**AFTER GLASGOW: THE URGENT IMPERATIVE OF PURSUING THREE NEW STRATEGIC DIRECTIONS IN DIPLOMACY AND LAW IN THE MORTAL STRUGGLE AGAINST CLIMATE CHANGE**

**SUMMARY**:

**Despite the personal heroics of the Conference President Alok Sharma and several diplomatic delegations, the results of the COP 26 Conference in Glasgow in November 2021 must be judged as terribly inadequate, even a failure. The COP process of drafting an agreement, based on consensus decision making among almost 200 states and the ensuing diplomatic currency of long term “promissory notes,” is deeply flawed, dilatory and thus agonizingly ineffective. So, obviously, much more needs to be done immediately if the world is to avoid the worst ravages of accelerating climate crisis. In view of this, this article will highlight three more strategic directions that we must now emphasize and urgently develop, since all already exist and are “in play” in an incipient though often woefully under-utilized form. Specifically, this article will recommend the immediate mobilization of international organizations or organs within the UN system, regional organizations, states, courts and civil societies to embark upon, or urgently emphasize: 1a) The creation of a global legal framework to protect the world’s environment, including the Earth’s atmosphere; 1b) Enforce international or domestic environmental laws in domestic courts as the sine qua non of legitimate state sovereignty; 2) Utilize the UN Security Council to adopt an Earth Armistice and other measures necessary to prevent any situation caused by climate change that might threaten international peace and security; 3) Develop and deploy the latest carbon sequestration and Negative Emission Technologies (NETs). While carbon cuts are essential in the struggle against overwhelming climate change, rapidly strengthening and developing these three strategic directions, as well as other effective initiatives, now becomes critical if we are to survive the coming ravages of the climate crisis.**

**INTRODUCTION: TO SURVIVE OR NOT TO SURVIVE—THAT IS THE QUESTION**

After all the hopes and hype surrounding the COP Conference 26 in Glasgow faded, UN Secretary-General Antonio Guterres said the next day that the conference results were simply “not enough” and that the world now needs to go into “emergency mode,” adding that we are now in “fight for our lives.”[[1]](#footnote-1) Just prior to the COP 26 conference, UNSG Guterres stated that we are “headed for a climate catastrophe.” [[2]](#footnote-2)

Obviously, then, much more needs to be done without delay if the world is to avoid the coming devastation of accelerating climate change. Based on consensus decision-making among almost 200 states and the ensuing diplomatic currency of “promissory notes,” the COP process of drafting an agreement is deeply flawed and dilatory .[[3]](#footnote-3) If humanity had another 100 years to solve the climate crisis, then the prolonged COP process might eventually push governments and the developed nation states to solving, or at least stabilizing climate change; but the COP conferences have done neither and are unlikely to do so in the next “decisive decade.”[[4]](#footnote-4) If the past is prologue, the COP process will not deliver us from the looming tipping points and climate catastrophes that are now imminent, if not already occurring.

So, it is misleading and even ludicrous to think that the COP conference, which until now has been highly ineffective in curtailing the consumption of carbon-based fuels, should continue to be the main international diplomatic and political forum for addressing climate change. While carbon cuts are essential in stabilizing the further ravages of climate change, if we are to survive, much more needs to be done very quickly to address effectively the growing climate calamity.

In light of this crisis, this article will highlight three more strategic directions that we must urgently strengthen and develop, as they already exist, even if often woefully under-utilized. Specifically, this article will recommend the following steps: a) Strengthen the Global Legal Framework to protect the global commons, intergenerational equity and the Earth’s threatened ecologies; this step must include the increased actions of States, IOs, civil society as well as individuals in bringing cases before international or national courts to protect the Earth’s system of ecologies that support an sustain life; b) The immediate mobilization of international organizations (IOs) or organs within the UN system, regional organizations that now MUST address climate change. This includes the UN Security Council (UNSC) that make a binding decision on all member states in one vote concerning the growing threat of climate change to international peace and security; c) Greatly accelerate carbon sequestration.by rapidly developing and deploying the most promising Negative Emissions Technologies (NETs); several of the most promising of these NETs are listed in this third section. In short, we must embark upon, or emphasize*, and develop* all of these critical strategic directions simultaneously in order to insure the Earth’s and our survival.

As we shall see, many of these three strategic directions, discussed respectively in the following sections, involve already established diplomatic institutions such as the UN or regional organizations, and will sometimes involve decision making through voting and subsequent actions; in this way, we can get beyond the need for the ineffective consensus “decision making,” or merely making diplomatic promises which too often go unfulfilled. These three new strategic directions are as follows:

1a) **CREATING A GLOBAL LEGAL FRAMEWORK TO PROTECT THE WORLD’S ENVIRONMENT:**

First, there are *glaring gaps* in international law, also described here within the Civil Law tradition as the Law of Nations,[[5]](#footnote-5) concerning protections of the global environment.”[[6]](#footnote-6) We live on a fragile globe with profoundly interdependent system of ecologies, commons and life; yet, the law does not provide even the minimum of protection for this singular globe *as an interdependent whole* that is our common and only home. For instance, the global atmosphere is the *only* global commons without a legal treaty regulating and protecting its existence[[7]](#footnote-7)as part of the common heritage of humanity. Yet, stabilizing and preserving the Earth atmosphere within now known livable limits --especially the atmosphere’s temperature of the globe[[8]](#footnote-8)-- is absolutely critical to curtailing and containing climate change. So, *legal recognition of the Earth’s atmosphere as a global trust is desperately needed*,[[9]](#footnote-9) and would significantly strengthen citizens’ and NGO law suits, especially in the developed states, to force their governments and courts to ensure intergenerational equity, honor their commitments under COP or other international agreements—such as the Paris Treaty— and thus safeguard a stable Earth’s atmosphere for future generations.

Secondly, the French government and associated jurists have initiated a historic effort to draft and ratify a treaty entitled the Global Pact for the Environment (GPE) that seeks to recognize a healthy environment for all *as a human right*. The legal recognition of such a right in domestic courts may immeasurably help ordinary citizens assert successful claims to curtail corporate or state abuses of the global environment based on the fair legal principle that “polluters pay.”[[10]](#footnote-10)

As the webpage for the GPE explains:

“The Pact’s objective is to **fill the gaps** in international environmental law and to contribute to the emergence of a global legal framework, one that is more protective of natural resources. As a matter of fact, if the 1972 Stockholm Declaration and the 1992 Rio Declaration recognize the general principles of environmental rights that today have consensus, these texts have strong political influence and symbolism but lack legal force.

“Having the vocation to become the cornerstone of international environmental law, is at the same time distinct and complementary to sectorial conventions. Having a universal program, that is susceptible to be applicable to all States, without geographic restrictions. Also, if adopted, the Pact will be the **first international treaty on the environment as a whole**.”

The GPE seeks to legally recognize a healthy environment as a human right. As such:

“The Pact recognizes a **third wave of fundamental rights**, rights related to the protection of the environment. It will complete the legal edifice of fundamental norms, that will incorporate the two international 1966 Pacts – one relative to political and civil rights, the other to economic, social, and cultural rights.” [[11]](#footnote-11)

So, when passed, the Global Pact could potentially give citizens the world over the legal right to take specific action, and make specific claims, in a national court of law to protect the environment *as their human right*.

Because of this, it is in the profound strategic interests of all developing states to adopt and pass the GPE as an immediate way to gain legal standing in international, regional and national courts to seek the curtailment of activities, often sanctioned by outside states, that harm or destroy the natural environment, or to continue in the use of carbon based fuels, that are harmful to the rights of all to a clean and healthy global environment that we must pass on to future generations.

Thirdly, there is also the ongoing legal effort, pioneered by Dr. Paulo Magalhaes and his colleagues in Portugal, to recognize that biological and geophysical systems essential to the preservation of life and biodiversity on Earth are *one system*, legally protected as the common heritage of humanity.[[12]](#footnote-12)

Like his distant relative, Ferdinand Magellan, Dr. Paulo Magalhaes is headed in the right direction by asking how a global legal framework can protect *as a system* the essential ecosystems and temperate conditions that make all of life possible on Earth.[[13]](#footnote-13) To answer this quest, all legal forums must be interrogated, challenged and, if possible, utilized immediately in order *to ensure the self-preservation of the nation and nature which Thomas Hobbes identifies as the first law of nature, or Lex Naturalis.[[14]](#footnote-14)* In fact, Hobbes states that self-preservation is the primary and general rule of nature. As he states, the “*Law of Nature,* *lex naturalis, is a precept, or general rule, discovered by reason, by which a man is forbidden to do that which is destructive of his life*, or *taketh away the means of preserving the same*, *and to omit that by which he thinketh it may be best preserved.”[[15]](#footnote-15)*

Hobbes’ observation about the fundamental role and “general rule” of self-preservation is especially relevant in our current Anthropocentric Age when scientists have already confirmed that humanity and biodiversity as a whole is entering the Sixth Extinction event due in large part to human induced global climate change.[[16]](#footnote-16) Human beings are by no means immune from the accelerating catastrophe of the climate crisis. *The law simply can’t be silent in the face of such an unprecedented and existential threat to all of life on this planet*. In this regard, the great international law jurist, Oscar Schachter, speaks about fundamental *general principles of law that are essential and necessary to any system of law* as such.[[17]](#footnote-17) In view of this, the legal recognition of Lex Naturalis as a general principle of law in legal jurisdictions around the world is now essential in this Anthropocentric Age when, frankly, much if not all of life on the planet is at stake.

