### NC

#### MY STANDARD is maximizing pleasure from expected consequences. Prefer –

#### [1] Phenomenal Introspection – We can all tell the objective goodness of pleasure and badness of pain – that’s sufficient for action. Nagel 86 Brackets for Gender

Thomas Nagel. The View From Nowhere, HUP, 1986: 156-168.

“Almost **everyone takes the avoidance of** his own **pain and the promotion** of his own **pleasure as subjective reasons for action** in a fairly simple way; they are not back up by any further reasons. On the other hand if someone pursues pain or avoids pleasure, either it as a means to some end or it is backed up by dark reasons like guilt or sexual masochism. What sort of general value, if any, ought to be assigned to pleasure and pain when we consider these facts from an objective standpoint? What kind of judgment can we reasonably make about these things when we view them in abstraction from who we are? **We can begin by asking why there is no plausibility in the zero position, that pleasure and pain have no value of any kind that can be objectively recognized. That would mean that I have no reason to take aspirin for a severe headache**, however I may in fact be motivated; and that looking at it from outside, **you couldn't even say that someone had a reason not to put [their] his hand on a hot stove, just because of the pain.** Try looking at it from the outside and see whether you can manage to withhold that judgment. If the idea of objective practical reason makes any sense at all, so that there is some judgment to withhold, it does not seem possible. If the general arguments against the reality of objective reasons are no good, then it is at least possible that I have a reason, and not just an inclination, to refrain from putting my hand on a hot stove.,”

#### [2] Actor specificity

### CP

#### CP text: The member nations of the world trade organization should add an efficiency standard as explain by our advocate AND

#### The United States federal government working with allies should:

#### - substantially increase production and global distribution of the COVID-19 Vaccine, specifically providing all necessary vaccines to India and South Africa, and

#### - cooperate with allies to achieve increased production and global distribution of the COVID-19 Vaccine.

#### Here’s the Efficiency Standard advocate

Newsome, Ashley [(JD candidate George Washington School of Law). (2017). Side effects of evergreening may include decreased competition & increased prices in the pharmaceutical industry. 45 AIPLA Q. J. 791 (2017)

The current framework for evaluating a patent application, particularly the requirements of utility and nonobviousness, is insufficient for evaluating whether a secondary patent should be issued for a drug. Given that courts are tied to the low bar for utility and inconsistent with their application of nonobviousness,1 04 it is necessary to pass legislation creating a new utility requirement tailored to secondary pharmaceutical patents. This Note's Author proposes legislation language as follows: 35 U.S.C. § 106: Patentable Pharmaceutical Inventions (a) Utility requirement for secondary patent: In the case of a pharmaceutical invention claiming an improvement on a patented invention, the applicant shall demonstrate through clear and convincing evidence in the written description that such invention has increased efficacy as compared to the original. (b) Increased efficacy defined: As used in part (a), "increased efficacy" refers to a proven improvement in the mechanism of action, as disclosed in the patent claims. 0 5 (c) Mechanism of action defined: As used in part (b), "mechanism of action" refers to the process by which a drug functions to produce a therapeutic effect, as disclosed in the patent claims. 06 Under this legislation, the USPTO could grant a secondary patent only if the new formula's mechanism of action, or production of the intended pharmacological effect, in fact improves upon the patented drug's mechanism of action. For example, because VidaDrug is a chemotherapy drug, the new formula must include a change in the mechanism of action which causes an improvement in the efficacy of the drug's tumor-shrinking abilities to be eligible for a secondary patent. A formula tweak that reduces side effects is insufficient, because the underlying purpose of the drug - to treat cancer - remains unaffected. Lowell provides some precedent for creating a higher utility standard. 07 This new standard would focus on a drug's overall improved efficacy, rather than a minor tweak in the formula that would mitigate or resolve a previously caused side effect. This standard would require holding the pharmaceutical industry to a higher standard than other industries, which could potentially conflict with the United States' TRIPS Agreement obligations with the WTO.

