



Nuclear Energy as Panacea to a Suffocating Planet: Overcoming the Terror-Genic Trait of Nuclear Energy

Dr. Ezekiel Kikoh

Department of Philosophy, Psychology and Sociology. University of Dschang- Cameroon

ABSTRACT

It is no doubt that our planet is running short of oxygen due to the type of energy humanity is using for civilization/industrialization. The warmth is increasing in a geometric rate and as such the need to interrogate the type of energy man uses and its impact to the health of the climate. It is nuclear energy and not nuclear weapon. Any pronouncement of the word nuclear is like announcing an apocalypse whereas there is much more of positivity in the nuclear in relation to the health of the environment. Of the numerous civilization energies and their status vis a vis the health of the environment, it is proven that nuclear energy is the prime environment friendly energy after the solar. The friendliness of an energy to the environment is first based on the magnitude of damage it will cause on humanity and nature in case there is an accident before the economic gain of the energy. With this ambivalence on the nuclear (energy or weapon of apocalypse?), this paper, using the comparative-deontology methods, it approaches the nuclear from an ecoethicist perspective and proposes a deontology (Nuclear Hippocratic Oath) and geopolitics of exorcising the terror-genic trait from the nuclear and paints an image of the nuclear as a panacea to a suffocating planet.

Keywords: Nuclear energy, terror-genic trait, exorcising the nuclear, war of energies, deontology for the nuclear, Nuclear Hippocratic Oath.

Introduction.

Since the devastating effects of “nuclear” in Hiroshima, Nagasaki, Chernobyl, Fukushima, recurrent threats from Iran, North Korea, to fresh threats from Russia on the use of a nuclear weapon and on-going war between Israel and Hamas, there is a continuous strict censorship around who should harvest nuclear related elements. In so doing, the environment friendly status of the nuclear energy is neglected. Environmental crisis are caused by the energy humankind uses for his civilization/industrialization. From an environmental ethics perspective, the evaluation of any human civilization/industrialization energy is based on its degree of friendliness to the environment. Using comparative-deontology methods, this paper makes an environmental-ethics panorama of energies and their pathology status to the health of the environment. Its outcome is that nuclear energy tops the table in its environment friendly status but paradoxically carries a terrorism potential. The paper therefore proposes deontology and geopolitics methods to clean/exorcise nuclear energy from its terror-genic trait.

1. A panorama of energies and their relationship to the health of the environment.

Man cannot live without minimal energy to transform his environment. A look into the energies used in the preindustrial and industrial eras show that preindustrial energies were more climate/environment friendly than the industrial era. This asserts the view that climate change and environmental crisis is not natural but anthropogenic and even iatrogenic. The preindustrial period’s energies were used primordially for domestic and elementary purposes. The term clean energy is younger than the practice and use of clean energy.

1.1 Pre-industrial period and energy for rudimentary activities.

This period can be precisely traced by making reference to when the health of the environment started feeling a threat and corresponds to the pre-Anthropocene period. That is a climate’s evolutionary period in which organic species flourish, it equally corresponds to the period that runs right to Newcomen’s invention. The suffix “cene” as used in the different climate evolution periods indicates recent climate periods when the human species civilization-technology started affecting the equilibrium of the earth’s climate. According to Hannah Ritchie in “How have the energy sources changed over the last two centuries”, it is “until the 19th century, traditional biomass, that is, the burning of solid fuels such as wood, crop waste or charcoal was the dominant source of energy used across the world”¹

¹ Hannah Ritchie (2021) “How have the energy sources changed over the last two centuries”, in *Ourworlddata.org*.