Self-preservation is the incontrovertible law of life; if the law doesn’t recognize and provide for this, then its entire *raison d’ entre* is meaningless. Yet, there is still time for the judiciaries, courts, and legislatures of nations to recognize and ensure the self-preservation of the nation and nature before all is lost. Specifically, recognizing the self-preservation and thus legal protection of nature and the nation, now profoundly threatened, is the fundamental condition of legitimate state sovereignty in the Anthropocene Age.

In short, Lex Naturalis is now the supreme duty of the living law and national judiciaries to *ensure the basic self-preservation of life* since these are not, by any measure, normal times; In fact, these are extraordinarily dangerous times in the evolution of life on this planet, and the law, as well as legal jurisdictions, must respond. They must use the inherent power the law and courts which any state possesses under the *Lex Naturalis* to respond, or to admit its great irrelevance as a fraud in the face of this great and growing international threat of catastrophic climate change, which is caused, in great part, by state sanctioned and thus “legal” activities. If the law is silent in the face of such an unprecedented threat, caused largely by “lawful” human activities, then humanity could well go the way of the dinosaurs, since the *legal brain* of human beings proved to be as big as the size of a pea, and couldn’t innovate or adapt in time….[[18]](#footnote-18)

So, Lex Naturalis identifies *self-preservation* as a fundamental rule of life and nature that now, in the Anthropocentric Age, constitutes an *general principle of law* essential to the continuing existence of any nation or state as well as domestic or international legal jurisdictions. Scientific evidence is quite clear about what now threatens our self-preservation, and what can still be done to avert the coming catastrophes of climate change.[[19]](#footnote-19) In this regard, it should be noted that most domestic national jurisdictions have legal systems based on civil/mixed systems of law which are ultimately based upon ancient Roman jurisprudence. The entire range of historic international legal systems must now be urgently utilized, especially in domestic civil/mixed courts of law in order to find the legal arguments, including first principles, that national courts will entertain and use to make critically needed decisions that protect the nation and nature against the unique and global existential threat caused by the coming ravages of the climate crisis.

Fortunately, there is time to adapt, if actions are taken immediately, and national judiciaries are perhaps our greatest and last hope. So, there is hope that domestic national and international courts will recognize the first principle of Lex Naturalis—namely, that *self-preservation* is the basic and general rule of life and nature that now, in the Anthropocentric Age, constitutes a general principle of domestic and international jurisdictions that is inherent in any system of law. As such, Lex Naturalis should be immediately available to plaintiffs or courts of law in cases that seek to curtail the tragic yet legal state policies that allow the burning of even more carbon-based fuels within a state territory, threatening the whole of life and biodiversity on Earth.

Furthermore, other means are available right now to accelerate this inquiry into states’ and the courts’ responsibilities in the face of such an unprecedented challenge to the self-preservation of life on the planet. For instance, the Charter of the United Nations gives the UN General Assembly (UNGA) the authority under Article 13 to promote “the progressive development of international law and its codification.”[[20]](#footnote-20) In view of this, the UNGA should immediately engage its Sixth Committee (on legal affairs) to clarify existing state obligations to protect the Earth’s environment as the common heritage of humanity. At the same time, the UNGA they should immediately embark on voting upon and adopting a series of non-binding resolutions calling for member states to immediately pass the necessary international treaties—ideally within the year—to recognize the Earth’s Atmosphere as a Global Trust,[[21]](#footnote-21) declare a healthy environment as a human right and grant their domestic courts to enforce international environmental legal norms and principles as part of the common heritage of humanity. This process will take time, but much can be done in the meantime.

The UNGA should also use its authority, under Article 96 of the UN Charter, to ask the International Court of Justice (ICJ) for advisory judgements concerning the current scope and status of international environmental law. While such judgments are nonbinding, they can be useful in *informing domestic courts what the current state of their international obligations are concerning international environmental law within national jurisdictions.*

Such questions are especially urgent for the majority of state legal jurisdictions in the world that are based upon civil, bi-juridical or mixed legal systems that have never explicitly repudiated the classical and *a priori* jurisprudence of Justinian Law concerning “law of nations…common to humanity.”[[22]](#footnote-22) First described as *Jus Gentium*, the Law of Nations has evolved over a thousand years to become the basic law that decided cases and disputes between the local and “foreign” peoples or nations. It also pioneered and governed the use of the public commons such as waterways and access to ports. Furthermore, as the great English jurist Blackstone notes, this law applies to individuals, nations as well as states; thus, the emergent legal realities since World War II concerning living groups of peoples, either as individuals or nations, such human rights or self-determination. So, as first practiced in Roman and Byzantine jurisprudence for over a thousand years, a “Law of nations common to humanity” now fully and *factually* exists, though the word “common” has sometimes the most uncommon and manifold meanings in legal jurisdictions around the world.[[23]](#footnote-23) For instance, the Law of Nations under Justinian was the first to recognize the legal reality of a *public trust*, thus representing the rights of pending generations to the same common rights that the living now enjoy.

Unfortunately, the British philosopher Jeremy Bentham’s definition of “international law” as “agreements between sovereigns”— as a colonial imperialist, he never said ‘agreements between sovereign states’—took precedent during the colonial era—which lasted up to the end of World War II, and even beyond; during this period, European states sought to consolidate their power and control over their colonial possessions who were thus stripped of their legal personality, rights and self-determination. [[24]](#footnote-24)

Yet, since World War II, the inadequacy of Bentham’s colonial conception of international law has become increasing apparent, especially to the newly liberated and developing nation states of the world. Simultaneously, a modern Law of Nations has emerged, supplementing Bentham’s reductionist definition of international law, and can be defined, especially after the UN and Nuremberg Charters and the subsequent IMF trials, as: “the Law of Nations common to ALL OF HUMANITY that regulates and governs a state’s legal powers or relations with its own nation, and other peoples.[[25]](#footnote-25)

In short, legally and factually speaking, national domestic jurisdictions now exist and function in a world characterized by transnational law[[26]](#footnote-26) as well as global legal pluralism[[27]](#footnote-27) consisting of, at the very least, the three major and overlapping domains of jurisdiction: a) public international law (Bentham) consisting of treaty law and practice of nation-states; b) the Law of Nations (Blackstone) consisting of customary international law, the general principles of international law as well as laws common to humanity (Justinian); c) Private International law. Since courts can be actors in, and indicators of *state practice* in international law, such national domestic, regional international and indigenous courts must decide if they are beholden only to the increasingly obsolete concept of Bentham’s definition of international law as simply ‘agreements between sovereigns.’ [[28]](#footnote-28) In its place, we have an emergent Global Law that includes, or specifically must include, the protection of the earth natural ecologies and the preservation of the global commons as essential to the self-preservation of the nation, and, in fact, all of life on this planet. [[29]](#footnote-29)

So, in making an advisory opinion, the ICJ, *or any other international, regional, or domestic court*, must carefully examine the social construction of the legal invention of the “state” in close relationship to the living reality of a nation or nations. To do this, the court, and any court considering the question (above) must *not* succumb to reducing the nation-state to simply the rarified “state.” This is awkwardly simplistic in law and in fact; yet, sadly, the term “nation-state” is often conflated in law, in practice, and in conventional wisdom to simply mean the socially constructed and rather recent invention of the “state;” this all-too-common conspectus is a gross mistake and simplification of the complex reality and legal relationships between the nation, or nations and the states. For instance, the nation is a living reality—*nation comes from “natio” which means “birth” in Latin—*so,in essence, the state is simply a legally and socially constructed “effect” of the living nation or nations of people within a specific territory—in short, the nation or nations as the repository of life and rebirth as the “cause” and *raison d’ etre* of the subsequent state.

Furthermore, the nation does not simply consist of living adults who can vote or make political decisions; any nation is a solemn, even sacred pact, as Edmund Burke noted, between the past, present and future generations.[[30]](#footnote-30) So, the only way to ensure the self-preservation of the nation as a legal entity is to protect and ensure its living capacity for regeneration and renewal. As such, the national and domestic courts of the socially and legally constructed state have, as their primary legal duty, to ensure the recognition, respect and necessary enforcement of the *Lex Naturalis*, defined here as the “first law” of self-preservation of the nation or nations and nature.[[31]](#footnote-31) This is certainly not a new idea in the law; the Law of Nations has always recognized the public trust, such as common access to waterways, as a pact between past, present and pending generations.[[32]](#footnote-32)

In short, if a state fails in this basic duty to observe the *Lex Naturalis*, it is failing in its *primary legal duty*—the self-preservation of its nation or nations and nature; in essence, then, it has become a lawless leviathan trampling over the rights, substance and life chances of the living and unborn generations. As such, this gives rise to an immediate cause by individuals, civil society or institutions for legal action; among other issues, such a lawless state is trampling on the principle of insuring intergenerational equity. In such cases, and there are unfortunately many current such examples, the international, national, domestic or indigenous courts must intervene in order to ensure that the fundamental self-preservation of the nation, as well as nature, is ensured—including the ecosystems that support and sustain life in the present and future. Right now, these ecosystems are threatened with global annihilation.