#### Counterplan drive down prices and focuses innovation research that saves more lifes

Newsome, Ashley [(JD candidate George Washington School of Law). (2017). Side effects of evergreening may include decreased competition & increased prices in the pharmaceutical industry. 45 AIPLA Q. J. 791 (2017)

Pharmaceutical patents are inherently different from software or manufacturing patents. 144 Pharmaceutical companies create life-saving drugs that carry a very serious benefit for a vulnerable group of consumers - patients. Because of this, the pharmaceutical industry should be held to a higher standard if its companies seek to prohibit affordable generic drugs from coming to the marketplace. 1. An Efficacy-Focused Standard Will Motivate Pharmaceutical Companies to Channel Resources to Creating Real Innovation Pharmaceutical companies argue that patent-life-cycle-management strategies (their preferred name for those tactics described herein as evergreening) are essential to ensuring they recoup R&D costs. 145 However, creation of a standard such as the one proposed here would ensure that pharmaceutical companies are properly incentivized to channel R&D resources to creating measurable change in the drugs, rather than creating minor changes that prolong the time they can profit off of monopolies at the expense of patients. For those industries in which R&D is more productive, like the pharmaceutical industry, "patent procedures should be refined to tighten the relationship between patents and the underlying inventions."14 6 2. A Higher Standard for Secondary Pharmaceutical Patents Will Increase Competition & Lead to Lower Prices The patent system enables pharmaceutical companies to retain market exclusivity for their drugs, allowing them to set high prices without an eye toward competition.1 47 The companies cite the need to recoup R&D costs as the driving factor for their pricing decisions,148 but critics say their main motivation is making a profit.'49 While the pharmaceutical companies' argument may hold weight, high prices for drugs have a negative impact on those patients who need those drugs, but cannot afford them.150 Tightening patent laws to prevent pharmaceutical companies from retaining patent protection for minor changes in their patented drugs will allow other companies to enter the marketplace sooner and drive prices down through competition. 5z

#### That comparatively solves better – IP rights don’t hinder vaccine cooperation, but manufacturing capacity is the current constraint.

Hans Sauer 6-17 [(Deputy General Counsel, Biotechnology Industry Organization.) “Web event — Confronting Joe Biden’s proposed TRIPS waiver for COVID-19 vaccines and treatments” https://www.aei.org/wp-content/uploads/2021/06/210617-Confronting-Joe-Bidens-proposed-TRIPS-waiver.pdf?x91208&x91208] ¶

