allowing the market to allocate resources while governments provide guidance and coordination. Regarding resource and knowledge sharing, this include sharing

[50] The principle have similarity with the precautionary principle but the main differences is the precautionary principles mainly deals with matters that cause destruction and damage to environmental through scientific analysis on matter not yet proven while prevention principle deals with direct act of human being that bring destruction to the environment.
[51] Ibid.
[52] For example, environmental impact assessments have been incorporated as a decision-making instrument by international organizations as well as in many conventions.
[53] This is found in Principle 17 of the Rio Declaration of 1992 and article 14 of the Biodicersity Convention of 1992.
[54] In fact, the objective of most international environmental instruments is to prevent environmental harm, whether they concern pollution of the sea, inland waters, the atmosphere, soil or the protection of human life or living resources.
[55] Ibid.
[56] Example include increased efficiency, reduced costs, and greater energy independence.

data, best practices, and clean energy technologies to accelerate the energy transition and build robust energy systems. Coordinating emergency response measures and ensuring the reliable supply of energy through collaboration and dialogue. Also, promoting cost-effective energy efficiency, the increased share of renewable energy, and clean energy technologies to support sustainable development. At the local level, energy cooperation bring togather entities within a specific area to manage energy production and distribution, achieving higher efficiency and reducing costs for their members.

Principle 7 of the Rio Declaration of 1992 provides that "States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command".[57] The goal of the Rio Declaration is, according to the fourth paragraph of its preamble, the establishment of a "...new and equitable global partnership...". The concept of global partnership can be seen as a more recent reformulation of the obligation to cooperate, and is becoming increasingly important. Principle 7 refers to states, but the concept of global partnership may also be extended to non-state entities. International organisations, business entities (including in particular transnational business entities), NGOs and Civil Society more generally should cooperate in and contribute to this global partnership.[58]

3.2. The Principle of Access to Modern Energy

The access to modern energy services is one of the key issues of the energy sector. Not only overcoming dependence on fossil fuels but the more complex objective of combatting energy poverty. Where there is energy poverty there is a clear lack of modern technologies for energy services. The right to energy as the right to access to modern energy services has been widely discussed and enshrined in international law. First in 1986 with the Report of the World Commission on Environment and Development (the Brundtland Report)14 then with the UN General Assembly's Millennium Development Goals (MDGs), published in 2000 Millennium Declaration, and the Sustainable Development Goals (SDGs), also generated within the General Assembly in Transforming Our World: The 2030 Agenda for Sustainable Development.[59]

Consequently, international law seems to have enshrined this principle among those of soft law ready to be converted into customary law. But can we today speak of a right to access to energy services as a fourth generation right that arose as a specification of other rights? The answer should say yes and the literature on the subject helps us to understand why. It has been shown such a strong interconnection between energy poverty and social relations.[60] Today more than ever before, our society has faced anomalous situations such as the health emergency and an interruption of contacts and social relations. If on one hand there has been a significant drop in energy demand and production, on the other hand the considerable increased use of technological tools has opened our eyes to the rising process of digitalization of services and the inevitable need to ensure the right to access to energy services in order to empower the right to social relations translated online by now.

It would seem fair to crystallise the right to access to modern energy services as a genuine right which must guarantee the full enjoyment of complementary rights such as the right to social relations, to access to the Internet and the more general right to free expression of thought, especially online. Never as today, the right to access to modern energy services and its enhancement are one of the main objectives not only for the achievement of Goal 7 established in the 2030 Agenda for Sustainable Development but above all to provide answers to the new problems caused by the health emergency: constant energy access for clinical and health services, keeping consumers connected and ensuring reliable and uninterrupted energy transmission.[61]

3.3. Principle of Resilience

The principle of resilience has gained considerable importance in the energy sector especially in the need to adapt energy systems to prevent unexpected events on electricity, gas, water, telecommunication, infrastructures. Consequently, Governments and Regulators pay greater attention to provide tools to increase the reliability of