Fortunately, the law or courts are not powerless in the face of such a growing and accelerating existential threat to life on Earth, *due in large part to activities legally sanctioned by the state.* Such permissive legal approval has no basis in the fundamental and *a priori* Lex *Naturalis* which requires in the first and final instance, the self-preservation of the nation or nature. If states pose a threat by virtue of their ongoing activities—especially the legal sanctioning of the burning of carbon-based fuels—they lose their lawful claim to sovereignty which is based, first and foremost, on their ability to ensure the self-preservation of the nation and the nature upon which all life depends.

In this regard, a foundation stone of Lex Naturalis, or law of self-preservation, is the legal recognition and enforcement by the courts of *intergenerational equity (IE)*. Such IE is defined by Edith Brown Weiss as:

The principle of intergenerational equity states that every generation holds the Earth in common with members of the present generation and with other generations, past and future. The principle articulates a concept of fairness among generations in the use and conservation of the environment and its natural resources (see also Conservation of Natural Resources; Environment, International Protection). The principle is the foundation of sustainable development. [[33]](#footnote-33)

Not surprisingly, the merits and limits of IE are hotly debated by economists, lawyers and academics; but whatever their conclusions, no state has the legal right, in essence, to drive future generations into extinction and to eliminate entirely the life chances of any future generation of human beings, or of any other species for that matter; this is not the reasoning of law; this is the reasoning of imperious insanity.

Therefore, the sanctioning or exercise of any such power, however “legal” domestically, by any state that can then lead to the possible extinction of a species, including our own, has to be viewed as *ultra vires*, or simply stated, far away and beyond *the permissive scope of any legally sanctioned sovereign system of law on Earth.* To argue otherwise is simply an arrogant and unparalleled claim expressing the absolute height of human hubris and support for a lawless legal leviathan and should not be entertained in any court of law on the planet.

In view of these considerations, as well as the unparalleled threat of accelerating global climate crisis, the UNGA can specifically ask the ICJ-and citizens should ask their national judiciaries:

1. In view of ICJ past pronouncements that observing international environmental law is now a "*general obligation*" of all states, are the general principles of international environmental law now part of the Law of Nations—such as “do no harm,” the precautionary principle, and therefore binding—applicable to cases before the courts in pending adjudication within domestic jurisdictions?
2. Consistent with best legal practice, should international, regional or domestic national courts factually admit and utilize the norms, principles and classic conventions concerning the modern Law of Nations that now regulates the legal relationships between the state and its own people as well as other nations, especially in regard to the existential threat now posed by the climate crisis? In particular, is the general principle of intergenerational equity a basic pillar of any legal system that embodies due process and administers fiduciary duties to present and pending generations? Specifically, does the modern Law of Nations now apply to claims, disputes or cases between one’s own nationals or citizens, and peoples or peoples from other states?[[34]](#footnote-34) In many ways we already recognize this, especially multilateral corporations that often go jurisdiction shopping to find the most advantageous courts to hear their complaints;[[35]](#footnote-35) yet, this practice should be opened to all peoples and nations across jurisdictional divides, and especially to the *Corpus Juris* of existing international law which, in simple fairness to such individual or national plaintiffs, should have access to the same law common to all.
3. Does the inherent right of self-defense against armed attack, recognized in the Charter, rely upon the fundamental duty of the state to *preserve the nation and nature as a fundamental precondition of its lawful claim to sovereignty? Thomas Hobbes calls this first law of self-preservation the Lex Naturalis or basic Law of Nature, which he distinguished from subsequent natural rights.*[[36]](#footnote-36) *If so, are domestic courts the guardians of the last resort for safeguarding the legal pre-conditions for lawful state sovereignty, such as ensuring the basic self-preservation of the nation and nature upon which all life depends?*

Concerning question ‘c’ above, self-preservation of the nation and its territory is the foundation for the inherent right of self-defense against armed attack, a right enshrined in the Charter of the United Nations. Yet **such a widely recognized right to self-defense by the state is *a secondary and derivative right* and predicated completely upon *the self-preservation* of the nation and nature, on which the state fundamentally depends.** In view of this, the English philosopher Thomas Hobbes posits self-preservation as the primary Law of Nature, or *Lex Naturalis*, which dictates, in turn, that the *self-preservation* of the nation and nature is *a legal precondition of a state’s legitimate and lawful sovereignty.*  This is, I suggest, not simply the first law and principle of life, but also of the courts of law everywhere who must enforce intergenerational equity as an essential component of the Lex Naturalis..[[37]](#footnote-37) Otherwise states—and their courts-- will dissolve in a crisis of legitimacy deficit [[38]](#footnote-38) and growing legal irrelevance as their peoples and nations realize that they are unwilling or unable to protect them from the coming droughts, wildfires and famines caused by the accelerating climate crisis.

Without the strict observance and enforcement of this fundamental law of *Lex Naturalis*, or the self-preservation of the nation and nature, *anything is permissible* and there is simply no need for *any law, judges or courts*…. or will legal jurisdictions simply pass out sentences on auto infractions in perpetuity? So, at the very least, intergenerational equity requires—*in fact it legally* *demand*s—that the *mere existence and self-preservation of succeeding generations is assured or, at least, not callously disregarded by activities such as the ongoing burning of fossil fuels by the current generation*. This is especially true for those in the developed or “most industrialized or polluting states (MIOPS)” that are proving to be so dangerous to the self-preservation of life.[[39]](#footnote-39)

To prevent such a lethal outcome, which is now possible, the primary responsibility of the state—which is to preserve the nation or nations and the natural ecological systems upon which all life depends-- must now immediately accept, at the very least, *that the general principles of international environmental law are now applicable and must be self-executing within the domestic courts of any state, including the fundamental legal principle of intergenerational equity.*  This can be done by the courts recognizing as customary law the international legal principles of environmental law. Jurists, legislators and scholars can help in this effort. Only in this way can any state accurately claim that it is working to FUFILL ITS PRIMARY RESPONSIBILITY to ensure the self- preservation of the nation and nature.[[40]](#footnote-40)

In regard to Question ‘1b,’ Roman and Byzantine Jurisprudence—referred here as classical jurisprudence—form the foundations for modern civil, mixed, bi-juridical and even much of common law systems. Classical jurisprudence, especially the Justinian definition of the “Law of Nations common to humanity” has never been specifically repudiated by modern nation states— especially those governed by civil legal traditions. In fact, after World War II, the historical and legal preconditions for its final fulfillment and implementation finally exist,[[41]](#footnote-41) and just in time to address the current existential crisis of climate change.

 If the ICJ answers the questions above in the affirmative, even in an advisory opinion, any state that countenances continuing activities within its borders that threatens the self-preservation of the nation and nature thus forfeits its lawful claim to *de jure* sovereignty and to govern. Meanwhile, such a decision by the ICJ may be a long time coming, if at all. *So, other international, regional, domestic and indigenous courts are not powerless to act and must address as well as DECIDE these critical questions as well. We simply have no more time to lose.*

In this sense, the courts and the judiciary system of every nation-state that adheres to the rule of law has already often served as the final recourse on pressing legal questions and claims of the day. Scholars have long asserted that national courts are indicative of state practice in international law as well. As such, the domestic courts must be the first and final guardians of the *Lex Naturalis* upon which the self-preservation of the nation and nature fundamentally relies upon simply to exist as living beings upon the Earth.

All of these steps, singlehandedly or collectively, can help contribute to creating a much more effective and robust global legal framework to protect the world’s environment and biosphere, a framework that is now sorely lacking in terms of the lacks and gaps that currently exist. Such a global legal framework simply doesn’t exist now, and *will never be* negotiated with the COP framework, which seems to solely focus on the needed carbon cuts.

So, addressing these glaring legal gaps *now*, perhaps initially through immediate UNGA voting and action, can greatly strengthen the judicial capacity of international and domestic courts in effectively addressing further damage to the global environment—including its biodiversity—and gravely endangered ecosystems. In the face of the global climate crisis, time has run out.

**1b)** **APPLYING A GLOBAL LEGAL FRAMEWORK: INTERNATIONAL, AND NATIONAL COURTS MUST ENFORCE ENVIRONMENTAL LAWS AS A PRECONDITION FOR LEGITIMATE STATE SOVEREIGNTY**

This emergent *Lex Naturalis* (Law of Nature)—including the No Harm, Prevention and Precautionary principles of international law—*now obligates states to protect what is absolutely necessary for self-preservation and perpetuation of life on this planet*;[[42]](#footnote-42) this is the only basis for legitimate state sovereignty in the Anthropocene Age. So, observing and, if need be, enforcing these legal protections of the environment, as well as peoples’ rights to a healthy and safe local and global environment are the absolute prerequisites to self-preservation and hence for the legitimate and legal sovereignty of a state. [[43]](#footnote-43)

In short, lawful sovereignty now requires that the state extend comprehensive legal protection via its domestic courts, for the self-preservation of future generations and over all remaining biodiversity, forests and those natural systems that support and sustain life on this planet. Activities that threaten the sheer self-preservation of the nation and nature—especially the state-sanctioned and thus “legal” burning of carbon-based fossil fuels—must be legally challenged and quickly terminated—at least for the duration of the climate crisis.