1.2 Industrial and hyper-industrial eras and flourishing energy forms.

A series of factors justify rise of industrialization and hyper-industrialization. The fulfillment of the Biblical prescription of “Thou (“chosen ones”) shall conquer the world”, Francis Bacon’s “Knowledge is power”, and René Descartes’ “Man as master and possessor of nature” just to mention these. This dream could only be realized thanks to the copulation of science and technology. This voracious appetite to industrialize paved the way to multiple uncensored energy forms. The flourishing of energies without an ethics for it pushed the industrialization of humanity to harm the planet instead of making it a place of existential comfort. Hannah Ritchie paints a picture of the energies in the industrial period. To her the 20th century saw the start of an increase in the use of energies like coal and a greater quantity of biomass: “it wasn’t until the 1960s that nuclear energy was added to the mix. What are often referred to as ‘modern renewals’ solar and wind were only added much later in the 1980s”². For capitalists’ motives, the choice of an industrial energy is motivated by profit and not by its contribution to the health of the climate. This is the object of a paper I wrote in 2022 “the paradox of polluters pay”. This has opened doors multiple energies and nobody cares about its impact to the planet even those that care cannot fight the powerful neoliberal forces. There is a lack of consensus over the type of energy that is healthy to planet earth.

2. War of energies.

A new form of war emerges in the era of hyper industrialization called a war of energy. Each form of energy claims friendliness to the health of planet even if it is poisonous and generates gain and profit. Neoliberal forces use all available means to impose the energy that boosts their production, careless about its impact to the planet. This is why we can see contradictory statements like “pollute and pay” when it comes to choosing the best energy friendly to the environment. The interest of an ecoethicist here is to measure the impact of such energies on the health of the environment.

An English bio-ecoethicist James Lovelock calls the planet Gaia and lengthily describes the impact of each energy to the health of the living planet. Starting first with fossil, Lovelock’s problem with fossil fuels isn’t because it harms the atmosphere qualitatively but it does quantitatively. This means that fossil fuel takes from Gaia more than it can rapidly replace: “Whatever happens, we have to give up fossil fuel as soon as possible, because even when we are past the threshold of irreversible climate change, the extent and rate of adverse change will still be affected by what we do”³ The second form of energy is biofuel. It is obtained from crops grown specifically for fuel, such as coppice woodland, fields of oilseed rape but it is cumbersome producing such energy and colossal quantity of land it can take. This huge quantity of land taken for biofuel raw material destroys Gaia ecosystem and consequently Gaia unfriendly. The third form of energy is coal and oil. Lovelock describes coal as the highest pollutant energy and environment unfriendly, in his argument, the evaluation of an energy is based first on its cleanest and second on the number of casualties it can and has ever registered when there is an industrial accident.

Another key form of energy and its relation to the health of Gaia is hydroelectric energy which is a renewable source of energy. He compares the hydroelectric energy to nuclear energy while coming back to the number of lives that are lost when an accident occurs in both sources of energy: “Yes, hydroelectricity is “renewable,” but who notices how dangerous it is until a dam bursts?”⁴

Finally, Nuclear energy which is a renewable form of energy comes under Lovelock’s analysis. He is in favour of nuclear energy not as permanent source of energy which is Gaia friendly but is the best for now that man involve in a “sustainable retreat”. He explains why nuclear is the only option for our precarious climate situation now: “Civilization is in imminent danger and has to use nuclear energy now, or suffer the pain soon to be inflicted by our outraged planet”⁵.

How nuclear energy is formed. There are at present two quite different sources of nuclear energy. The first, nuclear fission uses the energy released when the large atoms of elements such as thorium, uranium and plutonium split apart. The second source of nuclear energy is the fusion of the nuclei of light elements, such as hydrogen and its isotopes. Lovelock is characterized as a nuclear energyphile. Nuclear energy is a provisional form of energy while waiting for long term and everlasting environmental friendly energy. For him, nuclear energy is merely the medicine that sustains a steady secure source of electricity to keep the lights of civilization burning until clean and everlasting fusion is obtained: “We must conquer our fears and accept nuclear energy as the one safe and proven energy source that has minimal global consequences. It is now as reliable as any human engineering can be and has the best safety record of all large-scale energy sources”⁶. In a nutshell, nuclear energy as of now is environmental friendly and the odious task is to exorcise it from its terror-genic trait.

