



November 6, 2020

Ms. Michelle Bachelet
United Nations High Commissioner for Human Rights

OPEN LETTER FROM STOP 5G INTERNATIONAL TO THE UNITED NATIONS - 5G

Subject: Reasons for the mounting unrest worldwide regarding 5G; suggestions and solutions for safer ways to integrate technology into our lives that are more protective of health, the environment, security, and Human Rights.

Preamble: *Due to growing awareness of 5G's potential negative impacts on health, safety, privacy, the environment and human rights, public mistrust of 5G is mounting.*

On October 13, 2020, concerned about impediments to meeting the EU's goals for 5G rollout, technology ministers of fifteen countries sent a letter alerting EU officials to "increasing activity in the anti-5G movement."¹

72 organizations dedicated to protecting public health, sent a Response Letter² calling for 1) the elimination of bias from regulatory bodies; 2) the support of independent science; and 3) full public consultation on how best to integrate technology into our lives so as to maximize the benefits and minimize the harms.

*The following **Open Letter to the United Nations-5G** addresses some of the core issues at the heart of growing 5G opposition and offers suggestions and solutions for better ways to integrate technology into our world.*

¹ *Joint Initiative on Counteracting the Spread of Disinformation Related To 5G Networks and the Need of Public Awareness Raising Activities.* (2020, October 13). <https://www.politico.eu/wp-content/uploads/2020/10/POLITICO-Letter-EMF5G-disinformation-15-countries.pdf>

² *Stop 5G International and 72 organizations.* (2020, October 26). *Regarding the need for unbiased communication strategies based on independent science and full public consultation about how best to integrate technology into our lives, so as to maximize the benefits and minimize the harms.* <https://stop5ginternational.org/wp-content/uploads/2020/10/Response-Letter-to-EU-Officials-October-26.pdf>

Dear Esteemed High Commissioner for Human Rights:

We are writing regarding the next generation of wireless technology known as "5G", and the move to an all-things-connected world based increasingly on wireless technology. This letter seeks to bring clarity to the confluence of issues, and to offer strategies and suggestions for ways to integrate technology into our lives that will benefit all world citizens while protecting health, safety, the environment, and human rights.

Due to the breadth of potential adverse impacts of 5G, we respectfully request that you convene a Special United Nations Commission on Telecommunication Technology consisting of independent scientists, public health experts and engineers, to review existing evidence, identify research priorities, and propose policy options aimed at reducing long-term impacts on public health and the environment from telecommunications technology.

5G - Backbone Infrastructure for the Internet of Things, Data Harvesting, and Artificial Intelligence

The main purpose of 5G is to provide network infrastructure for 50 billion+ devices and "things" anticipated to be connected through the internet of things (IoT). In short, each thought, action, movement, purchase or affiliation will be recorded, monetized, and sold for targeted marketing, monitoring, surveillance, artificial intelligence, and potentially control -- amassing wealth for a few at the cost of public health, privacy, self-sovereignty, and the environment.

The 5G system requires the launching of over 80,000 satellites compounded by Earth-based Stations, millions of User Terminals and cell tower antennas, as well as "hot spots" both above ground and beneath our feet, blanketing the planet with unprecedented levels of wireless radiation.

5G will include the higher millimeter wave (MMW) frequencies never before used for Internet and Telecommunications technology. These waves do not travel well through buildings, so according to industry, 5G will require millions of new so-called "small cells" -- aka wireless antennas -- installed close to where people live and work.

Internet Access Does Not Require More Wireless Infrastructure

Digital access and the "promotion, protection and enjoyment of human rights on the Internet"³ can be achieved through wired connections such as fiber optics and other cabling. Digital Access does not require a worldwide wireless network, resulting in chronic, cumulative, and unnecessary exposure to radiofrequency microwave radiation (RF/MW). Contrary to contentions from the wireless industry, wired solutions are safer, faster, and far more reliable, energy-efficient, and cyber secure.