[57] The duty to cooperate is well-established in international law, as exemplified in articles 55 and 56 of chapter 9 of the Charter of the United Nations, to which all UN member states, at present 191, subscribe, and applies on the global, regional and bilateral levels.
[58] Polluters, regardless of their legal form, may also have also responsibilities pursuant to the "Polluter–Pays Principle".
[59] A/Res/70/1 (2015).
[60] Lucie, M. *et al*. (2019), Energy poverty and social relations: A capabilities approach, 55 Energy Research & Social Science 227-235.
[61] UN 2017. Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all https://www.un.org/sustainabledevelopment/energy/ last accessed 28 July2026.

infrastructures with the aim of maintaining their functionality and operativity even in case of external disturbances. The resilience applied to the energy sector could also be translated as environmental resilience, according to which energy systems can fail or cause damages but always above a quantitative threshold of disruption of certain environmental factors: climate change, loss of biodiversity, ocean acidification.[62]

Resilience must aim to identify quantitative thresholds above which damage is irreversible, making actions to protect the environment unnecessary. Resilience as the ability of energy systems to adapt to changes and to the unexpected issues must also be interpreted not as regression but as progress towards a higher level of environmental protection on a regulatory level. Resilience is nothing more than a broader interpretation of the principle of non-regression as enshrined in Article.17 of the Global Pact for the Environment.[63] The aim is to reaffirm the principles of the Stockholm and Rio Declarations, starting from the principles of resilience and non-regression. Investing in infrastructures and their resilience means to be ready to cope with damaging external events and to restore service. But resilience in energy systems also represents the stimulation and connection with the biodiversity and climate agendas.

From the appearance and publication of the principles relevant for energy development in the now seminal article, "A treatise for energy law", it would seem that the international focus no longer revolves around the question of what constitutes energy law, but rather what methodological tools we have to harmonise energy law frameworks. Today the energy objectives are global: reduction of the Green House Gases (GHGs) emissions, energy security, cross-border connections, protection of the ecosystem. Energy law and energy development must no longer focus on consolidating its academic identity, but it must use itself, its comparative nature and analysis to standardise the regulation of the sector to make advances. States which are less virtuous in terms of energy transition must be inspired by the new regulations of those countries that, on the other hand, support and run the transition with greater impetus.

Energy law must make good use of comparative science to create that universal law to which Immanuel Kant also alluded.[64] A law that enunciates universal principles whereby the free use of arbitrariness co-exists with the freedom of each one. All the changes that have taken place since 2017 in the energy sector (when the original principles of energy law article was written) and the health crisis that has hit the world in 2020 will mark a step forward for this academic discipline. A sector at the heart of the world's economies and on which the future and well-being of humanity depends needs considerable and increased input from scholars and practitioners. Therefore, the new objective will be to use the principles of energy law as a guide and compass to achieve the energy transition and in a boarder way, a just transition to a low-carbon economy. Policy makers, regulators, universities must spread the use of energy law culture through energy education. It is only through understanding the issues and dynamics of this sector that the next generation can embrace its relevance in trying to make a change to this world.

3.4. Principle of Energy Security and Reliability

Energy security has often been a matter of energy policy over the last 100 years, since it was equivalent to national security, and therefore it was vital to ensure the supply of oil for warships, tanks and fighter planes. Considering the multi-dimensional and evolving nature of energy security or energy issues in general, over time, a number of definitions have become accepted: each one has proposed to analyse the essence of energy security, identifying a universal accepted definition. Such concept could refer to security of supply, which typically means the continuous availability of stable energy flow at a "reasonable" price that can assure not only new energy investment but also general economic energy development at a reasonable cost.