2.1 Nuclear energy phobia is a political than scientific.

Lovelock calls nuclear energy phobia “false fear”⁷ about nuclear energy. To him, nuclear energy phobia goes back to the Second World War when President Truman had the awesome task of either dropping the newly minted nuclear bomb on a Japanese city or merely demonstrating its fearful power

² *Idem.*

³ James Lovelock, (2006), *The Revenge of Gaia: Earth’s Climate in Crisis and the Fate of Humanity*, New York, p.14.

⁴ James Lovelock (2006), *The Vanishing Face of Gaia a Final warning*, New York, p.109.

⁵ James Lovelock (2009), *The Revenge of Gaia: Earth’s Climate in Crisis and the Fate of Humanity*, *op. cit.*, p. 14.

⁶ *Ibid.*, p.15.

⁷ *Ibid.*, p.119.

to the Japanese military. Its destruction of Hiroshima and Nagasaki gave birth to a wholly new perception of things nuclear. One could no longer see it as a wondrous gift of pollution free energy; our minds were clouded by fear of nuclear war, a fear that has persisted till present.

Anti-nuclear activists. Among them was the Australian pediatrician Helen Caldicott who became the most vocal and effective advocate of the worldwide anti-nuclear movement. Her advocacy led to the award of the Nobel Peace Prize to the organization she founded which gave enormous authority to her view of nuclear energy. Lovelock quotes her in her *Nuclear Madness: What you can do!*⁸, published in 1994 thus: "As a physician, I contend that nuclear technology threatens life on our planet with extinction if the present trends continue; the food we eat, the water we drink will soon be contaminated with enough radioactive pollutants to pose a potential health hazard far greater than any plague humanity has ever experienced"⁹

In addition to Nuttall, an earlier review had been made by Walt Patterson, *Transforming Electricity* in 1999. The phobia for nuclear energy rejuvenated after a considerable number of years after it had started attracting people. This was due to the intensification of the Cold War in 1950s. He takes the example of Great Britain and the euphoria for nuclear energy before it was short-lived by the Cold War. For him, before the Cold War intensified in the late 1950s there was widespread hope that nuclear energy was good and could play its part in reconstructing a decent civilization:

In the United Kingdom, one of several European nations where the science of nuclear fission was born in the 1930s, the Queen opened in 1956 the world's first nuclear power station at Calder Hall. It was an event welcomed almost everywhere. The euphoria did not last; gradually as the Cold War intensified and the two superpowers tested larger and ever larger weapons, the all-pervasive fear of all things nuclear became widespread. This period of madness culminated in 1962 in the test explosions of hydrogen bombs equal in power to 20,000 of the bombs dropped on Hiroshima. The superpowers were rattling the Earth to show how strong they were, strong enough for mutually assured destruction. Mad it may have been, but it showed that each superpower now possessed the capacity to destroy civilization. He argues that, damaging arguments against nuclear energy is most often political than scientific.

To the detractors of nuclear energy, they forgot more dangerous sources of cancer like mobile telephones, power lines, pesticides residues in food, sunlight etc and have in a reductionist method focus only on the nuclear energy. In his opinion humanity is like afraid of swallowing a little mammal but contradictorily swallows a giant mammal: "Despite all these warnings, we carry on destroying and seem to worry only about the nearly trivial, even imaginary risk of cancer from mobile telephones, power lines, pesticide residues in food, or sunlight; topping them all is a fear of anything to do with nuclear energy. We are indeed straining at a gnat but swallowing a camel with ease"¹⁰

Still to the detractors of nuclear energy, the author clears the mixed up between nuclear bombs and nuclear energy. For him, detractors of nuclear energy have always behaved as if nuclear energy was nuclear bomb while mistakenly focusing on the Chernobyl nuclear accident that killed only tens. The aftermath of the nuclear accident is minimal compared to the poisonings from pesticides and other chemicals. As a matter of fact, not all radiations are poisonous, media houses and most especially the BBC related figures of radiation and deaths from the nuclear plant accident based on assumptions and guess work:

It was so easy to transfer their slogans and cries for the abolition of nuclear bombs to the abolition of nuclear energy, and the new name 'Chernobyl' gave them their rallying cry. The most amazing lies were told, still are told and widely believed. Even the BBC solemnly repeated that tens, if not hundreds, of thousands of Europeans would die as a result of the fallout from Chernobyl. As with poisoning by pesticides and other chemicals, there was willful distrust and ignorance; and the failure to understand the wisdom of Paracelsus that 'the poison is the dose' applies to radiation just as much as it does to chemicals. Newspaper editors and their journalists seem to care only that they can attach a number, any number, to the quantity of radiation here, or poison there, wholly regardless of whether or not it is dangerous¹¹.

Further arguments in nuclear deceptive information, Lovelock adds that if a lie can be defined as a deliberate act of deception, then almost all nuclear scare stories are lies. Respectable media, including broadcasters, frequently fail to tell the truth about nuclear matters. They can only be correct if the relationship between the radiation dose received and the probability of death is literally true. For small doses there is no evidence for or against this hypothetical relationship:

But let us assume it is true and that deaths from radiation are strictly proportional to the dose received. Where are the corpses, where are the graves of those unfortunate victims? It is now, in 2013, twenty-seven years since the Chernobyl accident, and despite at least three investigations by reputable physicians such as those of the UN agency UNSCEAR there has been no measurable increase in deaths across Eastern Europe. What is the answer to this conundrum? I think most probably the anti-nuclear lobbyists and their incompetent or dishonest advisers are ignoring a more relevant measure of harm from radiation, which is loss of lifespan. Those exposed in Eastern Europe to Chernobyl's fallout, may, if the linear no-threshold theory is correct, die a few days or a few hours sooner than their natural lifespan; this is an entirely imperceptible and immeasurable quantity³. The anti-nuclear lobbies are skilled at propaganda and use the much more emotive and scary word "death"⁴ rather than the much less disturbing "loss of an hour's lifespan"⁵. To put these terms¹²

There is flood of anti-nuclear energy disinformation from energy companies whose profitability is threatened and even from nations who see their power and most of its irrational and unsustainable concatenation of mistakes and misinformation that are amplified by the media. The role of the journalists would be good if journalists and editors tempered their desire to tell a scary story with the reality that without an ample supply of nuclear energy life in

⁸ Helen Caldicott, (1994), *Nuclear Madness: What you can do!*, New York, Bantam

⁹ William Nuttall, (2005), *Nuclear Renaissance: Technologies and Policies for the Future of Nuclear Power*, Standford, 313p.

¹⁰ William Nuttall (2005), *Nuclear Renaissance: Technologies and Policies for the Future of Nuclear Power*, Standford, op. cit. p.157.

¹¹James Lovelock, (2014) *A Rough Ride to the Future*, The Over Press, p. 89.

¹²James Lovelock, *A Rough Ride to the Future*, op. cit., p. 89.

many places may in one or two decades decline to a state of poverty. By putting humanity first, and neglecting Gaia, too many environmentalists and journalists have sown the seeds of their own destruction and, if they persist, ours as well. They could mitigate their error by dropping their delaying tactics against nuclear energy. Lovelock is clear to these irrationals and environmentalists of bad faith:

“Do not believe such tales that the construction of a new nuclear power source takes ten to fifteen years. Construction takes the French less than five years, and there is no reason why it should take longer the delays are caused by the excessive time spent in planning agencies, courtrooms, and at public hearings. I hope that the environmentalists and their attendant lawyers do not continue their mistaken opposition to nuclear energy”¹³.

It is therefore with no doubt that dissociation propaganda, misinformation, and irrational information propagated against nuclear is attributed to the First World War nuclear bombs, the emergence of the Cold War, competing companies in energy supply etc. Their arguments against nuclear energy don't scientifically argue how unfriendly nuclear energy is to Gaia but on fallacious justifications. The fight for the control of energy is not just for the health of the planet but equally as means to control or govern the world (geopolitically oriented).