But contrary to what Lori said, **there are genuine real problems in the supply chain** that are **not caused by patents**, that are simply caused by the unavailability and the constraints on existing capacity. There is in this world such a thing as maxed-out capacity that just can’t be increased on a dime. It’s not all due to intellectual property. This is true for existing vaccines as well as for vaccine raw materials. There are trade barriers. There are export restrictions that we should all be aware of and that we need to work on. And there are very real political, I think, interests in finding an explanation for how we got to this place that absolve governments around the world from their own policy decisions that they made in the past. In the United States, again, it was the declared policy of the previous administration, as well as this one, that we would vaccinate healthy college kids and go all down the line and offer a vaccine to everybody who wants it before we start sharing any with grandmothers in Burkina Faso. That was the policy. You can agree with it or disagree with it, but that was policy. We had export restrictions in place before a lot of other countries did. And that, too, contributed to unequal access of vaccines around the world. Another thing that was predictable was that politicians and governments around the world who want to be seen as proactive, on the ball, in control, for a long time were actually very indecisive, very unsure about how to address the COVID problem, which has so many dimensions. Vaccines are only one of those. But with respect to vaccines, not many governments took decisive action, put money on the table, put bets on multiple horses, before we knew whether these vaccines would work, would be approved. And it was governments in middle-income countries who now, I think, justifiably are concerned that they’re not getting fast enough access, who didn’t have the means and who didn’t have the decision-making structure to place the same bets on multiple horses, if you will, that were placed in the relatively more wealthy, global North and global West. But there is, I think, a really good and, with hindsight, predictable explanation of how we got to this place, and I think it teaches us something about how to fix the problem going forward. **So why will the waiver not work**? Well, first of all, with complex technology like vaccines, Lori touched on it, reverse engineering, like you would for a small molecule drug, is much more difficult if not impossible. But it depends very much more than small molecule drugs on cooperation, on voluntary transfer of technology, and on mutual assistance. We have seen as part of the pandemic response an unprecedented level of collaborations and cooperation and no indication that IP has stood in the way of the pandemic response. **The waiver proponents have found zero credible examples of where IP has actually been an obstacle,** where somebody has tried to block somebody else from developing a COVID vaccine or other COVID countermeasure, right? It’s not there. **Second, the myth of this vast global capacity to manufacture COVID vaccines that somehow exists** **out there is unsubstantiated** and frankly, in my opinion, untrue. But there is no such thing as vast untapped, idle capacity that could be turned around on a dime to start making COVID vaccines within weeks or even months. This capacity needs to be built; it needs to be established. And at a time when time is of the essence to beat this pandemic, starting capacity-building discussions is helpful, but it won’t be the answer to beat this pandemic. It will be the answer if we do everything right to beating the next pandemic. And if we learn any lesson of this, and then I will stop, is that the COVID waiver as well as the situation in which we find ourselves — if anything, it’s a reminder that we definitely have to take global capacity-building more seriously than we did in the past. That is true for the global North, as well as for middle-income countries — all of whom have to dedicate themselves much more determinedly to pandemic preparedness. And there’s a need to invest both in preparedness and in public health systems that hasn’t happened in the wake of past pandemic threats. This is what we will need to do. We will need to reduce export restrictions, and we will need to rededicate ourselves to preparing for the next pandemic. As far as this pandemic goes, **there are 11 vaccines around the world that are already being shot into arms, only four of which come from the global North. How many more vaccines do we want?** I don’t know, maybe 11 is enough if we start making more of them. But there are manufacturers around the world who know how to do this — including in China, including in India, and including in Russia. All developed their homegrown vaccines, apparently without interference by IP rights, right? **So let’s make more of those. I think that’s going to be the more practical and realistic answer to solving the problem**. And we need to lean on governments to stop export controls and to dedicate themselves to more global equity.

#### A vaccine waiver greenlights counterfeit medicine and vaccine resistance– this is a disad to the perm

John Conrad, Pres/CEO Illinois Biotechnology Innovation Organization, 5-18-2021 Waiving intellectual property rights is not in the best interests of patients <https://archive.is/vsNXv#selection-5353.0-5364.0>

The Biden's administration's support for India and South Africa's proposal before the World Trade Organization to temporarily waive anti-COVID vaccine patents to boost its supply will fuel the development of counterfeit vaccines and weaken the already strained global supply chain. The proposal will not increase the effective number of COVID-19 vaccines in India and other countries. The manufacturing standards to produce COVID-19 vaccines are exceptionally complicated; it is unlike any other manufacturing process. To ensure patient safety and efficacy, only manufacturers with the proper facilities and training should produce the vaccine, and they are. Allowing a temporary waiver that permits compulsory licensing to allow a manufacturer to export counterfeit vaccines will cause confusion and endanger public health. For example, between 60,000 and 80,000 children in Niger with fatal falciparum malaria were treated with a counterfeit vaccine containing incorrect active pharmaceutical ingredients, resulting in more than 100 fatal infections. Beyond the patients impacted, counterfeit drugs erode public confidence in health care systems and the pharmaceutical industry. Vaccine hesitancy is a rampant threat that feeds off of the distribution of misinformation. Allowing the production of vaccines from improper manufacturing facilities further opens the door for antivaccine hacks to stoke the fear fueling vaccine hesitance.

