

Ought states to be legally obliged to protect the sustainability of the global environmental system?

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I. Abstract and introduction

My opinion is that there is a need to reformulate the traditional paradigm of international law, which is that states have sovereignty over the environment within their territory and jurisdictional areas.¹

I propose a new paradigm, based on the nature of the global environmental system, scientific proof of environmental destruction, and an untraditional interpretation of the existing sources and principles of international law. A duty for states to protect the sustainability of the global environmental system would reframe the legal relationship between states and the environment. It would entail a shift away from state rights of sovereignty over their environment to a duty for states to protect the global environment. I aim to show that the shift in perspective may find a legal basis in an untraditional interpretation of existing sources of international law.

The suggested paradigm would not replace sovereignty as a legal concept. It would rather be a re-interpretation or reframing of it, emphasizing the duty to protect the environmental sovereignty- the sustainability- of all states. States have not consented to it. It is a proposal with a view to the future law.

I also briefly explain how a new paradigm would entail that states have to protect a minimum of environmental quality sufficient to uphold nature's carrying capacity, that it could challenge the ex-

isting rule of burden of proof in international law, and provide new approaches to international law-making and interpretation.

II. The traditional view is that states have sovereignty over their own environment

The basis of international law is the principle of sovereignty, which consists of:

“(1) A jurisdiction, prima facie exclusive, over a territory and a permanent population living there; (2) a duty of non-intervention in the area of exclusive jurisdiction of other states; and (3) the dependence of obligations arising from customary law and treaties on the consent of the obligor.”²... “The rules of law binding upon states therefore emanate from their own free will as expressed in conventions or by usages generally accepted as expressing principles of law.”

States are not subject to the will of other states. They are independent and have an exclusive right to decide upon factual and legal matters within the territories and areas under their jurisdiction. Thus, states cannot exercise sovereignty over the territories of other states. States have a right to be free from the interference of others.

This also holds true for the legal relationship between states and the environment. As a main

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¹ In this article “*their environment*” or “*territory*” also encompass the jurisdictional areas/spheres of influence, in which states exercise control over the environment, i.e. exercise their governmental powers.

² James Crawford, “*Brownlie’s Principles of Public International Law*”, 9th Edition, Oxford University Press, p. 431.

rule or starting point, states may choose how to treat the environment within their territories, or the domains of their exclusive jurisdiction.

This view rests on the premise that it is possible to divide the global environment into geographically defined state territories and areas outside state territories, disregarding scientific realities.

Under this regime, states do not have a duty to protect their own environment. They have a right to interfere with the environment in accordance with their own free will. States have a right to pollute their own territories at self-determined levels. The right of states to exploit and freely manage the natural resources within their territory is reflected in the principle of Permanent Sovereignty over Natural Resources, "PSNR".

The origin of the PSNR principle lies in the decolonization process, which accelerated in the 1960s. An important part of the liberation of the former colonies was to afford them with full sovereignty over their own natural resources. States frequently refer to this principle when they argue that other states and international organizations have no power to decide how they treat their own environment. In the *Armed Activities on the Territory of the Congo (Democratic Republic of the Congo v. Uganda)* case, the International Court of Justice acknowledges the customary law character of PSNR, as reflected in General Assembly resolution 1803 (XVII) of 14 December 1962 on PSNR. This resolution states that:

"The right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the wellbeing of the people of the State concerned."³

³ *Armed Activities on the Territory of the Congo*, ICJ Reports 2005, p. 168, The resolution: <https://www.ohchr.org/Document/ProfessionalInterest/resources.pdf> (accessed 13 December 2019).

The wording of the resolution implies that states have a sovereign and absolute right to exploit their environment and to maximize profit derived from this. Even though this statement is from 1962, some states openly regards this position as tenable today. In a speech at the 74th session of the U.N. General Assembly on 24 September 2019 Jair Bolsonaro, president of Brazil, rejected "*calls for foreign intervention in the burning Amazon, telling world leaders his country would use the rainforest's resources as it sees fit.*"⁴ After the international community considered the Amazon fires a global environmental crisis, Bolsonaro reversed course and declared, "*Protecting the rain forest is our duty.*"⁵ The two statements reflect the growing concerns about the global environmental effects of environmental interferences taking place within states, and the rejection of an absolute interpretation of the principle of PSNR.

The consequence of an absolute sovereignty over the environment would be that every state, in accordance with international law, would be free to exploit all of its natural resources and destroy the natural environment on its territory.⁶

Under the traditional regime however, states are prohibited from causing considerable damage to the environmental integrity of other states. The principle of territorial integrity – the sovereign right to be free from interference of the other states, is the flip side of the principle of territorial sovereignty- the PSNR right for states to interfere in "*their own*" environment.

https://www.washingtonpost.com/world/the_americas/brazils-bolsonaro-tells-world-leaders-at-the-un-that-the-amazon-is-not-under-fire-but-full-of-riches/2019/09/24/2bddfa34-ded0-11e9-be7f-4cc85017c36f_story.html (accessed 13 December 2019).

⁴ <https://www.nytimes.com/2019/08/23/world/americas/brazil-military-amazon-fire.html> (accessed 13 December 2019).

⁵ <https://www.nytimes.com/2019/08/23/world/americas/brazil-military-amazon-fire.html> (accessed 13 December 2019).

⁶ Hans Christian Bugge, "Lærebok i miljøforvaltningsrett", 3rd Edition, Oslo 2011, p. 68.

This is encapsulated in the so-called no harm rule, first laid down in the Trail Smelter Case.⁷

Principle 21 of the 1972 Stockholm declaration on the Environment, Article 3 of the Convention on Biological Diversity, and Principle 2 of the Rio Declaration on the Environment and Development all reflect the principle of PSNS and the no harm rule. Principle 2 in the 1992 Rio Declaration 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 and developmental policies, and 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.”

In the Nuclear Weapons case of 1996, the ICJ concluded that, “*the existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to the environment.*”

Phillippe Sands and Jacqueline Peel claims that, following the advisory opinion on the Legality of Nuclear Weapons “*there can be no question but that Principle 21 reflects a rule of customary international law, placing international legal constraints on the rights of states in respects of activities carried out within their territory or under their jurisdiction.*”⁸

Malgozia Fitzmaurice categorically asserts that the no harm rule is one of “*the few uncontest-*

ed norms of international environmental law”.⁹ Akehurst/Malanczuk says that *Principle 2 (Rio) confirms the prohibition of transboundary environmental harm laid down in Principle 21 of the Stockholm Declaration which is now recognized as customary law reflecting the principle of limited territorial sovereignty and integrity, but only as so far as ‘substantial’ transboundary harm is involved.*¹⁰ Christina Voigt is more careful, and regards it as defensible to view the no harm rule as part of customary law.¹¹

In accordance with the principles and statements above, states may exploit their own environment, but cannot exercise their environmental sovereignty in a way that substantially diminishes the environmental quality of other states. States have a duty to exercise governance and control – “*sovereignty*” over their territories – “*their environment*” – in order to fulfill their duty to respect the environmental sovereignty of other states.

At least in theory, the sovereign right for states to exploit their own natural resources, PSNR, and in a broad sense their environment, pursuant to their own environmental and developmental policies, is limited by their duties under international law to respect the environment of other states and of areas beyond the limits of national jurisdiction. Under this no harm rule, states must exercise sovereignty over their territorial environment within the limits of international law, cf. “*in accordance with... the principles of international law*” in Rio Principle 2.

Due to the relatively rapid deterioration of

⁷ Trail Smelter Arbitration, USA v. Canada, 1941, 3 R.I.A.A 1938, p. 157.

⁸ Phillippe Sands and Jacqueline Peel, “Principles of International Environmental Law”, 4th Edition, Cambridge University Press 2018, p. 206.

⁹ Malgozia Fitzmaurice, “International Responsibility and Liability”, in “The Oxford Handbook of International Environmental Law”, Daniel Bodansky, Jutta Brunnee, and Ellen Hey Editors, Oxford University Press 2007, p. 1013.

¹⁰ Peter Malanczuk, “Akehurst’s Modern Introduction to International Law”, 7th Edition, London 1997, p. 251.

¹¹ Christina Voigt, “State Responsibility for Climate Change Damages”, Nordic Journal of International Law 77, 2008, p. 10.

the quality of the global environment however, it is apparent that many states do not comply with their obligation to protect the environment outside their own territories. In my opinion, Sands and Peel understates this fact: “*consistent state practice is not readily discernible*”.¹² Perrez puts it more bluntly. He says that the traditional concept of protecting the environmental integrity of states by prohibiting significant transboundary damage has lost its effectiveness.¹³

Arguably, the international law in action – actual state practice – is that states can and do treat their own environment in accordance with their own will and have a considerable degree of freedom to cause serious cross-border environmental damage. When states are acting in this way, the fail to discharge their duty to respect the environment of other states (and areas beyond).