Nuclear as an element of control. Lovelock relates a Russian authority on his take on nuclear energy and the risk if the world notices the efficiency of this energy they were going to lose their control they have over the entire Europe, given that Russia supplies gas to the whole of Europe:

At which a senior manager intervenes. “Gentlemen,” he says, “the purpose of this action is not merely to punish a traitor and that alone needs visibility and media amplification but more importantly to keep the West frightened of all things nuclear. Our future as a world power depends on our ability to make them wholly dependent on us for their supply of oil and gas; their use of nuclear energy would free them of this dependency and we could lose our ability to make the world go the way we wish. Ten million dollars is nothing in that cause.”

From the above analysis, nuclear energy phobia originated from a false fear and the fear was later taken over by politicians as an arm of maintaining world hegemony. It a control mechanism used by militarily powerful nations to control the military and energy emancipation of competing nations.

2.2 Global legislation on the nuclear and who commands the legislation.

In a bit to promote safety and security in the use of the nuclear, a control organ was created in this respect called International Atomic Energy Agency (IAEA). The Agency's Statute was approved on 23 October 1956 by the Conference on the Statute of the IAEA held at United Nations Headquarters New York. It entered into force on 29 July 1957. The Headquarters of the Agency are situated in Vienna. Its principal objective is to accelerate and enlarge the contribution of atomic energy to peace, health and prosperity throughout the world”. It is contained in a document called *Handbook on Nuclear Law*¹⁴.

IAEA's assistance has taken the form of drafting new nuclear laws and reviewing existing laws and regulations, hosting fellowship trainees, providing advice on institutional frameworks and conducting training courses on specific legal issues. The handbook is an important step forward towards strengthening, in a consistent and coherent manner, the international legal framework governing the safe and peaceful uses of nuclear energy.

The definition of ‘nuclear damage’ in the revised Vienna Convention 25 reads as follows: “Nuclear damage” means: first, loss of life or personal injury, loss of or damage to property and each of the following to the extent determined by the law of the competent court, second, economic loss arising from loss or damage referred to in subparagraph (i) or (ii), insofar as not included in those sub-paragraphs, if incurred by a person entitled to claim in respect of such loss or damage and finally, the costs of measures of reinstatement of impaired environment, unless such impairment is insignificant”¹⁵

Chapter V of the Handbook talks about non-proliferation treaties and agreements. Through a number of international, regional and bilateral instruments, states have undertaken to accept the application of safeguards to nuclear material and activities under their jurisdiction or control. Chief among the international instruments is the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (the NPT) 31, now ratified by 187 States. To ensure compliance with the basic commitments in Articles I and II of the NPT (not to transfer or to acquire nuclear weapons or other nuclear explosive devices). Article III codifies the undertaking of all non-nuclear-weapon States Parties to accept safeguards, as set forth in an agreement to be negotiated with the IAEA for the purpose of verification of the fulfilment of its obligations assumed under this Treaty with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. The following treaties are in force or in the process of ratification:

“The Treaty for the Prohibition of Nuclear Weapons in Latin America (the Tlatelolco Treaty) 32, which was opened for signature in 1967, second, The South Pacific Nuclear Free Zone Treaty (the Rarotonga Treaty) 33, which entered into force in 1986, third, The Southeast Asia Nuclear Weapon-Free Zone Treaty (the Bangkok Treaty) 34, which entered into force in 1997 and finally, The African Nuclear-Weapon-Free Zone Treaty (the Pelindaba Treaty) 35, which was opened for signature in 1996”¹⁶

*Nuclear weapons and nonproliferation*¹⁷ published in 2008 is another text on the use of the nuclear. It showcases the history of the use of nuclear weapons. Nuclear weapons have not been used in war since 1945, the large nuclear arsenals still held, particularly by the United States and Russia continue to influence not only international relations but also human culture and psychology. The frightening power of nuclear weapons holds out the lure of ultimate

¹³*Ibid.*, p.26.

¹⁴ Carlton stoiber, Alec Baer, et al, (2003), *Handbook on Nuclear Law*, Vienna, IAEA Library Cataloguing in Publication Data, 174p.