According to Katrina Zimmer of BBC, more than 100 states have declared in their constitutions that a healthy environment is a human right. This often serves as a powerful tool in protecting the environment.[[44]](#footnote-44) National courts can also order governments and corporations to obey their international treaty obligations and cut their use of carbon-based fuels; in fact, this has already happened in a number of promising cases in Europe. Specifically, as the *Guardian* newspaper reported: “A court in the Hague in May 2021 ordered Royal Dutch Shell to cut its global carbon emissions by 45% by the end of 2030 compared with 2019 levels, in a landmark case brought by Friends of the Earth and over 17,000 co-plaintiffs.” [[45]](#footnote-45) The *Guardian* article went on to explain that The oil giant’s sustainability policy was found to be insufficiently “concrete” by the Dutch court in an unprecedented ruling that will have wide implications for the energy industry and other polluting multinationals.

“The Anglo-Dutch company was told it had a duty of care and that the level of emission reductions of Shell and its suppliers and buyers should be brought into line with the Paris climate agreement.” This is a ground-breaking legal case that has wide-ranging potential applications in national courts throughout the world, especially in terms of raining in the ongoing excessive use of carbon-based fuels that are contributing so much to the current climate crisis.”[[46]](#footnote-46)

Furthermore, in a recent decision (2021), A French Court ordered the French government to live up to its own carbon cutting commitments as delineated in the Paris Treaty; specifically, the court “ordered Prime Minister Jean Castex and his government to take measures "to repair the damage" caused by the failure to compensate for the excess emissions. The court imposed a deadline of December 31, 2022, to set things right, leaving the government the discretion on how to achieve it.[[47]](#footnote-47)

Similar cases have played out across many other Latin American countries that have embraced the constitutional right to a clean environment, including Colombia, Argentina, Peru and Ecuador, says César Rodríguez-Garavito, an international human rights and environmental law expert at New York University.[[48]](#footnote-48) He states: “If you can show that a fundamental right is at stake, you can basically fast-track the cases in court.”[[49]](#footnote-49)

Finally, in a far-reaching decision, the German Constitutional Court cited the impact of unmet carbon cuts by the government on intergenerational equity and future generations; in view of these considerations, the court ordered the government to cut now, rather than burden those who will live beyond A.D. 2030, when the required cuts are mandated to take effect; in doing so, the court stated:

"Violate the freedoms of the complainants, some of whom are still very young" because they delay too much of the action needed to reach the Paris targets until after 2030.

"In order to achieve this, the reductions still required after 2030 will have to be achieved more urgently and at short notice," the court said. Should Germany use up most of its permitted CO2 emissions by this time, future generations could face a "serious loss of freedom".[[50]](#footnote-50)

The German High Court decision illustrates the importance of citing the impact that current carbon emissions will have on future generations; as such, the established legal principle of intergenerational equity can be a powerful legal norm to argue in courts across the world, explaining why governments must cut their carbon emissions *now*. All these court cases cited above—and the list is by no means exhaustive—illustrate that significant cuts in carbon emissions can be obtained *now* through concerted legal action, despite the relative lack of success through the COP process, year after year, even to slow the increase in global carbon emissions.

This is critical, since only through the strict enforcement of existing and emergent environmental principles, norms or law, *both domestic and international*, in courts of law do we have any chance of surviving the accelerating ravages of global climate change. Otherwise, we will probably go the way of the dinosaurs, perhaps sooner rather than later. In short, there is no more time to lose; *we must immediately take decisive legal action*.

To facilitate such an empowered judiciary, the legal authority of judges in international, indigenous and domestic jurisdictions to enforce environmental laws or norms must be recognized by national legislatures, UNGA declaratory resolutions and other national courts, especially in the developing countries, as part of the common Law of Nations whose enforcement is now necessary to the exercise of legitimate state sovereignty in this Anthropocene Age.[[51]](#footnote-51)

**2) THE UN SECURITY COUNCIL AND THE EARTH ARMISTICE: MAINTAINING INTERNATIONAL PEACE AND SECURITY AS THE CLIMATE CATASTROPHE ACCLERATES:**

The UN Security Council is uniquely empowered by the UN Charter to address any dispute or “situation” that may threaten the maintenance of international peace and security; the UNSC’s powers were broadly defined and construed; as the word “situation” connotes, the framers knew that, due to the complexity of international relations, it was impossible to precisely define the scope of the Security Council’s preventive powers to “maintain international peace and security” within the Charter[[52]](#footnote-52) in the future.

Rising global conflicts are, in part, undoubtedly due to the increasing influences of climate change. While some privileged scholars from primarily developed countries still abstractly argue about the exact links between climate change and violent human conflicts. Journalists, and those who travel to the affected areas, have already reported on the intense human conflicts occurring due to increased migrations due to droughts, wildfires and crop failures, all occurring within the context of greatly accelerating climate change.[[53]](#footnote-53)

With the failure of the COP process to curb the developed world, and now other states, unabated appetite for carbon-based fuels, human conflicts due to climate change should be anticipated and ideally prevented before catastrophic conflicts and even wars occur. For instance, the declining water stocks flowing into dams in the Himalayas and in Ethiopia could trigger disastrous regional or even nuclear war—since India and Pakistan both possess nuclear arsenals.[[54]](#footnote-54) So, the great and growing threat of accelerating climate change to the “maintenance of international peace and security,” the primary function of the UNSC, can no longer be ignored.

So, in previous publications, I have outlined the arguments for the UN Security Council to declare *an “Earth Armistice*” that will require—consistent with the UNSC’s authority under the Charter, that each member state of UN devote from 10-20% of its current military budget to addressing climate change,[[55]](#footnote-55) including the investment in now necessary carbon sequestration technologies; such a diversion of funds can help promote a global green economy by creating hundreds of thousands of green jobs, as well as repurposing defense industries to design and rapidly deploy effective negative emission technologies (NETs) to remove carbon out of the atmosphere.[[56]](#footnote-56) [(NETS will be discussed in the next section].

Such an Earth Armistice is fully consistent with the UNSC’s authority and legal powers under the Charter, and found in Articles 25 and 26, among other places—such as Article 47, in the Charter of the United Nations. The Earth Armistice also creates a comparative military advantage among the permanent powers of the UNSC since the cuts of any one member will be less than the potential array of adversaries that it may face; the exception is of course the United States who has to borrow money yearly to pay for its bloated federal budget, a situation that senior military officers and advisors have described as a profound threat to the United States national interests and security.[[57]](#footnote-57)

With the failure of the COP process, so far, to curb carbon emissions, accelerating climate change now brings other UN organizations and organs into to the fray if international peace is to be maintained. For instance, there is clearly now a need for a “strategic partnership between the UNCS and the UNEP since the mandates of each are now fully operative and desperately needed. The UNEP can provide the in-house expertise and experience in the resulting funds when and if the Earth Armistice is passed by the UNSC. So, all is not lost, even with the ongoing incremental progress of the COP process. Fortunately, the UN Charter, especially Article 25, 26 and 34 provides the Security Council with the preventive power and authority to investigate and address climate change before it significantly endangers international peace and security.

**3) STATES OR REGIONAL INTERGOVERNMENTAL ORGANIZATIONS**

**-AND CARBON SEQUESTRATION:[[58]](#footnote-58)**

-A special thanks to Ms. Furtuna Abebe and Ms. Maheesha Mudannayake who co-authored an earlier MAHB article from which this section on RIOS and NETS is extracted.[[59]](#footnote-59)

In its October 2018 report, the IPCC stated that to keep global warming under 1.5°C, emissions must go negative, and quickly. The problem is that such Negative Emission Technologies (NETs) are largely under developed, potentially very expensive and may have unforeseen consequences. Yet, the IPCC made it clear that without the use of such negative emissions, we may well experience a 1.5 C increase or more in global temperatures very soon — with disastrous consequences. [[60]](#footnote-60) But the costs, alone, of developing such potentially vast NETS are well beyond most governments’ ability to finance through the research, development and deployment (RD2) stages.  In view of this, the following precis will argue and strongly advocate that Regional Intergovernmental Organizations (RIOs) each adopt one or two NETs to develop and deploy rapidly as possible. This is described as the RIO Strategy of climate mitigation which must be pursued in conjunction with large scale carbon cuts by states and individuals. This idea was first developed in a previous MAHB paper at: [MAHB article](https://mahb.stanford.edu/blog/blue-oceans-green-seas-1-solutions-part-ii/), “1% Solutions,” in which the idea of tackling global climate change via NETs by fractionating this problem among states was first explored.