Under international law, state sovereignty over the environment is not and should not be absolute. Nonetheless, states practice it this way. States use their sovereignty over the environment to achieve economic development. Economic development trumps the need to protect the global environmental quality on which all states depend upon to survive. The current regime is not sustainable.

We need to emphasize that states under the sovereignty-based system already have a duty to respect the environment outside their territories and areas of jurisdiction. Sovereignty does not mean that states can do whatever they want on their territories, but have to take into account the interests of other states.

Sovereignty inherently contains a duty to protect the environment of other states and beyond all states. I shall show that the factual and

legal basis for this is further strengthened by the solidification of the duty of sustainable development.

Furthermore, the notion of carrying capacity and the principle of sustainable development provides a language by which to express the suggested paradigm.

In Chapter III, I shall elaborate on the notion of carrying capacity. Then, in Chapter IV, I shall provide a brief account of the development of the principle of sustainable development and then explain why I prefer the notion of environmental sustainability.

III. The global environment and its carrying capacity

The global environment consists of four sub-systems.¹⁴ 1) The atmosphere, which is the layer of gases surrounding our planet– including the air, 2), the hydrosphere, which is the combined mass of freshwater and saltwater found on, under, and above the surface of the earth, 3) The geosphere, which is the solid parts of the earth, i.e. the ground and the underground, 4) The biosphere. “Biosphere” is used in two contexts. It may refer to the areas on the planet where life can exist, as well as to the sum of ecosystems and living organisms on earth. NASA sums this up: “*Humans are of course part of the biosphere, and human activities have important impacts on all of Earth’s systems.*”¹⁵

¹⁴ The National Academies of Sciences, Engineering, and Medicine, “For States by States”, <https://www.nextgenscience.org/pe/5-ess2-1-earths-systems> (accessed 14 December 2019), The sub-systems approach is reflected in Article 3 No. 1 in the United Nations Framework Convention on Climate Change; “Climate system” means the totality of the atmosphere, hydrosphere, biosphere and geosphere and their interactions”, Nicolai Nyland, “Er Stater Folkerettslig Forpliktet til å Beskytte Miljøet?”, Unipub 2009, p. 10–15.

¹⁵ See NASA: “Next Generation Science Standards: Core Ideas”, <https://pmm.nasa.gov/education/national-standards-descriptions> (accessed 14 December 2019).

¹² Sands and Peel, *supra* note 8, p. 207.

¹³ Franz Xaver Perrez, “Cooperative Sovereignty: From Independence to Interdependence in the Structure of International Environmental Law”, Kluwer Law International, 2000, p. 162.

The global environment is borderless. In order to protect the global environment we must protect the air, water, soil/ground, and biosphere.

Complex interrelationships exist between the four subsystems.

Environmental interferences in one state affect ecosystems in other states. We have no exact knowledge of how these chain effects happen or what their consequences are. It is often times very difficult to gain a complete understanding of the cause and effect relationships between environmental intervention and environmental destruction. Environmental interventions are seemingly unproblematic and harmless viewed in isolation. In sum, however, they cause serious harm to the global environment. An obvious example is the aggregated global warming effects of the greenhouse gas emissions taking place within every state.

Humans are part of the global environment and interact with it. The destruction of one environmental element affects the environmental totality, and consequently humans, through chain reactions.

The balance and health of the complex global environmental system, is influenced by human interventions in the environment – interventions that are aimed to achieve development.

At the same time, the quality of the global environment is crucial for the possibility to achieve development. The possibility of humans to survive and their quality of life is dependent upon the quality of the environment and the quality of the human society.

Considering these facts, it is useful to introduce the concept of “carrying capacity.” The concept is complex and its content is relative. Some definitions of it by ecologists are:

“The maximal population size of a given species that an area can support without reducing its ability to support the same spe-

cies in the future”. “The maximum number of animals of a species that a habitat can support indefinitely ... without degrading the resource base”, and “For any given organism, there will be a maximum number of individuals that the environment can support without the environment being consequently degraded to the point where it can no longer support that number of individuals.”¹⁶

Thus, the concepts of sustainable or sustainability relates to the capacity of the global environment to uphold human life on earth. Environmental degradation may ultimately threaten the survival of the human species.

The carrying capacity of the global environment limits what humankind can do with respect to the sum total of anthropogenic impact over time. Based on this, the global environment ultimately has a fixed carrying capacity.

Johan Rockström from the Stockholm Resilience Centre and Will Steffen from the Australian National University has introduced The Planetary Boundary concept:

“Transgressing one or more planetary boundaries may be deleterious or even catastrophic due to the risk of crossing thresholds that will trigger non-linear, abrupt environmental change within continental-to planetary-scale systems.”¹⁷

Based on this, sustainability only exists if the carrying capacity of the global environment is not

¹⁶ Gretchen C. Daily and Paul R. Ehrlich “Population, Sustainability, and Earth’s Carrying Capacity: A framework for estimating population sizes and lifestyles that could be sustained without undermining future generations” *BioScience*, November 1992, <http://dieoff.com/page112.htm> (accessed 13 December 2019).

¹⁷ Rockström, Johan; et al. (2009), “Planetary Boundaries: Exploring the Safe Operating Space for Humanity”, in *Ecology and Society*, <https://www.ecologyandsociety.org/vol14/iss2/Art32/> (accessed 13 December 2019).

exceeded. There are known planetary boundaries – ecological limits.¹⁸ If the threshold of carrying capacity is exceeded, a global ecologic collapse will take place. Ultimately, this may threaten the survival of mankind. A wealth of scientific data and knowledge support this.

If the current overexploitation of nature continues unabated, a global ecological collapse will take place. The question is not if, but when this will occur. The survival of peoples in states, states as a mass of peoples, and consequently international law itself, is at stake.

In 1989, the United Nations General Assembly (UNGA) was:

“Deeply concerned by the continuing deterioration of the state of the environment and the serious degradation of the global life-support systems, as well as by trends that, if allowed to continue, could disrupt the global ecological balance, jeopardize the life-sustaining qualities of the Earth and lead to an ecological catastrophe, and recognizing that decisive, urgent and global action is vital to protecting the ecological balance of the Earth”.¹⁹

This rings even more true today, 30 years after the statement.

There is a need to replace the traditional understanding of principle of state sovereignty over their environment, which has served as a legal basis for the environmental degradation. This observation by Christina Voigt is relevant:

“These (ecological limits) defined on a planetary scale need to be broken down to state

level as obligations under international law.”²⁰

My answer to this is that states should be obliged under international law to protect the sustainability of the global environment.

IV. The emergence of and theory on the principle of sustainable development

This chapter addresses the development of the principle of sustainable development and then provides a brief explanation of why I prefer the notion of environmental sustainability.

Prior to the environmental awakening of the 1960s, it was assumed that the environment did not contain an absolute limit for development and economic growth.

The first expression of linking “carrying capacity” with the “needs of man” I have found is in the 1968 African Nature Convention. Its preamble provides that the utilization of all natural resources “*must aim at satisfying the needs of man according to the carrying capacity of the environment*”.²¹

Through the introduction of the principle of sustainable development in 1987, the Brundtland Commission²² or World Commission on Environment and Development (WCED) reframed this linkage:

“Development that meets the needs of the present without compromising the abili-

¹⁸ Jonas Ebbeson, “Planetary Boundaries and the Matching of International Treaty Regimes”, *Scandinavian Studies in Law*, Vol. 59, p. 259–284.

¹⁹ UNGA Resolution 44/228, 1989.

²⁰ Christina Voigt, “Environmentally Sustainable Development and Peace: What Role for International Law?”, in “Promoting Peace Through International Law” Cecilia Marcela Bailliet and Kjetil Mujezinovic Larsen, Editors, p. 176, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2637833 (accessed 13 December 2019).

²¹ <https://www.jus.uio.no/english/services/library/treaties/06/6-01/african-conservation-nature.xml> (accessed 13 December 2019).

²² World Commission on Environment and Development, established by the UN General Assembly Resolution 38/161, 1983.

ty of future generations to meet their own needs.”²³

The Commission’s definition implies that the global environment, including humans living in it, is connected through space, time and quality of life.

An example of the spatial dimension is that air pollutants emitted in China have the potential to harm the quality of air in Europe. In addition, good clean air practices on one continent will probably affect global air quality positively.