¹⁵ *Ibid.*, p.110.

¹⁶ *Ibid.*, p.123.

¹⁷ Sarah. J. Diehl and James Clay Moltz, (2008), *Nuclear weapons and nonproliferation*, California, ABC. CLIO. 352p.

security and status to national leaders but the presence of nuclear weapons brings with it the risk of possible nuclear accidents, terrorism, war, and annihilation. As of 2007, nine countries possess approximately 27,000 nuclear weapons.

The United States, Russia, China, the United Kingdom, France, India, Pakistan, Israel, and North Korea are known to have nuclear arsenals, a tenth country, South Africa, built and then dismantled six atomic bombs in the early 1990s. Other states, such as Iran, are suspected of pursuing clandestine weapon programs: "However, approximately thirty nations with the technological capability to build nuclear weapons have not done so for various practical and political reasons, although their calculations may change if the international security environment shifts and more states test such weapons"¹⁸

Chapter I provides a history of the development and spread of nuclear weapons, ranging from the U.S.A Manhattan Project to North Korea's 2006 nuclear test and the ongoing International Atomic Energy Agency investigation of Iran's nuclear program. It describes the still-covert Israeli nuclear program as well as the programs of countries (including Iran, North Korea, and Libya) supplied by the illicit network in nuclear technology masterminded by Pakistan's A. Q. Khan. The chapter also covers efforts to control nuclear weapons and the dissemination of nuclear related technology. It highlights the dualistic nature of nuclear developments historically: Nuclear weapon states sought to aggrandize their power even while negotiating international initiatives to control nuclear technologies and preserve peace:

The tension inherent in the fact that efforts to both build and control nuclear weapons were initiated by the two superpowers during the Cold War. Since 2001, nuclear arsenals globally have declined substantially. But the increased fear of terrorism since the September 11 attacks has created new priorities in the United States and elsewhere that sometimes conflict with nonproliferation goals. Thus, as during the Cold War when nuclear construction went hand in hand with efforts to halt proliferation-nonproliferation efforts in the twenty-first century are affected by other national objectives as states pursue new definitions of security¹⁹.

From all that precedes, it is noted that the debated shifted from nuclear energy to nuclear weapon. Furthermore, nuclear weapons, the cultivation and harvesting of nuclear related elements is highly controlled by superpowers and any nation that doesn't abandon nuclear building faces severe economic sanctions from the superpowers. The economic sanctions meted on Iran, North Korea are indisputable examples. This political game jeopardizes the health of the planet. When Nuclear energy and climate health are kept on the scale, world powers prefer to blindly block nuclear development instead of exorcizing it.

2.3 Is living with the nuclear a perfect endeavour?

One issue that was frequently raised throughout the Cold War and remains salient today is nuclear safety. Even strong supporters of nuclear weapons want to be sure that they do not go off accidentally and that they are used only in the most carefully prescribed circumstances after exhaustive government deliberation. Fortunately, to date there has been no cases of an accidental launch of a nuclear weapon and no incidents of an accidental nuclear detonation. However, as more declassified information becomes available on the experience of past decades, there is considerable ocean floor. These incidents highlight the security and environmental risks of broad proliferation of sea-based nuclear weapons, similar to the history of accidents with aircraft and ground-based systems. While military personnel certainly endeavor to handle nuclear weapons safely, technical problems, weather, and human error sometimes result in dangerous events, putting human lives and the environment at risk.

Finally, other authors, such as former U.S. missile officer Bruce Blair in 1995, have discussed the related problem of inadequate command and control mechanisms in states with unstable or transitional political systems, as in South Asia and the Middle East. His work has highlighted the development of a dangerous automatic launch system by the Soviet Union, which might have been used in case of a first strike by the United States to ensure that a counterattack would be launched even if the top leadership in Moscow were killed, cut off, or disabled. To prevent the threat of an automatic nuclear war, Blair has urged all nuclear weapon states to de-alert their nuclear forces by separating warheads from missiles, thereby preventing inadvertent war through the possible malfunctioning of early warning networks, command mechanisms, and computers. To date, however, this has still not occurred.