**THE RIO STRATEGY: EACH RIO ADOPTS AT LEAST ONE NET.**

**“Without Vision, a People Perish.”  Proverbs, 29:18**

The RIO Strategy proposed here is that, after close consultations, every major Regional Intergovernmental Organization can adopt one or two NETs, uniquely tailored to each region, to help draw CO2 out of the global atmosphere; the goal of each RIO should be to reduce the amount of CO2 in the global atmosphere until, as an immediate goal, we get to below 400 ppm; this is truly massive undertaking but the point of this section is simple—this can be done, if we scale up and start NOW. [[61]](#footnote-61)

It should be noted that such NETs create jobs, thus helping to achieve sustainable development by creating a green economy; in short, a variety of NETs will be researched, developed and deployed (R&D2) by the largest regional organizations in the world —such as the Arab League, ASEAN, the African Union (AU), the Caribbean Community (CARICOM), the Commonwealth of Nations, Community of Latin American and Caribbean States (CELAC), the Economic Community of West Africa (ECOWAS), the European Union (EU), The Intergovernmental Authority on Development (IAD), the Nordic Council, the Organization of American States (OAS), the Shanghai Cooperation Organization and the Southern African Development Community.

 In a previous  [MAHB article](https://mahb.stanford.edu/blog/blue-oceans-green-seas-1-solutions-part-ii/), we called for “a 1% strategy in which scientists, policy makers and citizens initiate a variety of mitigation methods that each take at least 1% of the total CO2 out of the global atmosphere….With 20 more similar methods, we could reduce CO2 in the Global Atmosphere to a level below 400 ppm permanently, making our survival more certain in a very problematic future due to climate change.”  (“1% Solution, Part II,” Boudreau, MAHB, June 11, 2019).  In the current context, a cumulative “1 PPM strategy” involves that *each RIO commit to developing one or two large scale Negative Emissions Technologies (NETs),* *in which each NET seeks to draw out up to 1 PPM of the CO2 in the global atmosphere.* Along with the IPCC and several other organizations, we have identified the most promising NETS in another MAHB article; (see: “The Restoration”: Boudreau et al., The Restoration, MAHB, Oct. 19, 2019. This is, indeed, a Herculean task.  Fortunately, there are actually many more promising candidates to become NETs—see list in the MAHB article.).

So, a successful RIO strategy requires the immediate and intensive research, development and deployment (R&D2) of 15 to 20 NETs with the goal of collectively or sequentially lowering the CO2 in the global atmosphere to below 400 ppm as the immediate and urgent imperative of humanity. This involves the restoring and returning to the CO2 level of the Earth Atmosphere to levels prior to spring, 2013…. If this process is found to work, then efforts should continue until there are 350 PPM of CO2 in the Earth’s atmosphere.

The potential of a variety of NETs and carbon sequestration techniques have been extensively studied and proven.[[62]](#footnote-62) The four or five most promising NETs are listed below and are currently being developed, though each project needs large infusion of capital NOW to scale up to the enormous scale needed for effective deployment and implementation; these promising NETs—each could absorb up to one percent or more of the CO2 in the global atmosphere-- include:

1. **UCLA’S CARBON MANAGEMENT INSTITUTE**: The “Single-step Carbon Sequestration and Storage” Project developed in prototype at the Carbon Management Institute at the University of California, Los Angeles (UCLA). Simply stated this is one of the two or three most promising NETs in development in the world today; so please read about the very promising work of this UNCL research team, cited below,[[63]](#footnote-63) rather than have a poor imitation of its astounding design or prototypical deployment here.
2. **MARINE PERMACUTURE** **AND THE CLIMATE FOUNDATION**: The large-scale Marine Permaculture and Kelp farms have already been developed and deployed by the Climate Foundation in largely indigenous areas in Indonesia and the Philippines, where local people are intensely depends on the fish protein that healthy coral reefs provide.[[64]](#footnote-64) The Climate Foundation has discovered that coral reefs can sometimes be rapidly restored by drawing cooler waters from a hundred feet below to pour over the overheating reefs; drawing up these cooler waters also helps with large scaled Kelp farming and harvesting—a source of income to local inhabitants (and to potential investors) from Australia to the Philippines on a potentially massive scale, so much so that the directors of the foundations, including highly trained scientists, believe that such Marine Permaculture can suck out gigatons of CO2 from the atmospheres yearly. Having developed the NET, all they need now is capital to expand their operations. Their success in sequestration of CO2 through kelp farming placed them in the very top of the most promising NETs in the world today.
3. **THE ORCA PROJECT**: Since so much has already been written and researched about the ORCA Project, I refer you once again to the citations and articles listed below in the footnotes for a fuller and more robust description and explanation.[[65]](#footnote-65)
4. **COASTAL CARBON CAPTURE: OLIVINE AND THE OCEANS**:

Olivine is one of the most common minerals on the Earth; it also absorbs CO2. To do this, all olivine needs is to be exposed to the surface, either in the oceans or the atmosphere, and it immediately begins to absorb C02; then “it forms into**magnesium-carbonate and silicic acid**. This process locks up CO 2 from the air into rocks with a new chemical composition” where it can stay for thousands of years, if not longer…[[66]](#footnote-66)

This sequestration process, using the common mineral olivine and other ultramafic minerals-- has been extensively studied, proven to work—though it would have to be scale up very quickly to a massive scale’ using olivine on beaches to capture CO2 in oceans and other rock weathering projects should be R&D2 immediately as well since olivine and other ultramafic minerals are plentiful, if not under your feet right now. The mission of the Vesta Project is to: is to further the science of Coastal Carbon Capture and galvanize global deployment. See Vesta Project website (below) for scientific studies, concept papers and pilot projects.[[67]](#footnote-67)

1. **THE IRON HYPOTHESIS**: Despite being known and discussed for over two decades, the so-called Iron Hypothesis still must be progressively tested, titrated up to scale in larger and larger experiments, and then fully deployed.

The Iron Hypothesis involves the seeding of the oceans or Oceanic gyres, with iron filings to cause great plankton blooms that will then absorb CO2 from the atmosphere. Meanwhile its critics speculate and argue without compelling evidence that deploying iron filings in this way would be a toxic development, despite the deadly toxic blooms in the oceans ALREADY being caused right now by climate change while the world burns; plus, human beings, among all the other Biosphere, faces the Sixth Extinction event. A little more humility, intuitiveness and what Gandhi called “Experiments with truth” are called for in the face of such catastrophic, runaway climate change…. But academics know it all so convincing them might simply take more time than we now have to prevent what Secretary General calls “climate catastrophe….”

Since I have written extensively on these, the Iron Hypothesis, and its potential for large scale deployment elsewhere,[[68]](#footnote-68) I will not repeat the arguments here. However, I will quote from an earlier article (2018), to wit:

“Time is now not on our side as the danger of irreversible climate change is rapidly growing; so, we need to accelerate global climate consultations, continuous negotiations and lasting action. As a global organization, the UNGA can help mobilize the necessary research and development of policies, programs and technologies to accomplish greater efficiencies in all possible mitigation methods, including healthy carbon *sequestration as well more remote techniques as “in stratosphere” and space-based solar screening.* In short, every mitigation method or every “experiment with Truth” must be tried until one or more mitigation method proves effective.

“Untried ways to achieve the massive reduction of atmospheric carbon should be as varied and innovative as the human imagination and following policy initiatives allow. For instance, vastly expanded and added efforts must include, in memory and honor of Wangari Maathai, the continuous planting a billion trees per year on each of the inhabited mainland continents; renewed experimentation of the Iron Hypothesis in the Southern Ocean; and there should also be massive and accelerated conservation efforts with energy or electricity as well as recycling, especially throughout the developed world where the waste is greatest.

*“In doing so, the obvious ethical rule of application is that such mitigation or sequestration technologies should not be deployed if the actual damage that they cause is greater than the growing danger and increasing devastating consequences of continuing, unabated global climate change to all life on Earth.*There is now a cruel yet unavoidable calculus of cost-benefits calculations concerning the benefits and inevitable consequences of simply doing nothing, such as droughts, migrations and increasing extinction events. For instance, critics of carbon sequestration in the oceans often cite the unintended potential consequences of large-scale deployment of technologies based on the Iron Hypothesis; yet there was a massive and growing toxic orange algae bloom growing off the coast of California in 2016 caused by increased temperatures and unabated climate change. This toxic bloom caused a massive kill-off of fish, the seabirds or mammals that rely upon them. So, not doing anything—and thus allowing such unintended consequences to grow, must be calculated against the possible and still hypothetical unintended consequences of carbon sequestration methods. The deadly costs of doing nothing are very steeply increasing.

“Policy Purists” who advocate “carbon cuts or nothing!”–which was an appropriate attitude and approach twenty years ago–are now possibly the greatest hindrance to climate progress and even human survival. There are now rapidly increasing costs of doing nothing that can be measured, calculated and compared, even roughly, against the inevitable cost/benefits of carbon sequestration methods, geo-engineering and the R/D of new technologies. The time has now simply passed when ethically “ideal” or “pure” cost free measures were perhaps feasible.