The temporal dimension may be demonstrated by how the present generations are either benefitting or suffering from the choices of our grandparents and earlier ancestors. Their over-fishing and logging practices have contributed to the loss of biodiversity experienced today. The economic choices we make today will affect the quality of life of our children and grandchildren. Our greenhouse gas emissions will more than probably reduce their quality of life.

The Commission also seems to see the concept of sustainable development as inherently intertwined with the concept of carrying capacity. Its definition presupposes that development over time has the ability to compromise the carrying capacity of the global environment. If development jeopardize the sustainability of those natural systems that support life on earth, the needs of the living and future generations will not be met.

Another interpretation of the definition, especially if the report of the Commission is read as a whole, is that it proposes human development of a kind that is able to sustain environmental quality. The Commission at least conceive this as a possible outcome.

My reading of the definition is that the Commission, through linking development with the concept of “*carrying capacity*”, also envisages another possible outcome: If development continues unabated, the result may be that the global environment will be unable to sustain human life. Global environmental degradation could imply extinction of the human race.

The International Union for Conservation of Nature (IUCN) in 1991 held that the Brundtland Commission’s definition focused too much on development. IUCN sought to seek a better balance between development and environmental protection and defined sustainable development as:

“Improving the quality of human life while living within the carrying capacity of supporting ecosystems.”²⁴

The Australian government disagreed with WCED’s definition too, and introduced the less anthropocentric concept of “*ecologically sustainable development*”, arguably more in line with my suggested paradigm:

“Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.”²⁵

On the other side of the scale, there were those who rejected the WCED concept entirely:

“Sustainable development... ideas reflect ignorance of the history of resource exploitation and misunderstanding of the possibility of achieving scientific consensus concerning resources and the environment ...

²³ The World Commission on Environment and Development, “Our Common Future”, Oxford University Press 1987, p. 40.

²⁴ IUCN “Caring for the Earth – a Strategy for Sustainable Living”, p. 10. <https://portals.iucn.org/library/efiles/documents/cfe-003.pdf> (accessed 13 December 2019).

²⁵ <http://www.environment.gov.au/about-us/esd/publications/national-esd-strategy-part1#WIESD> (accessed 13 December 2019).

resources are inevitably overexploited, often to the point of collapse or extinction...even well-meaning attempts to exploit responsibly may lead to disastrous consequences... Distrust claims of sustainability.”²⁶

The first expression of the principle of sustainable development in an international agreement was in Principle 2 of the 1992 Rio Declaration on the Environment and Development. Principle 2 was the result of a compromise between developing and developed states. Many developing states felt that they had a right to development that trumped the need for environmental protection. They disagreed with the wording of Principle 2, which *prima facie* suggests that development and environmental protection are of equal importance.²⁷

Staffan Westerlund maintained that subsequent to the Rio summit, the principle of sustainable development consisted of three elements, 1) ecological sustainability, 2) societal sustainability, and 3) economic sustainability.²⁸ Westerlund claimed that pillar 1), ecological sustainability, is absolute and a precondition for the other two elements.¹⁴ Without ecological sustainability and the ability of the global environment to sustain life, societal sustainability and economic development cannot take place. Ecological sustainability establishes the necessary basis for and defines

the limits for poverty eradication and economic development.

Furthermore, Westerlund stated that societal sustainability is a precondition for achieving economic development. The maximization of economic development of states is confined within the limits of ecological and societal sustainability. In his view, the principle of ecological sustainability constitutes the basis for and necessary precondition for sustainable societal development. Furthermore, both ecological sustainability and societal sustainability constitutes necessary conditions and a basis for economic development.

According to Michael Deckeris states are absolutely obliged to achieve what he calls a “*qualitative development*”.²⁹ He bases this on scientific knowledge about the carrying capacity and sustainability of the global environment.

Hans Christian Bugge³⁰, Secretary for the Brundtland Commission, holds that the principle of sustainable development contains an absolute and unconditional duty not to destroy those environmental resources that constitute the basis for the life and welfare of future generations.

Christina Voigt contends that the principle of sustainable development gives priority to the protection of fundamental life-sustaining natural processes. She views essential natural functions as supreme preconditions for economic development and international trade and human activity in general.³¹

²⁶ Donald Ludwig, Ray Hilborn, Carl Walters “Uncertainty, Resource Exploitation, and Conservation: Lessons from History”, *Science*. 2 April 1993 p. 17 and p. 36.

²⁷ Sarah Halpern, “United Nations Conference on Environment and Development: Process and documentation”, Providence, Rhode Island: Academic Council for the United Nations System (ACUNS) 1992, and UNGA resolution A/60/1, “2005 World Summit Outcome.”

²⁸ Staffan Westerlund, “Theory for Sustainable Development; Towards or Against?”, in “Sustainable Development in International and National Law”, Hans Christian Bugge, Christina Voigt, Editors, Europa Law publishing 2008, p. 47–66.

²⁹ Michael Deckeris, “The law of Sustainable development – General Principles”, a report to the European Commission in 2000, https://www.pik-potsdam.de/avec/peyresq2003/talks/0917/sillence/background_literature/sustlaw.pdf (accessed 13 December 2019).

³⁰ Hans Christian Bugge, “Our Common Future Reassessed”, in “Sustainable Development in International and National Law”, *supra* note 28, p. 1–21.

³¹ Christina Voigt, “Sustainable Development as a Principle of International Law- Resolving Conflicts between Climate Measures and WTO Law”, Martinus Nijhoff 2009, p. 387. (Her statements relates to trade disputes be-

Sands and Peel states that international law recognizes the principle of sustainable development, and that it contains “*the acceptance, on environmental protection grounds, of limits placed upon the use and exploitation of natural resources.*”³²

WCED’s statements and subsequent legal theory reinforces a conclusion that the principle of sustainable development contains an absolute duty for states to protect the sustainability of the global resource base.

In addition, due to the scientific fact that the environment is global and borderless, I claim that states ought to have a duty to protect the environment within their territories in order to protect the global resource base. The principle of sustainable development may seem elusive. Nonetheless, it directly relates to the notion of a carrying capacity of the global environment. There must be something to sustain, and that which must be sustained, is an environment of a sufficient quality to uphold human life on earth.

It is possible to re-formulate the principle of sustainable development and call it the “Sustainability Principle”. This emphasizes ecological sustainability as the basis for the elements of societal and economic sustainability. However, states and a vast amount of literature use the principle of sustainable development. In order to avoid confusion, it would probably be more prudent to use the familiar concept of sustainable development.

In spite of this, my opinion is that we need to emphasize the ecological sustainability element of the principle of sustainable development. The proposed paradigm – a duty for states to protect the sustainability of the global environment is arguably easier to understand intuitively than the concept of sustainable development. It also

implies that the ecological component of sustainable development – or environmental sustainability – needs to trump the other two elements – economical and societal development. In addition, it captures that the global environment has a carrying capacity, and by that, implicitly express the scientific nature of the problem we are dealing with.

The question I raise is therefore whether states ought to be legally obliged to protect the sustainability of the global environmental system.

V. Reframing sovereignty as a duty for states to protect the sustainability of the global environment

As I have shown, the principle that states have sovereignty over their environment rests on the premise that it is possible to draw a distinction between the environment on the inside, and that on the outside of states.

However, the fact that the global environment is borderless demonstrates that it is no longer possible to draw this distinction. The overexploitation and destruction of the environment in one state causes accumulated negative effects upon the environment of all other states, and thus on the global environment. When the sum of seemingly small interferences taking place within each state causes serious harm to the global environment, states no longer decide for themselves when they exercise sovereignty over their own environment.

Humans have dramatically altered the land surface, oceans, rivers, atmosphere, flora, and fauna of the earth. We live in the age of the Anthropocene, in which humans shape the global environment and vice versa.³³ Since Paul Crutzen and Eugene Stoermer coined this term in 2000, it

tween states, but I interpret them as reflecting her view on the general content of the principle of sustainable development).

³² Sands and Peel, *supra* note 8, p. 229.

³³ Paul Crutzen and Eugene Stoermer, “Anthropocene,” *Global Change Newsletter*, No. 41 2000, p. 17–18.

has served as a call to action for environmental sustainability and responsibility.

States not willing to protect their own environment in fact decide upon the quality of the environment of other states. Moreover, states that exercise their sovereign right to not consent to environmental treaties in order to avoid the resulting costs, free ride on the efforts of the signatories. States that decide to afford the environment with a strong legal protection fail because other states choose the opposite.

The premise on which traditional state sovereignty over the environment rests, that states only have a right to decide over their own, but not over the environments of other states, shatters.