³ United Nations Human Rights Council. (2016, June 22). *The promotion, protection and enjoyment of human rights on the Internet*. https://www.article19.org/data/files/English_22.pdf

Scientific Understanding of Wireless Radiation is Shifting

The theory that non-ionizing radiation is harmless, which has been the basis for legislation and regulation throughout the world for more than 25 years, has now been proven false by thousands of independent, peer-reviewed, published studies. These include recent multi-million-dollar studies by the U.S. government's flagship testing system, The National Toxicology Program⁴ and the renowned Ramazzini Institute in Italy.⁵

The telecommunications industry has chosen to ignore the science, instead spending millions of dollars lobbying governments, and on campaigns to promote 5G. There is now robust independent scientific evidence indicating this technology will prove harmful both to humans and to the environment. Increasingly, expert scientists, public health officials, and medical professionals warn of harms and are calling for a moratorium on further wireless deployment.^{6 7}

Despite these warnings, 5G is being rolled out around the world with no premarket studies that demonstrate safety. Once 4G/5G antennas and other ground-based systems are densely installed and communicating with tens of thousands of satellites and billions of "things," sensors, cameras, devices, and transmitters of all shapes and sizes, no one will be able to escape continuous, involuntary exposure to non-ionizing radiation. The unborn child, young children, the elderly, and those with chronic illnesses, microwave sickness, or compromised immune systems will be particularly vulnerable.

Effects on Wildlife

Humans are not the only ones at risk from RF/MW radiation. Scientists studying bird and insect migrations warn that such frequencies -- and the modulation and pulses from the data they carry -- can disrupt navigation and migration. This could have immediate and catastrophic impacts as pollinators play an integral role in ensuring nature's food supply. All living beings are frequency transmitters and receivers, so plants, trees and other vital parts of the natural world will also be directly affected.

We interfere with nature's systems at our own peril.

⁴ Smith-Roe SL, Wyde ME, Stout MD, Winters JW, Hobbs CA, Shepard KG, Green AS, Kissling GE, Shockley KR, Tice RR, Bucher JR, Witt KL. Evaluation of the genotoxicity of cell phone radiofrequency radiation in male and female rats and mice following subchronic exposure. *Environ Mol Mutagen*. 2019 Oct 21. doi: 10.1002/em.22343.

⁵ Ramazzini Institute Study. (2019). *Report of final results regarding brain and heart tumors in Sprague-Dawley rats exposed from prenatal life until natural death to mobile phone radiofrequency field representative of a 1.8 GHz GSM base station environmental emission*, <https://doi.org/10.1016/j.envres.2018.01.037>

⁶ International Appeal to Stop 5G on Earth and in Space. (2018) *An Emergency Appeal to the World's Governments by Scientists, Doctors, Environmental Organizations and Others*

⁷ EMF Scientists Appeal. (Initial release, 2015. Updated in 2019). *International Appeal Scientists call for Protection from Non-ionizing Electromagnetic Field Exposure*. <https://www.emfscientist.org/index.php/emf-scientist-appeal>

Public Has Not Given Its Consent

Given that no one can opt out of continuous exposure to wireless radiation, the industry is, in effect, conducting an “experiment” on our children and on all global citizens without informed consent -- a breach of the 1947 Nuremberg Code ⁸, and of the United Nations’ International Covenant on Civil and Political Rights.⁹

Not only has the public not given its informed consent, neither have governments or environmental organizations. The fact is that most people remain largely unaware of the cosmic knot growing bigger each day from the convergence of 5G-antennas, satellites, data, artificial intelligence, and the internet of things. Unbeknownst to the public, industry has manufactured an invisible technological “eco-system” that preys on us and the environment.

The public is also becoming increasingly mistrustful of protections and “safety” guidelines set by regulatory bodies that depend for their survival on the industries they regulate. ^{10 11 12}

Privacy and Security

There are few established protocols to protect privacy or security, and no worldwide agreement on how personal data can be used, or by whom.