3.5. The Principle of Energy Justice

On the road to energy transition, it seems a must to further examine energy justice and its impact on the energy sector. As already widely explained in the literature, energy justice aims to pursue a global energy system in which costs and benefits are fairly spread to make energy decisions the result of a wider democratic process.[65] Energy justice aims to meet the challenges of energy transition in order to find solutions that are fair and respectful of the rights and interests involved and to provide a clear and fair regulatory framework. Therefore, policy makers must permit to be guided by this current, which is nothing more than an evolution of the previous movement of

[62] Rockstrom, J. (2009), op.cit.
[63] Summit on a Global Pact for the Environment. Draft Global Pact for the Environment, Preliminary draft of the group of experts, 2017, www.globalpactenvironment.org, accessed 30 July 2020. 38. Immanuel, K. (2017), Groundwork of the Metaphysics of Morals, Cambridge University Press, Cambridge, p.78.
[64] Immanuel, K. (1998), Groundwork of the Metaphysics of Morals, Cambridge University Press, Cambridge, p.89.
[65] Heffron, R.J. *et al*. (2017), The concept of energy justice across the disciplines, Energy Policy 105, 658-667.

environmental justice. Energy justice, with its three corollaries of distributional, recognition and procedural justice must understand the current issues and how they can find their place and resolution towards the energy transition.

Distributional justice, which starts from the assumption of an unequivocal distribution of the costs and benefits of energy projects, try to fight energy injustice and all of its consequences. In South America, the main energy projects and mining activities take place in areas of extreme poverty or populated by multi-ethnic groups at high risk of extinction[66] and the disposal activities from extraction and production inevitably spills over into their present and future with a huge amount of waste to manage. Having identified the presence of inequalities within energy systems is not enough to provide a deep understanding of the energy justice framework. With recognition justice it is indeed necessary to identify who the victims are and how these inequalities on these disadvantaged groups will affect the social growth and economy of society.[67] Distributional and recognition justice then lead to the theorization of a third corollary of energy justice: procedural justice.

The need to be guaranteed not only clear and fair information but also the stakeholders' participation in decision making processes. It exists the duty to ensure the participation of the territories concerned in the energy projects and therefore provide for forms of participation in the procedures for all the energy stages from generation to distribution and waste management. The citizens' right to energy information and participation is today more than ever an important factor of institutional innovation capable of influencing the governance of public policies in the field of energy transition, but it is also the subjective prerequisite for thespread of the culture of energy justice at international level. Hence, the evolutionary interpretation of the energy justice framework must consider the issue of the public understanding and acceptability of the energy activities. The international literature has recently analysed this important issue of public acceptability. For example, in North European Countries (Denmark and Germany) it has been confirmed the relevance of public recognition as a pre-condition for the legitimacy of all energy activities as well as in Canada for solar energy projects, it has been crystalized the importance of building a deliberation dialogue between planners and communities in order to guarantee a due process as a key element in achieving the energy justice.[68]

4. Conclusion

This article sought to bring out the value-oriented nature on the implementation and enforcement of international energy legal framework on energy development development in Cameroon through selected relevant principles, especially their capacity to regulate development activities and promote environmental protection in resource exploitation. This effort has portrayed the relevant principles in several dimensions they assume under international law, each serving useful purposes and important functions essential for steering energy development through an environmentally-friendly sustainable path. It argued that the ultimate value of the principles is ensuring that development activities are conducted to improve human well-being between generations, but with consideration, due care and attention to the consequences wrought on other environmental components.

Additionally, the elaboration proves their capacity to ensure environmental protection through varied facets of measures, ranging from ethics to legal dictates, standards and processes, all applying within a flexible system of regulatory endeavors, and with a co-ordination that allows each principle and theory to work individually or concertedly, with little or no conflict between them. Their relevance and value for directing energy development has been proved.

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[66] McCauley, D. *et al.* (2018) Energy justice in the transition to low carbon energy systems: exploring key themes in interdisciplinary research. Applied Energy, 233 (234). pp. 916-921.
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