Many legal scholars have pointed this out. Sands and Peel have stated that: *“The challenge for international law in the world of sovereign states remains to reconcile the fundamental independence of each state with the inherent and fundamental interdependence of the environment”*; Alexandre Kiss and Dinah Shelton emphasizes that *“the emergence of environmental protection as a common interest of humanity alters the traditional role of state sovereignty.”*³⁴ Ved P. Nanda and George Pring have asserted that the traditional interpretation of *“sovereignty is a huge impediment to the success of international environmental law.”*³⁵

It is arguably necessary to reframe the legal relationship between state sovereignty and the environment.

Franz Xaver Perrez and Nico Schrijver also argues for a shift or reinterpretation of the principle of state sovereignty over the environment.

They put the spotlight on the corollary obligations sovereignty entails. I shall go on to explain and then criticize the views of Perrez and Schrijver.

Perrez focuses on the duty for states to cooperate in order to solve global environmental problems.³⁶ Schrijver also focuses on the duties to protect the environment, but views this as corollary obligations flowing from the principle of PSNR.³⁷

Perrez asserts that the no harm rule, the obligation to respect the environmental integrity of the other states, being an element of state sovereignty, falls short of responding to the reality and challenges of today’s world. He contends that sovereignty understood as autonomy and independence has lost its relevance:

“It becomes increasingly artificial and difficult if not impossible and dangerous to departmentalize the biosphere of humans into independent, autonomous and free nation states. Consequently, it seems that with the correction of the premises of sovereignty as independence will have to shift as well from independence towards an understanding which reflects more appropriately the existing interdependencies.”³⁸

His main conclusion is that a shift in the understanding of sovereignty has occurred already. Sovereignty today means a duty for states to cooperate in order to solve their problems, including the problem of global environmental degradation. His conclusion has a strong legal basis, cf. chapter 6 in his book, and it is not easily contestable. As he illustrates, nearly every international

³⁴ Sands and Peel, supra note 8, p. 206, Alexandre Kiss and Dinah Shelton, *“International Environmental Law”*, 3rd Edition (Ardsey, New York: Transnational Publishers, 2004, p. 27.

³⁵ Ved P. Nanda and George Pring, *“International Law & Policy for the 21st Century”*, Transnational Publishers, New York 2003, p. 18–19.

³⁶ Perrez, supra note 13, p. 136.

³⁷ Nico Schrijver, *“Sovereignty over Natural Resources—Balancing Rights and Duties”*, in *Cambridge Studies in International and Comparative Law*, Cambridge University Press, 1997, p. 391–392.

³⁸ Perrez, supra note 13, p. 135–136.

environmental agreement affirm the principle of environmental cooperation.³⁹ A multitude of soft law instruments expresses it, and state practice reflects it.⁴⁰ It is arguably customary law.

I agree that a notion of sovereignty seen as a duty to cooperate is a step towards establishing a legal principle expressing the need for a stronger protection of the global environment.

However, the step is too short. It brings to the foreground that states may freely reject to cooperate in order to solve global environmental problems. The right to refuse to consent to environmental protection obligations is a key aspect of the traditional understanding of sovereignty. The failure by states to reach a clear agreement on reducing greenhouse gas emissions at the UN Climate conference in Madrid in December 2019 provides a recent illustration.

I propose a paradigm shift away from the traditional regime. We urgently need a clear and direct expression of an obligation for states to protect the sustainability of the global environment. My proposed expression points to this urgency. It begs the question "*is the sustainability of the global environment threatened?*"

Schrijver focuses on both the rights and duties flowing from the principle of PSNR.⁴¹ He lists "*widely recognized*" rights for states under this principle including: 1) to possess, use and freely dispose of its natural resources, 2) to determine freely and control the prospecting, exploration, development, exploitation, use and marketing of natural resources, and 3) to manage and conserve natural resources pursuant to national developmental and environmental policies.

The increasing numbers of duties arising from the principle include: 1) the duty not to compromise the rights of future generations. 2) The duty to have due care for the environment, meaning first of all the duty to prevent significant harm to the environment of other states or of areas beyond national jurisdiction. 3) The duty to cooperate for international development, conservation and sustainable use of natural wealth and natural resources, 4) The duty of equitable sharing of transboundary natural resources, and 5) The duty to respect international law.

Schrijver further expounds on many of the tensions between these rights and duties and regard them as reflections of the limitations increasingly connected with the principle of state sovereignty.⁴²

So far, he is in line with the suggested paradigm.

After reciting many of the familiar principles of international environmental, including due care for the environment, the precautionary principle, the principle of intergenerational equity and the duty to cooperate in cases of transboundary environmental problems, as well as the PSNR principle, he states:

"Within this emerging international legal framework, national sovereignty over natural resources, as an important cornerstone of environmental rights and duties, may well continue serve as a basic principle."⁴³

In Chapter 10 in his book: "*Sovereignty over natural resources as a basis for sustainable development*", he discusses the relationship between PSNR and sustainable development under the heading "*Permanent sovereignty as a corner-stone of international sustainable development law*". He creates the impression that the principle of PSNR contain

³⁹ See the 1982 United Nations Convention on the Law of the Sea Art 123 and 197, 1991 Alpine Convention Article 2(1), 1985 Vienna Convention on the Protection of the Ozone Layer Article 2(2) and the 1992 Convention on Biological Diversity, Article 5.

⁴⁰ Sands and Peel, *supra* note 8, p. 213.

⁴¹ Schrijver, *supra* note 37, p. 391–392.

⁴² Schrijver, *supra* note 37, Part III Chapter 11.

⁴³ Schrijver, *supra* note 37, p. 250.

both environmental and developmental objectives.

By doing this Perrez seems to fuse, or identify PSNR and sustainable development:

“Permanent sovereignty is a key principle of both international economic law and international environmental law. As such it can play an important role in the blending of these two fields of law with the aim of promoting sustainable development.”⁴⁴

In my opinion, PSNR reflects the flawed traditional interpretation, – state sovereignty over the environment and the corollary right to exploit natural resources in order to achieve “development”. “Sustainable” and “sustainability” often pulls in a different direction than development.

Schrijver wants to “promote sustainable development” by way of PSNR. I cannot see that he adds anything new to international law when he considers that PSNR is the “corner-stone” or basic principle, and identifies this with sustainable development.

In my opinion, Schrijver’s view will uphold the current regime, where sovereignty over the exploitation of the environment takes precedence over environmental protection.

My position is that the present legal regime is unsustainable. The premise on which traditional state sovereignty over the environment rests, that states only have a right to decide over their own, but not over the environments of other states, has shattered. We need to reframe the legal relationship between states and the environment in order to encapsulate the problem of global environmental destruction.⁴⁵

In the words of Malcolm Shaw: to survive, international law “must be in harmony with the

realities of the age”.⁴⁶ Notions of sovereignty demands cautious rethinking, as Thomas Franck puts it.⁴⁷

As stated, the suggested duty for states to protect the sustainability of the global environmental system would entail the precedence of environmental protection over economic development. This new way of expressing the relationship between the state and the environment is arguably better suited to address the problem of global environmental destruction than the traditional right to exploit nature within “our own state” – PSNR approach. The paradigm better reflects the scientific fact that the environment is borderless.

VI. The suggested paradigm may find support by a progressive interpretation of treaty law and customary law

a) Introduction

Treaties, custom, and general principles of law recognized by states constitute bases for international law, cf. Article 38 (1) a), b) and (c) in the Statute of the International Court of Justice. When deciding whether states have a duty to do something, this duty must flow from one of the recognized sources. Consequently, a duty for states to protect the sustainability of the global environment must be based on treaty or custom, or be recognized as a general principle of international law.

The proposed paradigm does not find direct support in these sources. In this Chapter, I shall discuss whether the paradigm can find support by an untraditional interpretation of them.

⁴⁴ Schrijver, *supra* note 37, p. 394.

⁴⁵ Nyland, *supra* note 14, p. 141–150.

⁴⁶ Malcolm Shaw, “International law”, Cambridge University Press, 8th Edition, p. 32.

⁴⁷ Thomas Franck, “Fairness in International Law and Institutions”, Oxford University Press, 2002, p. 3–4.

b) No treaty expressly obliges states to protect the sustainability of the global environmental system – the proposed paradigm must be established through induction from treaties

No treaty expressly obliges states to protect the sustainability of the global environmental system.

However, it is possible to view the substantial mass of specific obligations states have accepted in a large number of environmental treaties as in sum being an expression of a general principle, requiring states to protect the sustainability of the global environmental system. Some examples are:

The Convention on Biological Diversity, United Nations Convention on the Law of the Sea and other treaties on the protection of oceans. The United Nations Framework Convention on Climate Change and its Kyoto Protocol and Paris agreement. The 1985 Vienna Convention on the Protection of the Ozone Layer. Treaties on freshwater use such as the UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes. The Air Pollution Convention, Rotterdam Convention establishing a prior Consent procedure for Certain Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Compounds, the Minamata Convention on Mercury, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the United Nations Convention to Combat Desertification UNCCD.