5G, particularly space-based technologies, poses an immediate, potentially devastating, and largely unaddressed threat to personal, national, and international cyber security.¹³

Environmental and Public Health Costs Are Being Ignored

Millions of new antennas are required for 5G/IoT. 5G base stations are expected to use three times as much power as 4G base stations.¹⁴ The full toll of this expansion has not been calculated but includes the fast-growing e-footprint from the mega energy consumption required to construct, operate and maintain a worldwide network of wireless antennas, and the increasing e-

⁸ Wikipedia. Nuremberg Code. (Retrieved October 28, 2020) https://en.wikipedia.org/wiki/Nuremberg_Code

⁹ Wikipedia. International Covenant on Civil and Political Rights. (Retrieved October 28, 2020)

. https://en.wikipedia.org/wiki/International_Covenant_on_Civil_and_Political_Rights

¹⁰ Gregoriev, O. A. (2017, March 10). Russian National Committee On Non-Ionizing Radiation Protection On ICNIRP Biased International Emf Project. <https://ehtrust.org/russian-national-committee-non-ionizing-radiation-protection-icnirp-biased-international-emf-project/>

¹¹ Buchner, K., & Rivasi, M. (2020). The International Commission on Non-Ionizing Radiation Protection: Conflicts of interest, corporate capture and the push for 5G. <https://klaus-buchner.eu/wp-content/uploads/2020/06/ICNIRP-report-FINAL-19-JUNE-2020.gpdf>

¹² Alster, N., & Safra, E. (2015). Captured Agency How the Federal Communications Commission Is Dominated by the Industries It Presumably Regulates. Edmond J. Safra Center for Ethics Harvard University. https://ethics.harvard.edu/files/center-for-ethics/files/capturedagency_alster.pdf

¹³ Ferrillo, P., Brooks, C. (2020, October 17). *Protecting Space-Based Assets from Cyber Threats*.

<https://www.hstoday.us/subject-matter-areas/infrastructure-security/protecting-space-based-assets-from-cyber-threats/>

¹⁴ Nordrum, A., Clark, K., and IEEE Spectrum Staff. (2020, June 17). 5G Bytes: Massive MIMO Explained. *IEEE Spectrum*. <https://spectrum.ieee.org/video/telecom/wireless/5g-bytes-massive-mimo-explained>

waste created by the manufacturing and disposal of billions of (largely unnecessary) internet connected “things” and devices.

Health and environmental costs of digital access for affluent nations are being outsourced to poorer nations whose citizens are subjected to hazardous, and/or unfair worker conditions. Outsourced jobs include e-waste processing, manufacturing and production of technology, and conflict mineral mining, the latter of which involves harsh child labor and has contributed to the death of millions of Congolese people in the last two decades.¹⁵ -- Sobering human rights violations that will presumably increase exponentially with a transition to 5G and the internet of things.

Technological innovations are outrunning protections as companies secure regulations that favor industrial growth without consideration for public safety. The densification of wireless infrastructure is overrunning zoning regulations and reducing property values. In some countries the taking of private property itself has been permitted.

People who suffer from Electromagnetic Sensitivity (EMS) and other health conditions exacerbated by radiofrequency exposures are being impacted in their own homes and increasingly prevented from participating in community life. The vast increase in wireless technology constitutes technological trespass on those who become easily sickened by exposure, rendering them EMF refugees, with nowhere left to flee. Indigenous peoples and many others who simply do not want to live in close proximity to wireless radiation are also impacted.

There are additional and as yet unquantified public subsidies both direct -- through taxes and government loans -- and indirect, from \$ trillions of uninsured harms imposed upon populations around the world.

Satellites in Space

The irresponsible licensing and pending deployment of 80,000+ new 5G satellites into outer space raises another whole range of issues: Interference with meteorological prediction and astronomical research, the endangerment of global security, more space debris and increasingly likely collisions, loss of enjoyment of the night skies, dangers posed from solar flares, depletion of the ozone layer, ever more radiation emissions, and the, as yet unstudied effects on planetary life.

Taken together, these challenges indicate an urgent need for a halt to 5G until an independent and thorough risk/benefit analysis has been conducted, with public consultation and informed public consent.