**DA**

1. **Sustained economic growth and recovery driven by business investment and Biden-led certainty that builds business-confidence**

**Chaney-Cambon 6/27/21**

(Sarah, “Capital-Spending Surge Further Lifts Economic Recovery,” pg online @ <https://www.wsj.com/articles/capital-spending-surge-further-lifts-economic-recovery-11624798800> //um-ef)

Business investment is emerging as a powerful source of U.S. economic growth that will likely help sustain the recovery. Companies are ramping up orders for computers, machinery and software as they grow more confident in the outlook. Nonresidential fixed investment, a proxy for business spending, rose at a seasonally adjusted annual rate of 11.7% in the first quarter, led by growth in software and tech-equipment spending, according to the Commerce Department. Business investment also logged double-digit gains in the third and fourth quarters last year after falling during pandemic-related shutdowns. It is now higher than its pre-pandemic peak. Orders for nondefense capital goods excluding aircraft, another measure for business investment, are near the highest levels for records tracing back to the 1990s, separate Commerce Department figures show. “Business investment has really been an important engine powering the U.S. economic recovery,” said Robert Rosener, senior U.S. economist at Morgan Stanley. “In our outlook for the economy, it’s certainly one of the bright spots.” Consumer spending, which accounts for about two-thirds of economic output, is driving the early stages of the recovery. Americans, flush with savings and government stimulus checks, are spending more on goods and services, which they shunned for much of the pandemic. **Robust capital investment will be key to ensuring that the recovery maintains strength after the** spending boost from fiscal stimulus and business reopenings eventually fades, according to some economists. Rising business investment helps fuel economic output. It also lifts worker productivity, or output per hour. That metric grew at a sluggish pace throughout the last economic expansion but is now showing signs of resurgence. The recovery in business investment is shaping up to be much stronger than in the years following the 2007-09 recession. “The events especially in late ’08, early ’09 put a lot of businesses really close to the edge,” said Phil Suttle, founder of Suttle Economics. “I think a lot of them said, ‘We’ve just got to be really cautious for a long while.’” Businesses appear to be less risk-averse now, he said. After the financial crisis, businesses grew by adding workers, rather than investing in capital. Hiring was more attractive than capital spending because labor was abundant and relatively cheap. Now the supply of workers is tight. Companies are raising pay to lure employees. As a result, many firms have more incentive to grow by investing in capital. Economists at Morgan Stanley predict that U.S. capital spending will rise to 116% of prerecession levels after three years. By comparison, investment took 10 years to reach those levels once the 2007-09 recession hit. Company executives **are increasingly confident** in the economy’s trajectory. The Business Roundtable’s economic-outlook index—a composite of large companies’ plans for hiring and spending, as well as sales projections—increased by nine points in the second quarter to 116, just below 2018’s record high, according to a survey conducted between May 25 and June 9. In the second quarter, the share of companies planning to boost capital investment increased to 59% from 57% in the first. “We’re seeing really strong reopening demand, and a lot of times capital investment follows that,” said Joe Song, senior U.S. economist at BofA Securities. Mr. Song added that less uncertainty regarding trade tensions between the U.S. and China should further underpin **business confidence** and investment. “At the very least, businesses will understand the strategy that the Biden administration is trying to follow and will be able to plan around that,” he said. Some of the recent increases in capital spending reflect a silver lining to the shortages of raw materials that many manufacturers have faced in recent months. “The flip side of the supply-chain bottlenecks that we’re seeing right now is that order backlogs are building,” said Mr. Rosener, which he said in turn has led to higher manufacturing activity. Demand for manufactured goods strengthened in May, while customer inventories hit an all-time low, according to the Institute for Supply Management’s manufacturing survey. Manufacturing is a particularly capital-intensive industry. It requires more spending to build a car than to serve a restaurant meal, Mr. Rosener said. Production could remain strong for several quarters as companies rebuild inventories, he said. The longer-term outlook for capital spending is bright. Though economic uncertainty tends to damp capital spending, an economic disruption such as Covid-19 can support investment. The pandemic forced companies to minimize contact between consumers and workers, resulting in a rapid increase in spending on productivity-enhancing digital technology that many economists predict will endure. “Every part of the service economy is using technology more aggressively,” said Mr. Suttle. “Obviously it’s hard to do that without buying more product.”