Taken together, these treaties reflect a broad duty for states to protect their own environment, and consequently, the global environmental system. In sum, the mass of environmental treaties places broad and sweeping duties on states, to a considerable degree limiting their freedom to treat their environment as they see fit.

Brownlie/Crawford underscores this: “*States increasingly have duties not just in respect of trans-boundary harm or the global environment, but also in respect of conserving their own environment,*” and points to the Biodiversity Convention preamble and Articles 6 and 8 to illustrate it.⁴⁸

As I showed in III above, the global environmental system consists of four elements: The atmosphere, hydrosphere, geosphere, and biosphere. The treaties listed above aim to protect all four elements. Due to the fact that states in various degrees are obliged to protect all four elements it may be argued that states already are obliged to protect the sustainability of the global environmental system.

I derive the new and general paradigm from the multitude of specific instances of environmental protection in treaties. The new paradigm is my construction. States have not consented to it. The duty for states to protect the sustainability of the global environment is my opinion of what the law ought to be.

c) The proposed paradigm is not customary law, but may be established through deduction from the customary principle of sovereignty as a duty to protect the environment of other states

As I have shown Principle 21 of the Stockholm Declaration, Principle 2 of the Rio Convention, and Article 3 of the Convention on Biological Diversity all reflect the principle of PSNR and the no-harm rule, which is the duty for states to protect the environmental integrity – sovereignty of the other states.

Even though states are considered to have a duty to protect the environmental sovereignty of the other states, states practice a right to exploit natural resources and treat the environment within their jurisdiction as they see fit. They en-

⁴⁸ Brownlie/Crawford, *supra* note 2, p. 350 and 431.

joy sovereignty over their environment – PSNR – as a broad freedom. The ongoing degradation of the environment documents that too few states practice a strict no harm rule. Nonetheless, the no harm rule is binding, cf. Chapter II. Therefore, it is of relevance for my discussion.

The problem now is whether we can derive the proposed paradigm from the no harm rule through a progressive interpretation of it.

The expressions of the no harm rule in the Principles and Article is certainly broad enough. If states have a duty “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”, they may arguably have a duty to protect the sustainability of the global environment.

Furthermore, in light of scientific knowledge, states must conceivably protect their own environment in order to fulfill their obligation not to cause significant harm to the environment of other states and beyond.

In spite of this, we cannot view the no harm rule in isolation. It is an integral part of Principles 2 and 21, and Article 3, and they give rise to complicated questions of interpretation. The wording of the Principles and Article suggests that there is no absolute sovereignty for states over their environment. It reflects the need to strike a balance between the right of PSNR and the duty of no harm to the environment of other states. It is obvious that the two norms can pull in different directions. In addition, the Principles and Article imply a responsibility for states to cooperate in order to solve global environmental problems. Moreover, the application of the no harm rule is subject to strict conditions. As set out in the Trail Smelter case, the environmental harm must result from human activity, it must cross national boundaries, and it must be significant or substantial.

The relevancy of the no harm rule is debatable.

It is inextricably linked with the traditional notion of environmental sovereignty.⁴⁹ It also embodies the outdated dichotomy of the environment within and that outside of the states. There are also still many unanswered questions about its application in real cases.⁵⁰ The mere mentioning of the rule attracts all these difficulties.

Notwithstanding this, it is possible to present a weak claim that states have a duty to protect the sustainability of the global environment based on the no harm rule.

It is perhaps more worthwhile to invoke the general principles laid out in the Corfu Channel Case and the Island of Palmas Case as support for the paradigm.

In the Corfu Channel Case, the ICJ set out that the principle of sovereignty contains “the obligation of every state not to allow its territory to be used for acts contrary to the acts of other states.”⁵¹ According to Sands and Peel the principle of good neighborliness, “underlies the dicta of the ICJ” in the Corfu Channel case as well as the no harm rule laid out in the Trail Smelter case.⁵²

States cannot but know that the activities on their territories contribute to cause global environmental degradation of a scale that threatens the carrying capacity of the global resource base. Consequently, they ought to have a duty to treat the environment in a way that protects the sustainability of the global environment. If states treat their environment to the detriment of all states, they are in breach of the foundational principle of good neighborliness. If we take this

⁴⁹ Perrez, supra note 13, p. 162.

⁵⁰ Nanda and Pring, supra note 35, p. 22, Sands and Peel, supra note 8, p. 206.

⁵¹ Corfu Channel Case, ICJ Reports 1949, p. 22.

⁵² Sands and Peel, supra note 8, p. 207.

path, we go straight to the foundation principle and avoid the problematic no harm rule.

In the *Island of Palmas* case, the court established that “*Territorial sovereignty... has as corollary a duty: the obligation to protect within the territory the rights of other States.*”⁵³ In accordance with this, states have a stake in how the other states treat their own environment.

The expressions of the duty side of the principle of sovereignty in the two cases presents a potential legal basis for the paradigm.

The third relevant case is the advisory opinion in the *Namibia* case where the ICJ stated that the possession of rights involves the performance of corresponding obligations.⁵⁴ Reasoning by analogy: the state’s possession of sovereignty over the environment involves the performance of a corresponding duty to protect the sustainability of the global environment.

The ICJ derive the principles from the broader principle of sovereignty. Because the principle of sovereignty is grounded in customary law, principles inferred from it should have the same status.⁵⁵

If the proposed paradigm is established based on the principles relied on in these cases, it must have customary law status.

I shall go on to analyze whether the proposed duty may be a “principle of law recognized by civilized nations”, cf. Article 38 (1) (c).⁵⁶

VII. The proposed duty for states to protect the sustainability of the global environment as a potential general principle of international law cf. Article 38 (1) (c) in the ICJ statute

a) Introduction

Positivist traditionalists like Tunkin and Guggenheim downplay the role of general principles in the formation of international norms.⁵⁷ Even more extreme positivists reject that general principles is a valid source of international law and see general principles as a “*sub heading under treaty and customary law incapable of adding anything new to international law unless it reflects the consent of states*”.⁵⁸

I presuppose that general principles to which Article 38(1) (c) refers is a valid source of international norms.

However, the meaning of general principles of law is ambiguous and controversial. This source may include:

1. Legal principles that are common to many systems of national law,
2. General principles of international law, including general principles of international environmental law,
3. As incorporating principles of natural law in international law, and
4. Principles accepted for so long and so generally that they no longer have a direct connection to state practice.⁵⁹

I argue that all these four understandings may serve as a basis for a duty for states to protect the sustainability of the global environment.

I shall proceed with a brief analysis to explain this.

⁵³ *Island of Palmas Case*, 2 RIAA 1949, p. 829–90.

⁵⁴ *Legal Consequences for States of the Continued Presence of South Africa in Namibia*, ICJ Reports 1971, p. 16.

⁵⁵ Louis Henkin, “*International Law: Politics and Values*”, Dordrecht 1995, p. 8–12.

⁵⁶ Sometimes referred to as “general principles”.

⁵⁷ Nyland, *supra* note 14, p. 65.

⁵⁸ Shaw, *supra* note 46, p. 73.

⁵⁹ Nyland, *supra* note 14, p. 55–79, and Brownlie/Crawford, *supra* note 2, p. 31–34.

b) National law analogies support the creation of the proposed new paradigm

Based on understanding 1) above, we can draw international law rules from municipal law analogies.⁶⁰

A great number of states have established domestic rules and or principles affording the environment with protection. A large number have done this in their constitutions, others have done so by way of ordinary legislation or regulations. In some states, the citizens have a human right to the environment and the state a corresponding duty to respect that. Other states have established broad ranging duties to provide for sustainable development. Arguably, all these rules reflect a broader duty of environmental protection.

Jörg Lücke takes an expansive view. He asserts that the obligation to protect the environment is a general principle of law. This because the constitutions of all states explicitly or implicitly accept an obligation to protect the environment.⁶¹

States ought to be obliged to follow the same principle on the international plane as they are domestically. When states are bound to a principle nationally it is inconsistent if they are not bound by it vis-à-vis the other states.

Based on this understanding, we may draw the analogy that states as a general principle of international law have a duty to protect the global environment.

It is possible to express this as a duty for states to protect the sustainability of the global environment.

I shall go on to examine whether the proposed paradigm can find a basis in general prin-

ciples of international environmental law, being general principles of international law, cf. understanding 2).

c) General principles of international law cf. Article 38 (1) (c) supports the proposed new paradigm

First, I shall provide an overview of some of the representative views concerning the basis for principles of international environmental law. Then I shall explain how these principles as set out by the jurists may strengthen the legal basis for the paradigm I propose.