In regard to the possible unauthorized use of nuclear weapons, it is important to note that nuclear weapons in the more advanced militaries (including those in the United States, Russia, France, and Britain) have so-called permissive action links (PALs) built into them. PALs require that operators provide a special launch code from their nation's capital to activate the warheads. Without the code, the weapons are unable to detonate themselves. Certain weapons also have additional safeguards against unauthorized use involving onboard environmental sensors that track altitude data and prevent the weapons from being detonated in situations for which they were not designed. Yet such technologies are not foolproof and could be overcome by sophisticated insiders, if not by hostile forces, given enough time.

Moreover, countries like North Korea, Pakistan, India, and possibly Israel lack such devices, suggesting risks of nuclear command and control breakdowns in crisis situations, where unauthorized military or political leaders might be tempted to take matters into their own hands.

3. The ambivalence and exorcising of the nuclear.

There is no civilization-energy that is dangerous in itself to planet, each energy is like amorphous matter and needs to be harnessed such that it contributes to the healthy functioning of the planet. Nuclear energy is the best civilization energy for now but its terror-genic character needs to be cleansed/exorcized.

¹⁸ *Ibid.*, p. xi.

¹⁹ Sarah. J. Diehl and James Clay Moltz, (2008), *Nuclear weapons and nonproliferation*, California, *op. cit.* p.2.

It would be an illusion to engage into a perilous exorcism of the nuclear without reiterating that the nuclear is invaded by technologically advanced civilization as a weapon of political hegemony. In this light, the oppressed countries have in turn invested billions of dollars into the nuclear not as a source energy but as an Organon (instrument) to mitigate oppression of nuclear advanced countries. The power of a country is measured today by the quality and quantity of the nuclear weapon it has. It is no news that if the nuclear is poorly managed, kept in the hands of extremists or cultivated haphazardly, the living can be extinct within seconds. It would be an error to neglect this environment friendly energy due its apocalyptic character, so, the need to exorcise the nuclear and this can only be effective through ethical deontology and new geopolitics of *nuclear oath*.

3.1. A deontology for nuclear energy.

Etymologically deontology means science of duty, disinterested duty. Kant and Hans Jonas ethics of obligation lay the solid ethical frames in the cleansing process of the nuclear. The deontology of the nuclear can be in a dual direction: ethical and geopolitical.

Talking about the ethical, Emmanuel Kant's Categorical Imperatives which is also described as a deontological moral philosophy can be used as an ethical paradigm in the exorcising process of the nuclear. The idea of duty embedded in this ethics can be of paramount role to the cleansing process of the nuclear. In his *Groundwork of the Metaphysics of Morals*²⁰, Kant defines moral duties that "must" guide or motivate our actions. "A categorical imperative, by contrast, simply tells us what we ought to do, not on condition that we will something else, but unconditionally"²¹. If everyone's actions are by duty (disinterested) then our actions toward the nuclear cannot perverse into terrorism but will remain as a source of energy. The Kantian deontology is based on the universality of norms, the teleology all human acts should be the preservation of human dignity (anthropocentric) and the human acts as part of universal legislator: "...Act only according to that maxim through which you can at the same time will that it become a universal law, second, so act that you use humanity, in your own person as well as in the person of any other, always at the same time as an end, never merely as means, and third, every rational being must so act as if he were through his maxim always a lawmaking member in the universal kingdom of ends"²². Hans Jonas steps in as a post Kantian deontologist.

Hans Jonas writes in a context of technology, ecology crisis/pervasion and establishes an ethics to correct technological pervasion as well as an ethics of a common future between humans and nature as there exist a relationship of correlation between them: "this care must obviously include care for the future of all nature on this planet as a necessary condition of man's own"²³ Our responsibility to use the nuclear only for energy is a collective and sincere task if we must preserve the health of our ailing planet: "a kind of metaphysical responsibility beyond self-interest"²⁴

Drawing inspiration from *The Hippocratic Oath*²⁵, humanity needs an oath which is just like the one medics take when graduating from different medical schools. This deontology puts in them an obligation to cure and preserve human life without compromise. We need a nuclear *Hippocratic Oath*. Added to the ethical framework developed above is the geopolitical aspect.