1. **Waivers crush business confidence**

#### Empirically intellectual property protection is directly related to the high levels of business confidence

[Xinhua](http://www.xinhuanet.com/english2010/), Singapore best in Asia for intellectual property protection 19:14, September 06, 2013 http://en.people.cn/90777/8392530.html

Singapore is the best in Asia for intellectual property protection and the second best in the world, the Intellectual Property Office of Singapore said Friday, citing a report by the World Economic Forum. The latest Global Competitiveness Report, with intellectual property protection as one of the criteria, covered nearly 150 countries and regions. It is the third year in a row for Singapore to retain the top ranking in Asia. Singapore's Intellectual Property Office said its business- friendly intellectual property regime has bolstered business confidence of international conglomerates and attracted long-term investment in research and development by multinationals. Singapore came in the second place in the overall global competitiveness ranking, trailing Switzerland. China's Hong Kong was the seventh, while Japan came in the 9th.

#### Business confidence drives economic recovery.

Mortgage Medics, 6-15-2021, [mortgage consulting firm, "How business and consumer confidence will drive the recovery", https://www.mortgage-medics.com/how-business-and-consumer-confidence-will-drive-the-recovery/ //Weese]

Confidence: we’re not talking here about standing up to make a speech, rather about business confidence and consumer confidence. Over the last 12 months we’ve heard the terms a lot, as confidence plunged when the first lockdown was announced and then rose again as the vaccine roll-out began. But what is confidence? And why does it matter? If we look at business confidence first, a good example, and one that is often quoted on the financial pages, is the Purchasing Managers’ Index (PMI). So what is it? And how does it work? The PMI is a measure of business confidence, showing whether business expects the economy and prevailing business conditions to be favourable or unfavourable. The PMI is based on a monthly survey sent to senior executives across a broad spread of industries and asks questions about new orders, inventory levels, production, deliveries and employment. The ‘headline’ number, the one you will often see quoted, can be anywhere between 0 and 100. In ‘normal times’ it hovers around 50, with any figure above indicating that business is confident about the future, whilst a figure below 50 suggests the opposite. To give you an example of the PMI in action, last April the PMI in the Eurozone crashed to 13.5 as the economic impact of the pandemic became apparent. The UK fared even worse, with the PMI falling to a record low of 12.3 in the services sector. Twelve months later, with the vaccine rollout gathering pace, the PMI for the UK had risen to 61.0. As noted in the above example, you may also see PMI figures quoted for different sectors of the economy, such as manufacturing and services. Consumer confidence has a similar numerical value, although that is expressed in plus or minus terms. In April the Consumer Confidence Index rose to minus 15, up from minus 16 in March. Although negative, that was the highest figure since March of last year, with the Index having been as low as minus 34 in May 2020. Why is confidence important? When consumers feel confident they are more likely to spend and more likely to borrow, both of which are likely to boost the economy. A very simple example is home improvements: we are unlikely to spend the money on a new bathroom, which would benefitting the bathroom supplier and the plumber, unless we feel confident about our future prospects and employment. The search for confidence, or at least, stability, is almost certainly the reason so many people have left the hospitality sector during the last year (with many outlets now struggling to find staff to re-open). Similarly, when businesses feel confident they will invest in both equipment and new members of staff. Clearly any potential “third wave” of the virus would dent confidence again: that is one of the reasons why the Government is so keen to avoid any further lockdowns. It needs to rebuild not just the economy, but our confidence in the economy. Perhaps then we will start to spend the billions of pounds that we, as consumers, have saved over the past year.

1. **Impact Story**

#### Modern economic decline bread a new an increasingly tense world – each decline exponentially increases risk of world war

Sundaram 19 [Jomo Kwame Sundaram, a former economics professor, was United Nations Assistant Secretary-General for Economic Development, and received the Wassily Leontief Prize for Advancing the Frontiers of Economic Thought in 2007. Vladimir Popov, a former senior economics researcher in the Soviet Union, Russia and the United Nations Secretariat, is now Research Director at the Dialogue of Civilizations Research Institute in Berlin. Economic Crisis Can Trigger World War. February 12, 2019. www.ipsnews.net/2019/02/economic-crisis-can-trigger-world-war/]