Christina Voigt rejects that “*general principles of law recognized by civilized nations*” may only be derived from municipal law analogies. She includes “*general principles of international environmental law*” in the source in Article 38 (1) (c).⁶² Kiss and Shelton seem to agree.⁶³

Patricia Birnie and Alan Boyle seems to have a different approach and do not include principles of international environmental law in Article 38 (1) (c).⁶⁴

They are more in line with Sands and Peel, who state that “*general principles and rules of international environmental law are reflected in a multitude of internationally relevant sources and instruments: “treaties, binding acts of international organizations, state practice (customary international law), judicial decisions, and soft law commitments... From the large body of international agreements and other acts, it is possible to discern general rules and principles that have broad, if not necessarily universal, support and are frequently endorsed in practice.”*⁶⁵

⁶⁰ Perrez, supra note 13, p. 280–283, Nanda and Pring, supra note 35, p. 12.

⁶¹ Jörg Lücke, “Universales Verfassungsrecht, Völkerrecht und Schutz der Umwelt”, 35 Archiv des Völkerrechts 1997 p. 1–28.

⁶² Voigt, supra note 31, p. 154–160.

⁶³ Alexandre Kiss and Dinah Shelton, supra note 34, p. 43.

⁶⁴ Patricia Birnie and Alan Boyle, “International Law & the Environment”, Oxford University Press 3rd Edition 2009, Chapter 3.

⁶⁵ Sands and Peel, supra note 8, p. 197–198.

Sands and Peel elaborates on this.⁶⁶ They see PSNR and the no-harm rule as reflected in Principle 21 in the Stockholm Declaration as obligations – “rules” based in customary international law (on page 202). When discussing the “Preventive Action” principle they refer to the Pulp Mills case, where the ICJ established that “the principle of prevention, as a customary rule, has its origins in the due diligence that is required of a state in its territory”.⁶⁷ They do not reach the same firm conclusion as the ICJ, but imply (on page 212) that there is compelling evidence of “state practice” (being one of the requirements for establishing customary rules).

Sands and Peel goes on to state (on page 216) that the Principle of international environmental Cooperation contains certain “commitments” or “obligations.” On page 198, they consider that “the prevention and cooperation Principles are sufficiently well established ... to reflect an international customary legal obligation the violation of which would give rise to a free standing legal remedy.”

They contend (on page 229), that “international law recognizes a Principle (or Concept)” of “Sustainable Development.” It is an “overarching principle requiring states to reconcile economic development with protection of the environment” (page 197). They recognize that the principle consists of four main elements: (on page 229). They are: 1) the need to take into consideration the needs of present and future generations. 2) The acceptance, on environmental protection grounds, of limits placed upon the use and exploitation of natural resources. 3) The role of equitable principles in the allocation of rights and obligations. 4) The need to integrate all aspects of environment and development, and 5): The need to interpret

and apply rules of international law in an integrated and systemic manner.

Of these, they view the fourth element, the need to integrate all aspects of environment and development, as set out in Principle 4 of the Rio Declaration as “the most important and the most legalistic” (on page 227). Rio Principle 4 states that “In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.”

Moreover, they stress that the Precautionary Principle “continues to evolve”. At the same time, they emphasize that “this principle as it is elaborated in Principle 15 in the Rio Declaration and various international convention, has now received sufficiently broad to allow a strong argument to be made that it reflects a principle of customary law” (page 239).

My understanding is that they consider that the principles of Polluter Pays and Common but Differential Responsibility have a more unclear legal status, because they are vague as well as controversial, (p. 240–248).

Perrez identifies four general principles of international environmental law that have “vast international support” in various instruments, but does not include them in Article 38 (1) (c). They are the Principle of sustainability, the Precautionary principle, the Principle of common heritage of mankind, and the Principle of Common but Differentiated Responsibility.⁶⁸

According to Nicholas de Sadeleer, the three foremost environmental principles are those of Polluter Pays, Prevention of Environmental Damage, and Precaution in order to Counter Environmental Damage.⁶⁹

I see the principles of international environmental law and general international law as laid

⁶⁶ The following page references are all to Sands and Peel, supra note 8.

⁶⁷ Pulp Mills case, ICJ Reports 2010, p. 14.

⁶⁸ Perrez, supra note 13, p. 283.

⁶⁹ Nicholas De Sadeleer, “Environmental Principles. From Political Slogans to Legal Rules”, Oxford University Press 2002, p. 2, 21, 61, and 91.

down by all the jurists above as expressions of a more basic duty under international law, which is the duty for states to protect the sustainability of the global environment.

Furthermore, I agree with Voigt, Kiss and Shelton in that Article 38 (1) (c) directly includes general principles of international environmental law as “general principles of law recognized by civilized nations.”

Voigt claims that sustainable development is a binding “*general principle and part and parcel of general international law*.”⁷⁰ She also sets out that “*the principle of sustainable development needs first and foremost to be understood as giving priority to the protection of fundamental life-sustaining natural processes*.”⁷¹

Her position implies that one of the most important principles of international law is the paradigm I propose.

Kiss and Shelton asserts that:

“The need to protect the entire biosphere implies that international rules should safeguard the environment within states, even when harmful activities produce no obvious detrimental effects outside the acting state. It also must guarantee protection to areas that are outside territorial control ... Underlying this duty are general legal concepts that express the major characteristics of international environmental law.”

They go on to stipulate that “*the concepts on which international environmental law is based*” are Sustainable Development, The Common Heritage of Mankind, Common Concern of Humanity, Rights of Future Generations, and Common but Differentiated Responsibility. Furthermore, they see State sovereignty, Cooperation, The obligation to Preserve and Protect the Environment,

Prevention of Environmental Harm, Precaution, and the Polluter Pays principle as “*general legal principles*”.⁷² The general principles they mention underlie the “*need to protect the entire biosphere*.” The consequence of this “*need*” is “*the duty*” to “*protect the entire biosphere*,” obliging states to “*safeguard*” their own environment and the environment outside their territories and jurisdictional spheres.

Kiss and Shelton reinforce the support for paradigm I propose: the “*needed*” ... “*duty*” for states “*to protect the entire biosphere*”. (This regardless of the fact that I am a bit confused as to whether they consider this as a duty *lex ferenda* or *lex lata*, cf. “*the need*” versus “*rules should safeguard*”.)

Kiss and Shelton also support the scope of the proposed duty for states to protect the sustainability of the global environment. It would oblige states to protect the environment outside as well as that on the inside of their territory and spheres of jurisdiction even when in-state interference in the environment produce no clear or obvious detrimental effects outside their environment in particular instances.

When Sands and Peel distinguishes the Principle of Preventive Action from the traditional sovereignty based Rio Principle 2 and Principle 21 in the Stockholm Declaration they set out that: “*Under the Preventive Principle, a state may be under an obligation to prevent not only transboundary harm, but also damage to the environment within its own jurisdiction*.”⁷³ The consequence of their opinion is that states are obliged to protect the global environment: i.e. the environment outside, as evinced by their reference to the principles, and within their jurisdiction, as reflected in their statement about the content of the preventive action principle.

⁷⁰ Voigt, *supra* note 31, p. 260.

⁷¹ Voigt, *supra* note 31, p. 380.

⁷² Kiss and Shelton, *supra* note 34, p. 247, and p. 248–268.

⁷³ Sands and Peel, *supra* note 8, p. 212.

To conclude: general principles of international environmental law cf. Art 38 (1) (c) may serve as a basis for the proposed paradigm.

I shall go on to examine whether natural law can provide support for it.

d) States may be obliged to protect the sustainability of the global environment under natural law

A.V. Verdross takes a progressive stance and contends that the source general principles in the ICJ statute Article 38 (1) (c) include natural law principles. He argues that it has the effect of incorporating natural law in international law.⁷⁴

I shall not partake in the debate whether or not natural law is a source of international law. My aim is to express what may follow when we take a progressive approach to the formation of new international norms, and include natural law as a source of legal obligations for states.

I therefore presuppose that natural law principles provides a reservoir for new norms of international law, as envisaged by Verdross, cf. understanding 3) above.

Natural law is not deduced from conscious human decisions on what the law is. It is not positivistic. It does not flow from state consent by way of negotiated treaties or state practice reflecting customary international law, cf. Article 38 (1), (a) and (b). Natural law is eternal and lay down universally binding legal principles.⁷⁵

The laws of nature is arguably a part of natural law, and thus included in Article 38 (1) (c). As the WCED stated in 1987 "*Human laws must be reformulated to keep human activities in harmony with the unchanging and universal laws of nature*". This has never been more relevant and urgent than it is today.