All Technology Is Not Equal

Access to information is indisputably critical for the modern world. But, contrary to what some

¹⁵ Vivuya, B. (2020, October 16). As Incremental Efforts to End Child Labour By 2025 Persist, Congo’s child Miners – Exhausted and Exploited – Ask the World to “Pray for Us”. Equal Times. <https://www.equaltimes.org/as-incremental-efforts-to-end#.X4wqwy9h1n4>

in the telecommunications world argue, this access need not be wireless. Wired technologies such as fiber or coaxial cable are far superior to wireless as they are faster, more reliable, resilient, energy-efficient, and more easily defended from cyber-attacks. Above all, wired connections are significantly less hazardous to our health and to other life forms with whom we share this planet.

By using wired technology for the vast majority of internet and telecommunications needs -- reserving wireless for essential services not able to be addressed through wired connections -- we can enjoy the benefits of technology while minimizing the harms.

A primarily wired tech future not only better preserves public health and privacy, it addresses other human rights violations and environmental problems brought on by 5G. Wired does not lend itself to connecting every “thing”, moment in time, and point in space to the internet thus automatically reducing e-waste, tech addiction, data-harvesting, tracking, mandatory exposure to wireless radiation, EMF refugees, property devaluation, and the “need” for satellites.

Fiber optic is a forward-looking technology that will last far longer than the single decade predicted for 5G. Investing in fiber optic or other wired solutions is a better investment for local governments, not only releasing them from control by private for-profit telecoms but providing faster, more secure and reliable internet connections.

The Unstable Foundation for Worldwide Wireless

The attempt to foist onto the world's population a broad and pervasive network of wireless technology while ignoring the robust and growing independent science demonstrating harm from wireless radiation, the exploitive practice of mining of personal data for profit, the extensive environmental costs this technology imposes on the natural world, the unaddressed dangers of 5G satellites in space, and the many human rights violations here on earth, is fueling the growing global resistance to 5G – a resistance that is not likely to dissipate in the near future.

Suggestions and Solutions

What is required now is *advocacy, education, regulation, and less radiation.*

- A move toward wired technology for all as a fundamental human right in today's world.
- Public education about technology, including full disclosure of the health and environmental costs of a hyper-connected, predominantly wireless world, and the benefits of safer wired choices.
- Greater regulation of industry on the placement of wireless infrastructure, and its use *only where deemed an “essential service” not possible with wired connections.*
- Standard setting bodies and health organizations providing more protective RF guidelines that take into account: duration of exposure, distance from source, aggregate exposures, and the unique characteristics of every life form that will be impacted.
- Infrastructure choices returned to local communities as they know what is best for their citizens.

- Incentives given to industry to provide safer technology.

On the individual level we must reclaim our right to informed consent, privacy, cyber security, safe internet access, and to be protected from increasing and ubiquitous juxtapositions of radio frequency exposures.

At the local level, there is a pressing need for public forums, education, access to safer wired connections, and strategies for reducing exposure to wireless radiation.

At the state level, it's incumbent upon politicians to become better informed about technology and to consult with independent experts on all facets of 5G, as the recent New Hampshire Commission has so ably demonstrated.¹⁶

In order to balance promotion of the benefits of access to information with protection from unnecessary risks, the United Nations is in a unique position to advocate for human rights protections already codified into international policy, including the right to a safe environment, privacy, health, security, and self-sovereignty.

In conclusion, we respectfully request that the UN convene a Special United Nations Commission on Telecommunication Technology consisting of independent scientists, public health experts, and engineers, to review existing evidence, identify research priorities, and propose policy options aimed at reducing long-term impacts on public health and the environment from telecommunications technology.

We urge the United Nations to call on governments to heed the growing voices of scientists, medical doctors, engineers, attorneys, educators, visionaries, and many others who warn that we must halt the "race to 5G" and consciously chart a wiser and safer course into the future.

Most Respectfully Yours,

Stop 5G International
team@stop5ginternational.org
www.stop5ginternational.org

¹⁶ Representative Abrami, P. [Chair]. (2020, June 1). Final Report on Commission to Study the Environmental and Health Effects of Evolving 5G Technology. <http://www.gencourt.state.nh.us/statstudcomm/committees/1474/reports/5G%20final%20report.pdf>

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