The Earth is rapidly heating up to uninhabitable levels, or will in the next years and decades, the polar ice caps and glaciers are melting at unprecedented levels, sea levels are rising, and extreme weather events are spreading as well as intensifying. In view of deeply troubling developments, we need to intensify our efforts through *a collective commitment to climate policy pluralism and have a variety of strategies, methods and approaches to stabilizing the Earth’s climate*; so far, it’s becoming increasingly obvious—except to rabid climate deniers and ironically environmental purists–that carbon cuts alone simply aren’t working.”[[69]](#footnote-69)

**THE COP PROCESS, ALONE, HAD ITS CHANCE: IT FAILED.**

Despite the heroic efforts of many of the diplomats at the 2021 COP Conference in Glasgow, including the Conference President Alok Sharma, the final negotiated text is simply “too little, too late” to save the world from the coming ravages of accelerating climate change. [[70]](#footnote-70) This should not really be a surprise, but we could and di hope for more; in fact, the entire COP process has a whole has simply failed to halt the developed world insatiable appetite for more carbon-based fuels. If the world had a hundred years to successfully address climate crisis, then the snail pace of COP diplomacy might be appropriate. But scientists war that we now have the end of this decade—till 2030—to reach irreversible tipping points in the global climate that will devastate biodiversity and human life on this planet. So, clearly much more needs to be done immediately to limit the coming droughts, wildfires and extreme weather events that are—if more is not tried—caused by global climate change.

So, several critical “new” or ongoing strategic directions for addressing the climate crisis by policy makers, diplomacy and civil societies have been proposed in this paper that are intended to support, though not supplant, the flawed COP process. As argued above we can do much more than meet once a year to address the climate; hence, there is an immediate need and urgency on embarking upon each of the strategic directions outlined above—a global legal framework and using the courts to enforce carbon cuts; an Earth Armistice enacted by the UN Security Council and the massive use of carbon sequestration, pioneered by Regional Intergovernmental organizations (RIOs).

Any or all of these strategies can be immediately implemented to provide the massive movement and action now needed to address climate change successfully, and thus save what will remain to be saved. We are simply running out of time; so, we must begin now to energize and activate every diplomatic, political and social strategy in order to address and ideally halt advancing climate crisis. So, even at this late hour, we should not give up hope that human beings can reverse what we have started, and ideally halt or even reverse climate change; but to do so, we must begin immediately, meaning RIGHT NOW, and commit every ounce of energy to this great task of ending the climate crisis before it ends us. As such, there is no greater calling or duty for human beings; we must pass on our Mother Earth in such a livable condition that it can successfully support and sustain future human generations. To do so, we must begin NOW…

**CONCLUSION: NOW OR NEVER—THE NATION STATE AS THE MODERN DINOSAUR**?

With the ongoing failure of COP process to halt accelerating climate change, we must now mobilize and utilize EVERY diplomatic, scientific, and educational community, legal institutions and the town square to halt and reverse climate change, or we may well go the way of the dinosaur, and take all or most of life on Mother Earth with us—what is to stop such a pending and now possible fate now?

In view of this, this article has outlines three strategic directions that now have to be fully emphasized and utilized a long side the mostly pitiful efforts up to now to cut the develop world’s relentless appetite for carbon-based fuels. these strategic directions that now have to be fully developed and deployed are: utilizing existing international institutions such as the UN or the ICJ, as well as domestic courts; b) utilizing the UN security council to make enforceable binding decisions concerning climate change in order to reinvent the international conflicts; otherwise certain to come; c) utilize carbon sequestration technologies to start pulling out co2 from the global atmosphere; this is perhaps the most underutilized option that we currently possess due to the group think, and political correctness of environmental elites who nevertheless still fly country to country, continent, to cop conferences and the like, thus contributing significantly to the very problem that they unconvincingly protest.

In particular, the ICJ or regional or the national courts must recognize the nation-state as a compound legal entity in which the self-preservation of the nation is the necessary precondition for any lawful claim to any state’s lawful sovereignty and legitimacy; so, if a state is allege to be threatening the basic capacity of life and future of the nation to renew itself by pursuing ongoing environmental destruction, the case becomes immediately justiciable in domestic courts since the issue before the judge or judges is the ongoing self-preservation of the nation and nature, the Lex Naturalis, for which the state is created to safeguard and protect.

If the ICJ rules otherwise, then it is, in effect, giving legal license to the state ability to destroy the fundamental conditions of the nation and nature’s self-preservation though activities that contribute to the now existential threat of accelerating global climate change. In short, international—and domestic law—*has already sanctioned the absolute necessity of self-preservation by recognizing the secondary right of self-defense against armed attack.* Thus, the legal recognition of the state’s fundamental responsibility to ensure the self-preservation of the nation and nature is already fully accepted, recognized --though often implicit-- in international and domestic law. Such fundamental responsibility is the basic and inherent [**raison d'etre**](https://www.bing.com/shop?q=raison+d%27etre&FORM=SHOPPA&originIGUID=D26E4EB0BAA34844A4E87CE935EDBCB5) of the state and, as such, is an inherent *legal precondition of a state’s legitimate and lawful sovereignty; in turn, it is the solemn obligation of international, regional, domestic and indigenous courts to recognize and uphold*  the inherent legal duty of the state to preserve the fundamental capacity of life and rebirth the nation and nature in order to insure their mutual self-preservation, now threatened by catastrophic climate change.

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1. See: https://news.un.org/en/story/2021/11/1105792 [↑](#footnote-ref-1)
2. Ibid., Andrei. Thank goodness for the current UNSG! [↑](#footnote-ref-2)
3. For instance, there was a crescendo of criticisms after COP 26. See, for example:

   [‘COP26 hasn’t solved the problem’: scientists react to UN climate deal (nature.com)](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.nature.com%2Farticles%2Fd41586-021-03431-4&data=04%7C01%7CTEBOUDREAU%40salisbury.edu%7C91d89df4d42e435d760708d9b5233565%7C2472f1faf24f421badd7b01c4b49be07%7C0%7C0%7C637739985086888837%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=1ke1DZAI9BiYjGz7cD7ZG1AXDR2CwEbTbMU%2BR6iGM%2F0%3D&reserved=0)

   [Commentary: Why COP26 summit ended in failure and disappointment - CNA](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.channelnewsasia.com%2Fcommentary%2Fcop26-glasgow-agreement-failure-climate-phase-down-coal-2314176&data=04%7C01%7CTEBOUDREAU%40salisbury.edu%7C91d89df4d42e435d760708d9b5233565%7C2472f1faf24f421badd7b01c4b49be07%7C0%7C0%7C637739985086898791%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=HuyYpkbjLLvDKlbZ5Hle%2B7JpW7GukyBWiStQUH5kx5g%3D&reserved=0)

   [(channelnewsasia.com)](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.channelnewsasia.com%2Fcommentary%2Fcop26-glasgow-agreement-failure-climate-phase-down-coal-2314176&data=04%7C01%7CTEBOUDREAU%40salisbury.edu%7C91d89df4d42e435d760708d9b5233565%7C2472f1faf24f421badd7b01c4b49be07%7C0%7C0%7C637739985086898791%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=HuyYpkbjLLvDKlbZ5Hle%2B7JpW7GukyBWiStQUH5kx5g%3D&reserved=0)[Analysis: COP26 Climate Summit Is Looking Like a Historic Failure (businessinsider.com)](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.businessinsider.com%2Fanalysis-cop26-climate-summit-is-looking-like-a-historic-failure-2021-11&data=04%7C01%7CTEBOUDREAU%40salisbury.edu%7C91d89df4d42e435d760708d9b5233565%7C2472f1faf24f421badd7b01c4b49be07%7C0%7C0%7C637739985086908752%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=xxNN70NW1oXLbksa9hhUkT5hqA%2BBCvhDEckDcUMHVYo%3D&reserved=0)