⁷⁴ A.V. Verdross "Les Principes Généréaux du Droit Dans La Jurisprudence Internationale", RdC, Vol. (1935-II), p. 191–251.

⁷⁵ Nyland, supra note 14, p. 24–29.

Klaus Bosselmann states that "*environmental law has its roots in natural law*" and claims that "*environmental protection is justified as a manner of scientific proof.*"⁷⁶

New norms of international law can be grounded in what science reveals about the nature of environmental degradation. When science tells us that the carrying capacity of the global environment is threatened and that we are approaching a finite limit to growth, what we need is new international law. My proposed paradigm: that states ought to be obliged to protect the sustainability of the global environmental system provides this.

Furthermore, certain rights and responsibilities are inherent in human nature, and may be understood through simple reasoning.⁷⁷ Thus, human rights are grounded in natural law traditions.⁷⁸

Many legal scholars have argued for the existence of a human right to environmental protection. In his separate opinion in the ICJ case of the Gabčíkovo-Nagymaros project, judge Weeramantry held that:

"The protection of the environment is likewise a vital part of contemporary human rights doctrine, for it is a sine qua non for numerous human rights such as the right to health and the right to life itself. It is scarcely necessary to elaborate on this, as damage to the environment can impair and undermine all the human rights spoken of in the Uni-

⁷⁶ Klaus Bosselmann, "Grounding the Rule of Law", in "Sustainable Development in International and National Law", supra note 28, p. 84.

⁷⁷ <https://legaldictionary.net/natural-law/> (accessed 13 December 2019).

⁷⁸ Henkin, supra note 55, p. 180.

versal Declaration and other human rights instruments.”⁷⁹

Sands and Peel recognize that “*some non-binding and widely accepted declarations supporting the individual’s right to a clean environment have been adopted.*”⁸⁰

However, states have not consented to a treaty establishing a general human right to environmental protection, and it is not established customary law. Nonetheless, a human right to environment may be derived from other, more established human rights, as judge Weeramantry asserts.

The human right to life is the most basic human right.⁸¹ It is also the basis for all other human rights. No law exist if life ceases to exist. Natural law is the legal basis for the “inalienable” right to life, which is inherent in human nature. Thus, states have a corresponding duty to protect human life.

The right to life is reflected in Article 3 of the Universal Declaration of Human Rights, Article 6 of the International Covenant on Civil and Political Rights, and Article 6 of the Convention on the Rights of the Child. These universal standards must be interpreted within the context of other United Nations instruments, enumerated in the sixth preamble paragraph of Commission resolution 1992/72.⁸² These instruments all reflect natural law. There are also regional conventions protecting the right to life: Art 2 in the European Convention on Human Rights, and Article 4

in the African Charter on human and people’s rights.

It is a scientific fact that the environment must be of a sustainable quality to be able to uphold life on earth.

Consequently, states ought to have a duty to protect the sustainability of the global environment in order to fulfill their natural law obligation to protect human life.

That natural law plays a role in international law is also reflected in Article 51 of the UN Charter, under which states in a treaty have consented to an “*inherent right*” to use military force if they are subject to an armed attack. The right to protect and ensure the continued existence of the sovereign state is an essential or characteristic attribute of the state as a subject of international law. It is “*inherent*” in international law and pre-dates positive law. The French version of Art 51 makes an even sharper reference to natural law: it refers to the “*droit naturel de légitime défense*”. The purpose of the inherent or natural law right is to protect the continued existence of the sovereign state under attack.

Thus, the right to self-defense is the expression of a more general and underlying principle of natural law, which affords states a right of self-preservation, or right to survive.⁸³ The right of state survival exists as an essential or characteristic attribute of the state as a subject of international law.

In the Nuclear Weapons Advisory Opinion, judge Weeramantry points to “*the efforts in recent times to formulate what have been described as ‘principles of ecological security’ – a process of norm creation and codification of environmental law which has developed under the stress of the need to protect human civilization from the threat of self-destruction.*”

⁷⁹ Case concerning the Gabčíkovo-Nagymaros Project, ICJ Reports 1996, Separate Opinion of Vice-President Weeramantry, p. 88.

⁸⁰ Sands and Peel, *supra* note 8. p. 815.

⁸¹ Henry J. Steiner and Philip Alston, “International Human Rights in Context: Law, Politics, Morals: Text and Materials”, Oxford University Press, 2 Edition 2000, p. 47–48.

⁸² UN High Commissioner of Human Rights, <https://www.ohchr.org/EN/Issues/Executions/Pages/InternationalStandards.aspx> (accessed 13 December 2019).

⁸³ Bin Cheng, “General Principles of Law as Applied by International Courts and Tribunals”, Cambridge University Press 2006, p. 29–102.

He emphasizes that, “*these principles of ecological security... do not depend for their validity on treaty provisions. They are part of customary international law. They are part of the sine qua non for human survival.*”⁸⁴

As we can see, he links principles of environmental law with the survival of humans and states – “*human civilization*”. He asserts that “*ecological security*” is a part of the *sine qua non* for human survival”. Consequently, states ought to have a duty to protect the sustainability of the global environment in order to fulfill their customary, and in my reading of his reasoning, a natural law obligation to protect the survival of states.

If states have a customary and natural law right to survive, other states must be obliged to protect the sustainability of the global environment. Unless they do so, all states will cease to exist. Natural law support the proposed paradigm.

I shall go on to examine whether the new paradigm can find support in the principle of necessity.

e) The principle of necessity supports the proposed paradigm

The source “general principles of law recognized by civilized states” in Article 38 (1) (c) might refer to principles that have been accepted for so long and so generally as no longer to be directly connected to state practice, cf. understanding, cf. understanding 4) above.⁸⁵ The principle of necessity is arguably one of these. I do not see necessity as a possible defense by states in order to escape responsibility for internationally wrongful acts as established in Article 25 of the International Law

Commissions Draft Articles on State Responsibility.⁸⁶

I see necessity as the result of a balancing of interests. The principle of necessity dictates that the lesser interest must give way to the larger interest. It is possible to view the lesser interest as the sovereign right for states to treat the environment in accordance with their own free will, and the larger interest as the need to establish a new duty for states to protect the global environment. State sovereignty over their environment must give way to the acute need to protect the integrity of the global environment.

An increasing number of scientific consensus reports document that global environmental destruction is so serious that it approaches a general state of emergency. Increasing global warming, overexploitation and the pollution of freshwater resources, destruction of biological diversity, emissions of toxic chemicals, and air pollution, all threaten the ability of the global environment to sustain life.

The territories of the small island states in the Pacific are increasingly being flooded due to rising sea levels probably caused by global warming. Creating what many call climate refugees. The territory upon which Inuit live is melting. The areas where they have roamed for countless years disappear. The territories of peoples and of states disappear.

Thus, it may be argued that the lesser interest, which is the sovereign right for states to prioritize development and decide over the quality of the environment within their spheres of jurisdiction, must give way to the larger interest, which is to prevent a global ecological collapse.

When “*necessity*” dictates what the law should be, new norms can be established instant-

⁸⁴ Legality of the Threat or Use of Nuclear Weapons Advisory Opinion, ICJ Reports 1996, p. 503.

⁸⁵ Bin Cheng, *supra* note 83, “General Principles of Law as Applied by International Courts and Tribunals”, Cambridge University Press 2006, p. 29–102.

⁸⁶ Report of the International Law Commission on the work of its Fifty-third session, Official Records of the General Assembly, Fifty-sixth session, Supplement No. 10, A/56/10, chapter IV.E.2.

ly. The scientific consensus reports provide solid evidence for the existence of a global state of environmental emergency.

Law of necessity – “*necessary law*” dictate that states must protect their own environment – the areas where they exercise jurisdiction or control – in order to stop the destruction of the global environment.

Human beings and sovereign states have a right to survive. International law should surely not be a self-destructive legal system.

We may deduce from the principle of necessity the proposed duty for states to protect the sustainability of the global environmental system.

f) Summary

In b)–e) above I have shown that the proposed paradigm may be seen as a “*general principle of law*” cf. Article 38(1)(c), based on national law analogies, general principles of international environmental law, natural law, and the principle of necessity.

It must be stressed that there is considerable disagreement as to whether Article 38 (1) (c) is a relevant source of international norms, and the content of it, if it is seen as a valid source.

Nonetheless, I consider Article 38 (1) (c) a valid source and that General Principles can provide a means for developing new norms of international law that are urgently needed, or “*responsive to today’s problems.*”⁸⁷ There is an urgent need to establish a duty for states to protect the sustainability of the global environment.