KUALA LUMPUR and BERLIN, Feb 12 2019 (IPS) - Economic recovery efforts since the 2008-2009 global financial crisis have mainly depended on unconventional monetary policies. As fears rise of yet another international financial crisis, there are growing concerns about the increased possibility of large-scale military conflict. More worryingly, in the current political landscape, prolonged economic crisis, combined with rising economic inequality, chauvinistic ethno-populism as well as aggressive jingoist rhetoric, including threats, could easily spin out of control and ‘morph’ into military conflict, and worse, world war. Crisis responses limited The 2008-2009 global financial crisis almost ‘bankrupted’ governments and caused systemic collapse. Policymakers managed to pull the world economy from the brink, but soon switched from counter-cyclical fiscal efforts to unconventional monetary measures, primarily ‘quantitative easing’ and very low, if not negative real interest rates. But while these monetary interventions averted realization of the worst fears at the time by turning the US economy around, they did little to address underlying economic weaknesses, largely due to the ascendance of finance in recent decades at the expense of the real economy. Since then, despite promising to do so, policymakers have not seriously pursued, let alone achieved, such needed reforms. Instead, ostensible structural reformers have taken advantage of the crisis to pursue largely irrelevant efforts to further ‘casualize’ labour markets. This lack of structural reform has meant that the unprecedented liquidity central banks injected into economies has not been well allocated to stimulate resurgence of the real economy. From bust to bubble Instead, easy credit raised asset prices to levels even higher than those prevailing before 2008. US house prices are now 8% more than at the peak of the property bubble in 2006, while its price-to-earnings ratio in late 2018 was even higher than in 2008 and in 1929, when the Wall Street Crash precipitated the Great Depression. As monetary tightening checks asset price bubbles, another economic crisis — possibly more severe than the last, as the economy has become less responsive to such blunt monetary interventions — is considered likely. A decade of such unconventional monetary policies, with very low interest rates, has greatly depleted their ability to revive the economy. The implications beyond the economy of such developments and policy responses are already being seen. Prolonged economic distress has worsened public antipathy towards the culturally alien — not only abroad, but also within. Thus, another round of economic stress is deemed likely to foment unrest, conflict, even war as it is blamed on the foreign. International trade shrank by two-thirds within half a decade after the US passed the Smoot-Hawley Tariff Act in 1930, at the start of the Great Depression, ostensibly to protect American workers and farmers from foreign competition! Liberalization’s discontents Rising economic insecurity, inequalities and deprivation are expected to strengthen ethno-populist and jingoistic nationalist sentiments, and increase social tensions and turmoil, especially among the growing precariat and others who feel vulnerable or threatened. Thus, ethno-populist inspired chauvinistic nationalism may exacerbate tensions, leading to conflicts and tensions among countries, as in the 1930s. Opportunistic leaders have been blaming such misfortunes on outsiders and may seek to reverse policies associated with the perceived causes, such as ‘globalist’ economic liberalization. Policies which successfully check such problems may reduce social tensions, as well as the likelihood of social turmoil and conflict, including among countries. However, these may also inadvertently exacerbate problems. The recent spread of anti-globalization sentiment appears correlated to slow, if not negative per capita income growth and increased economic inequality. To be sure, globalization and liberalization are statistically associated with growing economic inequality and rising ethno-populism. Declining real incomes and growing economic insecurity have apparently strengthened ethno-populism and nationalistic chauvinism, threatening economic liberalization itself, both within and among countries. Insecurity, populism, conflict Thomas Piketty has argued that a sudden increase in income inequality is often followed by a great crisis. Although causality is difficult to prove, with wealth and income inequality now at historical highs, this should give cause for concern. Of course, other factors also contribute to or exacerbate civil and international tensions, with some due to policies intended for other purposes. Nevertheless, even if unintended, such developments could inadvertently catalyse future crises and conflicts. Publics often have good reason to be restless, if not angry, but the emotional appeals of ethno-populism and jingoistic nationalism are leading to chauvinistic policy measures which only make things worse. At the international level, despite the world’s unprecedented and still growing interconnectedness, multilateralism is increasingly being eschewed as the US increasingly resorts to unilateral, sovereigntist policies without bothering to even build coalitions with its usual allies. Avoiding Thucydides’ iceberg Thus, protracted economic distress, economic conflicts or another financial crisis could lead to military confrontation by the protagonists, even if unintended. Less than a decade after the Great Depression started, the Second World War had begun as the Axis powers challenged the earlier entrenched colonial powers.