   [The Glasgow summit left a huge hole in the world’s plans to curb climate change | The Economist](https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.economist.com%2Finternational%2F2021%2F11%2F20%2Fthe-glasgow-summit-left-a-huge-hole-in-the-worlds-plans-to-curb-climate-change%3Fgclid%3DEAIaIQobChMI1rnNzJ2-9AIVgZ-zCh2FZgW2EAAYAiAAEgJ9HPD_BwE%26gclsrc%3Daw.ds&data=04%7C01%7CTEBOUDREAU%40salisbury.edu%7C91d89df4d42e435d760708d9b5233565%7C2472f1faf24f421badd7b01c4b49be07%7C0%7C0%7C637739985086918703%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=ohNfNjf8JlQZiG%2BnnLoPlpo28Jf4Yhlf%2BCziXLg%2FEgI%3D&reserved=0) [↑](#footnote-ref-3)
4. See: https://www.economist.com/films/2021/09/27/the-decisive-decade-for-climate-change [↑](#footnote-ref-4)
5. See: *Advances in International Law: Enhancing the Role of the Judiciary in the Rule of Law*, Boudreau and Sainz-Borgo, Elias Press, 2017. The majority of states in the world have a civil law (Roman) or mixed legal system. [↑](#footnote-ref-5)
6. See: The UN Secretary-General’s report: “Gaps in International Environmental Law and Environment-Related Instruments: Towards A Global Pact for the Environment” (Document A/73/419), Dec. 3, 2018 [↑](#footnote-ref-6)
7. We even have a treaty for the moon, but none to regulate or protect the global atmosphere. See, for example: note 9, infra. [↑](#footnote-ref-7)
8. See the IPCC Special Report, “Global Warming of 1.5,” at: [Global Warming of 1.5 ºC — (ipcc.ch)](https://www.ipcc.ch/sr15/) [↑](#footnote-ref-8)
9. See: Boudreau, T. (2017). The Earth's Atmosphere as a Global Trust: Establishing Proportionate State Responsibility to Maintain, Restore and Sustain the Global Atmosphere. *Earth Jurisprudence & Envtl. Just. J.*, *7*, 39. [↑](#footnote-ref-9)
10. [100 Jurists Call for action for the adoption of a Global Pact for the (...) - La France en Inde / France in India (ambafrance.org)](https://in.ambafrance.org/100-Jurists-Call-for-action-for-the-adoption-of-a-Global-Pact-for-the) [↑](#footnote-ref-10)
11. See: globalpactenvironment.org/en/the-pact/objectives/. Also see: [↑](#footnote-ref-11)
12. Magalhães, P., Steffen, W., & Bosselmann, K. (Eds.). (2016). *The safe operating space treaty: A new approach to managing our use of the earth system*. Cambridge Scholars Publishing.  [↑](#footnote-ref-12)
13. Humankind, S. O. S. O., & Magalhães, P. (2016). Chapter Fourteen Safe Operating Space of Humankind Treaty [Sos Treaty]: A Proposal Paulo Magalhães1. *The Safe Operating Space Treaty: A New Approach to Managing Our Use of the Earth System*, 289. [↑](#footnote-ref-13)
14. See: Hobbes, T., & Missner, M. (2016). *Thomas Hobbes: Leviathan (Longman Library of Primary Sources in Philosophy)*. Routledge. [↑](#footnote-ref-14)
15. Hobbes, Leviathan, Chapter 14. Hobbes could expertly translate Latin, so he is saying something very clear and specific when he calls Lex Naturalis the “Law of Nature.” So, this is NOT the “natural law” argument of Aquinas, Locke or Jefferson which is ultimately based upon the” creator.” This is the basic law of life which is now based upon the *fundamental necessity concerning the self-preservation of nature upon which all living beings depend*—though humans in our hubris think we are exempt from this basic law. [↑](#footnote-ref-15)
16. The scientific literature on the current Extinction event, the Sixth in the history of the Earth, is voluminous; see, for instance, an “early” warning: Leakey, R. E., & Lewin, R. (1996). *The sixth extinction: Patterns of life and the future of humankind*. Anchor.; or more recently: Kolbert, E. (2014). *The sixth extinction: An unnatural history*. A&C Black. [↑](#footnote-ref-16)
17. See, for example: Schachter, O. (1991). *International law in theory and practice*. Brill Nijhoff. [↑](#footnote-ref-17)
18. In this regard, see: [Preserving Nature and the Nation: Redefining State Sovereignty in the Anthropocene Age - MAHB (stanford.edu)](https://mahb.stanford.edu/ideas-for-action/preserving-nature-and-the-nation-redefining-state-sovereignty-in-the-anthropocene-age/) [↑](#footnote-ref-18)
19. See, for instance, the most recent IPCC Report in the fall of 2021 with the UN Secretary-General describes as a red flag emergency warning for human beings and for the world. [↑](#footnote-ref-19)
20. Goodrich, L. M., Hambro, E., & Simons, A. P. (1949). *Charter of the United Nations: Commentary and Documents. Leland M. Goodrich, Edvard Hambro*, *2*. [↑](#footnote-ref-20)
21. See note 9*, infra*. Ibid., Andrei. [↑](#footnote-ref-21)
22. See: Dingledy, F. W. (2016). The corpus juris civilis: a guide to its history and use. *Legal Reference Services Quarterly*, *35*(4), 231-255; Also see: Boudreau, T. E. (2012). The Modern Law of Nations: Jus Gentium and the Role of Roman Jurisprudence in Shaping the Post World War II International Legal Order. *Dig.: Nat'l Italian Am. B. Ass'n LJ*, *20*, 1. [↑](#footnote-ref-22)
23. For a brief analysis of this most uncommon of words in jurisprudence, see: Paradigms Lost and Found, infra, note 16. [↑](#footnote-ref-23)
24. Anghie, A. (2007). *Imperialism, sovereignty and the making of international law* (Vol. 37). Cambridge University Press. Also see: Bowden, B. (2005). The Colonial Origins of International Law-European Expansion and the Classical Standard of Civilization. *J. Hist. Int'l L.*, *7*, 1.; Finally, see: Cavallar, G. (2008). Vitoria, Grotius, Pufendorf, Wolff and Vattel: accomplices of European colonialism and exploitation or true cosmopolitans. *J. Hist. Int'l L.*, *10*, 181. The legal literature is voluminous on this point…. [↑](#footnote-ref-24)
25. See: *Advances in International Law and Jurisprudence: New Roles for the Judiciary in Upholding the Rule of Law*, coeditors