The proposed paradigm establishing a duty for states to protect the global environment could serve many functions. I shall only briefly point out some of these.

As I shall show in VIII below, it could serve as a basis for a duty for states to protect a minimum of environmental quality.

In IX. I shall provide a short explanation of how the proposed paradigm may: serve as a basis for new evidentiary rules in environmental cases, that it can bring about a new approach to international law-making, and involve a new approach with respect to the interpretation of existing norms of international law.

VIII. A duty for states to protect the sustainability of the global environmental system would entail a duty to protect a minimum of environmental quality

The paradigm presupposes that how states treat their environment is not any longer an internal affair, but in the interest of all states. A duty for states to protect the sustainability of the global environment would prohibit states from exercising a sovereign right to prioritize development before environmental protection within their territories. It would entail an absolute duty for states to uphold the carrying capacity of the global environment.

A new and sustainability based international law would take as point of departure that the global environmental destruction does not respect the borders and jurisdictions to which state sovereignty is attached. It would also take into account the fact that the environmental disturbances of today affect the environmental quality of generations unborn.

IX. A duty for states to protect the sustainability of the global environmental system could serve as the basis for new evidentiary rules and a new legal methodology

a) Introduction

Under the traditional method of international law, the sovereignty principle determines how facts are established through rules on burden of

⁸⁷ Voigt, *supra* note 31, p. 155.

proof, how new obligations are created, and how existing sources are interpreted.⁸⁸

The Permanent Court of International Justice formulated the essence of this in the Lotus case: “Restrictions upon the independence of States cannot be presumed.”⁸⁹

I will show that a duty for states to protect the sustainability of the global environmental system could serve as a basis for a new approach.

b) New rules on burden of proof

The Trail Smelter case established the traditional rules on the burden of proof for state responsibility based on violations of the no harm rule. The International Law Commission have endorsed them.⁹⁰ The Tribunal stated that:

“... No State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.”⁹¹

The state claiming a violation of the no harm rule must provide “clear and convincing evidence” of damage to its environment resulting from a specific detrimental activity on the territory of the alleged responsible state.

This strict burden of proof will usually play out in the favor of the sovereign freedom of states to exploit their own environment, to the detriment of environmental protection.

⁸⁸ Nyland, *supra* note 14, Chapters 2 and 10.

⁸⁹ Lotus Case P.C.I.J. Reports 1927, Series A, No. 10, p. 18.

⁹⁰ Cf. its commentary to the Draft Articles on the Prevention of Transboundary Harm from Hazardous Activities, in the Text adopted by the International Law Commission at its fifty-third session in 2001, submitted to the General Assembly, A/56/10.

⁹¹ Trail Smelter Arbitration, 35 AJIL (1941) p. 716. See Sands and Peel, *supra* note 8, p. 206–207, and Chapter 16 “Liability for Environmental Damage”.

Furthermore, as stated, the traditional international law does not take into account that the global environmental destruction is the sum of seemingly harmless environmental interferences taking place within each state. For example, the individual state will not experience acute and clear environmental damages because of its own greenhouse gas emissions. However, over time, it is nearly certain that global warming, being the sum of greenhouse gas emissions of all states, will cause irreversible harm to the global environment, bringing it into a permanent imbalance.

A new and sustainability based international law must therefore build in mechanisms to deal with the problem of sum-effects. It could serve as a vehicle for replacing the old and outdated Trail Smelter rules on causation and proof.

Environmental considerations ought to trump economic development. We know with a high degree of certainty that continued population growth, and continued exploitation of nature, over time will lead to a global environmental collapse. However, we do not know when that will happen, and we have incomplete knowledge about the complex interactions and mutual interdependencies between humans and the environment.

The lack of knowledge and the potentially catastrophic effects of environmental destruction call for a strong precautionary approach.

In the absence of scientific consensus that an action or policy has a suspected risk of causing serious harm to the environment, the burden of proving that it is not seriously harmful ought to be placed on those taking an action, those interfering with the environment, contrary to the Trail Smelter approach.⁹²

⁹² Martijn van der Kerkhof, “The Trail Smelter Case Re-examined: Examining the Development of National Procedural Mechanisms to Resolve a Trail Smelter Type Dispute”, *Merkourios*, volume 27, 2011, issue 73, p. 68–83, <https://dspace.library.uu.nl/handle/1874/208558>

When it is reasonably uncertain whether a specific environmental interference has the potential to cause substantial environmental damage, the benefit of the doubt ought to be given to the environment.⁹³

Sands and Peel posits that the principle of precaution “*already has been relied upon ... to require a shift in the burden of proof in cases concerning the conduct of certain especially hazardous activities.*”⁹⁴ As we can see, they limit the scope of the shift to especially hazardous activities. In my opinion, we need to shift the burden of proof more generally, to take into account the detrimental sum-effects of apparently insignificant environmental interferences taken within each state.

c) A new approach to international law-making

The sovereignty principle also controls the creation of new international norms. As mentioned, the traditional understanding of the sovereignty principle is that states are not subject to the will of others. “*Restrictions upon the independence of the other states cannot be presumed*”. In accordance with Article 38 (1) (a) and (b) in the Statute of the International Court of Justice, states must freely consent to restrictions in their environmental sovereignty. Explicitly by way of treaty, or implicitly, by way of custom (and even more implicitly, by way of a general principle of law).

States use the right to not consent as a bargaining chip in the negotiations of treaty obligations. Sovereignty is the reason why states often fail to reach binding agreements on environmen-

tal protection. This leaves certain elements of the environment unprotected. The result is a fragmented legal regime. “*The slowest camel sets the pace*”.

The formation of new customary law takes a long time. There are examples of “instant customary international law”, but they are very far apart. The basic tenet of space law, that no one state may claim ownership of outer space or any celestial body, is the only example I know of.⁹⁵ The requirement that customary international law must be based on widespread and representative practice, allows for states to object to the formation of necessary restrictions in the right to sovereignty over their environment.

Article 38 (1) (c) arguably plays a very small role in the creation of international law today. It seems as if the views of traditionalists like the aforementioned Tunkin and Guggenheim have prevailed.

Nonetheless, General Principles, cf. Article 38 (1) (c) *could* provide a basis for the instant formation of a duty for states to protect the ecological sustainability of the global environmental system, as I have argued above in VII.

d) A new approach to interpretation of international law

Under the traditional sovereignty regime, treaty interpretation is seen as a sovereign prerogative and an “internal affair” of each state. As a rule, states seek to minimize the degree of treaty limitations in their sovereign freedoms to act in accordance with their own free will. States may interpret their treaty obligations narrowly and defeat their purpose without risking sanctions.⁹⁶

A paradigm of sustainability of the global environmental system would rather oblige states

(accessed 13 December 2019), Arie Trouwborst, “The Precautionary Principle And The Burden Of Proof”, in “Precautionary Rights and Duties of States”, Brill 2006, Chapter 8.

⁹³ Hans Christian Bugge, “Lærebok i Miljøforvaltningsrett”, 4th Edition, Universitetsforlaget 2015, p. 145–146.

⁹⁴ Sands and Peel, *supra* note, 8 p. 249.

⁹⁵ See Bin Cheng, “United Nations Resolutions on Outer Space: “Instant” International Customary Law”, *Indian Journal of International Law* Vol. 5, 1965, p. 36.

⁹⁶ Nyland, *supra* note 14, p. 40–45.

to interpret the vast number of existing norms of international environmental law, including the large mass of treaties, principles, case law, as well as international and domestic regulations and standards, in a way that would further the protection of the carrying capacity of the global environment.

IX. Concluding remarks

The problem of serious global environmental destruction dictates an urgent need for a legally binding obligation for states to protect the sustainability, or carrying capacity, of the global environmental system.

We cannot solve the global environmental problems with the same sovereignty-based paradigm that caused them.

There is a need to replace the existing understanding of sovereignty, which arguably serves as a legal basis for environmental destruction. As I have shown, there is a potential for reinterpreting or reframing the principle of sovereignty.

States ought to have a duty to protect the environmental sovereignty – the sustainability – of all states.

A new paradigm based on the nature of the global problem of environmental destruction, distancing itself from the traditional sovereignty and consent -to new obligations- based approach taken in the ICJ statute Article 38 (1) a) and b), can be criticized as being a utopian theory of what international law ought to be. However, as I have shown, a duty for states to protect their own environment in order to protect the sustainability of the global environment may also find support by a progressive interpretation of the established sources of international law. It would entail an absolute duty for states to uphold the carrying capacity of the global environment, and it could serve several important functions.

The new paradigm ought to be a duty for states to protect the sustainability of the global environmental system.