#### Nuclear war means extinction

**Starr 15** (Steven Starr, Oct.14, 2015, "Nuclear War, Nuclear Winter, and Human Extinction," Federation Of American Scientists, <https://fas.org/pir-pubs/nuclear-war-nuclear-winter-and-human-extinction/>) doolittle

While it is impossible to precisely predict all the human impacts that would result from a nuclear winter, it is relatively simple to predict those which would be most profound. That is, **a nuclear winter would cause most humans and large animals to die from nuclear famine in a mass extinction event similar to the one that wiped out the dinosaurs.** Following the detonation **(in conflict) of US and/or Russian launch-ready strategic nuclear weapons, nuclear firestorms would burn simultaneously over a total land surface area of many thousands or tens of thousands of square miles**. These mass fires, many of which would rage over large cities and industrial areas, would release many tens of millions of tons of black carbon soot and smoke (up to 180 million tons, according to peer-reviewed studies), which would rise rapidly above cloud level and into the stratosphere. [For an explanation of the calculation of smoke emissions, see Atmospheric effects & societal consequences of regional scale nuclear conflicts.] The scientists who completed the most recent peer-reviewed studies on nuclear winter discovered that the sunlight would heat the smoke, producing a self-lofting effect that would not only aid the rise of the smoke into the stratosphere (above cloud level, where it could not be rained out**), but act to keep the smoke in the stratosphere for 10 years or more**. The longevity of the smoke layer would act to greatly increase the severity of its effects upon the biosphere. Once in the stratosphere, the smoke (predicted to be produced by a range of strategic nuclear wars) would rapidly engulf the Earth and form a dense stratospheric smoke layer. The smoke from a war fought with strategic nuclear weapons would quickly prevent up to 70% of sunlight from reaching the surface of the Northern Hemisphere and 35% of sunlight from reaching the surface of the Southern Hemisphere. **Such an enormous loss of warming sunlight would produce Ice Age weather conditions on Earth in a matter of weeks**. For a period of **1-3 years following the war, temperatures would fall below freezing every day** in the central agricultural zones of North America and Eurasia. [For an explanation of nuclear winter, see Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences.] Nuclear winter would cause average global surface temperatures to become colder than they were at the height of the last Ice Age. **Such extreme cold would eliminate growing seasons for many years, probably for a decade or longer.** Can you imagine a winter that lasts for ten years? The results of such a scenario are obvious. **Temperatures would be much too cold to grow food, and they would remain this way long enough to cause most humans and animals to starve to death.** Global nuclear famine would ensue in a setting in which the infrastructure of the combatant nations has been totally destroyed, resulting in massive amounts of chemical and radioactive toxins being released into the biosphere. **We don’t need a sophisticated study to tell us that no food and Ice Age temperatures for a decade would kill most people and animals on the planet**. Would the few remaining survivors be able to survive in a radioactive, toxic environment? It is, of course, debatable whether or not nuclear winter could cause human extinction. There is essentially no way to truly “know” without fighting a strategic nuclear war. Yet while it is crucial that we all understand the mortal peril that we face, it is not necessary to engage in an unwinnable academic debate as to whether any humans will survive. What is of the utmost importance is that this entire subject –the catastrophic environmental consequences of nuclear war – has been effectively dropped from the global discussion of nuclear weaponry. The focus is instead upon “nuclear terrorism”, a subject that fits official narrati

ves and centers upon the danger of one nuclear weapon being detonated – yet the scientifically predicted consequences of nuclear war are never publically acknowledged or discussed. Why has the existential threat of nuclear war been effectively omitted from public debate**? Perhaps the leaders of the nuclear weapon states do not want the public to understand that their nuclear arsenals represent a self-destruct mechanism for the human race?** Such an understanding could lead to a demand that nuclear weapons be banned and abolished. Consequently, the nuclear weapon states continue to maintain and modernize their nuclear arsenals, as their leaders remain silent about the ultimate threat that nuclear war poses to the human species.