    Thomas Boudreau, Ph.D., and Dr. Prof. Juan Carlos Sainz-Borga, The Elias-Clark Group, 2017. This work contains essays from legal scholars from all six inhabited continents of the world including Judge Garzon, the Spanish magistrate who successfully indicted Gen. Pinochet in the 1990s. Citing recent history, it argues that a modern Law of Nations already exists. [↑](#footnote-ref-25)
26. See. for instance, Koh, H. H. (2004). Jefferson Memorial Lecture-Transnational Legal Process After September 11th. Berkeley J. Int'l L., 22, 337. [↑](#footnote-ref-26)
27. See. for example: Merry, S. E. (2014). Global legal pluralism and the temporality of soft law. The Journal of Legal Pluralism and Unofficial Law, 46(1), 108-122; Also: Perez, O. (2003). Normative creativity and global legal pluralism: reflections on the democratic critique of transnational law. Indiana Journal of Global Legal Studies, 10(2), 25-64. Finally, see: Berman, P. S. (2006). Global legal pluralism. s. Cal. l. Rev., 80, 1155. [↑](#footnote-ref-27)
28. See supra, notes 11 and 12. [↑](#footnote-ref-28)
29. The first time that I encountered the wonderful --and accurate-- phrase “Global Law” was lately in the work of Prof. Domingo; See: Domingo, Rafael. *The new global law*. Cambridge University Press, 2010. However, there was an edited book out before this entitled: Teubner, Gunther, ed. *Global law without a state*. Aldershot: Dartmouth, 1997. Yet, these works take a largely anthropocentric perspective of the law; here, I am suggesting that the new and emergent Global Law must include Hobbes Lex Naturalis. i.e. the self-preservation of human beings *as well as nature* as uniquely interdependent and increasingly fragile, if not threatened subjects due legal protection and thus action. Yet, in something as vast as World Law, there is certainly room for many interpretations since my understanding is that, for Prof. Domingo and myself, at least, we seek to replace Bentham’s horrid and archaic term “international law” with the more encompassing and accurate term, Global Law. After all, the Earth globe is where we actually live…… [↑](#footnote-ref-29)
30. Burke refer to this as the “Contract of Eternal Society,” a means by which no single generation claims tyranny over past generations or future ones. See: “Edmund Burke & the Duties of Generations,” by Bradley J. Birzer on web at: [Edmund Burke & the Duties of Generations ~ The Imaginative Conservative](https://theimaginativeconservative.org/2016/09/edmund-burke-and-duties-generations-bradley-birzer.html) [↑](#footnote-ref-30)
31. Hobbes, Leviathan. No liberal here…… [↑](#footnote-ref-31)
32. See supra, notes 11 and 12. [↑](#footnote-ref-32)
33. Weiss, Oxford Law, website. [↑](#footnote-ref-33)
34. See: Paradigms Lost and Found: The Emergent International Legal Order. Boudreau, T. (2016). *J. Juris*, *30*, 65; Also see: *Advances in International Law and Jurisprudence, supra, note 11. Chapter ten by the same title. Ibid, Andrei* [↑](#footnote-ref-34)
35. See, for instance: Charny, D. (1991). Competition among jurisdictions in formulating corporate law rules: An American perspective on the race to the bottom in the European communities. *Harv. Int'l. LJ*, *32*, 423. [↑](#footnote-ref-35)
36. Malcolm, N. (2012). Thomas Hobbes: Leviathan. [↑](#footnote-ref-36)
37. Many state jurisdictions in the world, based on civil or mixed legal systems, recognize the role of first principle in applicable law…. See, for example: Merryman, J. H., & Pérez-Perdomo, R. (2020). *The civil law tradition*. Stanford University Press. [↑](#footnote-ref-37)
38. See: Beetham, D. (2013). *The legitimation of power*. Macmillan International Higher Education. [↑](#footnote-ref-38)
39. See: Boudreau Archives, MAHB. Stanford University [↑](#footnote-ref-39)
40. This argument was first made in the MAHB article published by Stanford University at: [Preserving Nature and the Nation: Redefining State Sovereignty in the Anthropocene Age - MAHB (stanford.edu)](https://mahb.stanford.edu/ideas-for-action/preserving-nature-and-the-nation-redefining-state-sovereignty-in-the-anthropocene-age/) [↑](#footnote-ref-40)
41. See footnotes 12-13, supra. Also, note 24, supra. [↑](#footnote-ref-41)
42. See:  Magalhães, P., Steffen, W., & Bosselmann, K. (Eds.). (2016). *The safe operating space treaty: A new approach to managing our use of the earth system*. Cambridge Scholars Publishing.  [↑](#footnote-ref-42)
43. See: [Preserving Nature and the Nation: Redefining State Sovereignty in the Anthropocene Age - MAHB (stanford.edu)](https://mahb.stanford.edu/ideas-for-action/preserving-nature-and-the-nation-redefining-state-sovereignty-in-the-anthropocene-age/). This article elaborates upon this argument. Also see David Beethanm’s book, The Power of Legitimacy, for an in depth analysis concerning the importance of legitimacy to the law. [↑](#footnote-ref-43)
44. See: Katarina Zimmer, The Human Right that Benefits Nature, in Future Planet at: [The human right that benefits nature - BBC Future](https://www.bbc.com/future/article/20210316-how-the-human-right-to-a-healthy-environment-helps-nature). 16th March 2021. [↑](#footnote-ref-44)
45. See: [Court orders Royal Dutch Shell to cut carbon emissions by 45% by 2030 | Royal Dutch Shell | The Guardian](https://www.theguardian.com/business/2021/may/26/court-orders-royal-dutch-shell-to-cut-carbon-emissions-by-45-by-2030), Wed 26 May 2021 10.48 EDT. [↑](#footnote-ref-45)
46. Ibid., Andrei. The Guardian article, supra [↑](#footnote-ref-46)
47. See: [Court orders France to fix greenhouse gas cut shortfall - France 24](https://www.france24.com/en/live-news/20211014-court-orders-france-to-fix-greenhouse-gas-cut-shortfall) [↑](#footnote-ref-47)
48. See note 10, supra. Thanks to Prof. Jose Alvarez for pointing out these cases, and article. [↑](#footnote-ref-48)
49. Ibid. [↑](#footnote-ref-49)
50. See: [German climate change law violates rights, court rules - BBC News](https://www.bbc.com/news/world-europe-56927010). Also: https://www.npr.org/2021/04/29/992073429/german-court-orders-revisions-to-climate-law-citing-major-burdens-on-youth. [↑](#footnote-ref-50)
51. See: [Preserving Nature and the Nation: Redefining State Sovereignty in the Anthropocene Age - MAHB (stanford.edu)](https://mahb.stanford.edu/ideas-for-action/preserving-nature-and-the-nation-redefining-state-sovereignty-in-the-anthropocene-age/) [↑](#footnote-ref-51)
52. Ibid., Andrei. Goodrich, L. M., Hambro, E., & Simons, A. P. (1949 [↑](#footnote-ref-52)
53. See for instance, Parenti, C. (2011). *Tropic of chaos: Climate change and the new geography of violence*. Bold Type Books; also: Bowles, D. C., Butler, C. D., & Morisetti, N. (2015). Climate change, conflict and health. *Journal of the Royal Society of Medicine*, *108*(10), 390-395. or even: Welzer, H. (2015). *Climate Wars: what people will be killed for in the 21st century*. John Wiley & Sons. Scholars adverse to any such connection between climate change and human conflict cite the lack of a “causal” links, thus hopelessly confusing the causal construct of effects in nonlinear systems. [↑](#footnote-ref-53)
54. A very good paper on the different academic perspectives on the possibilities of coming water wars is: Rahaman, M. M. (2012). Water wars in 21st century: speculation or reality? *International Journal of Sustainable Society*, *4*(1-2), 3-10 [↑](#footnote-ref-54)
55. See: [The Earth Armistice (updated) - MAHB (stanford.edu)](https://mahb.stanford.edu/library-item/earth-armistice-updated/): Dec. 2018. [↑](#footnote-ref-55)
56. See: [The Earth Armistice - MAHB (stanford.edu)](https://mahb.stanford.edu/blog/the-earth-armistice/); Oct., 2018. [↑](#footnote-ref-56)
57. See: [Climate Change, The Earth Armistice and Comparative State Advantage in Military Spending - MAHB (stanford.edu)](https://mahb.stanford.edu/library-item/climate-change-the-earth-armistice-and-comparative-state-advantage-in-military-spending/)’ Jan. 2020. [↑](#footnote-ref-57)
58. [The Fierce Urgency of Now.\* The Deployment of Negative Emission Technologies (Nets) by Regional International Organizations - MAHB (stanford.edu)](https://mahb.stanford.edu/library-item/the-fierce-urgency-of-now-the-deployment-of-negative-emission-technologies-nets-by-international-regional-organizations/) [↑](#footnote-ref-58)
59. Ibid. [↑](#footnote-ref-59)
60. [Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments — IPCC](https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/). [↑](#footnote-ref-60)
61. See my article by the MAHB Group, Stanford University, in which reaching the 400 ppm as the immediate goal is developed, at: [The Restoration: Using negative emissions to reduce the amount of CO2 – Climate Change and the Global Trust Project (atmosphereasaglobaltrust.com)](https://atmosphereasaglobaltrust.com/the-restoration-2/). We were last at 400 ppm of CO2 in 2013….The ultimate goal, as the Org. 350 reminds us, should be much lower, but 400 is just yesterday. [↑](#footnote-ref-61)
62. See note 20, supra. (above.) [↑](#footnote-ref-62)
63. See: [UCLA Research Team Proposes Strategy to Reduce Carbon Dioxide in the Atmosphere | CEE](https://www.cee.ucla.edu/ucla-research-team-proposes-strategy-to-reduce-carbon-dioxide-in-the-atmosphere/#:~:text=A%20UCLA%20team%20has%20proposed%20a%20concept%20called,would%20enable%20seawater%20to%20absorb%20more%20carbon%20dioxide.); and also see: [Could the ocean hold the key to reducing carbon dioxide in the atmosphere? | UCLA](https://newsroom.ucla.edu/releases/using-seawater-to-reduce-co2-in-atmosphere). [↑](#footnote-ref-63)
64. See: Webpage, the Climate Foundation at: [Overview - Climate Foundation](https://www.climatefoundation.org/overview.html); also see a recent Economist article on the kelp farming being conducted by the Climate Foundation at:  <https://www.economist.com/science-and-technology/floating-offshore-farms-may-increase-production-of-seaweed/21805108> [↑](#footnote-ref-64)
65. See, for example: [World’s biggest machine capturing carbon from air turned on in Iceland | Carbon capture and storage (CCS) | The Guardian](https://www.theguardian.com/environment/2021/sep/09/worlds-biggest-plant-to-turn-carbon-dioxide-into-rock-opens-in-iceland-orca); or: [The next step towards a climate-positive world: Orca! (climeworks.com)](https://climeworks.com/roadmap/orca). [↑](#footnote-ref-65)
66. See: [Project Vesta / Home](https://www.vesta.earth/). An amazing webpage, full of relevant scientific papers, conceptual breakthroughs and examples of pilot projects, including the natural processes that occur every day. [↑](#footnote-ref-66)
67. Ibid., Andrei. [↑](#footnote-ref-67)
68. [Boudreau, Thomas Archives - MAHB (stanford.edu)](https://mahb.stanford.edu/post-author/boudreau-thomas/) [↑](#footnote-ref-68)
69. Entire quote taken from: [Beyond Paris: The Next Step, The Earth’s Atmosphere as A Global Trust Part I - MAHB (stanford.edu)](https://mahb.stanford.edu/blog/earths-atmosphere-global-trust/), 2018; CO2 HAS INCREASED BY HALF IN THE GLOBAL ATMSOPHERE SINCE THE FIRST EARTH SUMMIT IN RIO IN 1992: SEE: [Mauna Loa and South Pole Graphic | Scripps CO2 Program (ucsd.edu)](https://scrippsco2.ucsd.edu/graphics_gallery/mauna_loa_and_south_pole/mauna_loa_and_south_pole.html). Scripps is home to the famous Keeling Curve. Also: [Fact Check: "More CO2 has been emitted since the UN established its climate body in 1992 to reduce emissions than in all of human history."...TRUE : collapse (reddit.com)](https://www.reddit.com/r/collapse/comments/b296i7/fact_check_more_co2_has_been_emitted_since_the_un/) [↑](#footnote-ref-69)
70. Alok Sharma is a true hero of humanity; but the 200 plus lobbyists process of consensus at cop conference is simply too much for the most able individual to overcome. So, more needs to be done—immediately. If only all of us worked as hard as Minister Sharma…… [↑](#footnote-ref-70)