3.2. Exorcising the nuclear in a context of escalating global nuclear weapon threat.

It is a herculean task to write on the nuclear while excluding the weapon aspect of it, the patriarchs of the nuclear will feel like disarming them. But placing their pseudo-hegemony and the health of the planet on the scale, one would have to choose which to give a place of preference. Going by scientific facts, by denouncing the prejudices (fake alarms), and by the fact that a good civilization energy is that which is healthy to the planet and causes little ecological damage, the nuclear stands the test of time while waiting for the solar to gain grounds. But, how do we keep the geopolitics off this healthy civilization Organon. The cleansing proposition of this paper starts with a series of observations according to which: nuclear embargoes, treaties (IAEA), protocols, Permissive Action Links (PALs) have failed and the exploitation of nuclear elements is still unorthodox- clandestine. In this context therefore, this paper proposes a Global Mapping of nuclear elements, a Global Positioning system that will determine unconventional exploitation of nuclear elements, a Consensual United Nations of nuclear surveyors, and new deal diplomacy amongst nations, these in a bit to mitigate the pervasion of the nuclear. It should be noted that, most of the causative agents of the misuse of the nuclear that has crystalized in giving it a terror-genic trait is the pseudo-natural hegemony of some countries (capitalists oriented) over communist countries, Religious Symbolic Violence²⁶, the use of the word *terrorist* creates international consternation and anger. Global blocks and communities are known, (The USA, NATO, European Union, China, BRICS, North Korea, African Union etc), each block has its allies that are ready to backup in case of any invasion from the energy camp. Even voting resolutions in the UNO is based on these camps. Nuclear alignment dominates our contemporary geopolitics. Who owns the planet Earth? isn't it our common property? The nuclear is sacrificed for geopolitical interest. Nobody cares about the health of the ailing planet. Any news of terrorism by means of nuclear (The Russian SATAN 2) draws the attention of the entire planet but news of an agonizing planet makes little or no headlines.

²⁰ Emmanuel Kant (1785), *Groundwork of the Metaphysics of Morals*, trans. Mary Gregor, Cambridge University Press, 120p.

²¹ *Ibid.*, p.16.

²² *Ibid.*, p.41.

²³ Jonas Hans, (1984), *The Imperative of Responsibility. In Search of an Ethics for the Technological Age*, Chicago, p. 136.

²⁴ *Idem*.

²⁵ In ancient Greece, it consisted for a physician to swear by a number of healing gods to uphold specific ethical standards.

²⁶ A term introduced by Pierre Bourdieu referring to non-physical violence manifested in the power differential between social groups.

Conclusion

Finally, this paper investigates the nuclear from the ecoethical perspective and sees it as the best civilization energy that can guarantee the health of the ailing planet. Using the comparative-deontology approaches that did a panorama of energies and their impact to the health of the planet, it was observed that, first, the evaluation of an energy's relationship to the health of the planet is based the number of casualties incurred if there is an accident, second, that nuclear energy is the best and that negative said about nuclear energy is by nuclear-phobia writers who furnish pseudo-data or prejudices about the nuclear. Nonetheless, the nuclear carries a terror-genic trait and for this reason, the contribution of this paper is the proposition of an ethical and geopolitical frameworks to exorcise the terror-genic trait from this healthy energy. In the ethical framework, Emmanuel Kant's *Categorical imperatives* and Hans Jonas' *Ethics of Responsibility* were proposed. In the geopolitical framework, the putting in place of Global Mapping of nuclear elements, a Global Positioning system that will determine unconventional exploitation of nuclear elements, a Consensual United Nations of nuclear surveyors, and new deal diplomacy amongst nations was proposed. This will crystalize in *Nuclear Hippocratic Oath* that will block countries from harnessing the nuclear towards terrorism tendencies.

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